INTERNATIONAL URBAN WORKSHOP

From 25th November to 06th December 2024

Hyderabad, India

Water & Metropolitanisation

A bioclimatic city of lakes, Hyderabad comes full circle as Health Capital of the world

SESSION BOOK

Version 1 - 5th December 2024

Water & Metropolitanisation

les Ateliers
maîtrise d'œuvre urbaine

Les Ateliers thank all the partners who supported them in carrying out this session.

Water & Metropolitanisation

A bioclimatic city of lakes,
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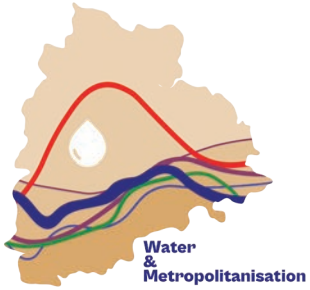
More info: **www.ateliers.org**



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A non profit- organization since 1982, Les Ateliers – International workshops of planning and urban design – aims to develop the collective creation of ideas that tackle the challenges and processes of everyday city planning and design by promoting a process of collective and multidisciplinary work that produces innovative and illustrative proposals relating to urban design and spatial development.

Whether it involves students or professionals, each "atelier" brings together people of diverse nationalities and disciplines: architecture and urban planning, but also geography, economics, landscape architecture, sociology, art, engineering, environment...

Year after year, Les Ateliers internationaux network has been growing: it includes more than two thousand former participants who are now professionals, academics, and decision-makers in the urban field.

OUR CONVICTIONS

Creating cities is by its very nature a collective process. As true as architecture enables an individual and identifiable creation of masterpieces, developing cities cannot be ascribed to a single person who would dominate all the aspects of urban creation: this process is collective in its essence.

Based on the logic of laboratory work, urban project management should encompass the various disciplines required to plan urban areas and their interfaces. Therefore, each atelier is a place of freedom of proposal, where the aspirations of collective and voluntary work enable the development of new ideas, innovative projects and proposals for the future of urban areas which are in perpetual transition.

Les Ateliers team

Rahul Palagani, architect and historian, assistant pilot
Reena Mahajan, architect and urban planner, pilot
Sasank IVS, archtect and historian, assistant pilot
Véronique Valenzuela, geographer, director
Simon Brochard, geographer, director of projects
Florence Bougnoux, architect and urban planner, pilot

Image credits:
Vivek Rendall, Florent Chiappero, Les Ateliers

Illustrations by Les Ateliers and the workshop participants

FOREWORD

The International Urban Workshop "Water and metropolitanisation - A bioclimatic city of lakes, Hyderabad comes full circle as Health Capital of the world" in Hyderabad is being launched at the request of the Municipal Administration and Urban Development (MA&UD) Department of the Government of Telangana, represented by the Musi Riverfront Development Corporation Limited, with the support of the French Development Agency and the French Embassy in India.

Following the Indo-French seminar co-organised by the Regional Economic Service of the French Embassy in Delhi in September 2022, the non-profit organisation Les Ateliers Internationaux de Maîtrise d'Oeuvre Urbaine de Cergy-Pontoise was invited to organise a collective and innovative process to work on Hyderabad water systems since March 2023. Subsequent field missions took place in Hyderabad, allowing for extensive site visits and meetings between Les Ateliers team, the French Embassy, the French Development Agency and the Government of Telangana in July 2023. In April 2024, the workshop was officially missioned by Mr Dana Kishore, Principal Secretary, MA&UD, Government of Telangana. This workshop is in phase with the ongoing Musi Riverfront project led by the Musi Riverfront Development Corporation Limited in Hyderabad and with the international impetus on water, notably the One Water Summit which just took place on 3rd December 2024, in the margin of the sixteenth session of COP16 of the United Nations Convention to Combat Desertification (UNCCD).

The International Urban Workshop "Water and metropolitanisation - A bioclimatic city of lakes, Hyderabad comes full circle as Health Capital of the world" is a long term process started in 2023. From 25 November to 6 December 2024, the on site workshop brings together fifteen local and international experts from various disciplines during two weeks, committed to volunteering their time in Hyderabad for a unique collaborative process. After a few intense days of visits and collective work, the three teams of participants share localised strategic and innovative ideas to steer the Hyderabad metropolis and water ecosystems towards a resilient future. The workshop's methodology is designed to enable the participants to develop creative and forward-looking proposals. It promotes a collaborative working platform, bringing together elected officials, local stakeholders, organisations, businesses and civil society representatives to address the major challenges facing the city. The final proposals of the workshop teams are presented during the final restitution on 6 December to a international and local panel of guests of honours, elected representatives and experts. This session book gathers all productions from the workshop and is prepared for this specific event.

"[In July 2023, France and India] elevated the 'Partnership for the Planet' as one of the three pillars of the Indo-French Horizon 2047 Roadmap. This decision reflects the intensification of Indo-French cooperation over the past few years on issues such as climate change, biodiversity, health, and environment. [...] But the 'Partnership for the Planet' is more than that: it is made up of tangible projects in India, which advance a greener, more inclusive future."

Thierry Mathou, Ambassador of France to India
(in The Hindu, July 03, 2024)

01

A BIOCLIMATIC CITY OF LAKES

PREMISE
Hyderabad, once a sustainability pioneer known as the city of lakes, today grapples with multiple ecological and identity crises as a rapidly evolving digital pharma megacity.

FOCUS
Hyderabad's threatened water heritage in the context of rapid urbanisation.

STRATEGY
Leverage the Musi Riverfront Rejuvenation Project to restore Hyderabad's water ecosystem systemically to confront 21st-century challenges.

VISION
Hyderabad comes full circle, re-establishing itself as a thriving bioclimatic metropolis, balancing economic prosperity, water security, and community resilience. Health is the goal, not (just) an industry.

HYDERABAD
INDIA'S NEWEST MEGACITY

Hyderabad, one of India's fastest-growing megacities is the thriving capital of India's Telangana state. The fourth most populous city in India, it is home to more than 11 million people and is expected to be one of the 30 most populous cities in the world by 2030. A racially, ethnically, socially, and linguistically diverse city, Hyderabad is a hub of trade and commerce and an international centre for knowledge-based industries such as Biotechnology, Pharmaceuticals, and Information Technology. Hyderabad Pharma City is the world's largest integrated cluster for bulk drug manufacturing. Hyderabad also boasts the world's largest metro project to be built through a public-private partnership.

Hyderabad, capital of Telangana state, India's latest megacity

"Cities are born when they transform a site into an event or create a story from their geography".
French philosopher Jean-paul Dollé

A BIOCLIMATIC CITY

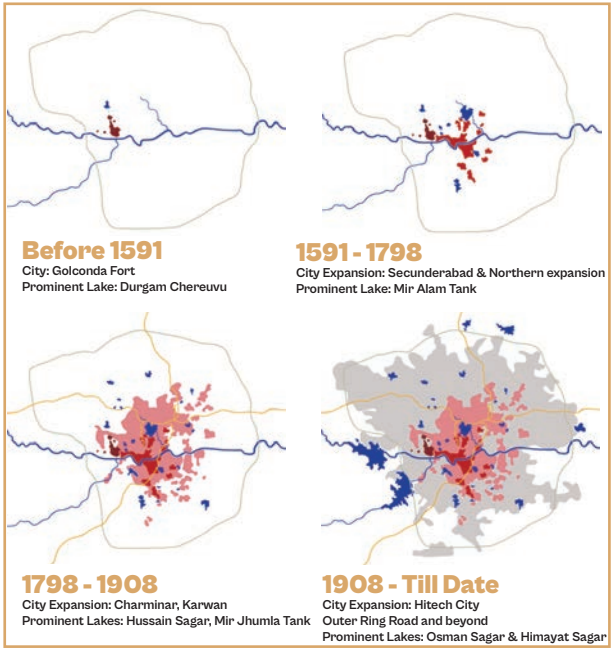
Hyderabad is located in the heart of the Deccan plateau, a semi-arid region devoid of perennial rivers. Its geographical context has historically determined that life was sustained through a combination of a natural and manmade networks of interconnected slope-based water harvesting systems comprising lakes, tanks, and stepwells. Hyderabad's extremely sophisticated water architecture enabled a green and livable microclimate in an otherwise hot and dry climate, making it an exemplary bioclimatic city.

URBANISATION AND WATER SUPPLY

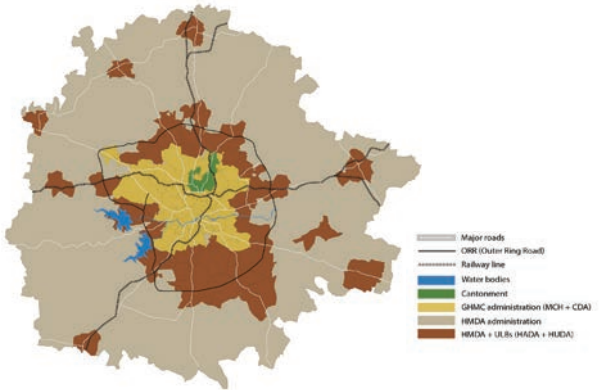
Throughout history, water played a crucial role in shaping Hyderabad's evolution. At each stage of urbanisation, a lake was created to sustain the development and provide water for drinking and agriculture, making it self-sufficient and based on a circular model. As the city grew, its water harvesting system expanded into a chain of tanks to capture monsoon overflow and store it for post-monsoon use, ensuring a continuous water supply. The catastrophic Musi River floods of 1908 prompted the construction of two large reservoirs west of Hyderabad's outer limits to consolidate the city's water supply and flood defence. The late 20th century brought the IT boom and Hitec City's development, shifting urbanisation westward and radically transforming Hyderabad's urban structure, putting an immense pressure on the city's gradually depleting and degrading water reserves. The Outer Ring Road expressway was built at the turn of the century followed by an ambitious metro rapid transit system to cope with the city's expansion.

URBAN SPRAWL

In the absence of physical geographical boundaries, Hyderabad continues to expand outward at an unprecedented scale beyond its administrative limits, facing ever-increasing infrastructure costs as water needs to be sourced from faraway rivers and other services and utilities need to be provided across larger distances.



Water's crucial role in shaping Hyderabad's evolution through history



Administrative boundaries of Hyderabad

TELANGANA
MUSI RIVERFRONT DEVELOPMENT PROJECT

The Telangana government's Musi Riverfront Development Project is a transformative, large-scale initiative focused on revitalizing the Musi River, an iconic yet heavily polluted river running through Hyderabad. An ambitious project spearheaded by the Telangana government, it aims to convert the Musi River into an eco-friendly, aesthetically pleasing space as well as address long-standing environmental issues, bolster urban infrastructure, and create a recreational space that serves both Hyderabad's citizens and tourists.

The main objectives of the project are:

> Pollution Control and Water Purification for improved public health and restored biodiversity.
> Infrastructure Development for improved access to the riverfront and traffic decongestion.
> Transformation of the river into a tourism hotspot boosting the local economy.

URBAN AGENCIES & REGULATIONS

Following the realisation that a staggering majority of Hyderabad's lakes have disappeared and most of the surviving lakes are partially occupied by gradual settlements or illegal encroachments, the State of Telangana established the Hyderabad Disaster Response and Asset Protection Agency (HYDRAA) in 2020 to manage disasters and protect critical assets in the region. A new framework to protect lakes, parks, nalas (stormwater channels) and canals within Greater Hyderabad Municipal Corporation limits was created in July 2024.

Government orders in India are an important tool for the protection of water bodies. It is commonplace for petitions to be launched by civil society in case of contention, following which the courts act as arbitrators providing the course of action as well as necessary guidelines.

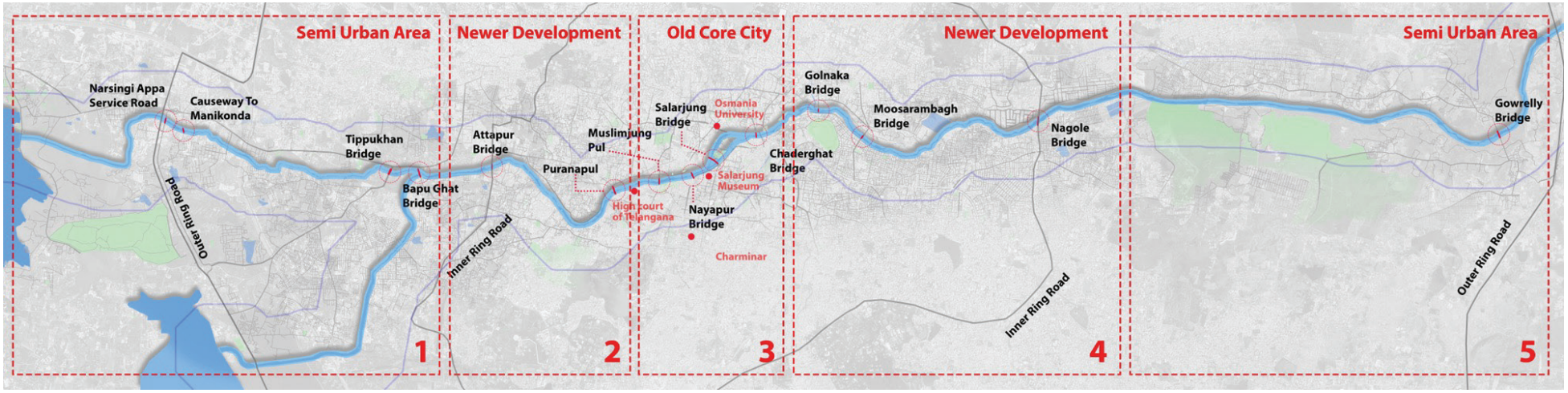
PROTECTION OF WATER BODIES

GO 111, 1996: Prohibited construction activity in catchment areas to safeguard drinking water reservoirs

2001: Supreme Court recognises the right to a clean environment under Article 21 of the Indian Constitution

GO 69, 2022: Removal of restrictions under GO 111

28.11.2024: HYDRAA gets green signal from the High Court to remove structures and constructions in the Full Tank Level (FTL) or river bed zone of the Musi, along with guidelines to ensure appropriate compensation and relocation of the people concerned.



Musi Riverfront Development Project - 55 km of Musi through Hyderabad City
(Source: MRDCL, Government of Telangana)

LES ATELIERS
MUSI ECOSYSTEM REGENERATION PROJECT

The river is part of a vast ecosystem of interconnected lakes, ponds, tanks, canals, wetlands and stepwells. This is why its restoration must begin upstream. Prioritising the health of the river basin as a whole is a prerequisite to restoring the river and its banks. The Musi Riverfront Development Project is an opportunity for Hyderabad to recognise the immense functional, social and ecological potential of its water legacy.

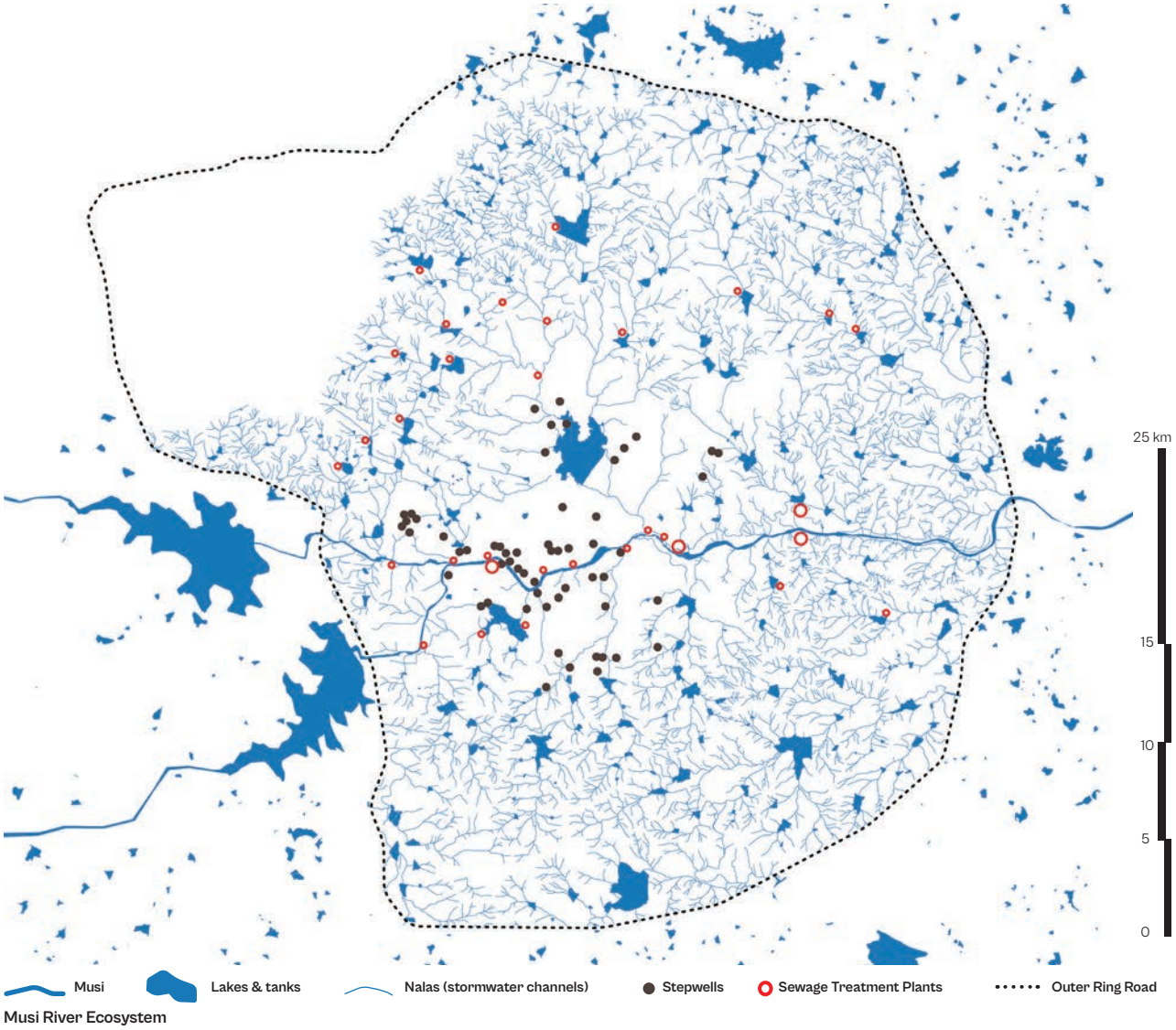
By reviving and reconnecting its water ecosystems through a combination of visionary leadership and community engagement, the city of Hyderabad has the potential to develop the self-reliance and resilience required to face 21st century challenges.

During the Exchange Forum, Rohit Chandragiri (Adviser at the British High Commission in India) inspired by the initial ideas presented by Les Ateliers' three teams, stated that "the Musi Riverfront Development and Rejuvenation Project should actually be christened the Musi River Ecosystem Regeneration Project".

FOCUS AREA(S)

The workshop encourages a multi scale approach wherein hyper localised conditions are always considered within their broader metropolitan context.

Using the Musi Riverfront Project as a starting point, the scope of the workshop extends to the Hyderabad Metropolitan Region, starting from the nalas feeding the Musi river, through the lakes in the Musi drainage basin, and stretching beyond the Outer Ring Road, upstream and downstream.



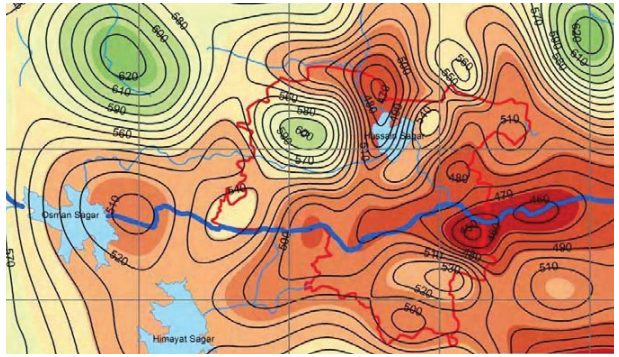
Musi River Ecosystem

HYDERABAD'S IDENTITY

The central theme of the workshop is Hyderabad's water heritage. Viewed as systems, we find three distinct categories: ecological heritage or natural water bodies, architectural heritage or water infrastructure and stepwells, and intangible heritage, spanning the realm of the digital and the spiritual.

1| NATURAL
ECOLOGICAL HERITAGE

Surface water networks of rivers, lakes & wetlands



Groundwater networks

2 | MANMADE
WATER INFRASTRUCTURAL HERITAGE

Surface water infrastructure of ponds, tanks & canals

Inverted water architecture (stepwells)

3 | INTANGIBLE
SOCIO-CULTURAL HERITAGE

Social, cultural and spiritual importance of water bodies for communities

Digital innovation for micro level urban water governance

WATER CHALLENGES

COLLAPSE OF WATER SYSTEMS

The frenzied pace of urbanisation and disorganised development patterns have resulted in severe environmental degradation of Hyderabad's natural reserves. The city's water ecosystems are facing extinction due to the uncontained spread of urbanised areas into undeveloped land and green spaces. Drainage is no longer integrated into the city's functioning as it was originally designed.

Water, which laid the foundation of the city's identity, has shifted from a central position in Hyderabad's social and aesthetic consciousness to a secondary resource, hidden and channelled. Without its water systems in place, the city faces numerous challenges such as depleting groundwater levels, declining lake littoral zones, a diminishing green cover, increasing urban heat islands and severe water pollution.

POLLUTION

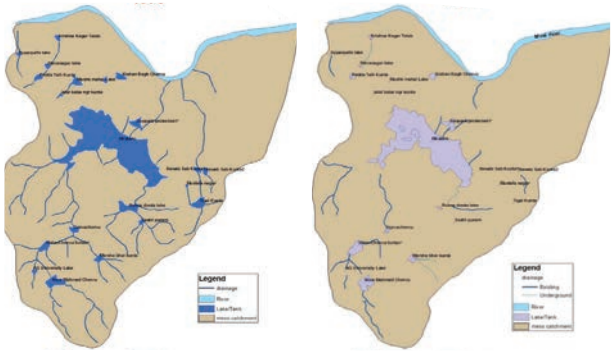
The primary sources of pollution include hazardous discharges from chemical and pharmaceutical companies, domestic sewage, and solid waste. What is strikingly alarming is that when domestic sewage mixes with heavy metals and industrial solvents released by pharmaceutical production sites, it creates a toxic cocktail that threatens everything from the near elimination of entire species to the feminisation of fish and the spread of antimicrobial resistance. As a result, the health of both riverine and lake systems has been compromised, leading to outbreaks of waterborne diseases, significant disruption of aquatic ecosystems and a collapse of farming practices.

SHRINKING WATER BODIES

Although the two main purposes of Hyderabad's highly engineered water system were flood control and a continuous supply of drinking water, it supported several supplementary activities like agriculture, fishing, recreation, and biodiversity. The water bodies also served as social and religious hubs. They provided the city with everything it needed, from basic amenities like water supply to urban comfort, livelihood, and spirituality.

Today this system is seriously damaged and exists only in fragments. Several of these tanks have been swallowed up by the demands of a growing city, buried under concrete structures. Only 185 remain out of 800, and the majority of those that remain are now depleted, polluted, disconnected from the once interconnected network (and hence drying up), and increasingly encroached upon.

Increasing pressures around land-use and urban housing shortage have steadily eradicated the agricultural lands surrounding the tanks.



Shrinking drainage catchment of the Mir Alam Meso-catchment (1978 & 2012) (Source: SACI waters, 2012)

Hyderabad's stepwells were once a focal point for community rituals (The Forgotten Stepwells of Telangana)

Residents queuing up to collect water from a water tanker

THREATENED SOCIO-CULTURAL HERITAGE

The loss of Hyderabad's water heritage is not just an environmental loss, it is a socio-cultural loss. Traditionally, communities were collectively responsible for protecting and managing their tanks and stepwells. In these communal spaces, women came together to engage in various educational activities such as storytelling, reading circles and informal classes. Stepwells transcended their utilitarian purpose as a source of freshwater.

Today there is a clear disconnect between the residents and the city's water bodies. Despite the existence of government orders intended to protect the water bodies and their catchment areas, small lakes are not always registered and their governance remains unclear.

What is the path forward to creatively reconstruct the narrative of Hyderabad's water legacy so as to bring about a true ecological, social and functional renaissance of its water systems?

MOSAIC CITY

QUALITY OF LIFE

The city of Hyderabad is an urban mosaic of neighbourhoods organised around communal tanks or stepwells, each associated with a temple or gathering space. Hyderabad's urban morphology has definitely been defined by its topography and water networks, be it the local scale of stepwells, tanks, ponds and channels, or the larger scale of lakes and the river Musi. The city's mobility structure closely follows this logic as is evidenced by the soft mobility network at the neighbourhood scale and the arterial roads and flyovers at the metropolitan scale. The exceptional quality of life once enjoyed by the residents of Hyderabad is increasingly compromised by the loss of water bodies and their associated public realm, largely due to the big moves of real estate and infrastructure development.

HUMAN SCALE

Hyderabad is neither a monocentric nor a polycentric city. It has a visible primary network of waterways, roadways and metro lines but no central business district and no secondary network. The city is structurally based on its topography and watershed, and its urban fabric is structured by a metropolitan network of arterial roads, flyovers and an overhead metro rail that divides the city into macro-sectors or neighbourhoods that are green and serene residential sectors, each with their own lake providing optimal thermal comfort to the inhabitants. In the absence of secondary roads, most of Hyderabad streets are narrow and tree lined without any major traffic, perfectly adapted to a pedestrian scale. This is a huge asset to have in a world where every major city is desperately trying to embrace the 15-minute city model in order to reduce congestion, improve liveability and mitigate climate change.

LAST MILE CONNECTIVITY

Micro-mobility or the use of small vehicles for short trips within the city (often the last km between the public transport and the place of destination) has great potential in Indian cities that are human intensive and open to technological innovation. The vast majority of commute in India is under 10 km and very well adapted to micro mobility.

Planning for micro mobility especially makes sense in the case of Hyderabad as such solutions can replace heavy infrastructure connections, bypassing a secondary transport network and directly connecting the metropolitan transport network to the city's sectors, sparing the inhabitants unnecessary noise and pollution. Through a combination of innovation in service and delivery models and providing convenient options for people to access public transport, the urban experience can be focused around liveability, health and wellbeing, actively discouraging the use of the private car (especially for short distances) but without hindering the movement of people or goods.

The goal is to create vibrant and safe pedestrian-friendly environments that enhance the quality of life, foster community connections, and as an added bonus, also promote ecological sustainability. In such conditions, stepping out of the house during rush hour becomes a pleasurable experience. Children can play on the streets on their way back home. Groceries and parcels can be picked up while walking back home from the metro station.

How can the unique structure of Hyderabad's neighbourhoods be safeguarded from being swallowed up by big infrastructure projects?

How can we ensure that the arterial networks are well connected to the city's neighbourhoods while preserving the pedestrian-friendly nature of the residential streets?

Hyderabad's typical neighbourhood street

Construction of flyovers to keep pace with the increasing vehicle rush (Source: Telangana Today)

SOCIAL RESILIENCE

IMPORTANCE OF MICRO-SCALE

Water availability and management have shaped the city and the lives of communities. As we steadily witness the erosion of social ties with the disappearance of local water bodies, the preservation of the local scale becomes paramount for both community resilience and water resilience.

ROLE OF RESIDENT WELFARE ASSOCIATIONS

Another reason for preserving the neighbourhood scale is to maintain local governance at this scale that has served the city since its inception.

Resident Welfare Associations (RWAs) in Hyderabad play a critical role in urban governance, acting as intermediaries between residents and municipal authorities. Under the leadership of Dr. Chelikani Rao, President of the United Federation of Resident Welfare Associations (UFERWAS), RWAs have expanded their influence beyond traditional functions, engaging in city planning, public health initiatives, and social welfare activities. RWAs across Hyderabad are involved in maintaining civic amenities, resolving local issues, and representing residents' concerns on issues like property taxes, water supply, and sanitation.

As Hyderabad grows, RWAs are increasingly recognised by government entities as vital stakeholders in urban governance, reflecting a shift towards greater community self-management and local decision-making. They make the governance reach the last mile, hence, often referred to as the fourth tier of government after the union, state, and municipal authorities.

DIGITAL INNOVATION FOR LOCAL GOVERNANCE

Hyderabad's booming digital culture is one of its most precious intangible assets that can be leveraged to serve its inherent heterogeneous structure, allowing people to work out problems of local governance at the neighbourhood scale, for instance, monitor the water quality of tanks and stepwells, practise shared mobility and much more.

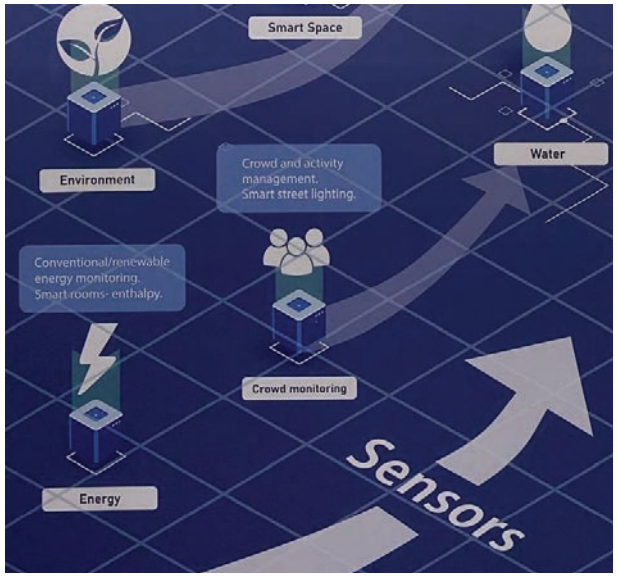
Digital platforms can help bridge the gap between departments, encourage bottom-up initiatives and startups and even enable collaboration and connections between public authorities, private operators, universities and civil society, putting everyone on the same page and creating all sorts of opportunities to improve the liveability of our cities. Digital technology can also help cities better manage climate and sustainability challenges.

However, digital innovation, appealing as it is, doesn't come without risks. As private players gain more ground in the making of the city and digital services become more individualised, citizens lose control over how much of their personal data (age, likes and dislikes, religion, political beliefs, gender identity, medical conditions etc) is routinely collected, analysed, aggregated and stored on a massive scale.

How can we best maximise the potential of the neighbourhood scale to foster social cohesion, dialogue, and the emergence of local leadership?

How can high-tech innovation be combined with low-tech solutions to manage Hyderabad's water crisis, restore its natural ecosystems and improve its livability?

How can communities connect to the metropolitan scale through shared governance?



A digitally empowered society where access to data set enables holistic solutions (Source: IIIT Hyderabad)

Resilient communities where decentralised participation of communities at local neighbourhoods occurs (Source: NOAA Office of Education)

ECOLOGICAL RESILIENCE

IMPORTANCE OF FORESHORES

Increasing pressures around land-use and urban housing shortage have steadily eradicated the agricultural lands surrounding the tanks, now bordered by roads with hardly any buffer areas. Large-scale constructions have led to the filling up of littoral zones (foreshores) and conversion to built-up areas by both the government and private agencies over the last few decades, altering the natural drainage network of the city, simultaneously shrinking water reserves (decreased groundwater recharge) and exacerbating flood risk (increased runoff).

The absence of biodiversity-rich lake shores to recharge groundwater aquifers coupled with the dumping of construction debris and the indiscriminate discharge of untreated sewage runoff from residential and industrial areas have all heavily contaminated the once pristine freshwater lakes and surface ditches (nalas).

In essence, the ingenious and inexpensive system of potable water based on topography and gravity has been rendered inoperative due to a combination of water scarcity and water contamination. Now water has to be pumped in from faraway rivers at exorbitant costs to keep up with the ever-increasing demands of the fast-growing megacity.

New laws and agencies are concerned with protecting some of the lakes for their water storage capacity but not for their ecological and multi-use ability. This is immensely problematic beause small lakes, littoral zones and irrigated lands play an important role in maintaing the city's circular and sustainable model.

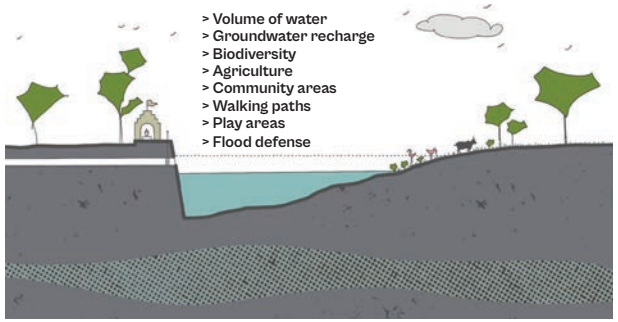
CIRCULAR ECONOMY

Recycling has always been intrinsic to the Indian way of life. Consciously supporting and strengthening the circular economy and recycling has numerous advantages, including boosting the economy, bringing job opportunities, conserving natural resources and addressing pollution.

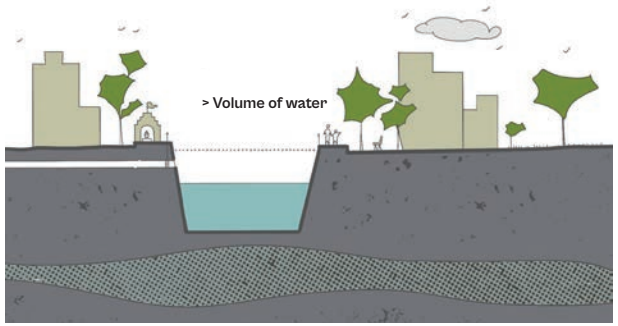
Applying the principles of circularity to water management is an absolute must for Hyderabad for it to address its water crisis as well as to achieve its lake restoration goals. Treating domestic waste and wastewater efficiently at the source is not only more sustainable, it also makes sound financial sense, as it could alleviate the financial burden (and energy consumption) of diverting the greywater away from the city and bringing freshwater into the city from faraway rivers, making Hyderabad more self sufficient in terms of water supply.

BEYOND BEAUTIFICATION

Several beautification projects of Hyderabad's tanks are underway, with the twofold intention to protect the lakes and provide public open green spaces for recreational walking. In the name of beautification, however, lake perimeters are often shrunk by removing the littoral zone and raising the Full Tank Level in order to maximise the housing potential of residential developments. Rigid paths are erected around the tanks, completely disregarding the gently sloping littoral side of the tank which is supremely important as it is rich in biodiversity and supports a large number of native plants and aquatic life, purifies the water, recharges the aquifer and even keeps mosquitos at bay. Aside from discounting the ecological importance of the littoral zone, the process of beautification also discounts the importance of the extended lake area for flood defence and other ecosystem services that have been traditionally associated with these water bodies, reducing the water body to a superficial ornament to supposedly enhance the city's aesthetics.



Before beautification: Lake with foreshore (littoral zone)



After beautification: Lake without foreshore (littoral zone)

How can we restore the health of the entire ecosystem of the river catchment in a holistic way?

How can we institutionalise nature-based solutions and principles into urban planning policies and frameworks in the Indian context? How can community involvement and engagement contribute to the success of such practices and operations?

What role can urban farming play in preserving nature in Hyderabad's metropolitan region?

WORLD HEALTH CAPITAL

A GLOBAL VISION THAT INTEGRATES LOCAL IMAGINARIES

Hyderabad is pursuing an ambitious riverfront project with the aspiration to become a world-class metropolis with "international-standard urban landscapes". It remains however a uniquely Indian city whose future hinges on how well it preserves its heritage, how it distributes the benefits of urbanisation amongst its people, and how well it is able to adapt to emergent climate risks.

Economic progress and successful urban branding are not enough to guarantee a high quality of life, nor do they foster a sense of belonging in people. Health and wellbeing must be at the centre of urban planning and policy-making for a city to attract people and also make them want to stay.
Looking at Hyderabad's masterplan, one is dazzled by its mega projects and expanding metro network, its Hitec City and Pharma City, its IT corridors and SEZs, and its burgeoning real estate markets. It is clear to see why the megacity in the making attracts talent and businesses from around the world.

But when we look at the geographical map and trace the history of Hyderabad from its beginnings in Golconda to Secunderabad to Cyberabad, we notice the inextricable link between the city's neighbourhoods and its lakes and canals, its ridge and its watersheds.

When we zoom in to the neighbourhood scale, we notice a simpler way of life, we see the workings and struggles of the informal sector and we acknowledge the inhabitants who bring the city to life on a daily basis, and whose services are much needed by the creative classes.

These are the realities that make up the DNA of Hyderabad, expressed in the spatial characteristics best loved by the city's inhabitants that contribute most to its sense of identity.

A mosaic city of interconnected tanks, each one surrounded by greenery, each one supporting its mini village by providing life, livelihood and comfort. This genetic code must not be forgotten when planning for Hyderabad's expansion, so that it is always 100% local even where it is 100% global.

Blessed with numerous assets, namely an incredible water heritage, a human scale urban fabric, emerging technologies and a robust metro rail network under construction, Hyderabad has everything it takes to metamorphose into an extraordinarily attractive city that offers the best quality of life to its inhabitants.

In the collective imagination of Les Ateliers, Hyderabad megacity, Pharma capital of the world, re-establishes itself as a thriving bioclimatic metropolis, balancing economic prosperity, water security, and community resilience, coming full circle as the Health Capital of the world.

HEALTH IS THE GOAL, NOT (JUST) AN INDUSTRY

CHALLENGES	ASSETS	VISION
FLOODS	CITY OF LAKES	WATER HERITAGE
WATER SCARCITY	HERITAGE	BIOCLIMATIC
SEWAGE	HUMAN SCALE	WALKABLE
PHARMA POLLUTION	GLOBAL HUB - IT	ROBUST PUBLIC TRANSPORT
DIABETES	PHARMA HUB	CLIMATE-RESILIENCE
TRAFFIC JAMS	METRO	WORLD HEALTH CAPITAL

Durgum Cherevu, one of Hyderabad's historic lakes now stands as a backdrop to its IT Hub Hitech City. Widely popular amongst the city's digital nomads and tourists, it is one of Hyderabad's most prestigious beautification projects. However, it also stands as a precursor to a worrying trend of "beautification" projects that are steadily obliterating the city's littoral zones and biodiversity.

A typical Hyderabadi settlement at the edge of a tank

How do we incorporate community and local aspirations in visions of the future based on global imaginations?

In making the city more attractive, how can we attract new people but also to retain those who have lived here for generations?

02 WORKSHOP PROCESS

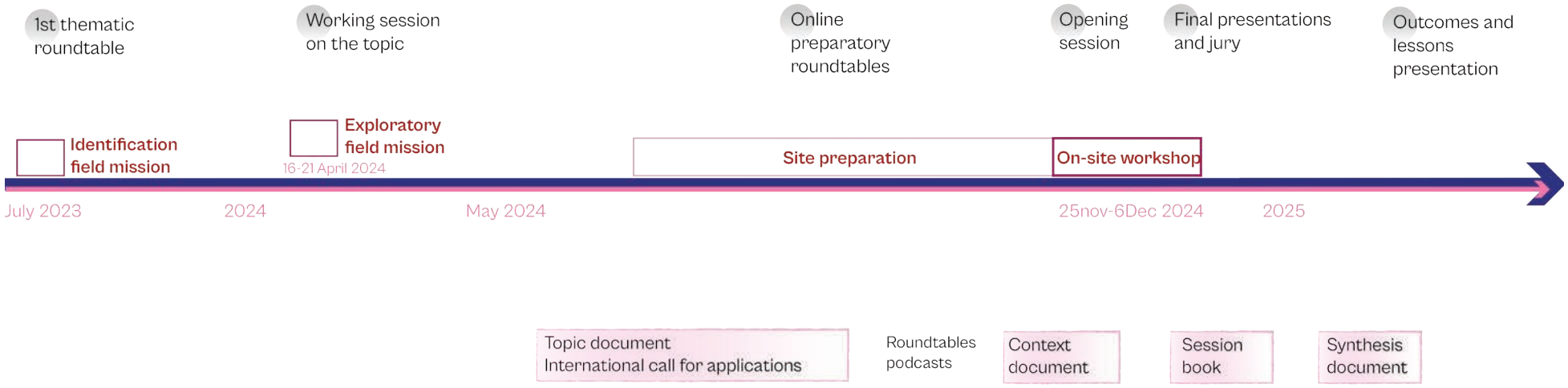
TIMELINE

The workshop is an extensive, collaborative process that unfolds in several phases: exploration, scientific preparation, and urban creation and innovation.

The preparation phase was marked by two fieldwork missions and a series of three preparatory roundtables, supported by high-level experts. A local team of two professionals from Hyderabad prepared a context document, enabling an in-depth study of the territory's history, the lakes, and the water system.

Held from November 25th to December 6th, the workshop represents a key moment of collective effort, where innovative ideas are generated and solutions developed at various scales, to be presented to stakeholders during the final presentations.

At the conclusion of the workshop, Les Ateliers team prepare a comprehensive summary of the outcomes.



IDENTIFICATION MISSION

After a first mission led by the French Embassy in March 2023, the French Embassy in India and Les Ateliers organized an identification mission in Hyderabad from the 3rd of July until the 8th of July, 2023. This mission was the occasion to meet local governance from the State of Telangana and major stakeholders, to present the methodology of Les Ateliers, and what it can bring to Hyderabad.

A roundtable was organized at Alliance Française with the help of the French actors on the theme: "Water paths : urban itineraries and metropolitan trajectories". It gathered different types of experts, stakeholders and citizens around the water challenges in Hyderabad to set a transversal and fruitful exchange, which is at the heart of Les Ateliers' methodology. The speakers included **Phalgun Kumar**, Municipal Commissioner, Manikonda, **Dr. Snehalatha Mekala**, Associate Professor at Administrative Staff College of India, Kalpana Ramesh, Founder and CEO, Rain Water Project, **Shakeel Ahmed**, Consultant, School of Science, Maulana Azad National Urdu University, **Subba Rao**, geologist and **Anuradha Kanniganti**, Indian culture and language specialist. The roundtable was the occasion to exchange on the geology and geography of the underground water resources and the lakes, the current initiatives to save water and as a social and functional infrastructure and nowadays urban planning challenges in Hyderabad.

The mission was led by Florence Bougnoux, architect and urban planner, Les Ateliers, **Jean Grébert**, architect and engineer, les Ateliers, **Simon Brochard**, geographer and projects director, Les Ateliers, **Marion Velut**, Counsellor for sustainable development, French Embassy in India, **Feli Visco**, deputy head for IT and sustainable development, French Embassy in India, **Diane Bittar**, Project manager, French Development Agency, and **Sara Giugliano**, cooperation coordinator, Bordeaux Métropole.

EXPLORATORY MISSION

The exploratory mission took place in Hyderabad from 15 to 21 April 2024, it gathered **Reena Mahajan** and **Florence Bougnoux**, copilots of the workshop, **Jean-Baptiste Peter**, Les Ateliers' associated expert, **Véronique Valenzuela** and Simon Brochard, the managing team of Les Ateliers, and **Marion Velut, Feli Visco** and **Vladimir Hurstel** from the French Embassy in India.

The mission's goal was to co-elaborate the workshop's main topic and questions with the Government of Telangana, before the writing of the "topic document" by Les Ateliers team. The week was also full of meetings and site visits accompanied by local experts introducing some of the main challenges of the Hyderabad metropolis and its water ecosystems: **Dr. Anant Maringanti**, Director, Hyderabad Urban Lab, **Yeshwant Ramamurthy**, Principal Architect at Studio One Architects, **Chelikani Rao**, Union of the Resident Welfare Associations, **Maheep Singh Thapar**, Managing Director, ADAPT, **Jayati Chourey** and her team, SAClwaters, **Bibhu Nayak**, Hyderabad Campus of the Tata Institute of Social Sciences (TISS)... The workshop's topic was finally discussed during a special meeting with **Dana Kishore**, Principal Secretary, Municipal Administration and Urban Development, Government of Telangana.

ROUND TABLES

ROUND TABLE 1: WATERFRONT REGENERATION – BEYOND BEAUTIFICATION

16 September 2024, with the participation of

- **Poojari Gouthami, Joint Managing Director of MRDCL**
- **Niki Shah, Urban Designer, HCP, Ahmedabad**
- **Swati Janu, Architect, Social Design Collaborative, Delhi**

The discussion on Waterfront Regeneration: Beyond Beautification explored the transformative potential of riverfront projects to restore ecosystems, promote inclusivity, and enhance urban resilience. It challenged the notion of riverfront revitalisation as merely aesthetic, emphasizing the need for systemic, sustainable interventions.

Key questions addressed included how Indian and global experiences can guide holistic restoration of river catchments, the role of natural systems and living shorelines in building urban resilience, and ways to ensure inclusivity so that all social groups benefit from such initiatives.

Insights from the Sabarmati and Pune riverfront projects, showcased diverse approaches to riverfront development, while discussions on the Yamuna River in Delhi underscored the significance of balancing urbanisation with the livelihoods of riverside communities.

Key takeaways included the necessity of unique strategies tailored to Hyderabad's context. Effective communication between stakeholders and local communities was emphasized as essential to ensuring equitable outcomes.

This round table reinforced that successful riverfront regeneration is about creating resilient, inclusive, and ecologically balanced urban transformations that address the needs of both people and nature.

ROUND TABLE 2: SPONGE CITIES AND WATER ECOSYSTEMS

10 October 2024 with the participation of:

- **Kongjian Yu, Architect and Urbanist, Turenscape**
- **Kalpana Ramesh, Founder of the Rainwater Project**
- **Ripin Kalra, Urban Risk and Resilience expert**
- **Ramveer "Pondman" Tanwar, Environmentalist**

The second round table delved into the challenges and potential of nature-based solutions for Hyderabad, a city grappling with rapid urbanisation and pressing environmental concerns. The discussion emphasized the transformative role of water ecosystems–particularly tanks and littoral zones–in groundwater recharge, flood defence, biodiversity conservation, and recreation.

Experts from local and international contexts shared insights on managing stormwater locally, minimizing soil sealing, preserving ecosystems, and reusing wastewater. A highlight was the concept of Sponge Cities, pioneered by urbanist

Integrated vision for Delhi's riverfront development to include the city's farms in the city's future
Source: Swati Janu, Social Design Collaborative

Concept of sponge cities
Source: Kongjian Yu, Turenscape

Kongjian Yu, who underscored the importance of slowing, sinking, spreading, and storing water locally, in contrast to the common but unsustainable practice of channeling and losing it.

Urban ponds, often overlooked, emerged as key assets. Discussions also highlighted the inefficiency of centralized stormwater systems in monsoon-dependent cities like Hyderabad, where fresh rainwater is often wasted through rapid drainage.

Greywater treatment and reuse were identified as vital strategies to reduce freshwater demand and ensure local wastewater management. Urban agriculture was highlighted as a dual-purpose solution, building water resilience while offering socio-economic benefits and food security.

The panel stressed that water body conservation is more sustainable when tied to local economic activities, such as urban farming and responsible tourism, by fostering community engagement and long-term maintenance.

ROUND TABLE 3: SPONGE CITIES AND WATER ECOSYSTEMS

14 November 2024, with the participation of:

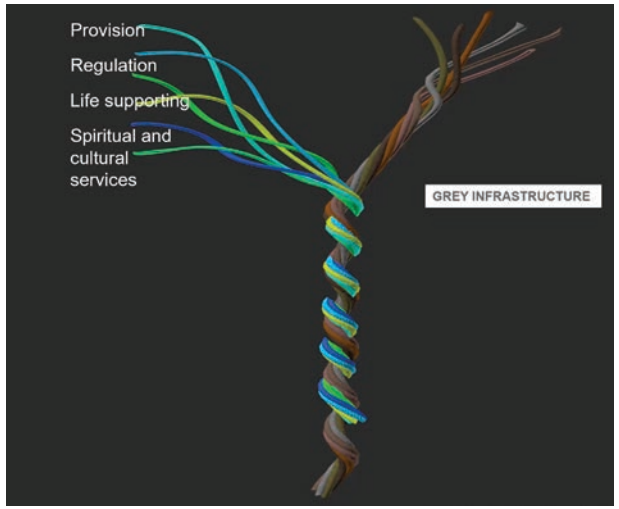
- **Dr. Snehalatha M, Associate Professor, Administrative Staff College of India (ASCI)**
- **Dr. Marie-Hélène Zerah, Research Director with the French National Research Institute for Sustainable Development (IRD)**
- **Dr. Anant Maringanti, Director of Hyderabad Urban Lab (HUL)**

This round table examined the intricate relationship between communities and water systems, highlighting how water availability and management influence urban life and access to essential services. Hyderabad's urban fabric has been shaped by its topography and water networks, from stepwells, tanks, and ponds at the neighbourhood level to larger lakes and the Musi River at the metropolitan scale.

As local water bodies disappear, social ties and community resilience are eroding. Preserving neighbourhood-level water networks has become vital for fostering both community well-being and water resilience. Without these efforts, prioritizing metropolitan-scale water systems risks neglecting the smaller networks essential to local life.

Participants noted that urbanisation has disrupted the intricate connections between lakes, canals, and drains, weakening natural and social networks. However, small-scale placemaking and community initiatives can have a significant impact, helping residents reconnect with and protect nearby natural resources.

The role of technology was also highlighted. Digital tools such as apps and crowd-sourced data can monitor water supply, wastage, and shortages, empowering communities to actively manage and preserve Hyderabad's water heritage.



Ecological and grey infrastructure woven together
Source: Kongjian Yu, Turenscape

Before and After of the Project Jalam at Mahendra Hills
Source: Hyderabad Urban Lab, 2021

FIELD VISITS

TWO DAY FIELD VISIT:

The International Urban Workshop commenced with an engaging two-day field visit designed to immerse participants in Hyderabad's urban fabric, water ecosystems, city services, and governance frameworks. This experiential journey aimed to provide a nuanced understanding of the city's historical evolution, ecological challenges, and urban services.

DAY 1: ALONG THE MUSI RIVER - FROM THE HISTORICAL CITY TO THE WESTWARD DEVELOPMENTS:

The first day began with an introduction to Hyderabad's historic core, established on the southern bank of the Musi River. Participants stopped at the Afzal Gunj Bridge, which offered a panoramic view of the Musi flanked by iconic heritage structures like the Salar Jung Museum, Osmania General Hospital, and the Telangana High Court–symbols of the river's historical significance.

The group proceeded south to Mir Alam Tank, one of the earliest reservoirs supplying water to the fortified city. At Mir Alam Park, discussions revolved around the ecosystem of a tank, the tank's historical links to the Musi, its current challenges, and its role in the city's water management. Also, participants met the local community at a site of placemaking on the tank's western edge.

In the western part of Hyderabad, participants explored the city's engineering services for a cleaner Musi. A visit to the Attapur Sewage Treatment Plant showcased the strategies and challenges of the Hyderabad Metropolitan Water Supply and Sewerage Board (HMWSSB). At the Ziaguda GHMC Collection Center, the focus shifted to the city's garbage management systems and its new "model" transfer stations. The day concluded with stops at Osman Sagar, a large reservoir built after the devastating 1908 flood, and Durgam Cheruvu, a lake surrounded by Hyderabad's recent high-rise developments, to discuss urban growth and lake preservation.

DAY 2: ALONG THE MUSI RIVER - FROM THE HISTORICAL CITY TO THE WESTWARD DEVELOPMENTS:

Day two began at Hakimpet Kunta, once a vital link in the city's water network, now struggling with pollution. Participants met with the washermen (dhobi) community to learn about the lake's evolving role and local flooding issues. A brief stop at Langar Houz Talab, near the fortified Golconda, further highlighted the interconnectedness of the city's lakes with the Musi River.

The journey continued to the iconic Hussain Sagar Tank Bund and concluded at the Bansilalpet Stepwell, an inspiring example of revitalizing traditional water infrastructure. Participants explored the restoration process and its impact on the community.

Throughout the visits, representatives from MRDCL, GHMC, HMDA, and HMWSSB provided insights into Hyderabad's urban planning and ecological initiatives, enriching the participants' understanding of the city's complex urban landscape.

Visit at Jiyaguda collection center

AFZAL GUNJ BRIDGE: Participants engaged with MRDCL officials and local experts to study the Musi River's cross-section, buffer zones, and iconic heritage structures on both banks.

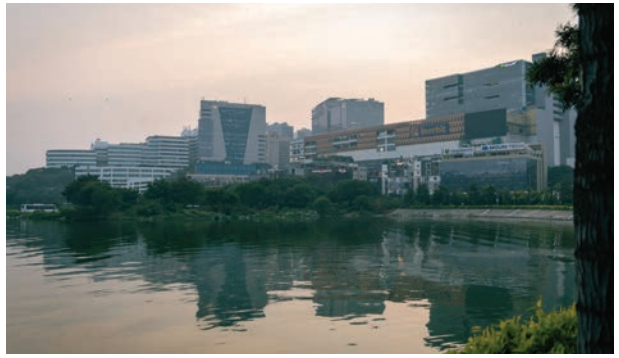
MIR ALAM TANK: At Mir Alam Park, participants explored the lake's ecological zones and sewage dumping issues. A nearby community space demonstrated efforts to curb illegal activities and foster community connections.

ATTAPUR STP: This stop showcased Hyderabad's sewage treatment process, detailing how wastewater is treated and discharged into the Musi River.

JIYAGUDA GARBAGE COLLECTION CENTRE: Participants observed waste compression for city-wide transfer and discussed the GHMC's challenges in segregating wet and dry waste.

BAPU GHAT: The site highlighted the Musa and Esa Rivers' confluence, Bapu Ghat stepwell, burial grounds, and the Mahatma Gandhi digital museum as a public riverside space.

OSMAN SAGAR: Participants discussed the reservoir's role in flood prevention, drinking water supply, and its history of managing Hyderabad's floods.



NEOPOLIS AND NANAKRAMGUDA: A drive showcased high-rise developments and isolated lakes, reflecting Hyderabad's shift toward large-scale, mixed-use urban projects.

DURGAM CHERUVU: Participants explored the rejuvenation of this historic lake, now bordered by modern skylines, under a Public-Private Partnership (PPP) model.

HAKIMPET KUNTA: A dialogue with the Dhobi community addressed issues like raised water levels from concrete embankments, disrupted lake-drain connections, garbage dumping, and flooding.

LANGER HOUZ TALAAB: This visit revealed the lake's connections to other water bodies and the challenges of sewage and garbage pollution.

HUSSAIN SAGAR: A drive along Tank Bund highlighted the scale of this iconic lake and its edge treatments.

BANSILALPET STEPWELL: The visit emphasized the historic importance, degradation, and restoration of stepwells, showcasing the Bansilalpet Stepwell as a model community effort.

OPENING SESSION

The opening session of the workshop, held on November 26, 2024, set the stage for a meaningful exchange among stakeholders. Chaired by Ms. Gowthami Poojari IAS, Joint Managing Director of MRDCL; Ms. Marion Velut, Head of Sustainable Cities at the French Embassy in India; Veronique Valenzuela, Director of Les Ateliers; and the workshop pilots, the session addressed critical challenges and expectations.

Les Ateliers and the pilots introduced the workshop theme and officially unveiled the participants. Key officials and chief engineers from MRDCL also joined, fostering a collaborative atmosphere. The session aimed to establish a constructive dialogue between stakeholders and participants, sparking discussions on governance, urban planning, and environmental management.

Topics explored included the ambitious scope of the workshop, centered on the Musi Riverfront Development but extending to its broader ecosystem–lakes, streams, wetlands, stepwells, and surrounding neighborhoods. Participants raised questions on governance frameworks, water management systems, river health, and urban sprawl in Hyderabad.

EXCHANGE FORUM

Held on November 29, the Exchange Forum exemplified the collaborative spirit of Les Ateliers' methodology. Bringing together local partners, stakeholders, professors, and guests, the forum provided a platform to assess the progress of the workshop teams, debate their initial ideas, and offer valuable recommendations to refine their proposals. This dynamic interaction enriched the teams' perspectives and fostered innovative thinking.

Following two days of collective site visits and two days of intensive work, the three teams presented their diagnoses and preliminary concepts. Their proposals reflected diverse interpretations of Hyderabad's Musi River and its surrounding water ecosystem. While each team brought unique insights, they converged on a crucial perspective: the project must transcend the traditional riverfront development approach to address the broader Musi River ecosystem.

Key proposals included improving connections between water bodies, enhancing their multifunctionality, decentralizing waste and sewage management systems, and requalifying access, roads, and public spaces. These ideas aimed to challenge the prevailing degradation of the river and its ecosystem, tackling issues like pollution, flooding, waste dumping, inadequate sewage treatment, and inaccessible public spaces.

The forum encouraged teams to delve deeper into the governance boundaries of the respective Municipalities and tailor strategies accordingly to strengthen their proposals. Attendees praised the teams for quickly grasping and envisioning Hyderabad's urban morphology while addressing pressing ecological and spatial challenges.

03

TEAMS PROPOSALS





















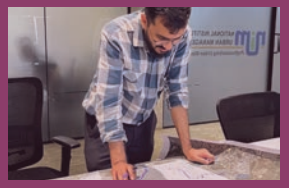











THE AQUAPOLIS
HYDERABAD
A CITY OF WATER

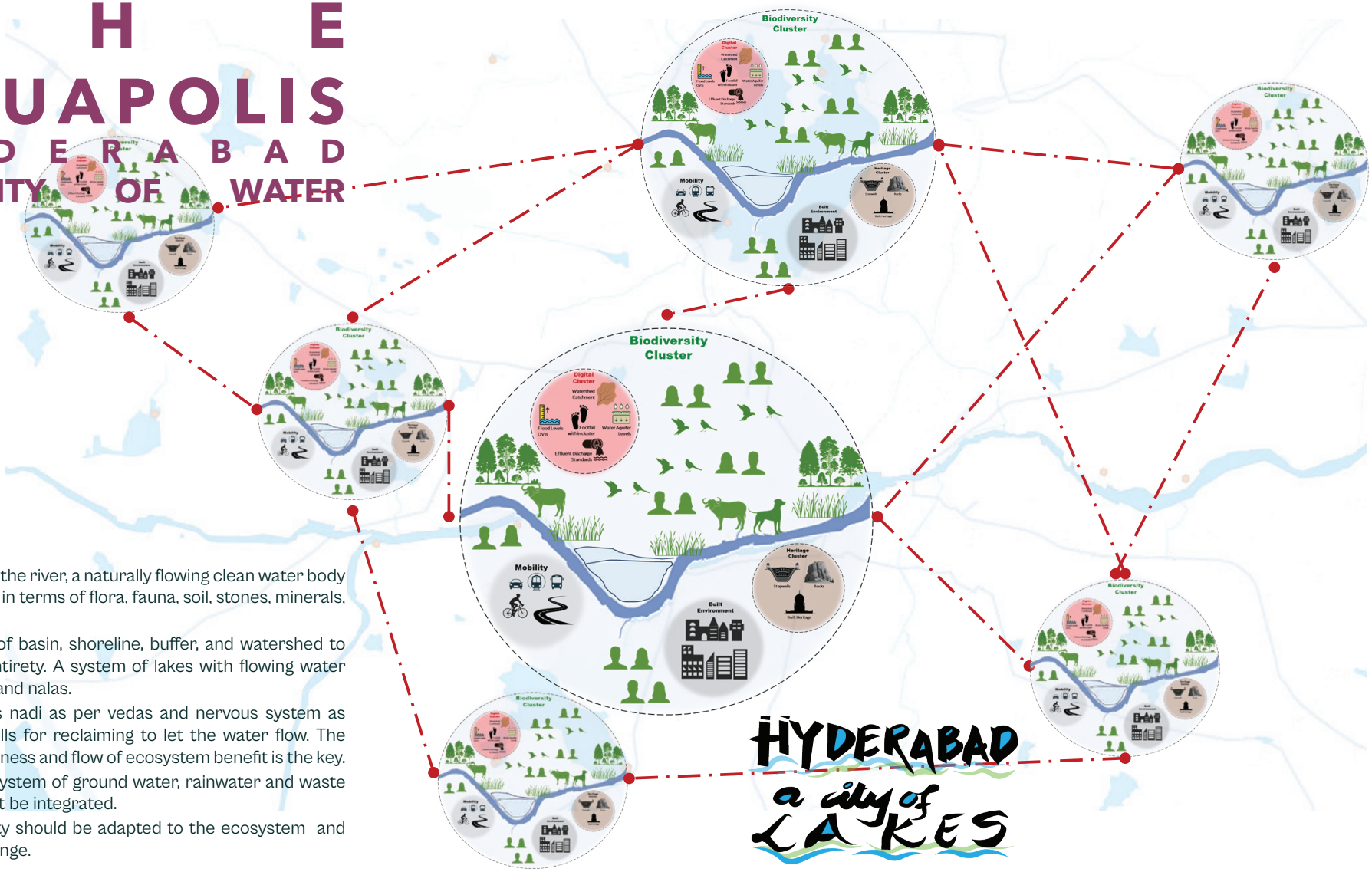
THE WATER SPEAKS

EDU TARALA MUCHKUNDA SAMRAKSHAKULU

1. AVINASH KUMAR	PLANNER	INDIA
2. SEBASTIAN MIGUEL	ARCHITECT, URBANIST	ARGENTINA
3. MANSEE BAL BHARGAVA	WATER WORKER	INDIA
4. HUGO RUBIO	ENGINEER	FRANCE
5. ISABEL NANGA	ARCHITECT, WOODWORKER	ANGOLA

THE AQUAPOLIS

HYDERABAD
A CITY OF WATER



Let the river be the river, a naturally flowing clean water body that houses life in terms of flora, fauna, soil, stones, minerals, chemicals, etc.

A lake system of basin, shoreline, buffer, and watershed to be looked in entirety. A system of lakes with flowing water between lakes and nalas.

A nala which is nadi as per vedas and nervous system as per humans calls for reclaiming to let the water flow. The interconnectedness and flow of ecosystem benefit is the key.

An integrated system of ground water, rainwater and waste water that must be integrated.

The ongoing city should be adapted to the ecosystem and the climate change.

APPROACH

The ideas and thoughts have germinated from the brief understanding from expert inputs, official inputs, study of the city, and most importantly from the primary fieldwork of the physiography and demography.

CONCERNS & CURIOSITIES

Pollution (solid & liquid) is a huge concern and their management is a huge challenge:
- Sewage Water drainage is not fully covered in the city.
- Partially and untreated wastewater is going into the waterbodies.
- The few existing treatment plants are not working to their full capacity.
- Solid waste management is centralized and garbage is consistently dumped at the water edge.
- Medical waste in wastewater is a big concern

Other types of pollution are trivialized creating a lack of concern about these issues:
- The foul smell is in talks, but not in paper and plans.
- Noise pollution is absent in the overall discourse.
- Light pollution (excessive artificial lighting) is unfortunately a major aspect of new development like Vikas.

Perception of/about water problems is misinterpreted:
- Waterbodies are being considered as land parcels
- The flood factor is central to all discussion but it is a planning problem and not a water rainfall problem.
- Lack of appreciation of water and misinterpretation of it.

Rapid Development eating up waterbodies:
- A lake lost is considered a land gained.
- Nalas struggle to be identified as waterbodies and are thus vulnerable to land use change.
- The buffer of the lake is being taken out of the lake itself

Access/Movement at/around Water bodies-Public Spaces
- Garland road around waterbodies are isolating them.
- Exclusivity is Excluding
- Physical access to waterbodies is important, but it's not made possible everywhere.

Biodiversity matters are left out of the scheme of things:
- Vegetation patterns are changing along with the landscape.
- The fishes have the right to populate the waterbodies, and this right is ignored in development plans.
- The bird population is affected by the change of water quality & vegetation type.
- Animals are disappearing in urban areas


Pallapitta


State Tree of Telengana


Striped Murrel

Unclear coordination between the different stakeholders:
- Between different government organizations.
- Between government and citizens (e. g. the participation of the population in the city projects)
- Between government and corporates, consultants, pharma sector, tourism and real estate.

Unclear peoples' awareness and engagement:
- How the government is informing citizens other than mainstream media?
- What is the citizen consultation process?
- Are citizens/consultants proactively engaging in the urban management?
- Are citizens concerned about the changing flora & fauna, water systems?
- Why are we living with the fear of flood and we don't see flooding as a waterbody's right.

Sustainability aspirations seeking balanced toothing of:
- **Ecology**- ecosystem services should precede developments
- **Social**- we need to change the perception of and the relationship with water
- **Gender and Generation** –women and youth are marginalized from the development discourse and should be included
- **Cultural**- cultural activities in connection with water from ritualistic to recreational should be promoted.
- **Economy**- the value of the ecosystem that is interlinked with the quality of life should be recognized, but it's all about the money, moral considerations are missing

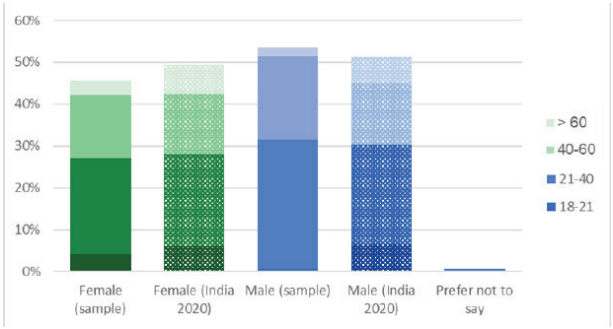
THE SURVEY

A perception and preference survey as a representative sample was carried out online to get a qualitative understanding of what people feel (positive-negative) about the water bodies (lakes and rivers) and an illustrated understanding of their vision for the river Musi. (Please find the main questions of the survey alongside).

140 people participated online to register their perception (positive-negative) about the water bodies (lakes and rivers) and their preference as to how the river should be like.

We found the age and gender structure of the group survey participants was actually quite representative of India's population.

A relative representative sample of survey participants



Study of Lakes & Rivers of Hyderabad Questions

Question 1:
Share your feelings about the water bosies (lakes-river-streams) of Hyderabad in 3 positive and 3 negative words.

Question 2:
Choose which of these images aligns with your dreams for the Musi River.


A


C


B

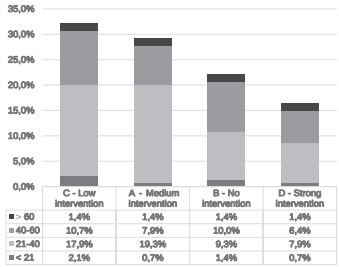

D

RESULTS

Positive words cloud highlights the beauty of the water bodies

The negative words cloud shows that pollution is the main concern

The result of question 2 emphasizes the desire for light intervention on the Musi river



	C - Low intervention	A - Medium intervention	B - No intervention	D - Strong intervention
> 60	1,4%	1,4%	1,4%	1,4%
40-60	10,7%	7,9%	10,0%	6,4%
21-40	17,9%	19,3%	9,3%	7,9%
< 21	2,1%	0,7%	1,4%	0,7%

THE AQUAPOLIS

The concept of Aquapolis refers to reclaiming Hyderabad's identity of 'The City of Water' as it has been known as 1591.

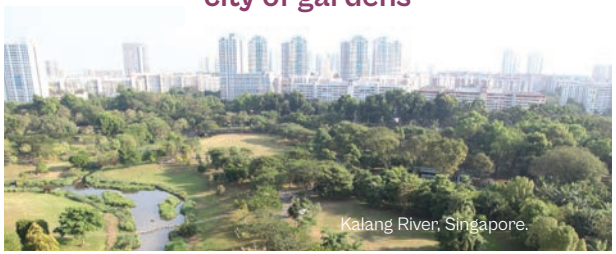
The idea is derived from the profound presence of water bodies (lakes, nalas, river, wells, and the groundwater table) since the past, still today in this bustling present economy even if the ecosystem is hurting, and hopefully in the future since there is an aspiration for a sustainable-resilient city.

The idea is developed from the identity of the city as 'City of Pearls' where the pearls are referred to as the lakes, the threads holding the pearls are the nalas, the main necklace as the river and the clamshell defining the polis.

As cities are made of communities, turning the bustling and bruising metropolis into a beauty of aquapolis is dependent on the different stakeholders from the people, the public organizations, the private businesses, people associations, and the projects, programs, and the policies that the people design and develop.

The old name Bhagyanagram (City of Luck) of Hyderabad is embedded in the idea of Aquapolis as a change of luck of the city towards a happy-healthy (ecologically, socially, economically, culturally) city.

Hyderabad was originally called Baghnagar, "city of gardens"



Kalang River, Singapore.

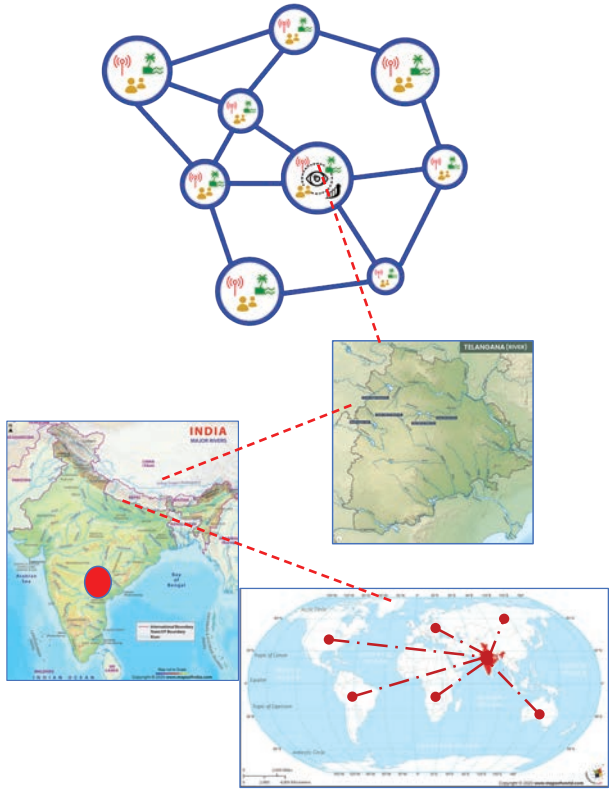
Shanghai Qingpu Loop Waterside Park, China

The Aquapolis concept also takes inspiration from the quote of founder of Hyderabad, Muhammad Quli Qutub Shah: "Make my city full of people, like you keep the river full of fish". Now that the city is full of people, let us get back to the river full of fish"

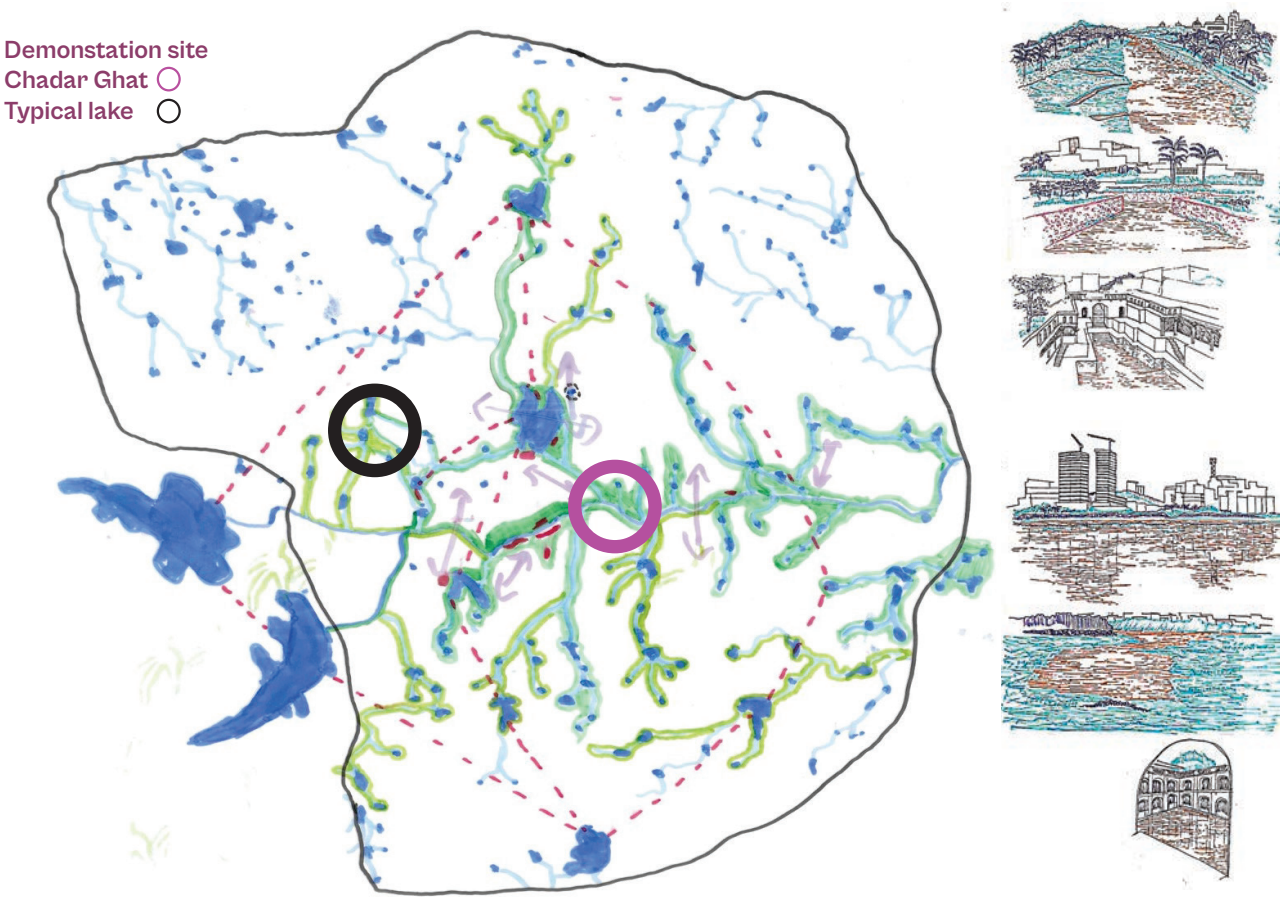
Minghu Wetland Park, China

Nanjing Yangtze river, China

AQUAPOLIS VISION-MISSION



"The sign of a healthy economy should be a drinkable river"
Li An Phoa



NETWORK OF CLUSTERS

BIODIVERISTY - DIGITAL - HERITAGE - MOBILITY - WATER

The Aquapolis concept envisions a sustainable urban model for Hyderabad, centered around water bodies and integrating natural systems, human activities, heritage, culture and technology. Each cluster, focused on a water body, fosters biodiversity and ecosystem services through a combination of flora, fauna, and human populations. A digital layer, utilizing open-data platforms, tracks and communicates key water management indicators, promoting transparency and proactive planning. This integrated approach aims to address water emergencies, enhance ecological resilience, and ensure sustainable urban growth in Hyderabad.

CHADERGHAT HUB

The Island at the Chaderghat which was earlier a forest known as Imli Van (Tamarind Forest) is proposed to reclaim as urbain forest as per the national policy 2020 of Nagar Van Yojana (MoHUA, 2020).

The Island

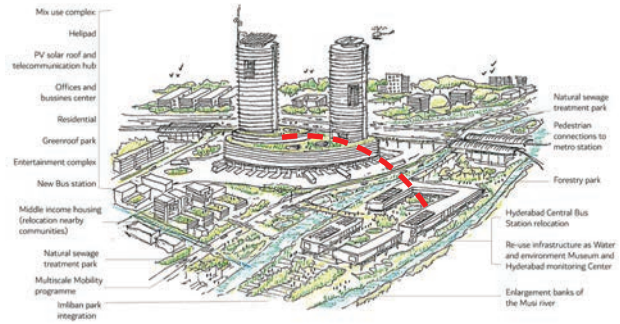
The old electric plant will be demolished and the bus station will be moved to the left bank of the river.

The Island and the surrounding wetlands will become an heritage parc featuring an urban forest, an interpretation trail - which includes the actual temple and a rejuvenate stepwel - and a water and environment museum (proposed national policy by MoJS, 2018) which will be a teaching-learning IEC centre for water matters.

The museum building will be net-zero and water sufficient, built on piles to face flooding.

The network of blue-grey waters from the nearby neighbourhoods will reach the river edge.

The project allows more space to the river, the fauna and the flora. The river bed near the island will be a natural treatment zone for the water to flow from the west further to the east. Indigenous aquatic plants and fishes will be introduced for the natural revival.

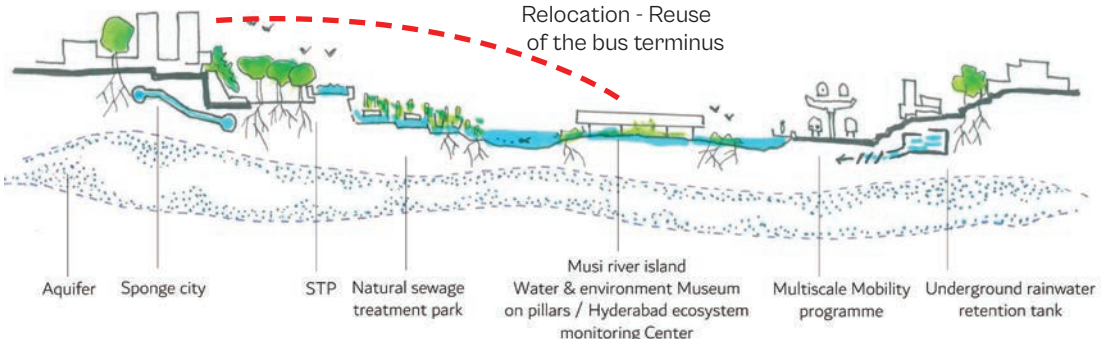


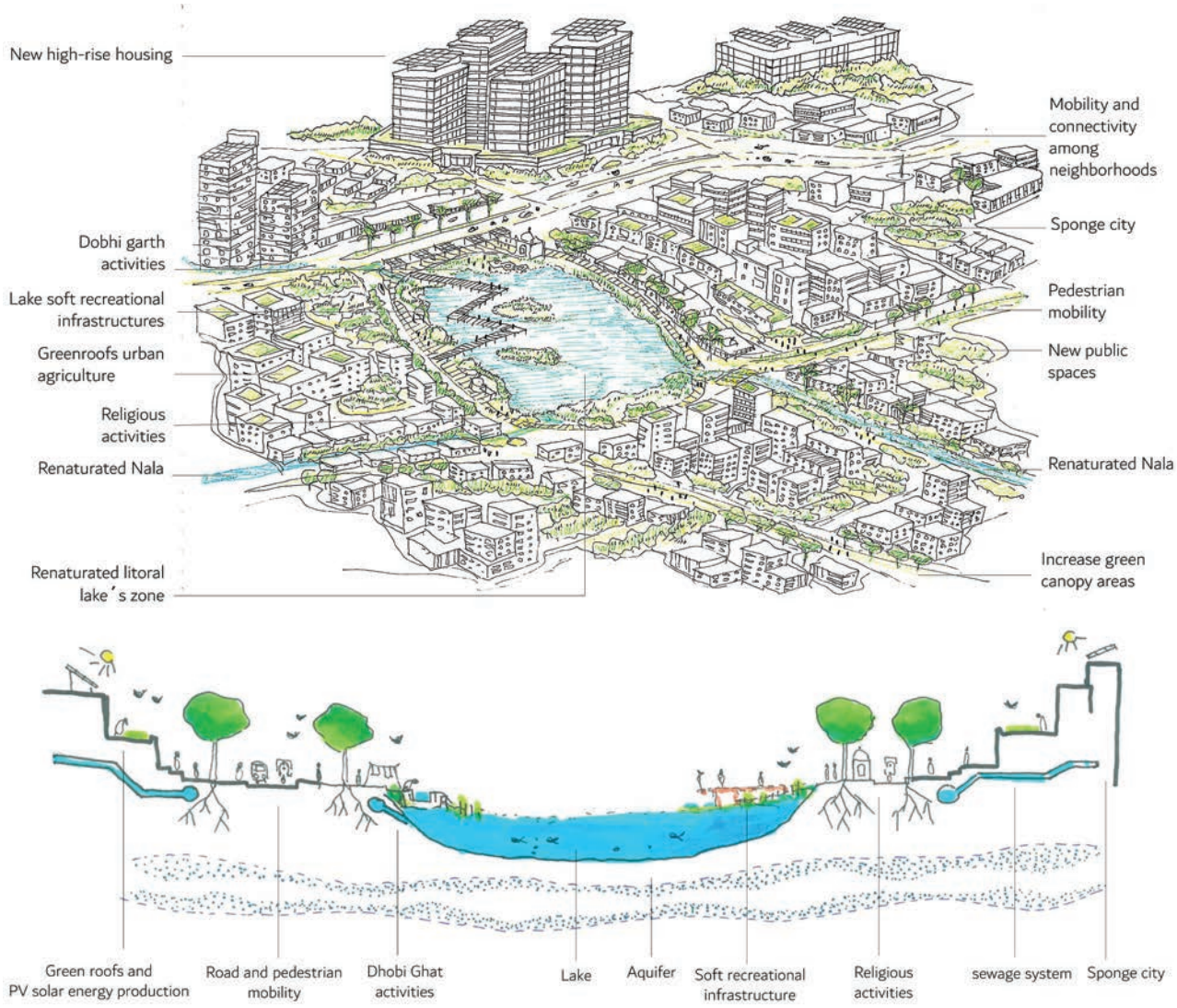
The Land

The new bus station on the left bank will be a brand-new mixed-use building with a combination of shops, offices, private housing, and much more. It will allow short interconnection between bus lines and the metro station.

The two main tower will stand in the center of the city as a new landmark. All the actual inhabitants will be relocated to the new buildings, which will include social housing.

The program includes green roof, solar panels, solid waste collect points and on-site STP.





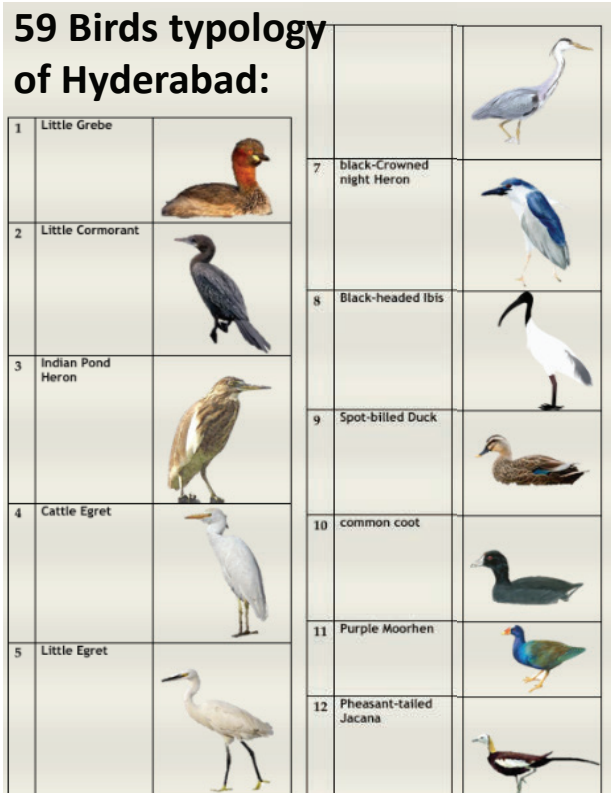
Lake and cross section of the lake.

URBAN LAKE

The urban lake concept will endorse different purposes. As a part of the cascading system, it will be a water reservoir, helping to mitigate the flood, feeding the Musi and recharging the aquifer. As a part of the blue and green corridors, it is a reservoir for biodiversity providing habitats for a diverse array of aquatic and ground life, from microscopic plankton to majestic fish and playful birds. Urban Lake also plays a crucial role in regulating local climates, moderating temperatures and providing a source of moisture. The urban lake has its own community that have the endorsement to maintain it using various tools including the “Water ripple” app (see p.39). It is a living place where various events are organised like concerts, festivals, and gatherings, bringing people together.

The urban lake concept is based on the territorial intelligence, a process enhancing collective intelligence through various diagnostic and evaluation tools, so that actors can develop, argue, encourage and evaluate sustainable development projects. It allows you to acquire a better knowledge of the territory and also to better control its development. From one side the scientific approach in territorial intelligence has the function of integrating and developing the multidisciplinary knowledge and methods necessary to understand territorial structures and systems as well as development dynamics. From the other side co-participation, co-construction and collaboration carried out by different stakeholders allow the articulation and combination of the economic, social and environmental objectives of a territory with the aid of the government sector.

This territorial intelligence could apply to all waterbodies to make it more than just bodies of water they could become vibrant spaces that enrich the whole city.

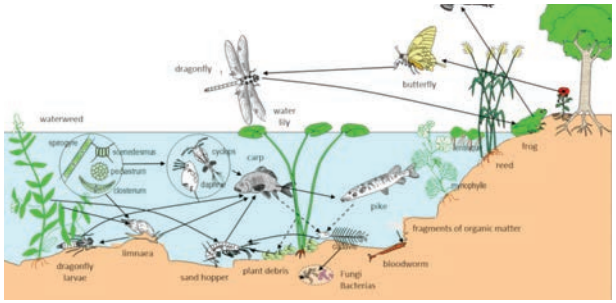


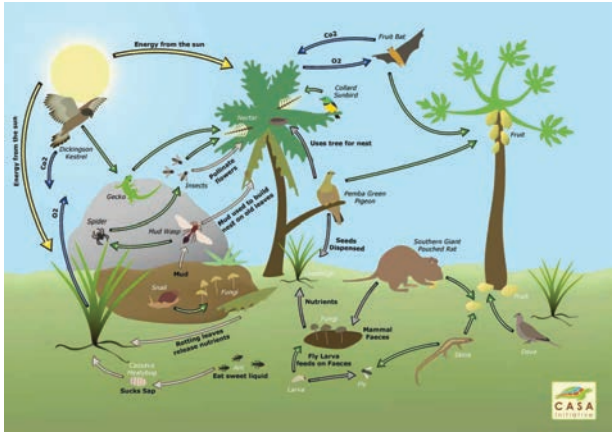
Water Hyacinth is health indicator of water body and at the same time offers an opportunity for recycle-reuse as compost, plant leather, textile, furniture, etc.

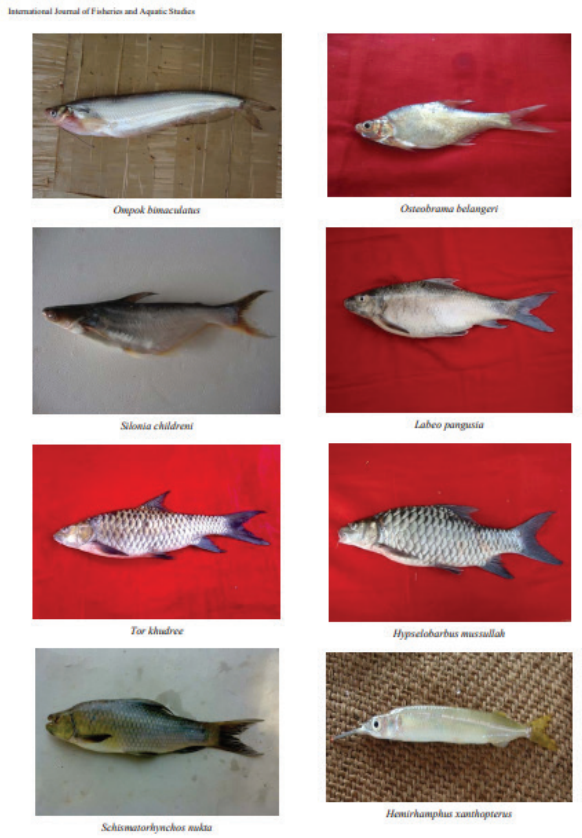
SETTING BIODIVERSITY TARGETS

As part of greening and bluing the city, fish and birds are good indicators to set as target. targeting 10% Fish Population and 10% bird Population increase in 10 years.

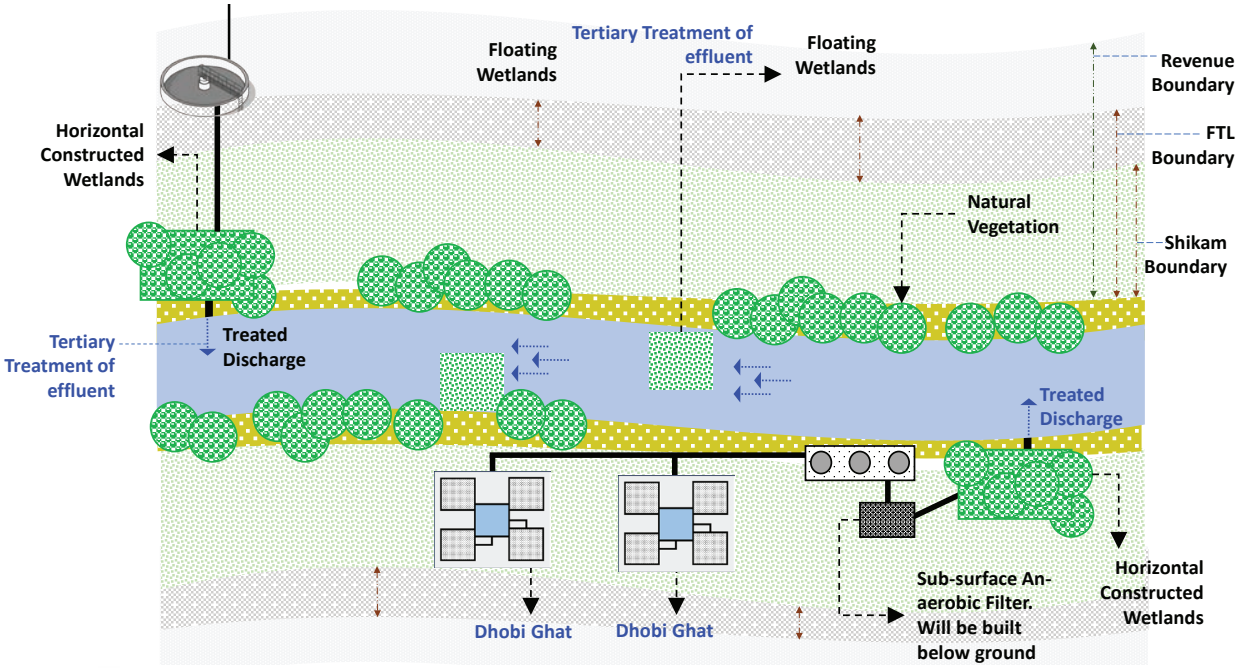
59 types of birds have been identified in Hyderabad. Some of these species are endangered which offers a starting point to revive them back to the city.

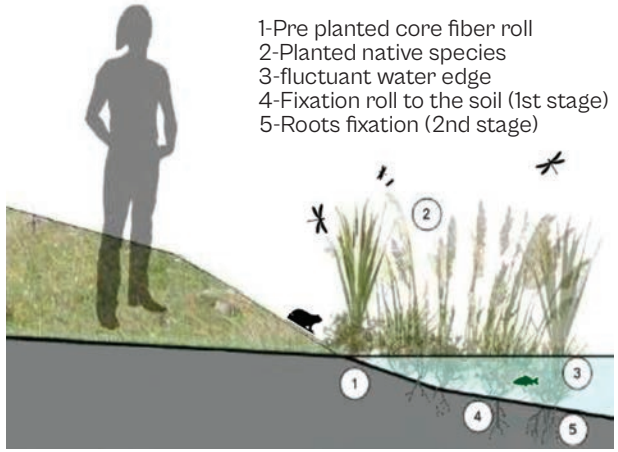






Inland waters of Telangana have 165 species of fish, which are spread across 11 orders and 29 families. Some of these species are endangered which we must take as a starting point to bring them back to city.





Step by step vegetation roll assembly sequence

ADDRESSING SEWAGE

The wastewater management interventions along the Musi and other water bodies emphasize a combination of nature-based, hybrid and engineered solutions to ensure sustainable treatment. Key strategies include the use of:

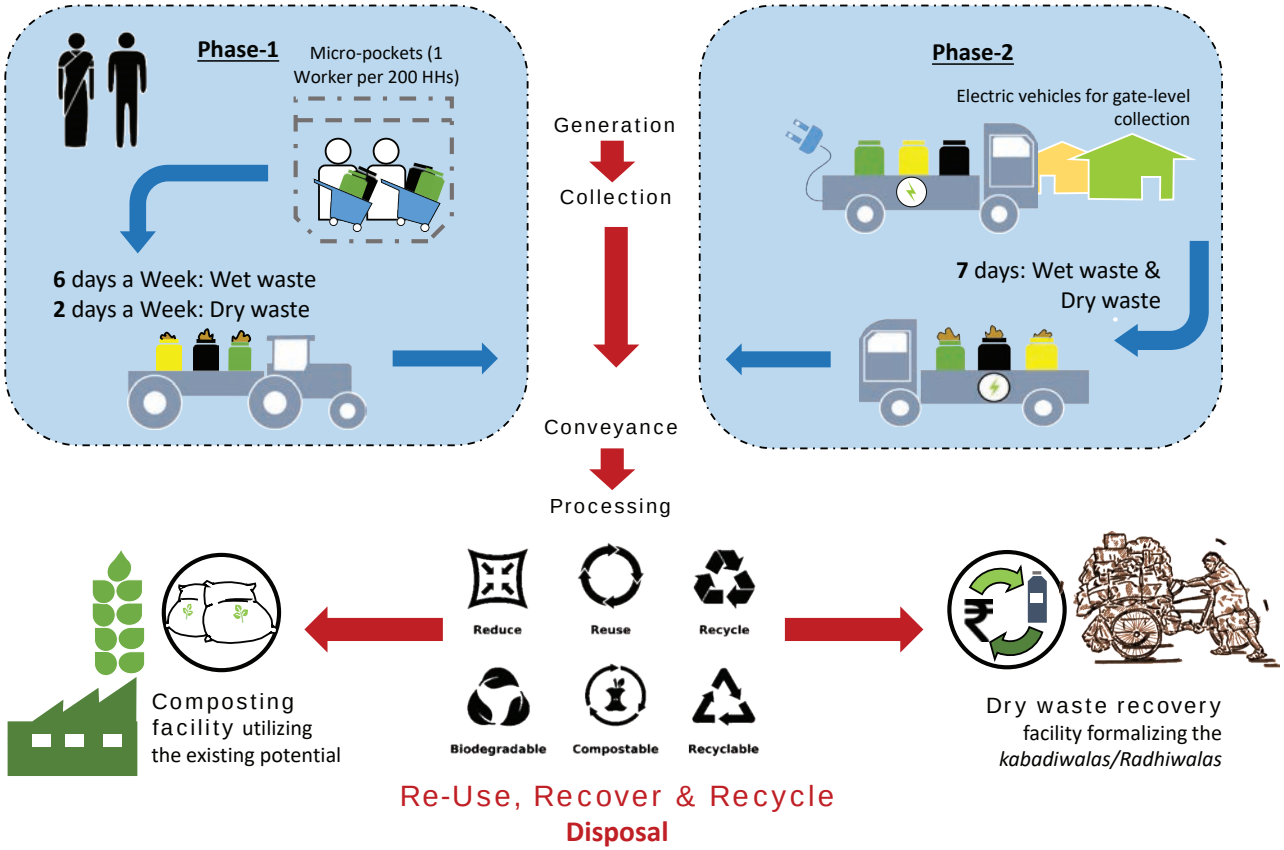
- Surface or subsurface effluent reduction for primary treatment.
- Constructed wetlands and floating wetlands serve as secondary treatment systems, construction will use pre planted rolls leveraging natural processes to surpass discharge standards avoiding the need for chlorination.
- Horizontal constructed wetlands and floating wetlands within water bodies and canals improve water quality all along the cascading system.

"Nala and Musi river should work as a last step of water purification, reducing drastically the organic pollution after STP or collective septic tank treatment"

RENATURALISE

We aim to give more space for the water and nature in Hyderabad. It will be necesssary to re-naturalise the whole nalas, lakes and obviously the Musi river that are actually degraded.

The rehabilitation of degraded environments seeks to recreate natural ecosystems by the reintroduction of native plant species and other soft actions. Low-tech solutions as planted rolls or blankets have the advantages of rapid establishment of vegetation. These reduce the erosion, stabilize slopes, retain sediments improving water quality. The establishing of buffer areas adjacent to the shore and littoral zones acts as a biological filter retaining diffuse pollution associated with surface runoff.



Solid waste management process, Team B, 2024

ADDRESSING GARBAGE

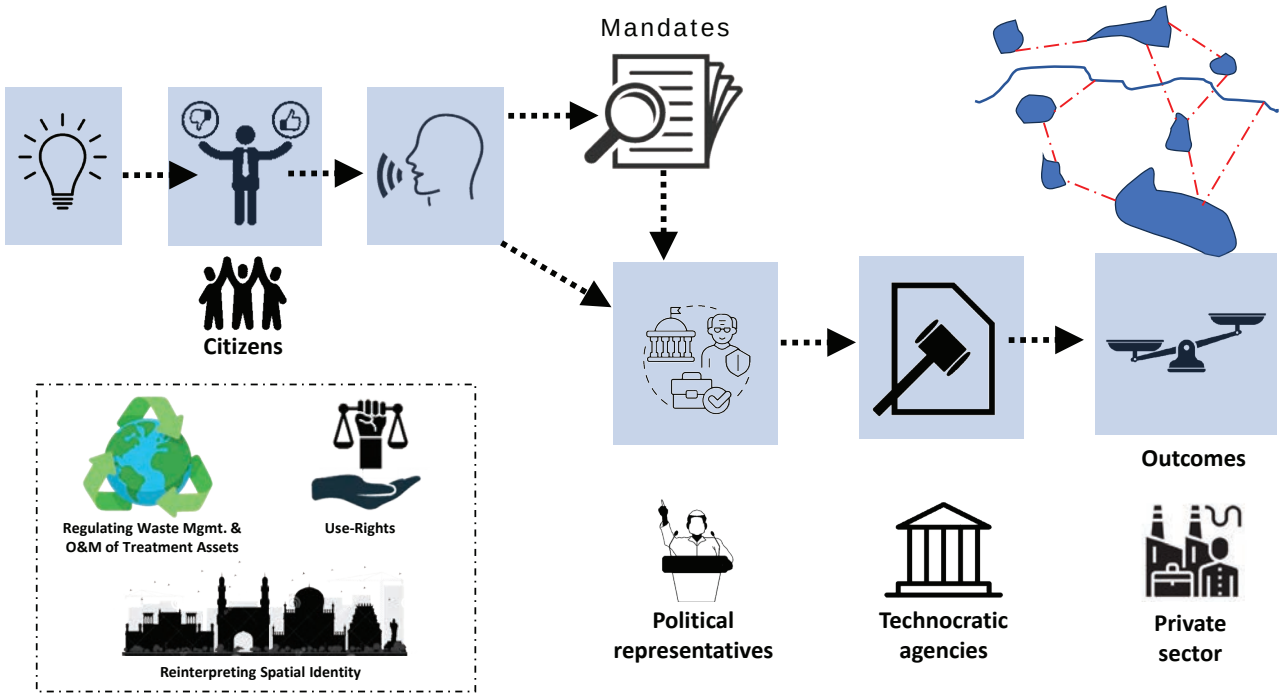
Effective implementation of the Solid Waste Management Rules 2016 and Swachh Surveksha guidelines is crucial for sustainable waste management in the city. This requires coordinated governance, interdepartmental collaboration, and citizen feedback to ensure scientific disposal, source segregation, and regular monitoring. Furthermore, integrating informal sector workers with social security benefits and regularizing their roles is essential for improving their livelihoods.

As such, solid waste management (SWM) in Hyderabad requires an integrated approach through structured phases:

The collection process will involve assigning one worker for every 200 households in micro-pockets, supported by electric vehicles for localized pickup. Waste segregation is planned with a 7-day cycle: wet waste collected six days a week and dry waste twice.

Processing includes composting facilities utilizing existing capacities and dry waste recovery systems formalizing kabadiwala/radhiwala networks.

Solid waste in Musi river and Chadar Ghat island



Source: Fung, Archon; Democratization of the Policy Process; Oxford Handbook of Public Policy, 2008

GOVERNANCE

The preservation of the incredible water heritage of Hyderabad demanding a paradigm shift in governance. A multi-level governance framework offers solution, bringing together stakeholders at various levels to address water challenges holistically.

1. Lake stepwell and nala committees - Empower Local Communities by decentralized decision-making, community-based water management, recognize water rights and access
2. Musi basin committee - Coordinate Regional water policy and action by a transboundary integrated water management policy framework, a reinforcement of public-private coordination, global knowledge sharing, financial strategy and support.

By fostering collaboration, transparency, and accountability, this approach paves the way for a more sustainable and equitable future for water resources.

AI monitoring

Decision making requires data. We propose a sensor network all along the Hyderabad cascading system - nalas, stepwells, lakes, tanks, Musi river – this network will provide realtime data accessible to all citizens using the "Water Ripple" app. Those data should include, water quality, water level, waste water and garbage monitoring.

LET'S ZOOM ON THE "WATER RIPPLE" APP

Water Ripple, is a simple app allowing all ctitizens from seasoned environmentalists to casual citizens to stay aware of the water health all across Hyderabad.

The app have three main goals :

- Inform on water health in realtime: An easy mode allow users to have a quick overview on current water health, view live cam images, and receive alerts in case on flooding risk. An expert mode allow scientists, community leaders and all interested people to get precise information and consult historical reports.
- Send alerts on flooding hazard;
- Engage local communities in water protection: Allow to easily monitor their waterbodies, add pictures of their water bodies to signal a problem, add events in the app calendar, and more.


AKIL AMIRALY
LAÏLA MELAZ
MARIA TULA GARCIA MENDEZ
SRINIVAS G MURTHY
PRATIK DEVI

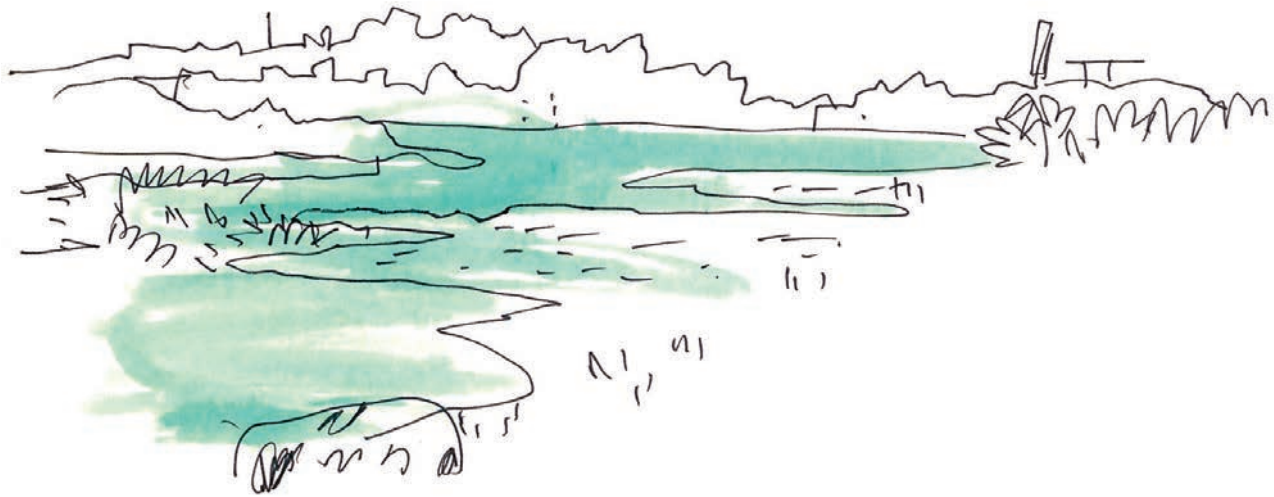
THE WATER SPEAKS

ENHANCING BRAND HYDERABAD THROUGH REVIVAL OF ITS WATER ECOSYSTEM

The relationship between water and humans is as old as the existence itself. Human settlements have always been in close proximity to a source of water, outlining its primordial importance for human race. History tells us that geographical boundaries have been expanded or invaded while looking for regions which had the potentials for trade and natural resources [water being of the most important] which would help the living conditions for the people of the state.

Bahratvarsha -the ancient land of sapta-sindhus, also known as the Indus valley civilization, rose to become the mighty civilization, had rivers and source of waters central to its spiritual, philosophical and physical identity.

And the Deccan region was no different. In the early 16th century, Golkonda and eastern part of the plateau offered the perfect setting with a large fertile landscape around the river Musi to the Qutb Shahi rulers, to establish a new kingdom. 5th King Muhammad Quli Qutb Shah founded the new city of Hyderabad, prayed to the Almighty to "Make my city full of people, like you keep the river full of fish".



Thus, a relationship was established between Musi and the great city of Hyderabad, that was destined to become a flourishing metropolis. This got further strengthened with a large network of lakes and connecting channels creating an eco-system and identity as a city of lakes.

Post 1947, Hyderabad gained importance as one of the major cities of a new emerging India, primarily due to its strategic location and abundance of natural resources of water. This attracted public and private sector companies setting up offering employment and good quality of life.

In subsequent decades, many neighboring cities grew exponentially. In the process, in absence of an efficient city development plan that is sensitive to the ecological needs of these cities, rapid urbanization resulted in many challenges, drastically affecting the quality of life of its citizens. Flooding, higher average temperatures, unbreathable air pollution are now, the norms in these cities, forcing many people and their employers to leave the cities.

Our project aims at looking at the such possible challenges that may affect the city of Hyderabad. The city stands at a crucial moment, where the water bodies are already under stress. And right choices of environmentally sensitively developmental model can offer solutions and further enhance its brand value and attract prospective investors as a city of future.

Objective of this project is to explore ideas that can drive the growth of the city with an ecologically sensitive approach and provide a really sustainable and long lasting solutions. Reviving the water eco system of the lakes, channels and the Musi River, is one such initiative, that our city really requires.

And thus the waters of the Musi and lakes of Hyderabad are calling.... Calling for partnership and negotiations .....to collaborate in the growth story of the city. And thus help make the city of Hyderabad.. a global city with an ecologically sensitive heart !!!

INTRODUCTION

METHODOLOGY

The methodology we adopt in comprehending this territory refers to the concept of a **living urban metabolism.** That concept refers to the description and analysis of the flows of the materials and energy within cities, as it is in a material flow analysis of a city.

Water through its bodies and channels are understood as a first component of that flow.

We first map all the water network in the city which comprises of lakes and major sreams connecting to MUSI river. Then we superimpose it with all the metro lines exising and proposed east west corridor and tram line(proposed by us in our proposal). by combining both water and mobilty network we workout comprehenn city to make it walkable.

We then select a watershed at the city level which is constituted of the following elements:
A water reservoir and its surrounding population: Mir Alam Tank;
A series of intermediate water bodies and streams through which water is flowing: the canals through which the water of Mir Alam Tank is reaching the river;
A river: Musi river.
We consider that watershed (Mir Alam tank, water streams, Musi river) as a first layer of a wider urban metabolism.

We then add an additional layer, or material flow, in that metabolism, such as mobility. This mobility component gets materialized in the form of a collective mode of transport (tramway) and in pathways (walking paths).
We finally add a last layer, in the form of humans and their activity.

APPROACH

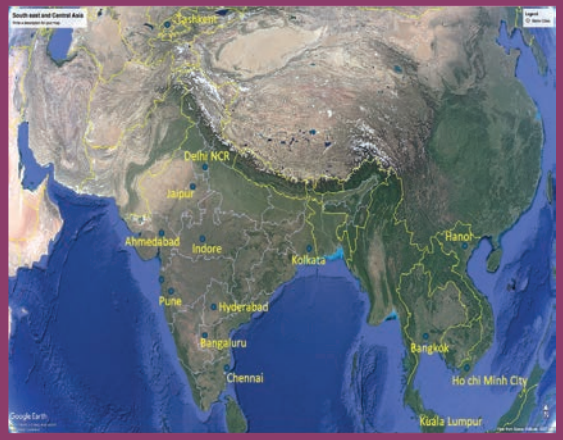
The approach we propose to develop is pragmatic in the sense that we consider building upon the existing context, i.e. tools and infrastructures (e.g. sewerage treatment plant) mobilized by public authorities in charge of the provision of basic services (water and waste management), by local organizations (e.g.) and by citizens.

The first aim is to propose a vision with additional systems and tools that complement the existing system in place and fill the gaps within the system.

This vision gets translated into actionable solutions. The final aim is to help the local stakeholders to set the narrative towards the healthy city of tomorrow.

COMPETITING CITIES

Cities in Central and south east are in a race for investments and this is being driven by economic, political, demographic, and social reasons.
Considering the fact that the future of the world would be urban and cities would be the engines of the global economy, it is not surprising that what we are witnessing is competition between cities in addition to competition between nations.
Indeed, even the competition between nations has the subtext of cities within them competing with other cities in the same country as well as cities in competition between other cities in other countries. What this means is that we are increasingly moving towards a model where cities would define living and working in the years to come.



Légende + ©


URBAN FLOODING


POLLUTION


TRAFFIC JAMS -LOSS OF TIME

BETTER ECOLOGY FOR BETTER ECONOMY

Cities in India like Mumbai, Delhi NCR or Bangalore are facing severe problems to maintain their quality of life and happiness index. As per happy City Index, only 2 Indian cities figure in the 250 Global Cities Happiness Index: Banglore (210) and Chennai (232).

There are several reasons for failure:
- Short term vision
- Neglect towards tradition
- No balance between Ecology and Economy
- Over dependence on cars and car oriented development
- Overcongestion

Brain Drain

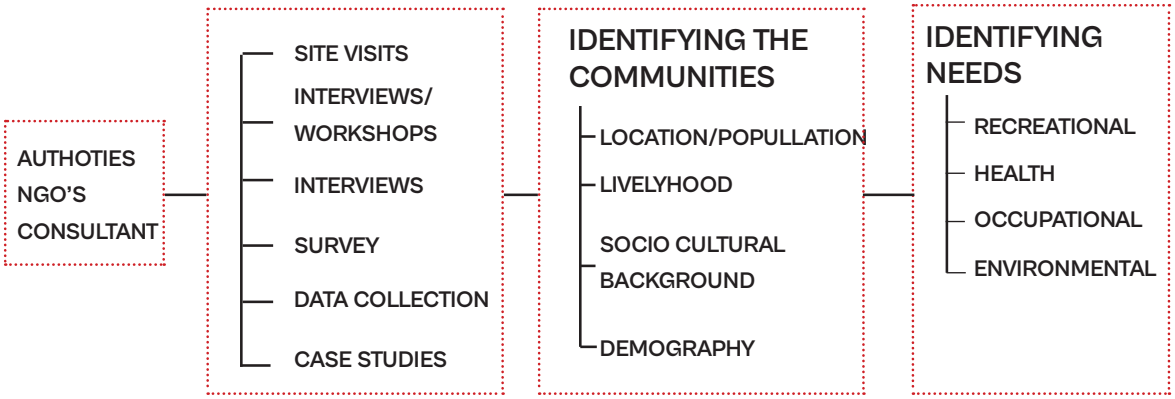
Cities are competing to attract investors and Brains, but they are turning their backs and moving to the cities with better Happiness Index: the city which offers the best quality of life will be the one attracting businesses and brains.

We are looking toward Hyderabad as a Tranquil Ecopolis for better health, creative culture, better education and more quality time to attract more brains and intellect to the city, which will result into an improvement of the economy.

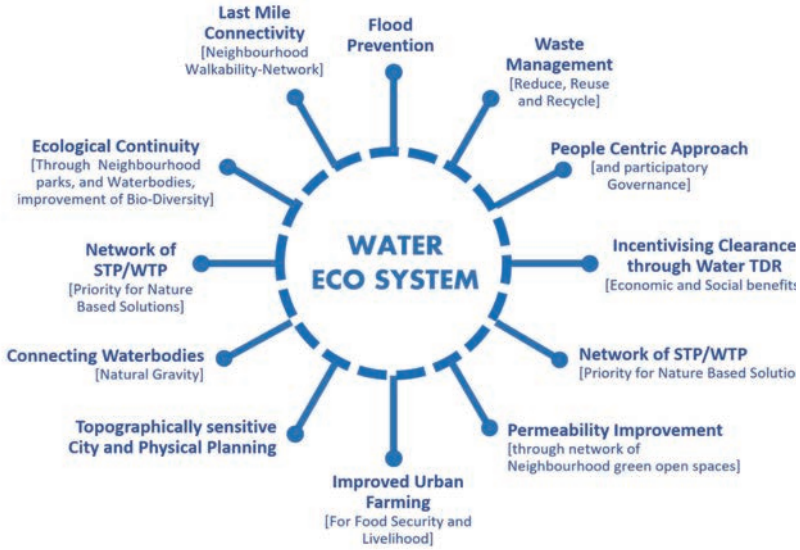
We propose a Change in mindset:

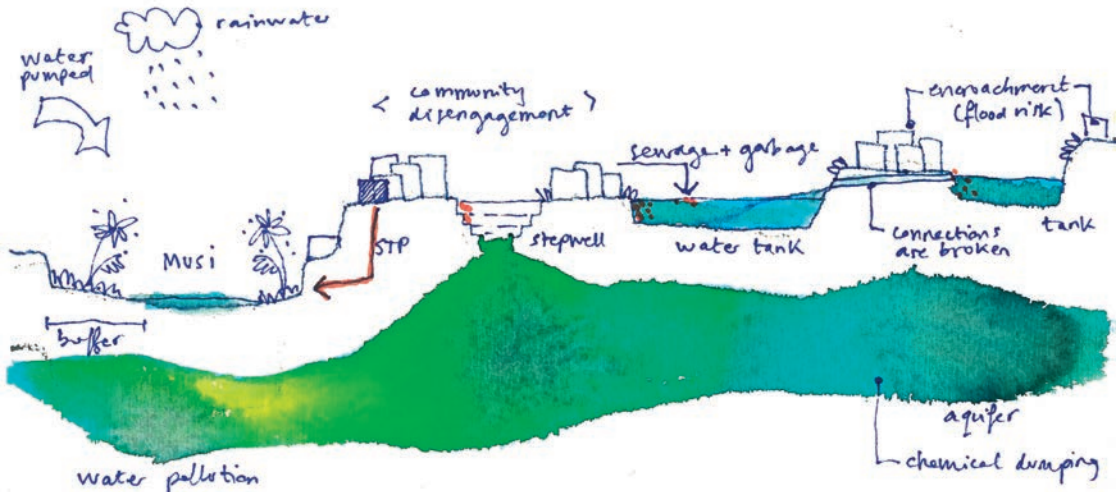
From **EXPLOIT AND MOVE ON MODEL**
to **BETTER ECOLOGY FOR BETTER ECONOMY**

PARTICIPATORY METHODOLOGY TO CONVERT CHALLENGES INTO OPPORTUNITIES



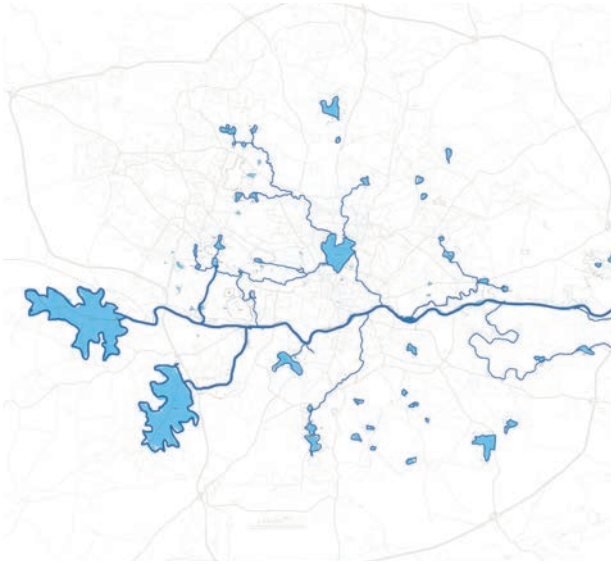
Urban challenges can be turned into opportunities via water ecosystem by bringing authorities, consultants and communities through NGOs on one stage to enable participatory process, which will lead to inclusive solutions that leads to the sense of ownership in communities.





Challenges of the water ecosystem in Hyderabad

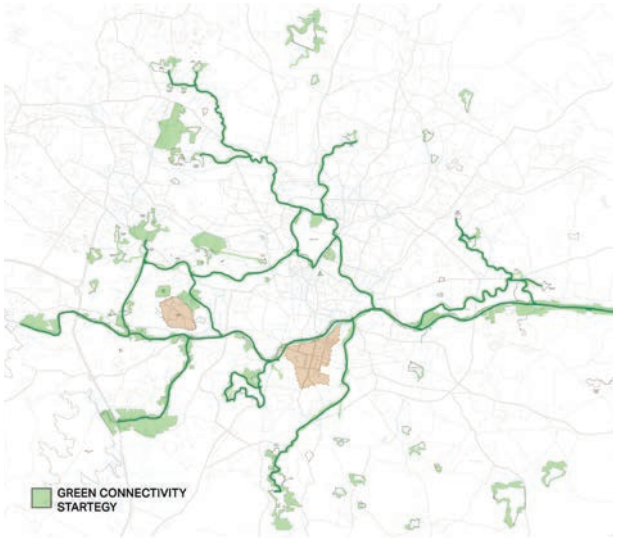
STRATEGIC LINES



Network of interconnected water bodies, stepwells and STPs

CLEAN AND CONNECTED WATER BODIES

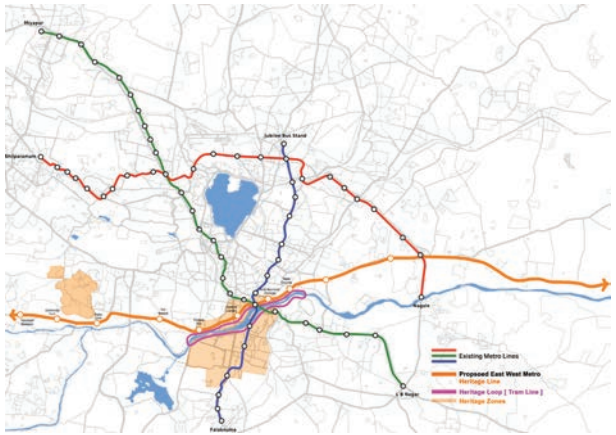
- Connection of water bodies
- Nala recuperation
- Domestic wastewater treatment through STP plan and NBS solution
- Chemical waste treatment
- Garbage treatment strategy
- Buffer area recuperation



Network of interconnected green corridors

GREEN & BLUE CORRIDORS

- Interconnected network of green and public spaces along water bodies
- Soil permeability for flood prevention
- Urban agriculture
- Ecological corridors for biodiversity improvement



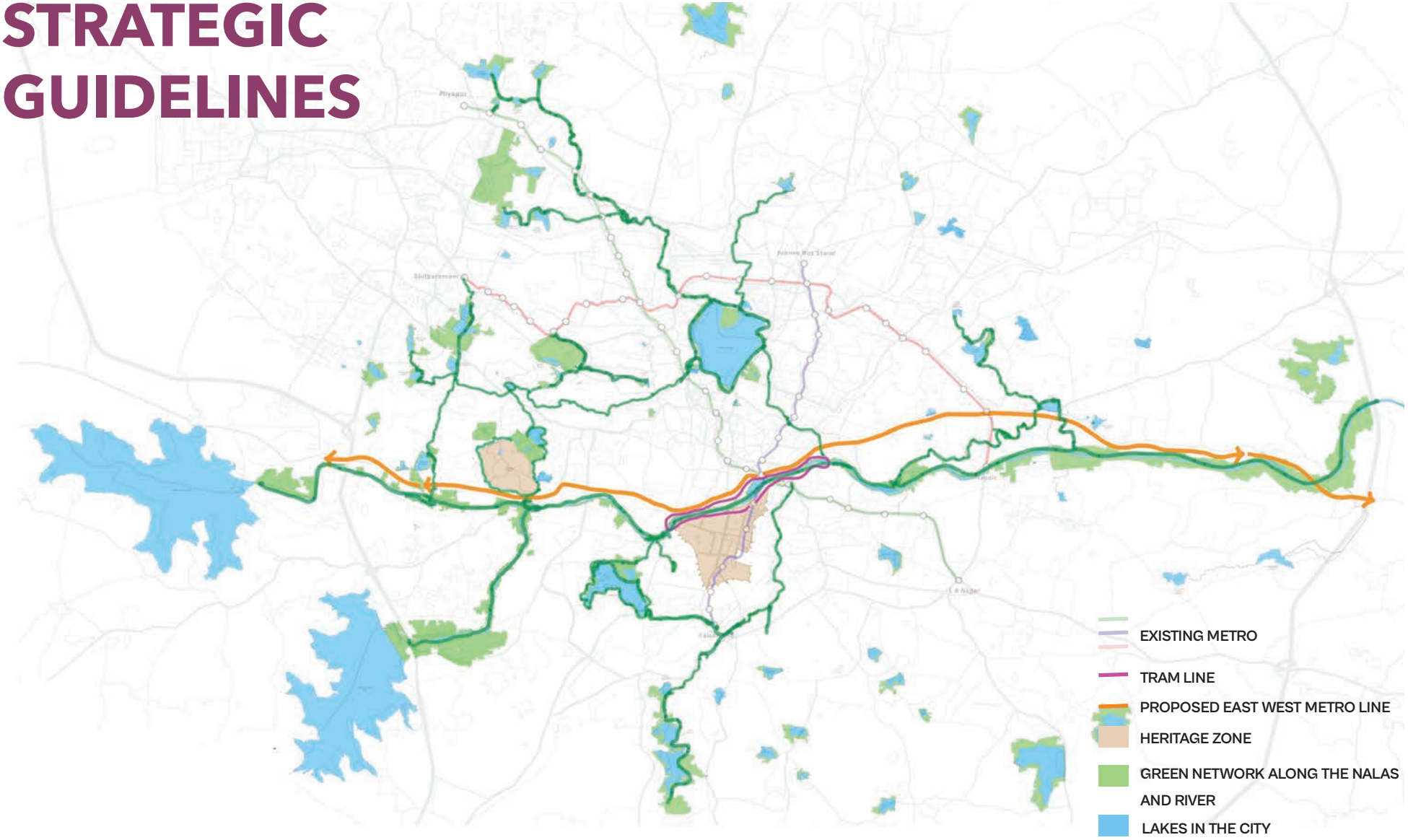
Network of existing and proposed transportation corridors

ACTIVE MOBILITY & QUALITY PUBLIC SPACE

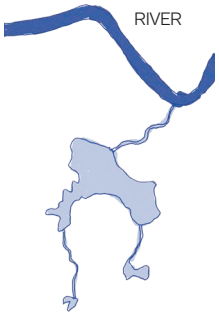
- Pedestrian continuity along water bodies (nalas, tanks and lakes and along Musi)
- Bycicle network along Musi
- New underground subway line for E-W metropolitan connection
- New tramway line along Musi river in proposed central Heritage area

COMMUNITY PARTICIPATION

STRATEGIC GUIDELINES

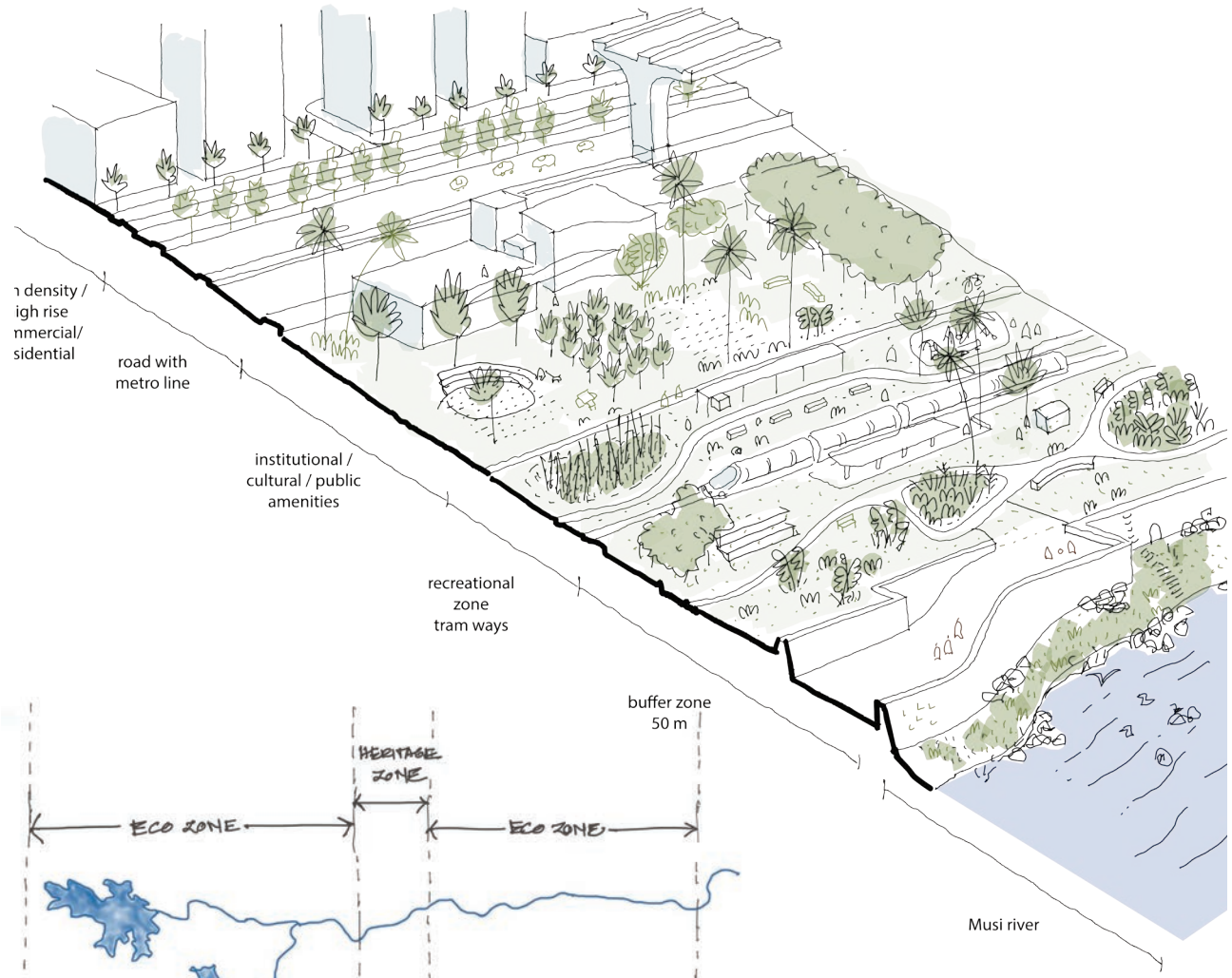


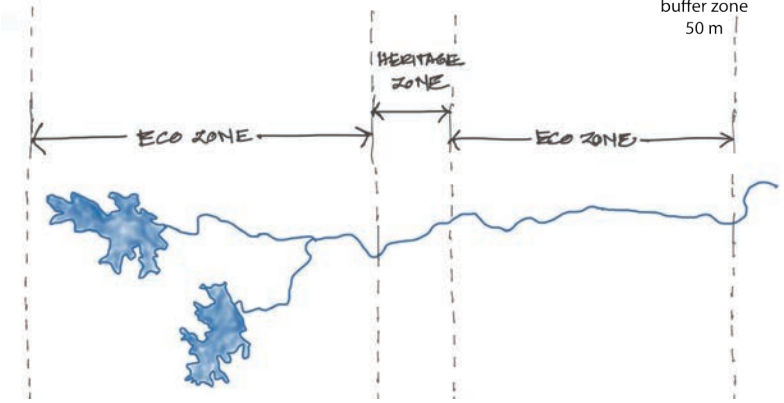
MUSI RIVER



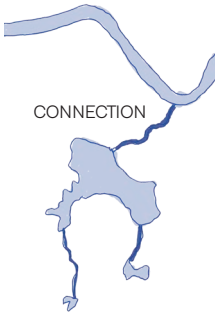
Development of the Musi Riverfront is one of the most important component. Revival of the River Water Eco System is directly linked to the revival of the water eco system at metropolitan level. In order to enhance further the management and maintenance of the river front, a balanced and ecological sensitive land use pattern and guidelines for built form must be adopted. Starting from the river edge, after the mandatory 50.0Mts Buffer Zone, a public recreational zone should be created with provision with Tarm Service in the Heritage Zone as a public transport system.

This zone should be followed with a low rise Low density zone to accommodate institutional, cultural, research and public amenities. A major heavy traffic road with provision for a Heritage Line Metro Line [running as East-West Corridor Line] will follow, and the farthest will be the High Rise High Density residential or commercial use.





NALAS

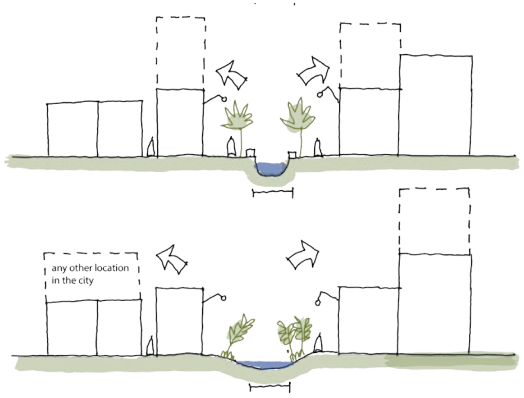


A network of green corridors and public spaces is proposed to be created along the Nalas or connections between water bodies.

This green network shoud connect different public spaces and facilities, green areas around lakes and tanks and allow to arrive to Musi river by foot in a safe and comfortable way.

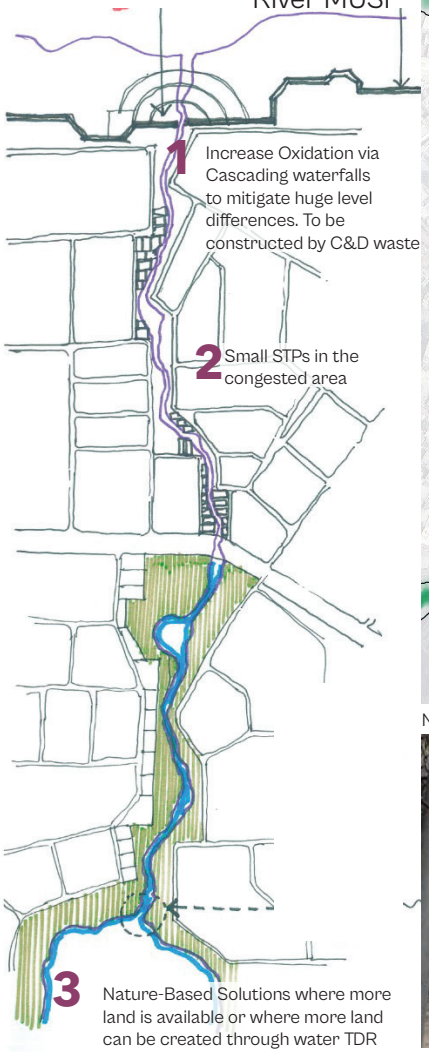
Water TDR (Transferrable development rights): concept to reconnect the blocked streams or reclaim space around or along the streams.

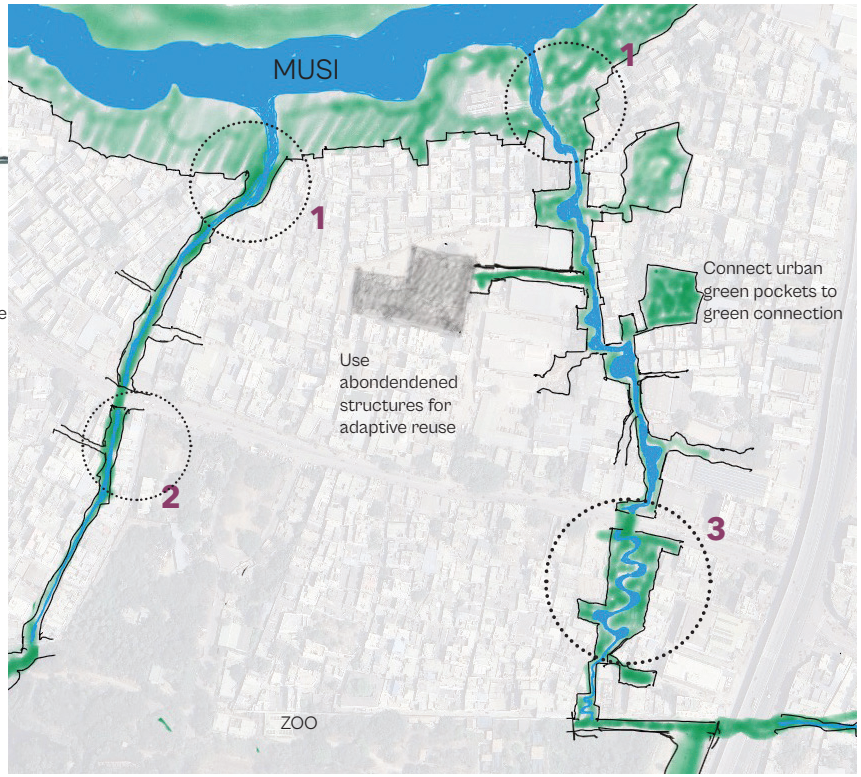
This concept is very similar to the TDR given to the legitimate properties while constructing the roads. 2 times more TDR is given to the properties along the streams for stream widening and at some points connection through properties.



Proposed section of Nala

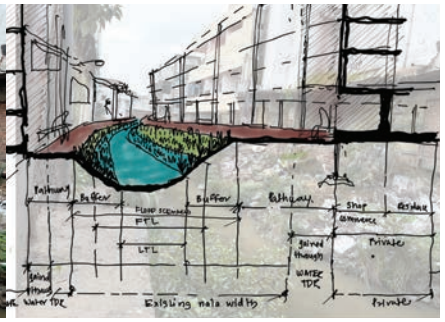
HYBRID STRATEGY FOR WATER PURIFICATION





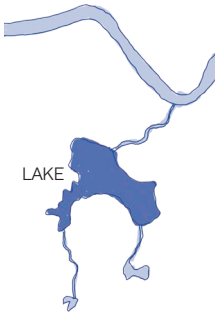
Nala Rejuvenation as connections from mir alam tank and Zoo entrance to Musi River

Existing



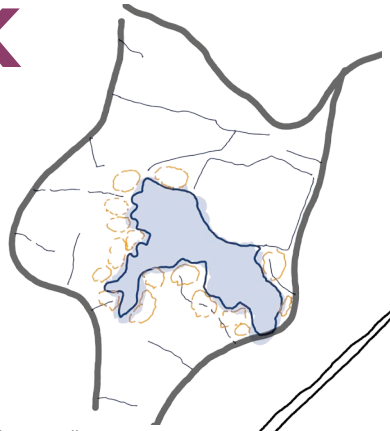
Proposed

MIR ALAM TANK

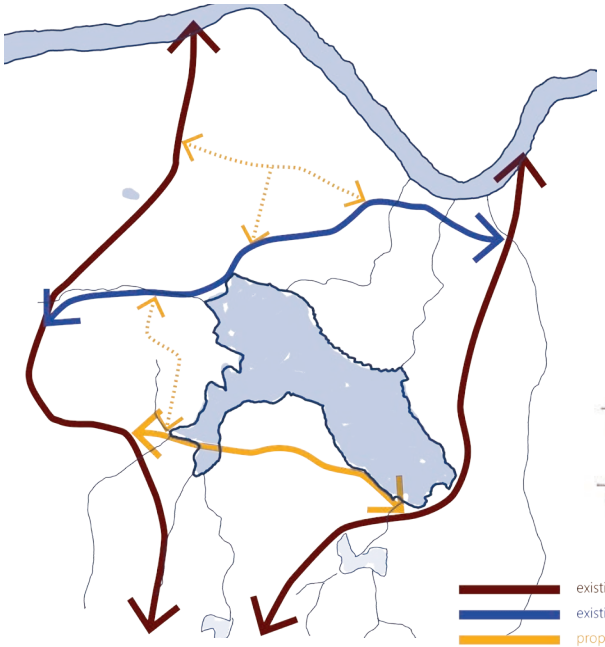


The proposal will connect this area with the rest of the city at a metropolitan scale creating some primary roads around it while maintaining the local character at the scale of the neighborhoods around it.

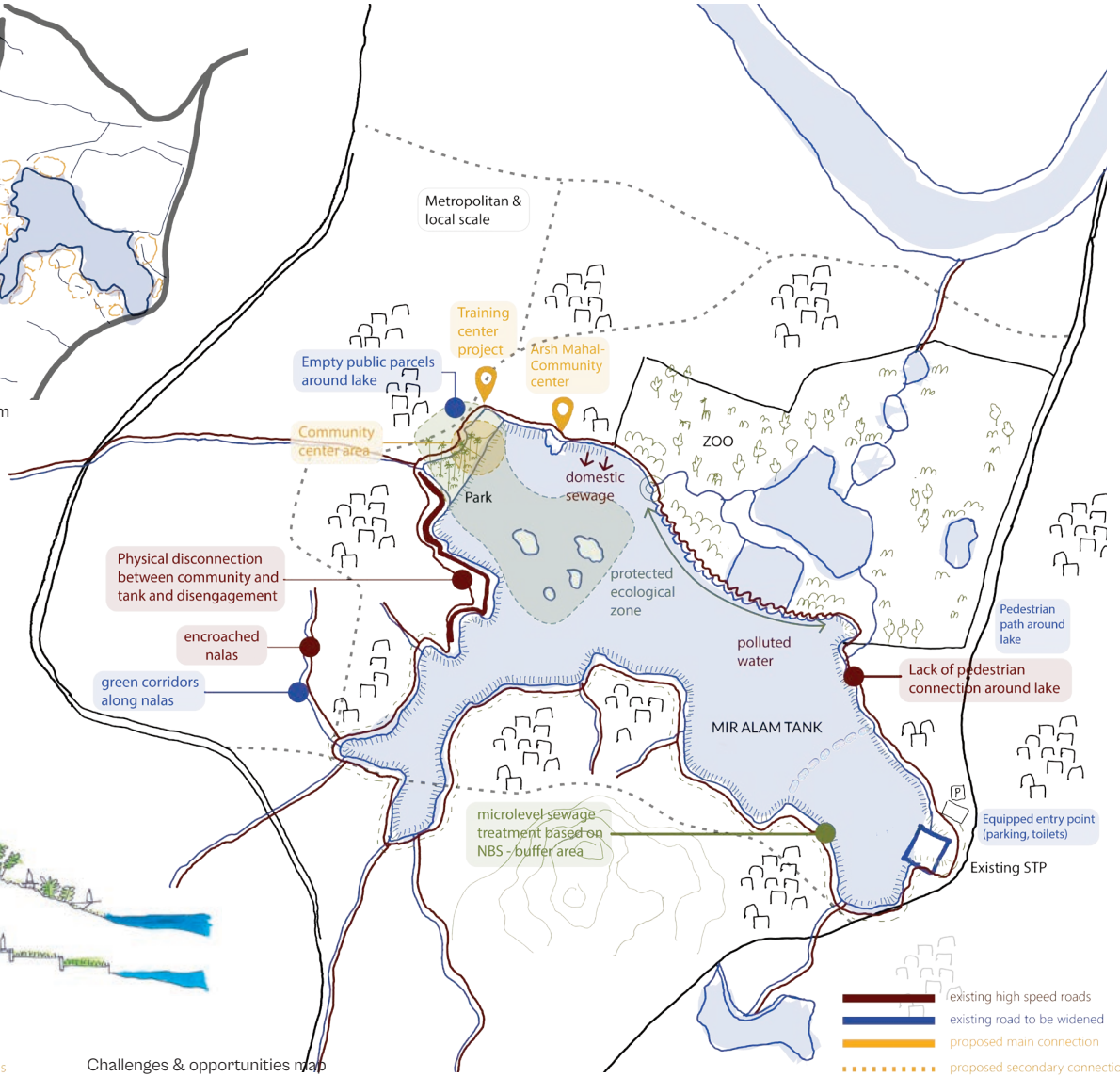
Challenges and opportunities on this area have been mapped.



Concept diagram



Proposed road connections



Challenges & opportunities map

Reconnecting Communities to Water Bodies: A Participatory Approach for Inclusive Governance and Policy-Making

.Challenges Highlighted by Citizens Regarding Quality of Life (field interviews)

Urban Infrastructure: Lack of quality spaces, poor connectivity, and insufficient public services

Safety Concerns: Women feel unsafe in public spaces,

Public Spaces & Water Bodies: Neglected, polluted, and harmful, especially for children.

Neighborhood Assets Supporting Development Around Mir Alam Tank

Environmental and Ecological Assets:

- Eco-sensitive zone featuring key natural assets:
  - The zoo as a local landmark.
  - Three crocodile islands with significant biodiversity.
  - A migratory bird habitat, offering opportunities for conservation and eco-tour
  - Recreational park used by a variety of public (ages,genres)

Community and diverse Stakeholder Engagement:

- Presence of active local NGOs with established engagement tools. e.g. Arch Mahal and HUL
- Identified and accessible community leaders facilitating grassroots mobilization.
- Independent social initiatives contributing to localized improvements.

Community Will and Participation:

- Strong willingness among residents to reconnect with Mir Alam Tank.
- High levels of enthusiasm for participating in efforts to enhance the neighborhood.

House of Common Waters: Experimental Hub for hybrid Participatory approach to Enhance local Quality of Life

Missions of the House of Common Waters :

- **Facilitate Tactical Urbanism process as a tool of experimentation:**
- **Foster Multi-Stakeholder Dialogue**
- **Promote and support community engagement**
- **Empower Through Education and Capacity Building**
- **Experiment with Nature-Based Solutions**
- **Monitor, Capitalize, and Scale Successes**

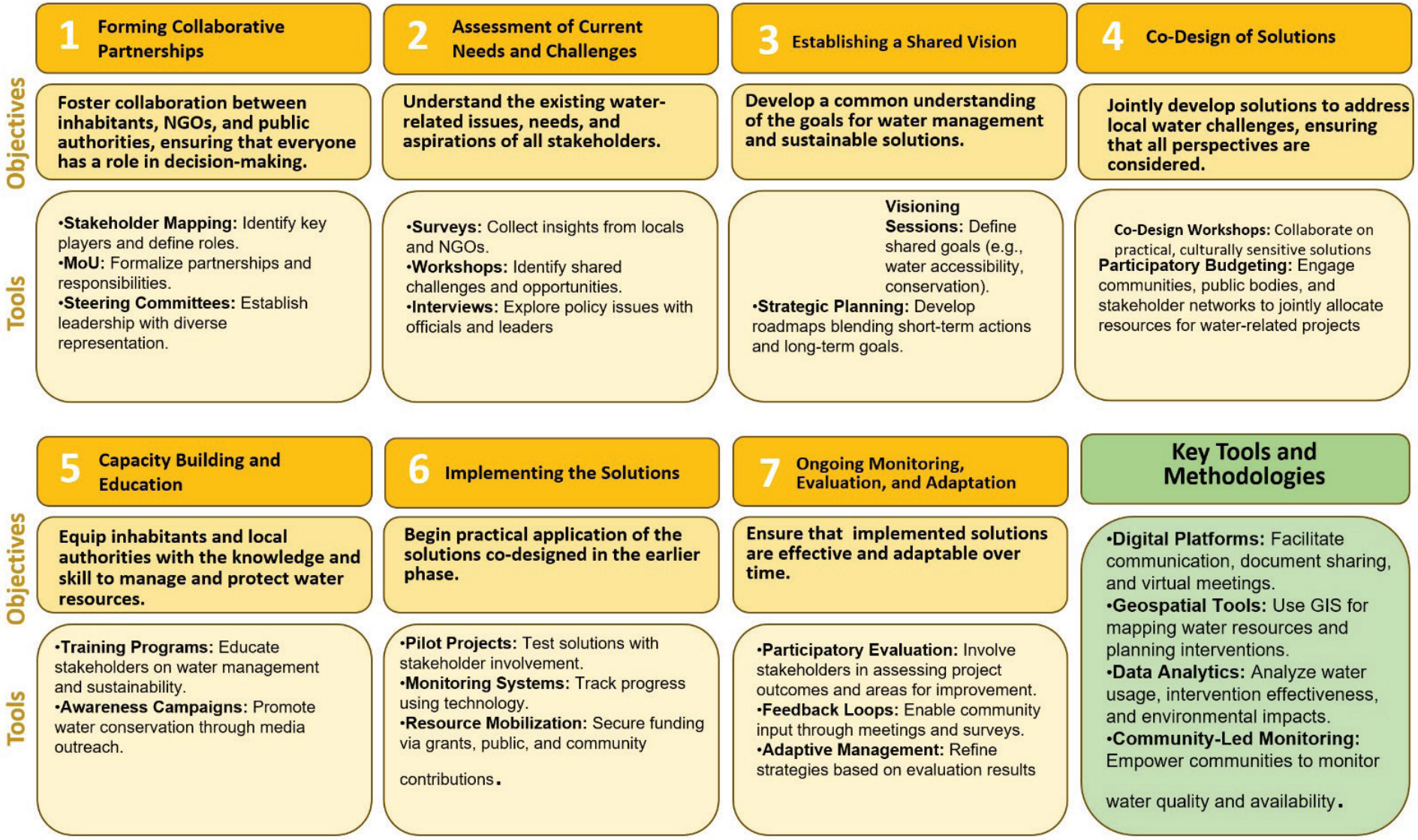
House of Common Waters Team composition

This interdisciplinary team ensures a collaborative, effective approach to water management and community improvement.

- **Urban Planning & Sustainability Project Manager:** Coordinates local actions with relevant public departments to ensure effective implementation and alignment with city policies.
- **Scientific Team (Water Expertise):** Hydrology, ecology, and water management experts to test/monitor nature-based solutions.
- **Community Organizers:** Facilitate engagement and participation, organizing training and collaborative initiatives.
- **Communication Team:** Raise awareness and create educational content to promote the project.

The Project holder could be a public body

- **Territorial Subsidiarity:** Local authorities ensure effective and adaptable management of urban spaces and water resources.
- **Key Actors Involved in financing :**
  - **GHMC**: Manage urban spaces and infrastructure.
  - **HMWSSB**: Oversee water supply and sewage systems.
  - RE sustainability `RAMKY . Waste management
  - **MAUD**: Implement sustainable urban development strategies.
  - **HMDA**: Supervise metropolitan urbanization policies.
  - **Corporate Social Responsability**: private corporate funds
  - **Residence Welfare Association**
  - **Crowd funding, foundation**…
- **Budget Potential:** Each public and CSR entity could allocate a percentage of its budget for implementing the House of common waters .


1 Forming Collaborative Partnerships
2 Assessment of Current Needs and Challenges
3 Establishing a Shared Vision
4 Co-Design of Solutions
Objectives
Foster collaboration between inhabitants, NGOs, and public authorities, ensuring that everyone has a role in decision-making.
Understand the existing water-related issues, needs, and aspirations of all stakeholders.
Develop a common understanding of the goals for water management and sustainable solutions.
Jointly develop solutions to address local water challenges, ensuring that all perspectives are considered.
Tools
•Stakeholder Mapping: Identify key players and define roles.
•MoU: Formalize partnerships and responsibilities.
•Steering Committees: Establish leadership with diverse representation.
•Surveys: Collect insights from locals and NGOs.
•Workshops: Identify shared challenges and opportunities.
•Interviews: Explore policy issues with officials and leaders
Visioning Sessions: Define shared goals (e.g., water accessibility, conservation).
•Strategic Planning: Develop roadmaps blending short-term actions and long-term goals.
Co-Design Workshops: Collaborate on practical, culturally sensitive solutions
Participatory Budgeting: Engage communities, public bodies, and stakeholder networks to jointly allocate resources for water-related projects
5 Capacity Building and Education
6 Implementing the Solutions
7 Ongoing Monitoring, Evaluation, and Adaptation
Key Tools and Methodologies
Objectives
Equip inhabitants and local authorities with the knowledge and skill to manage and protect water resources.
Begin practical application of the solutions co-designed in the earlier phase.
Ensure that implemented solutions are effective and adaptable over time.
Tools
•Training Programs: Educate stakeholders on water management and sustainability.
•Awareness Campaigns: Promote water conservation through media outreach.
•Pilot Projects: Test solutions with stakeholder involvement.
•Monitoring Systems: Track progress using technology.
•Resource Mobilization: Secure funding via grants, public, and community contributions.
•Participatory Evaluation: Involve stakeholders in assessing project outcomes and areas for improvement.
•Feedback Loops: Enable community input through meetings and surveys.
•Adaptive Management: Refine strategies based on evaluation results
•Digital Platforms: Facilitate communication, document sharing, and virtual meetings.
•Geospatial Tools: Use GIS for mapping water resources and planning interventions.
•Data Analytics: Analyze water usage, intervention effectiveness, and environmental impacts.
•Community-Led Monitoring: Empower communities to monitor water quality and availability.

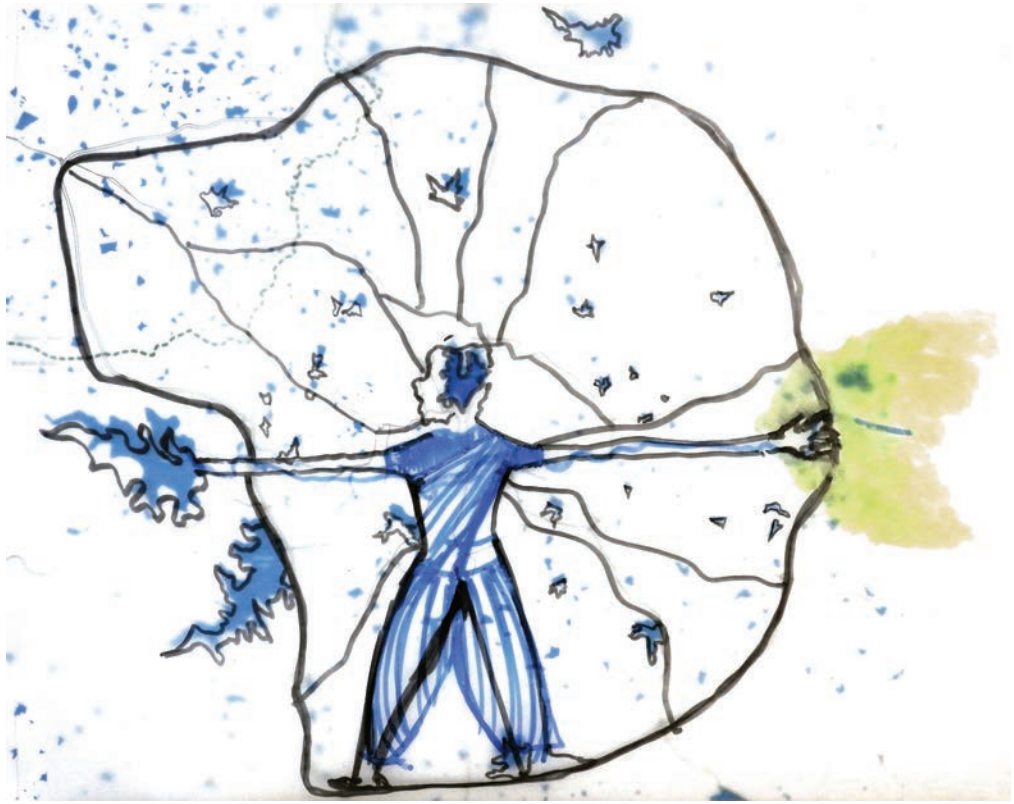

FLORENT CHIAPPERO
ASIM KHANAL
GITA GOVEN
JUDITH CHRISTIANA
SNEHA PARTHASARATHY

EDU TARALA MUCHKUNDA SAMRAKSHAKULU

GUARDIANS FOR 7 GENERATIONS OF MUSI

DEFINING A WATER VISION FOR HYDERABAD.

SWACH HYDERABAD. SWACH PANI. *CLEAN HYDERABAD. CLEAN WATER.*



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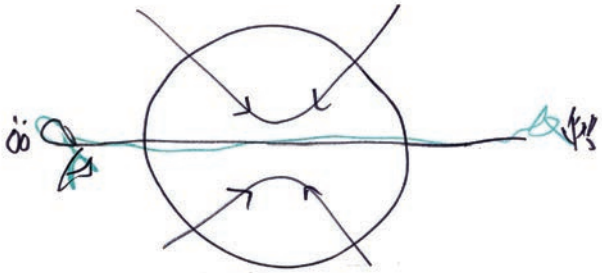


Legend: 1/ West-East corridor 2/Top-Down network 3/ Mix of uses and activities

'WATER VISION' FOR HYDERABAD

Located in a semi-arid biome of the Deccan and sitting on top of volcanic sub surface strata, the city of Hyderabad can be imagined as a collage of micro catchments. Water management and conservation in such a geography have been key to its growth from a medieval stronghold to a aspiring 21st century global powerhouse. Hyderabad is at a threshold of changing water dynamics and it becomes imperative to have a strategic 'Water Vision' towards achieving sustainable urban development.

Water and food are critical and remain so in this environment. The welcoming nature of people and urban opportunities invite investment. The current land use context poses problems of frequent flooding, multiple pollutions and an unsafe terrain and waterbodies that the city mostly turns its back on.

A system of beautiful, well-connected water waterbodies that have sustained and inspired life for generations have become disconnected and polluted. Rapid urbanisation, urban densification, ground hardening, trade, economic, industrial, phramaceutical, IT growth all have scales and volumes of impacts. Dumping to avoid services costs compound the problem. While, urban infrastructure is trying to catch up with the intensification needs of each sector, all water bodies and lands experience pollution. Ground hardening and loss of waterbodies reduce urban water retention capacity and hence causes flooding.

"A system of beautiful, well connected water waterbodies that have sustained and inspired life for generations have to be reconnected and regenerated."

4 CRITICAL QUESTIONS

Past

1) How can this water network be reinterpreted as a socio-cultural and environmental asset as a contemporary grey-blue-green infrastructure to regenerate people, planet and prosperity for 7 generations to come?

Present

2) What is the purpose of these waterbodies where potable water comes from mostly external sources?

3) How can the distinct culture of water and land; and its sacredness and meaning for people be recovered to provide equitable access to clean water, beautiful places, events and rituals, celebrate water?

Future

4) Inside this attractive regenerative landscape, how do industries and new opportunities contribute to regenerate this City and its people?

WATER AND WATER SPACE USERS

- People are still connected to the water.
- Communities around lakes and rivers.
- Rituals – ecological and regenerative practices.
- Dhobis – processers up to 30 % of urban domestic water uses for clothes washing.
- Worshippers at temples and sacred spaces as guardians of water and nature and people.
- People seeking recreational opportunities.
- Garbage collectors.
- Education and research institutions.

WHAT IS CURRENTLY HAPPENING?

GOVERNMENT PROJECTS

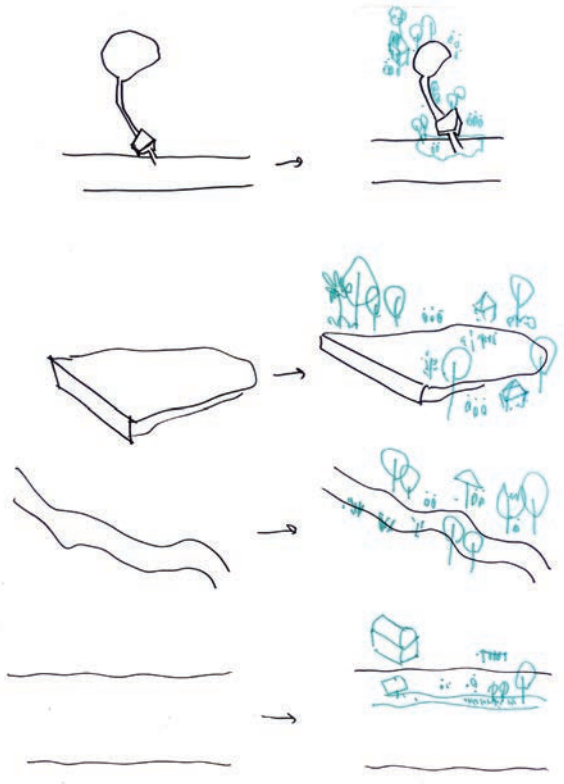
In progress

- Musi Riverfront Development Corporation.
- Meeralam tank upgrades are in progress.

Early development stage

- Outer Ring Road, Regional Ring Road and the West East corridor,
- Riverfront development.
- Sewage Treatment Plants to clean up existing water entering the Musi river, solid waste removal system.
- Construction and Demolition waste collection and processes ; development zones, mapping to clear River buffer Zones, mapping of vacant land along the Musi River are all underway.
- Solid waste collection and recovery programs are also in place.

A WHOLE-SYSTEMS APPROACH CONNECTING GREY, GREEN AND BLUE INFRASTRUCTURES FOR REGENERATIVE URBAN WATER MANAGEMENT.



Legend: 1/ Network from top to down 2/ 3 typologies: tanks, lanas, rivers

WATER VISION

The odor of the water as the first indicator towards successful regeneration

The ability to swim without adverse health impact as the second indicator.

The potable quality of water as the third indicator.

OPPORTUNITIES IDENTIFICATION

- Fed from a system of lakes from further catchments beyond urban edge.
- North edges: undulating steep volcanic rock mosaic with forest and savannah
- South edges: Musi adjacent land flatter with undulating topography beyond
- Underlying pockets of perched and deeper aquifers – localised water sources
- West side: incoming connected upstream waters still potable – flooding risk
- East side Downstream daily and seasonal cycles of water to match peri -urban farming demand Musi river retention and incoming channels to be kept clear.

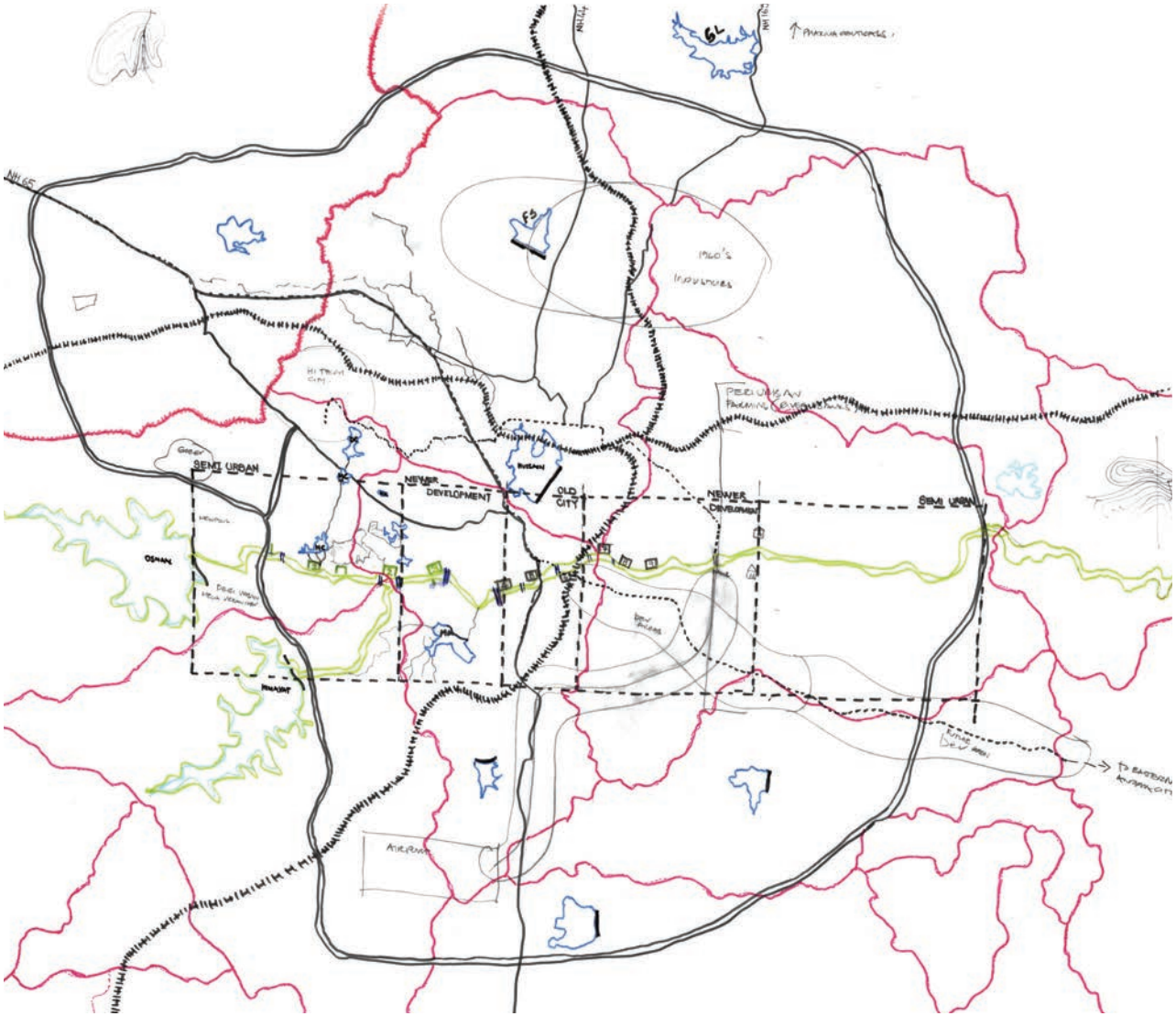
STATUS-QUO ANALYSIS

URBAN SPATIAL CONTEXT AND POLLUTION IMPACT SECTORS

- Assess Urban development frames as future development informants.
- 7 bridges 9 x 2 'development zones' connected to sub-catchments – theming informed by landuse, grey blue green systems.
- Older dense settlement – runoff and urban heat island effect
- Older sites linked to forests and lakes.
- Newer density zones – poor/ no sewage connectivity.
- Loss of open space systems and biodiversity – generally.
- Special activity zones: pharma, Industry, hi tech- sewage and runoff problems , urban heat island effect.
- Ecroachments and polution in all waterbodies.
- Bridges and accessible areas are connectors and prone to dumping.

ANALYSIS SUMMARY

- Complete adequate urban infrastructure : separate stormwater, sewage and solid waste collection and treatment systems needed.
- Compact grid connected off grid sewage treatment is needed in growth areas.
- Swach Hyderabad , Swach pani - All other systems are phased treatment chains for producing safe water.
- Each water shed working together for Swach Musi.
- Bridges that connect and theme Musi RIver development zones to be restored.
- Need to asses, revalue and redesign targeted reconnection of urban natural and green and blue technologies and space assets.
- Stepwells, Kuntas, Lakes, Sagars, Nalas, 75 to 55 m River edge urban and seasonal effects.
- Forests and land areas work with waterbodies.



Legend: mapping of catchments, development zones, impact producers and connected water bodies about the Musi River.

OPPORTUNITIES

1.
FRAMING A MULTI-PHASE WATER VISION

2.
TECHNICAL AND ACTION MANUAL FOR PHASED GREY-BLUE-GREEN SOLUTIONS FOR EACH CATCHMENT

3.
UTILISING EXISTING WATER SYSTEMS TO PROVIDE INTEGRATED URBAN WATER MANAGEMENT AND ECO-SERVICES

4.
PLACE MAKING AND COMMUNITY ENGAGEMENT

5.
EDUCATION, AWARENESS AND KNOWLEDGE TRANSFER

6.
REDEFINING STP AS "SEWAGE THEME PARK"

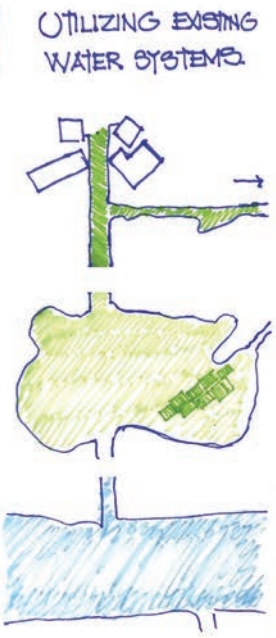
7.
STRENGTHENING THE LOCAL ECONOMY

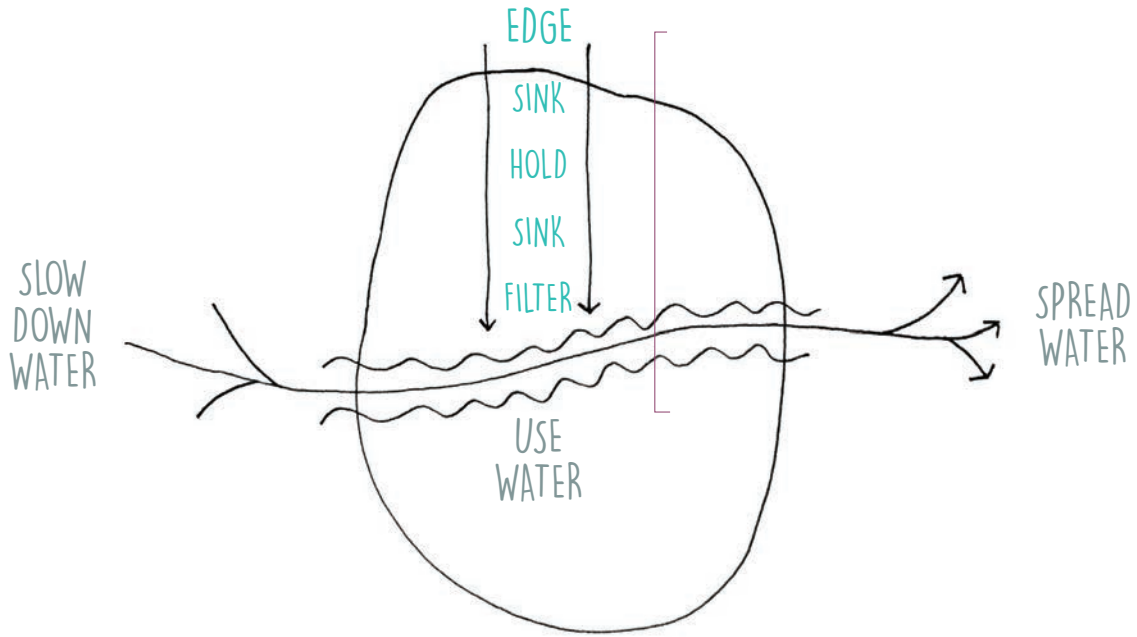
8.
GIG ECONOMY, NUTRIENT AND RESOURCE CIRCULAR ECONOMY

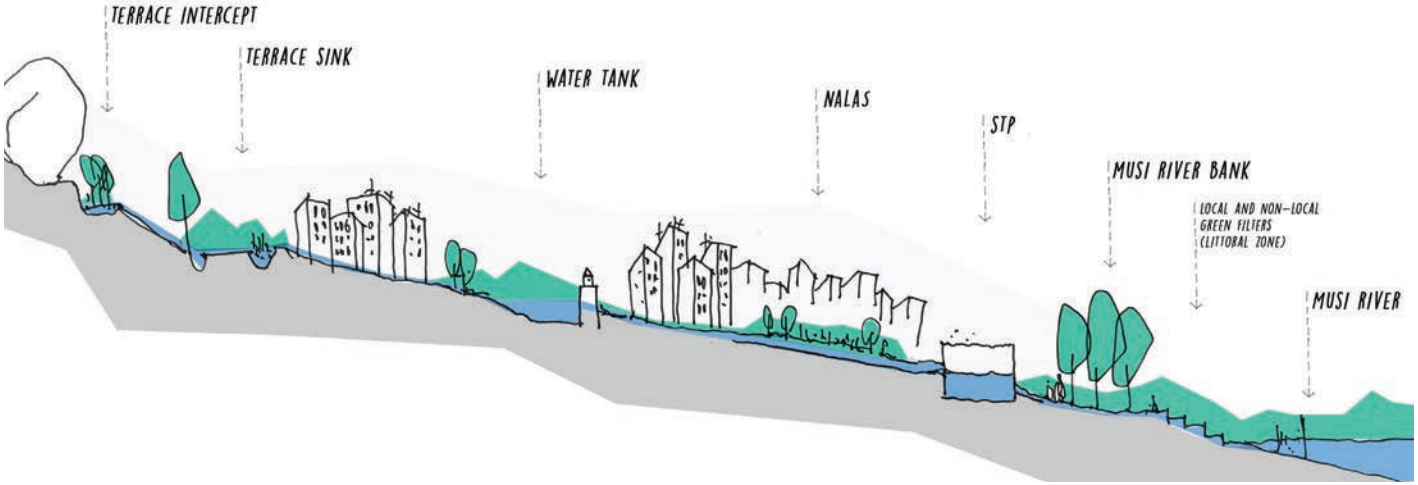
A WHOLE SYSTEMS APPROACH

Goal: Mitigate monsoon and extreme flooding, optimise summer recharge and recover and reuse nutrients. In a whole-systems approach the economy serves the people who in turn serve the land. All waste and pollutants are recovered as resources for new businesses.

Governance: At each scale direct stakeholders engage in activity to regenerate the places and spaces around them with shared access and responsibility for their place. Larger impact producers work together with smaller stakeholders who are able to tend the human, ecological, and man-made systems in healing and regenerating land, water and resource regeneration capabilities. All communities finally connect to the Musi-river based regenerative development node.







EDGE

COMMONS

TREES, BAMBOOS, FOREST FOODS

INTERCEPTS INCOMING WATER, RECHARGES AQUIFER, FLOOD PREVENTION

MANAGE RESOURCE HAVESTING –FRUITS, NUTS, SPICES, OILS, HONEY, RAISINS–,
CONSTRUCTION RELATED HARVESTING

PPP MODEL.

SINK

STREET FORESTS, LARGE NALAS, BAMBOOS AND HEMP.

SLOW DOWN RUNOFF,
RECHARGE AQUIFER, FILTER WATER.

FOOD, FORESTRY
AND INDUSTRY PRODUCTS.

CATCHMENT BASED BUSINESSES, PPP MODEL.

HOLD

STEPWELLS, NALAS, KUNTAS, LAKES, SAGARS.

RETAINTION, FILTER, DETENTION, FILTER, CLEAN.

CLEAN–DESILT–REUSE
REDUCE HEAT ISLAND EFFECT
PUBLIC SPACE.

BIOGAS, NUTRIMENTS AND ENERGY BUSINESS, CIRCULAR ECONOMY.

FILTER

ORGANIC GREEN PRODUCTIVE TERRACES ,
LOW INVESTMENT GREENSCAPE,
HIGH INVESTMENT LANDSCAPE.

URBAN FOOD PRODUCTION, DHOBIS, PUBLIC RECREATIONAL ZONES AND PARKS, BUSINESSES AND PUBLICS SPACES.

CUSTODIANSHIP AND PROVIDE FRESH FOOD, PRODUCTIVE AND RECREATIVE, PUBLICS SPACES, PRIVATE AND CORPORATE BUSINESS AND PUBLIC SPACES.

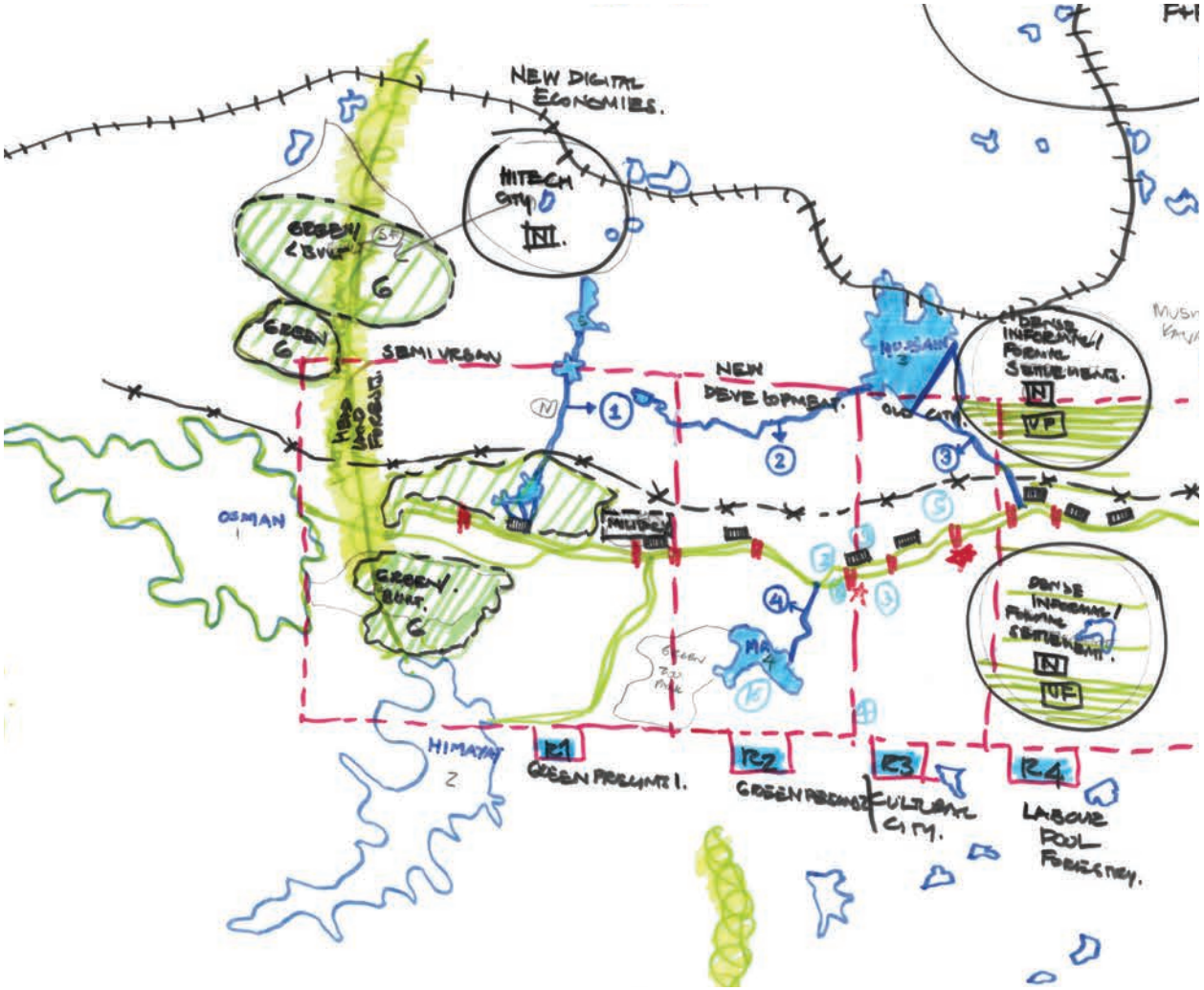
COOPERATIVE PPPP MODEL,
COMMUNITY–BASED PPP MODEL.

ONE CATCHMENT AND SUB CATCHMENTS

In the example shown here:

- Forested areas in the uplands serve to slow down the rain water runoff. This assists with offsetting the ground hardening in the high-density areas which have low ground porosity. Porosity and recharge is recovered by using sustainable urban drainage systems and raingardens.
- Compact on site or neighbourhood sanitation treatment can support the discharge of clean water into the nalas.
- Nalas use enzyme treatment and phytoremediation over a phased process to clean up existing pollutants,
- A system of connected Lakes receive these cleaner waters through wetlands and phyto remediation zones that take up heavy metals and runoff pollutants.
- Dredged lakes recover the detention and retention capacity of these water bodies and support the recharge of stepwells.
- Nalas take the waters to the final steps, that finally remove nutrients and urban pollutants.
- Finally, the river edge forests receive and slow down the water runoff and recharge the water and river zone.
- Each sub-catchment hub in the Musi River has a unique expression.

All scales of inspiring spaces celebrate and express the unique spirit of life, culture, nature and community in Hyderabad.



Legend: water system in the Hyderabad context.

TESTING GROUND FOR IDEAS

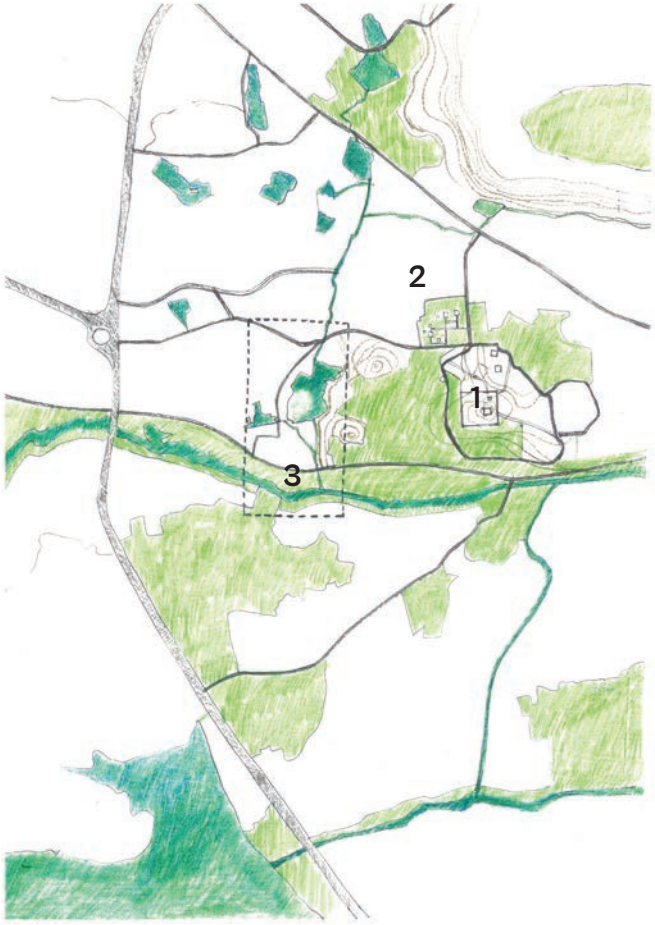
Based on our analysis of the existing water system, urban development and accompanying solid waste and sewage problem, and also, based on a series of site visits, we decided to recommend some design approaches for a semi-urban lake in Hyderabad.

The less intensive urban development in this peripheral region near the ORR (Outer Ring Road) provides an opportunity to restore the lake before the water quality deteriorates to an extent where the ecosystem is lost. The diversity and number of birds observed in the site hints at a functioning ecosystem.

Moreover, the lakeshore still has an active use as a site for cattle grazing and herding. The presence of various communities with active links with the lakefront through their temples, graveyards, or simply residences, provides another opportunity to create custodians for the lake.



Legend: 1/ Indian Pond Heron 2/ Green Bee Eater 3/ Swamphen



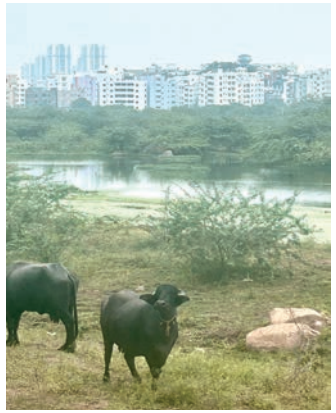
Legend: 1/ Golconda Fort 2/ Qutub Sahi Tombs 3/ Taramati Baradari

BRING THE DUCKS BACK!

URBAN WATER SYSTEMS AS A SITES OF ACTION

The location of this site offers a potential to reimagine it as a trail that connects the landmarks such as Golconda Fort, and Qutub Shahi Tombs in the north, and Taramati Baradari and Musi river in the south, The existing livelihood and cultural connections can be capitalized to form responsible custodians for the lake. The incoming sewage and solid waste disposal, and unofficial dumping of concrete has not reached the intensity that is comparable to the central city area. Thus, it could be the right time to intervene.

A heritage walk offers seasonal experience of a changing ecosystem through phases and through seasonal connected lake system and walkaways.



· Incoming Nalas and Rivers with filter and treatment interceptors

· Temples at entry and exit points

· Seasonal Wetlands

· Seasonal Productive zones

· Floating islands and bird hides

· Event spaces for lake regeneration ceremonial rituals

· Recovered materials and nutrient depots connected to businesses

Up: example of a waterbody connected to the Musi
Left: photo from the west side of the lake

PLACEMAKING VISION

COMMUNITY ENGAGEMENT

to encourage empowerment and organize future maintenance

TEST & LEARN PROCESSES

to assess the need and revised solutions for a better tomorrow

SMALL-SCALE ACTIONS

to get some quick-win dynamics

04
THE PANEL


les Ateliers
AFD
Water & Metropolitanisation
International urban workshop in Hyderabad

INTRO

The international urban workshop culminates in the final restitution, during which the three teams share their work from the past fifteen days to a jury panel. The guests of hounours and jury panel comprises a range of local and international experts, including elected representatives, local authorities officials, Indo-French cooperation stakeholders, academics, non-profit organisations, private practitioners, and representatives from Hyderabad. A diverse panel aims to ensure the momentum of the ideas beyond the workshop.

The role of the jury members is to foster a constructive discussion around the three projects. The objective is not to award a specific team, but to lead a debate to identify the most relevant, appropriate and innovative strategies and proposals, and to consider how these proposals could open visions and new perspectives for Hyderabad and its water ecosystems, and how these visions can be strengthened.

CHIEF GUEST

Sri Anumala Revanth Reddy

Chief Minister,
Government of Telangana

"We are on a mission to reimagine the future of Hyderabad, where both the past and future are living entities, enriching the present. We will recover and restore our environmental legacy, water bodies, clean the air and soil, rejuvenate river Musi and our lakes, and conserve our historical heritage and monuments. The Musi Riverfront Development project addresses complex water management and mobility challenges by leveraging innovative technological. The project aims to expedite progress in the city's landscape in an impact area of 1 km on either side. The project shall embrace advanced urban design, energy and material efficiency."

GUESTS OF HONOUR

Mr Thierry Mathou

French Ambassador in India

Mr Pierre-André Périssol

President of Les Ateliers,
Mayor of Moulins,
Former Minister of Housing in France

Sri Dana Kishore

Principal Secretary,
Muncipal Administration & Urban Development,
Government of Telangana ;
Managing Director, Musi Riverfront Development
Corporation Limited (MRDCL)

Sri Sarfaraz Ahmad

Hyderabad Metropolitan Development
Authority (HMDA) Commissioner,
Municipal Administration & Urban
Development, Government of Telangana

Sri K. Shashanka

State Flagship Projects Commissioner,
Muncipal Administration & Urban
Development, Government of Telangana

Ms Lise Breuil

Country Director, French Development
Agency (AFD) in India

Mr Benoit Gauthier

Minister Counsellor,
Head of Regional Economic Department,
Embassy of France in India

JURY MEMBERS

Ms Eva Nilsson

Deputy Conselour,
Embassy of Finland India

Dr Senhalatha Mekala

Associate Professor,
Administrative Staff
College of India

Dr Debolina Kundu

Director, National Institute
of Urban Affairs (NIUA)

Dr Anant Maringanti

Director, Hyderabad Urban
Lab (HUL)

Dr Jayati Chourey

Exectuive Director, South
Asia Consortium for
Interdisciplinary Studies
(SACIwaters)

Mr Maheep Thapar Singh

Urban Planning Expert

Mr Jean Grébert

Mobility and transportation
expert, Les Ateliers

Mr Rohith Lahoti

Urban Development
Practitioner - Program
Manager - Urban
Development at WRI India

Ms Poonam Pillai

Senior Disaster Risk
Management Specialist,
World Bank

Mr Benjamin Matthews John

Senior Disaster Risk
Management Specialist, World
Bank

05 WHO'S WHO OF THE WORKSHOP

Avinash Kumar

India

Urban and Regional Planning & Policy Advisory

avinash@hashtagpercapita.com

I am focused on "Empowering Sustainable Futures through Data, Innovation, and Advocacy in Water and Sanitation". I am an entrepreneur, consultant and researcher with 13+ years of professional and academic experience in planning and policy advisory, with a specialized focus on the water and sanitation sectors. My work involves experience on numerous water, solid and liquid waste management projects across 70+ cities in India, 30+ cities in Bangladesh, over six cities in Afghanistan, and two cities in Cambodia. Presently, I run my start-up Hashtag Percapita and provide freelance advisory to water and sanitation projects. Apart from my experience in consulting, I deliver guest lectures from time to time at TISS Hyderabad, CEPT University, Ahmedabad and SPA, New Delhi.

Hugo Rubio

France

Agriculture and Urban Planning

h.rubio@gmx.fr

I'm an agro-development engineer specialized in land use planning (urban and rural). I have an atypical career path and I'm now working in an innovative design company. I have a capacity to make bridges between specialists understanding both researchers, designers, politics or business manager and I'm sure that analyzing complexity is the key to achieve great projects. Interest/ expertise: land use/planning, economy, hydrology, agronomy, environment, politics, traditional know-how. I also love to debate, do sport and seek solutions...the mediums I explore.

Isabel Nanga

Angola

Architecture, Woodworking, Art

isabel.nanga@outlook.fr

I'm Isabel Nanga, an angolan architect trained and living in France, interested in an transdisciplinary and site sensitive approach of architecture. I've worked in Angola, notably on promoting rainwater harvesting in the formal/unformal district of Prenda, and in France, notably on the design and participatory building of Aoyama florist stall. With the goal of learning how to build in order to design better, I've become a member of a team of volunteers working in small carpentry construction sites, and lately on a historic stone masonry restoration project. Aside from being an architect, I'm trained in woodworking and I'm also a visual artist working on drawings, paintings, sculptures, animation and I really like to draw from and to combine these different disciplines and techniques, inclusively with architecture.

Mansee Bal Bhargava

India

Water Governance

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Mansee is a listener and learner besides, an entrepreneur, researcher, educator, speaker, and mentor. Her engagement is in architecture, design, planning, management, and governance of the built environment. With belief in sustainability and liveability, in a journey close to three decades, she has developed her concerns over water matters besides curiosity on managing the knowledge about them.

She is the Founder-Director of WforW Foundation (www.wforw.in), and Research Entrepreneur at Environmental Design Consultants Ahmedabad (www.edc.org.in). She holds the position of National President at the Water Resources Council of the Women's Indian Chamber of Commerce and Industry.

Sebastián Miguel

Argentina

Urban and Architectural Environmental Design, Conceptual Art

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Architect (2000) and Master degree in Architectural Design (2007) both from University of Buenos Aires, Argentina. Researcher and teacher with international experience in projects of urban agriculture, social housing design with environmental contributions. Several experiences in restoration of water contaminated basins and interventions in informal settlements. High knowledge in clean technologies and renewable energies. Principal of a small architectural office developing a variety of sustainable projects. Conceptual artist working in different formats and scales: drawings, paintings and installations.

Akil Amiraly

France

Water Management

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Akil Amiraly is an associate researcher at the Chair Energy and Prosperity (Institut Louis Bachelier, Paris). His research concerns the provision of basic services (water, energy, mobility) by public and private operators in developing cities (mostly in India and in East-Africa). He looks at the diffusion and appropriation of novel technical elements (e.g. metering water, electrifying mobility) in urban infrastructure systems. With an interdisciplinary perspective, he studies the interaction between service providers, their technologies and human behaviour, based on fieldwork.

Laila Melaz

France

Urban Resilience, Capacity Building

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Laïla Melaz is a French project management expert with 18 years of experience driving innovative urban renewal initiatives. She specializes in strategic planning, capacity building, and governance, crafting public policies that promote sustainability and resilient urban development. Dedicated to fostering inclusive and effective stakeholder networks, she unites citizens, experts, and officials to achieve impactful results. Her work integrates circular economy, climate adaptation, and urban innovation, combining strategic insight with hands- on action to deliver transformative solutions that enhance living conditions and urban resilience.

María Tula García Méndez

Spain

Strategic Planning, Communication & Illustration

miradasdesdeelatico@gmail.com

Architect and Urban Planner from the Polytechnic University of Madrid, specialized in Urban and Strategic Planning and Environment. Currently finishing a Master's Degree in Arts.

I have experience leading and working on proposals for urban regeneration and re-naturalization, strategic urban plans and landscape and public space designs, as well as projects specializing in communicating and illustrating complex urban and territorial processes.

In my work, drawing and mapping serve as essential tools for research, ideation, communication, formal exploration and critical reflection.

Pratik Devi

India

Architecture and Urban design

pratikdevi@gmail.com

Architect, urban designer and academician with experience over 12 years in developing institutional and planning projects of national and international scales. Worked and nourished for 6 years under thought process of Ar. B.V. Doshi. Strong analytical, design and communication skills with understanding of management and economic aspects of project on various stages of design to execution. Strong grass-root knowledge of working techniques, implementation strategies and co ordination with government bodies in India. Interested in traditional water sensitive urban design & architecture and thinking sustainability through traditional wisdom. Strong believer of blurring boundaries between scales of spatial and socioeconomic planning, architecture, governance and policy making.

Srinivas Murthy

India

Urban History, Urban Design, Architecture and Design

smg@smg.co.in

Srinivas Murthy G., an urbanist, a practicing architect, academician and a social entrepreneur, is a leading architectural design consultant with a worldwide arena of professional engagement. Srinivas Murthy G., graduated with distinction, form the School of Planning and Architecture, New Delhi in 1991. He is the founder and principal architect of his studio practice "SMG Design Inc."

Popularly known as SMG, he established Architecture and Design Foundation [India]- an organisation dedicated to spreading awareness about values of good design and architecture amongst common people. He also co-founded the world Association of Architectural Organisations [AAO] Chicago, a network of like minded design organisations dedicated to enhancing public dialogue about architecture and design.

Asim Khanal

Nepal

Urban Nature Design, Spatial Analysis, Urban Planning

khanal.asim73@gmail.com

Asim Khanal is an urban planner/ researcher interested in understanding how public spaces along shorelines are experienced by diverse user groups. He intends to push the theoretical interpretation and practical implementation of 'access' by integrating the dimensions of vision and touch. In addition to the aforementioned themes, in his doctoral dissertation, he is also using third-party big data to estimate spatio-temporal use dynamics of public spaces along shorelines.

Gita Goven

South Africa

Regenerative Systems Design and Development

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Gita Goven is an architect, sustainability specialist, and thought leader in regenerative city building. With over 35 years of experience, she is the CEO of ARG Design, Chair of Africa123, and Chair of Milkwood Holdings. Driven by a passion for creating regenerative cities, Gita transcends traditional boundaries. She convenes diverse experts, fosters collaborative governance, and advocates for nature-based solutions, circular economy principles, and utilising sustainable materials in city building.

Florent Chiappero

France

Architecture and Urban Design

florent@studiobainem.com

I'm responsive, curious and used to working in a variety of contexts. I have extensive experience in collaborative work, which I have been practicing, sharing and teaching for many years. I've acquired significant experience in collective urban planning on multiples scales, with public local authorities as much as users, inhabitants and community leaders.

Judith Christiana

India

Grassroots Implementation

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Ms. Judith Christiana serves as the Manager of Grassroots Implementation at SaciWATERs and holds a PG Diploma in Management (Human Resources). She joined SaciWATERs in 2015. Prior to joining SaciWATERs, she was with the International Water Management Institute, Hyderabad, as Senior Administrative Officer. With over 20 years of experience in the development sector, at SaciWATERs she has held diverse roles facilitating project execution on the ground. Her extensive expertise includes community engagement, with a special emphasis on women and girls, in various WASH initiatives. Recently, she has been involved in empowering women in urban slums across Hyderabad. She is also involved in a program that addresses reproductive health challenges among women in the Sundarbans.

Sneha Parthasarathy

India

Architecture

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Sneha Parthasarathy is Co-Founder and Principal Architect at deccan amalgam (2016), a Hyderabad based architecture studio. She has a Master's degree in Advanced Studies in Architecture from ETSAB, UPC, Barcelona (2016) .Since 2020 she has also been working in the capacity of Consulting Architect at DMS Qatar. At deccan amalgam, Sneha, has been involved on various projects related to water heritage and conservation. These include preparation of masterplan and DPR for lake and waterbody restoration projects, in the city of Hyderabad. Since 2016 she was also part of the research team of HDF and was working on the book titled 'The Forgotten Stepwells of Telangana' published in 2023. Sneha actively volunteers with environmental organisations in Hyderabad and Doha; the two cities she calls home(s).

TEAM MRDCL

P. Gouthami, I.A.S.

India

Joint Managing Director, MRDCL, Batch: 2021, Indian Administrative Service (IAS)

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P. Gouthami, an IAS officer with a background in architecture, brings a unique perspective to governance. She has served as Assistant Collector of Mancherial, Assistant Secretary at the Ministry of Social Justice, and Additional Collector of Rajanna Siricilla. With experience in urban and rural development, she has executed projects in municipalities and gram panchayats, ensuring sustainable growth. Her initiatives focus on improving primary education and healthcare, enhancing accessibility, and delivering efficient public services.

Mir Asim Umar

India

Knowledge Manager, NIUM

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An Architect, Urban Designer, and academician with extensive experience in urban development, management, and cultural mapping. With a Master's in Urban Management from Erasmus University, specialising in urban finance, infrastructure management, and green city rankings, and a Bachelor's in Architecture from Jawaharlal Nehru Architecture & Fine Arts University, Hyderabad, he has developed a versatile skill set. His expertise spans designing large-scale urban infrastructure projects and creating self-sustainable project models, reflecting a commitment to innovative and sustainable urban solutions.

I. Praveen Kumar

India

Urban & Environment Planner, NIUM

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I am Praveen Kumar, an Urban and Environmental Planner with over 8 years of experience, currently working with the National Institute of Urban Management (NIUM). My expertise spans urban and environmental planning, municipal finance, and urban reforms. I have prepared Master Plans, developed Solid Waste Management DPRs, and audited STPs. Previously, I contributed to AMRUT initiatives with TUFIDC, focusing on infrastructure planning and capacity building. As a Project Lead, I excel in managing teams and delivering sustainable urban solutions.

Nitya Khendry

India

Sr. Conservation Architect, NIUM

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Nitya, a conservation architect from Hyderabad, has worked with Aga Khan Trust for Culture at the Qutb Shahi Heritage Park. After MSc in Architectural Conservation from the University of Edinburgh, she has worked in urban conservation in temple cities of Bhubaneswar and Puri, and on a Special Area Heritage Plan for UNESCO WHS, Jaipur City. Nitya works as a Senior Conservation Architect at NIUM, which collaborates with various urban departments, including MRDCL. The team focuses on sustainable heritage management, community engagement and knowledge sharing.

Suresh Bodiga

India

Manager Operations, NIUM

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Suresh Bodiga is a seasoned professional with over 20 years of experience in strategic management, community development, and public-private partnerships. Holding a Master's in Marketing and Public Relations, he has led urban and rural initiatives, including lake cleaning, stepwell restoration, and skill-building programs. As HMDA Operations Manager, he achieved 24% CAGR through innovative projects. His work at TASK fostered corporate partnerships to boost youth employability, while SERP initiatives supported rural livelihoods. Recognised with multiple awards, Suresh combines leadership with impactful community development.

Other members without whome this would have been impossible:

Sri S.Srinivas Reddy - Executive Director, MRDCL
Sri Sathyanarayana Executive Director - Technical, MRDCL
Sri Dattupanth - Chief Engineer, MRDCL
Sri Vidya Sagar - Superintending Engineer, MRDCL
Sri G Venugopal Reddy - Additional Commissioner, GHMC
Sri Ramesh Babu - Deputy Director, DT&CP
Dr.P.Badrinath - General Manager (Fin & Admin), MRDCL
Sri Sridhar - Deputy Collector - MRDCL
Sri Subramanyam - General Manager, HMWSSB
Vamshi Krishna - Knowledge Manager, NIUM
Mahesh Kumar - Senior Research Associate, NIUM
Imran Uddin - Architectural Intern, NIUM
Mohammed Faiz Shah Khan - Architectural Intern, NIUM

LES ATELIERS' TEAM

Véronique Valenzuela

France | Chile

Director - Geographer

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I'm Véronique, French and Chilean geographer. I have always been interested in the social and urban issues of large cities, first through the recovery of historical memory and the study of mechanisms of exclusion and socio-spatial segregation. My personal experience allowed me to discover and study urban and social dynamics of Latin America, Africa and Europe. I worked in public institutions and associations, and have been active in Ateliers since 2010 as an assistantpilot, participant, coordinator, project manager, director of projects and director.

Simon Brochard

France

Director of projects - Geographer

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Geographer, urban planner, and historian, I am interested in city representations and the evolution of our lifestyles. I have worked in a middle school as a history and geography assistant teacher, but I spent more time organizing and facilitating international urban workshops these last years, involving local and international actors around complex urban and territorial issues. I also love making music and biking.

Florence Bougnoux

France

Architect & Urban Planner

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Architect and Urban planner, co-founder of SEURA, and Inflexion Urbaine, in France, I have developed an environmental and multiscalar approach to urban planning with a transversal vision of water management. I have worked on bioclimatic architecture, in terms of construction methods, typologies and uses, enabling me to reconcile uses and landscapes, with attention to resources and inhabitants. My involvement with the Ateliers de Cergy for over 15 years enables me to put my professional experience together with the collective intelligence of the Ateliers at the service of international territories.

Reena Mahajan

India | France

Architect, Urban Planner & Advocate for Walkable Cities

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A seasoned architect and urban designer, I have successfully conceived and coordinated low-impact urban design projects for French integrated planning firms for almost two decades. Overcoming cultural and linguistic barriers, I have forged a career across three continents, including becoming a leading advocate for people-centred cities in Uruguay. I am the founder of Studio Divercity, an international platform committed to improving the public realm for the wellbeing of the people and the planet. Originally from India, I am currently based in Paris and divide my time between urban regeneration projects and public policy advocacy.

Rahul Palagani

India

Architect, Historian & Architectural Photographer

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Rahul Palagani is an Architectural Designer, Historian, and Architectural Photographer with a Master's in Architectural Design & History from Politecnico di Milano, Italy. Co-founder of Studio Hyderabad, a multidisciplinary design studio, and founder of Studio NARA, his architectural photography practice, he explores public and social spaces across India and Europe through design, curation, and workshops. A Hyderabad enthusiast, Rahul critically engages with architectural practices, balancing creativity and history with a sharp eye for detail–and a love for fonts, colors, and the rich tapestry of everyday spaces.

Sasank IVS

India

Architect, Historian, Illustrator & Writer

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I see myself as a multi-pod juggling with many roles - architect, historian, writer, curator, and illustrator. I did my B.Arch from SPA Delhi and M.Arch in Architectural History and Theory from CEPT university. As the cofounder of Studio Hyderabad, I actively engage in architectural practice and research. I have worked in a varied range of architectural practices, especially Humanitarian architecture, research, and taught at varied educational institutions.
My research and design interests lie especially within the areas of Children's spaces, Cartography, Indian Eastern coast histories, Indigenous Deities and Memory studies. I'm an aspiring author and poet too.

06
ANNEXES

WORKSHOP IMAGES







Water & Metropolitanisation

Les Ateliers wish to heartfully thank Marion Velut, Udit Malik, Feli Visco, Soana Grave, Diane Bittar, Pascal Loreau, Nitesh Chandrakar, Anuradha Kanniganti, Jean-Baptiste Peter, Sara Giuigliano, Hugo Cauvet, Nigel Titus, Kamala Marius, Aradhana Amlathe and all the team at NIUM office for their precious support!

AMBASSADE DE FRANCE EN INDE
Liberté
Égalité
Fraternité

les Ateliers
maîtrise d'œuvre urbaine

AFD
AGENCE FRANÇAISE DE DÉVELOPPEMENT

Framed within the contours of Telangana, the logo places Hyderabad at its heart—a droplet of water nestled like a pearl, symbolising its identity as the 'City of Pearls.' The sweeping lines, bold and fluid, depict the journey of the River Musi, once the lifeblood of the city. These curves flow like veins, connecting and nourishing the urban body. The vibrant colours intertwine, narrating the transformative journey of Hyderabad—from its tranquil lakes and verdant landscapes to the bustling metropolis it is today.