REIMAGINING
BENGALURU'S
WATERSCAPES

BUILDING A RESILIENT BENGALURU CAMPAIGN

June 2025 | Summary Report

BLR DESIGN CENTRE

Team Contributors, Research & Execution
Mod Foundation with Purpose

Participating Organisations
Slum Jagatthu, Maarga, WELL Labs, Lets Be The Change, Open City, Global Concerns India, Association for Promoting Social Action, Biome, Hasiru Dala, APSA, Compartment S4, Sensing Local

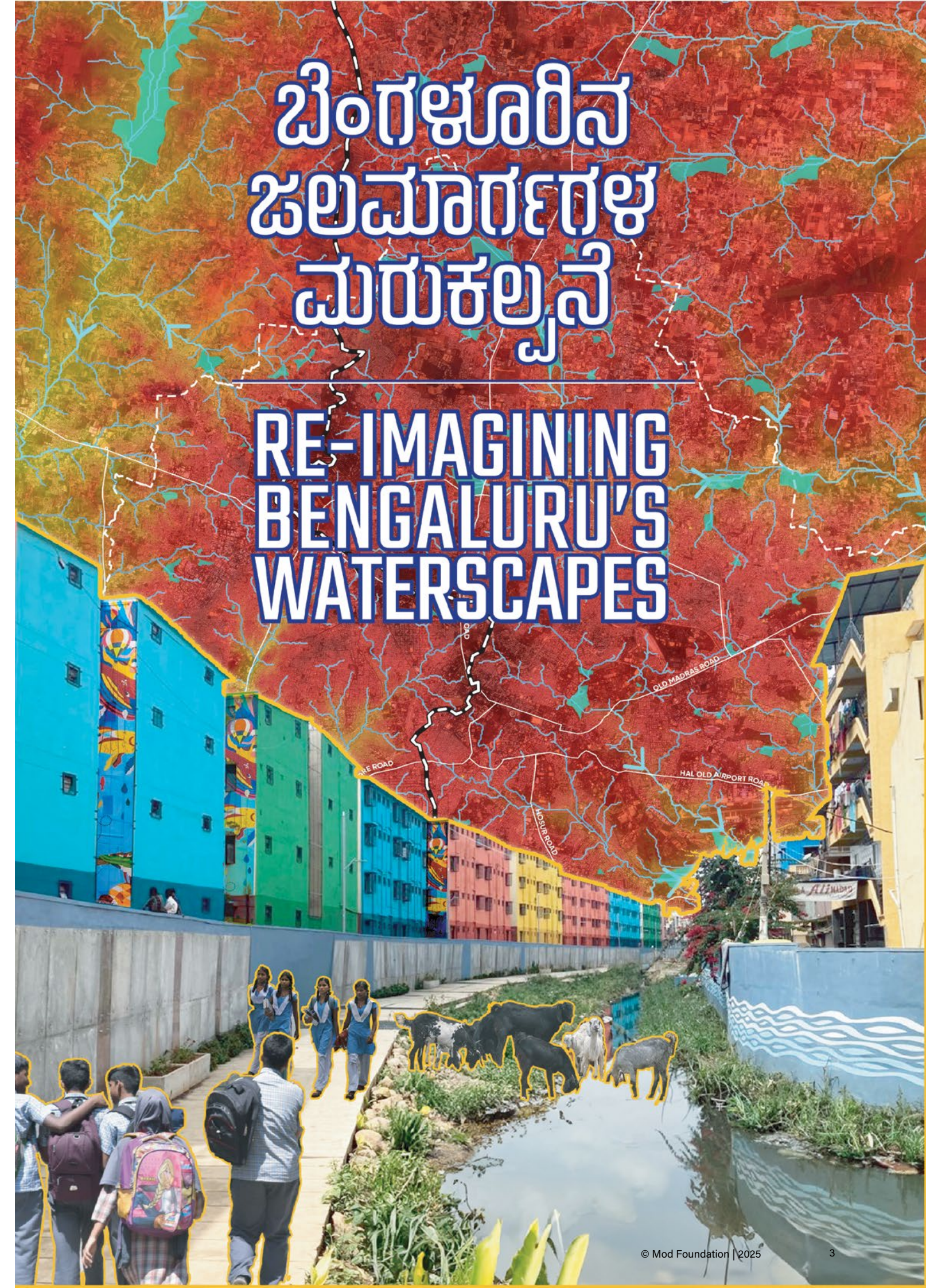**Development of the Visualisation and Report**
Mod Foundation

Citations
The findings, interpretations, and conclusions presented in this work are based on surveys and information collated from primary field work, workshop activities, published reports, and other publicly available sources.

Disclaimer
This report is a summary of discussions held during the Reimagining Urban Waterscapes of Bengaluru workshop, hosted at the BLR Design Centre in collaboration with Purpose. It reflects the perspectives shared by participants and facilitators and does not represent the official position of any single organisation or government body. The content is intended for knowledge-sharing and further dialogue.

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RE-IMAGINING BENGALURU'S WATERSCAPES

> **Our infrastructure systems, public well-being, and environmental health are deeply interconnected— yet they continue to be managed in isolation. It's time to bridge these gaps.**

PREFACE

Bengaluru's relationship with water is one of ingenuity disrupted by urban expansion. Once sustained by a network of lakes, tanks, and rajakaluves (stormwater channels), the city enjoyed a decentralized system that conserved water and mitigated floods. These interconnected waterways balanced ecology and community life.

The late 19th century shifted this balance. Piped water from distant reservoirs reduced reliance on local sources, while rapid expansion led to lakes being filled for development. Colonial and post-colonial governance reframed lakes from community commons—supporting fishing, agriculture, and grazing—into landscaped amenities for the elite. Sampangi Lake's transformation into a regulated park exemplified this exclusion.

The consequences are stark. Encroachments, poor planning, and unchecked infrastructure have disrupted lake connectivity, turning rajakaluves into sewage channels. Once-seasonal water bodies now stagnate under effluents and waste. Frequent flooding and water shortages expose decades of neglect and fragmented governance. The Building a Resilient Bengaluru campaign responds by treating water systems as essential infrastructure and shared public spaces.

The K100 project, as a proof of concept, demonstrates that stormwater drains can be reimagined as active corridors—linking bus stops and metro stations, enabling community gardens, and providing walkable routes to schools. By aligning infrastructure with everyday urban life, K100 has fostered community ownership and reduced solid waste accumulation.

Collaboration has been key—government departments, NGOs, and communities working together to restore not just drains, but trust and accountability.

The larger challenge lies ahead. Bengaluru's 800 km of stormwater drains form the city's hydrological spine, yet remain poorly maintained and encroached. With climate change bringing erratic rainfall and frequent floods, the city must shift from piecemeal projects to a city-wide strategy that restores waterways as urban commons.

Waterways are not problems to engineer away, but living systems to protect and reimagine—for resilience, equity, and public life.

WATER AND THE CITY

CAN DRAINS BECOME RESILIENT PUBLIC SPACES?

WHOSE PRIORITIES SHAPE OUR CITY'S WATERS?

HOW DO WE BUILD SHARED OWNERSHIP?

CAMPAIGN | BUILDING A RESILIENT BENGALURU

Bengaluru stands at a critical crossroads. Once sustained by a man-made ecological network of tanks, lakes, and rajakaluves, the city nurtured thriving water ecologies, economies, and productive landscapes. Over time, however, rapid urbanisation has severed this relationship—lakes were filled, stormwater canals narrowed, and the systems that once safeguarded the city against floods steadily dismantled. Each monsoon now exposes the cost of this neglect: inundated neighbourhoods, disrupted livelihoods, and a growing vulnerability across the urban fabric.

The Building a Resilient Bengaluru campaign, initiated by the Mod Foundation, responds to this urgency. Rooted in our ethos of making cities observable, the campaign seeks to bring visibility to the often-overlooked systems that keep Bengaluru alive—its waterways. It is the culmination of years of work on the K100 Citizens' Waterway Project, which reimagined a neglected stormwater canal as a public, ecological, and cultural asset.

By combining institutional reform with placemaking, the K100 project became a proof of concept that influenced the World Bank's INR 3000 crore investment in Bengaluru's flood resilience.By combining institutional reform with placemaking, the K100 project became a proof of concept that influenced the World Bank's INR 3000 crore investment in Bengaluru's flood resilience (August 2024).

Our campaign extends these learnings citywide. By creating a shared knowledge base of strategies, technical insights, and citizen-led practices, we aim to empower people to see waterways not as backdrops or drains, but as vital infrastructures for health, ecology, and culture. We believe that resilience cannot be engineered by mega projects alone—it must be co-created through collective action, informed citizens, and transparent governance.

At the BLR Design Centre, our community space on Church Street, the campaign will host exhibitions, dialogues, and workshops that make these issues visible and accessible. Here, data will meet storytelling, and policy will meet everyday urban experience. Citizens, policymakers, and experts alike will be invited to observe, question, and act.

Building a Resilient Bengaluru is more than a campaign—it is a call to reclaim the city's relationship with water. By observing and reimagining the systems beneath our feet, we can shape a Bengaluru that is not only flood-resilient but also equitable, ecological, and future-ready.
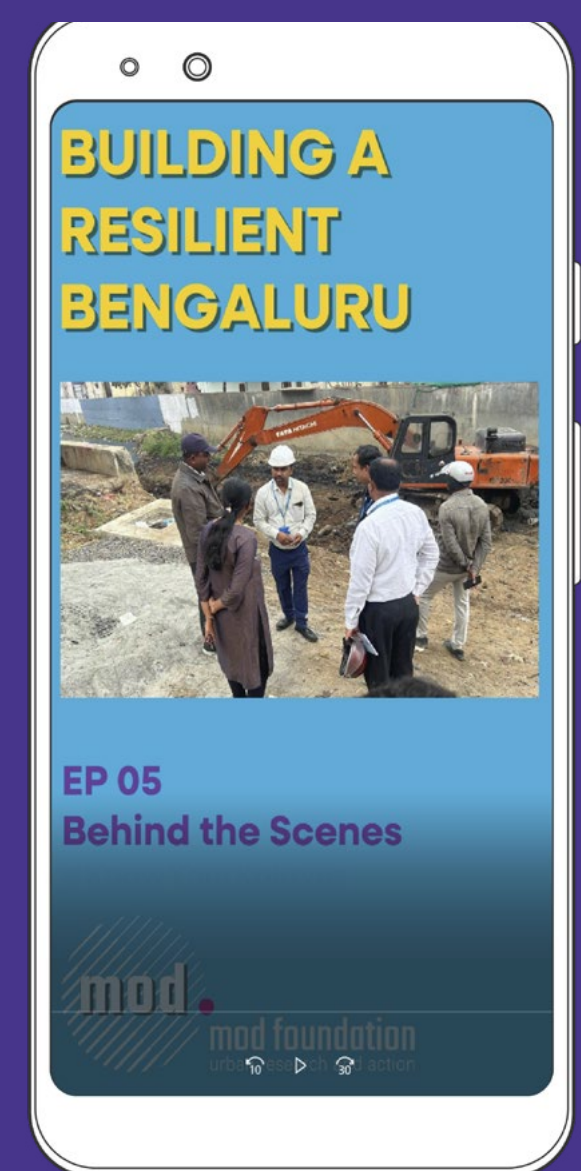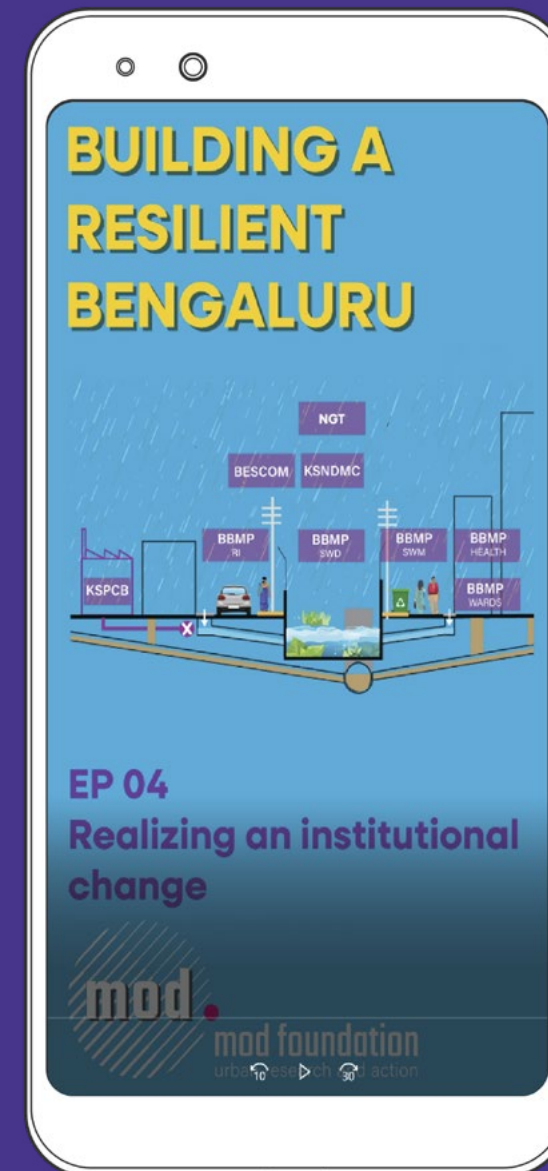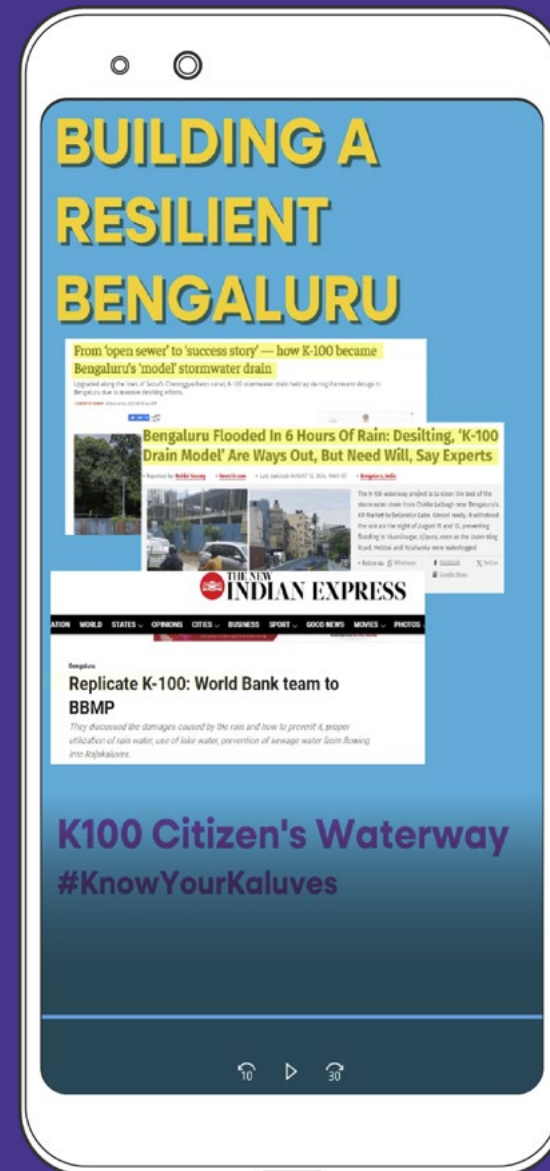
THE CAMPAIGN

Can we build a Resilient Bengaluru? The campaign introduction mapped a journey through the city's rich history, its evolving landscape, and the vital role of Raja Kaluves in shaping our future. It explored how innovation, funding, and global recognition can help create a city ready for tomorrow!

Did you know the K100 drain once carried 130 MLD of sewage? But fixing that was just the beginning. Behind the scenes, we've mapped and monitored the entire system, removed over 22,150 tipper loads of silt, and engaged with communities to integrate solid waste management. This transformation isn't just about cleaning the drain—it's about working with the city's departments and people to reclaim public space.

BUILDING A RESILIENT BENGALURU

Bengaluru's Kaluves
#KnowYourKaluves

BUILDING A RESILIENT BENGALURU

K100 Citizen's Waterway
#KnowYourKaluves

BUILDING A RESILIENT BENGALURU

EP 04
Realizing an institutional change

BUILDING A RESILIENT BENGALURU

EP 05
Behind the Scenes

EXECUTIVE SUMMARY

On 25th June 2025, the BLR Design Centre, in collaboration with Purpose, hosted a workshop on **Reimagining Urban Waterscapes of Bengaluru as part of our ongoing Building a Resilient Bengaluru campaign.** This gathering marked the beginning of what we hope will become a series of conversations dedicated to transforming the city's stormwater drains (rajakaluves) into resilient, inclusive public spaces that not only manage water but also enrich the everyday lives of residents.

The workshop brought together a diverse cross-section of voices: residents who live along neglected and flood-prone waterways, community organisers who have been at the frontlines of mobilising change, and professionals working in the fields of water management, ecology, and design. Their stories and reflections revealed the lived realities of inhabiting these spaces, the vulnerabilities faced during flooding, and the broader tensions between institutional priorities and community needs. These exchanges opened up important questions about how Bengaluru can reimagine its relationship with water.

Through interactive activities curated by Purpose under the People First Cities initiative, participants stepped into the shoes of different stakeholders—residents, civic officials, and designers—mapping priorities and uncovering thematic connections. These exercises not only deepened empathy across perspectives but also surfaced practical suggestions for the way forward, reminding us that resilience must be built collectively.

The conversations were further enriched by presentations of ongoing projects led by government agencies, civil society organisations, and community groups. From large-scale urban rejuvenation efforts to small but powerful neighbourhood initiatives, these examples illustrated how diverse approaches can complement and reinforce each other when connected through a shared vision.

The urgency of this dialogue is underscored by the recently approved Karnataka Water Resilience Project, which allocates $426 million toward restoring the city's stormwater network and improving interconnectivity across its five major valleys. While this scale of investment promises to strengthen Bengaluru's resilience, it also highlights the critical need to ensure that community voices and everyday urban life are placed at the centre of this transformation.

This workshop is therefore both a starting point and an invitation—to continue building a city-wide conversation about waterscapes as shared public assets, not forgotten backwaters. We thank all participants for their time, energy, and insight, and we look forward to growing this into a larger collective effort towards resilient, inclusive, and life-affirming urban waterways.

KARNATAKA WATER RESILIENCE PROJECT

The Karnataka Water Security and Resilience Programme—commonly referred to as the Karnataka Water Resilience Project—is a transformative initiative backed by a USD 426 million World Bank loan aimed at bolstering Bengaluru's stormwater infrastructure and flood resilience.

KEY OBJECTIVES AND COMPONENTS

1. Lake and Stormwater Network Restoration
The programme seeks to revive 183 lakes across Bengaluru—recognised as natural sponges during intense rainfall—and reintegrate them with the city's stormwater drain (SWD) system to mitigate flooding risks.

2. Infrastructure Upgrades
The initiative includes constructing nine new sewage treatment plants (STPs) to block sewage from entering lakes and drains. Over 100,000 households will receive improved sewer connectivity, and the implementation of smart water meters, advanced flood modelling, and strengthened water utilities (BWSSB) are all part of the plan.

3. Institutional Strengthening & Multi-Agency Coordination
The project will incentivize integrating SWDs with lakes, establishing climate-resilient "balancing reservoirs," and enabling groundwater recharge paired with potential community recreation zones. Advanced institutional work includes flood modelling, zonal multi-agency stormwater cells, and enhanced disaster risk governance via a climate-control center.

₹5,000 CRORE "KARNATAKA WATER SECURITY & RESILIENCE PROGRAMME" GETS GREEN LIGHT WITH $426M WORLD BANK BACKING

WHY IT MATTERS FOR BENGALURU?

In a city increasingly challenged by urban flooding and dwindling water resources, this project promises to shift from reactive infrastructure fixes to holistic, resilient water governance. By strengthening natural stormwater systems (like lakes and drains), improving sewage treatment, and integrating advanced planning and monitoring tools, the program positions Bengaluru toward becoming a more water-secure, flood-resilient metropolis—one where stormwater infrastructure aligns with ecological and community goals.

ABOUT THE WORKSHOP

The workshop Reimagining Urban Waterscapes of Bengaluru, held at the BLR Design Centre in collaboration with Purpose, set out to explore a central question: how can the city learn to live with water, rather than struggle against it?

Today, Bengaluru's historic water systems - is under strain, fragmented by rapid urbanisation, neglect, and competing institutional priorities. Floods, encroachments, and pollution are now recurring reminders of these vulnerabilities, while governance models continue to rely heavily on distant water sources instead of strengthening the city's own hydrological systems.

The objective of this workshop was to begin reimagining these stormwater drains not as problems to be engineered away, but as living systems that can be understood, protected, and transformed into resilient public spaces. By bringing together residents, community organisers, civil society organisations, designers, and water professionals, the session created a platform to share experiences, map stakeholder priorities, and reflect on pathways for collaboration.

WORKSHOP STRUCTURE

1. OPENING & FRAMING THE VISION

Mod Foundation and MAARGA traced Bengaluru's hydrology and stormwater evolution, from lifelines to neglected drains. Residents' lived realities in flood-prone areas highlighted systemic marginalisation. The session asked: how can institutional priorities and community needs converge to reimagine drains as resilient public spaces?

2. FRAMING THE OPPORTUNITY: PERSONA EXERCISE

Purpose's empathy-mapping activity contrasted perspectives of a flood-affected resident and a BBMP engineer. Residents stressed flooding, displacement, and health risks; institutions highlighted governance bottlenecks and political pressures. The exercise revealed tensions and opportunities, emphasising the need for participatory, socially responsive, and technically sound approaches.

3. CASE STUDIES: STORIES FROM THE GROUND

Case studies showcased multiple approaches: K100 Citizens Waterway (design and engagement), Let's Be The Change (waste management in LR Nagar), and Slum Jagatthu (resilience in Lakshmi Devi Nagar). Together, they illustrated that meaningful transformation requires more than infrastructure—it depends on inclusive processes and community ownership.

4. ROUNDTABLE: ENABLING SYSTEMS OF SUPPORT

Residents, grassroots groups, and experts shared perspectives. Communities described gaps and resilience strategies; organisers demanded institutional support. Experts like Biome, WELL Labs, and Sensing Local stressed traditional knowledge, economic links, and data transparency. The roundtable affirmed that collaborative, multi-actor processes are crucial for resilient, equitable waterscapes.

5. REFLECTIONS & CLOSING

The workshop concluded within the backdrop of the Karnataka Water Resilience Project. Participants noted that large-scale investment must be matched with participatory governance, accountability, and community ownership. The session ended as an invitation to continue collective dialogue and reimagine Bengaluru's waterscapes as resilient, inclusive, and life-affirming public spaces.

FRAMING THE VISION

The opening session of the workshop set the stage by asking participants to step back and consider the bigger picture: what role do Bengaluru's stormwater drains play in shaping the city's resilience, and how might we reimagine them as public spaces?

Bengaluru's rajakaluves, once vital to the city's water system, are today seen as neglected channels of sewage and waste. Yet, they have the potential to serve as multifunctional urban infrastructure—not only directing stormwater and reducing flood risk, but also providing safe, accessible, and inclusive public spaces. Embedding this vision requires a shift from reactive engineering solutions toward a transformative framework that links ecological restoration, social equity, and economic value.

Using floor projections, participants were immersed in the geography and history of Bengaluru's water systems. This visual storytelling highlighted the evolution of stormwater infrastructure—from functioning drains that connected

lakes and tanks, to neglected channels fragmented by encroachments and pollution. The session underlined the consequences of this decline: frequent flooding, health risks, and the alienation of communities who live closest to these waterways.

To ground this vision, participants were introduced to the K100 Citizens Waterway Project, showcased as a model that integrates hydrological restoration with urban design and community engagement. The project has converted a neglected stormwater channel into a functional, vibrant public space, demonstrating how infrastructure can simultaneously enhance resilience, mobility, and everyday quality of life.

The framing of vision invited participants to see beyond drains as problems, and instead imagine them as opportunities. With the right vision, Bengaluru's stormwater network can be reclaimed as a resilient system—anchoring flood management while also creating public spaces that foster equity, ecological balance, and civic pride.

PERSONA EXCERCISE

The persona exercise designed by Purpose used empathy mapping to capture diverse perspectives on Bengaluru's stormwater drains (SWDs) and waterscapes. It aimed to move beyond technical solutions and create an inclusive framework grounded in lived experience and institutional realities.

Two personas were developed: Sudarshan Badiger, a migrant construction worker living near an SWD, and Laxmi Doddamani, a civil engineer in the Karnataka Tank Conservation and Development Authority.

(1) Sudarshan's map explored the daily challenges faced by vulnerable residents—unsafe conditions, health risks, flooding, and aspirations for better sanitation, flood protection, and dignified public spaces.

(2) Laxmi's map reflected the pressures of government functionaries—navigating inter-agency coordination, data-driven planning, political mandates, and the struggle to balance ecological priorities with community needs.

Each empathy map was structured into five dimensions:
1. Thoughts and emotions
2. Daily experiences
3. Community conversations
4. Hardships and challenges
5. Desired outcomes (for Sudarshan); and institutional pressures, decision-making inputs, communication, implementation barriers, and vision metrics (for Laxmi).

By framing both community and institutional perspectives side by side, the exercise revealed critical gaps and opportunities for building empathetic, actionable Standard Operating Procedures (SOPs) for SWD rejuvenation. Ultimately, it reinforced the principle that sustainable waterscape revival must balance people-first needs with institutional effectiveness.

EMPATHY MAPPING - OUTCOMES

Participants created empathy maps for two personas:
Sudarshan's map revealed daily hardships—Quality of Life, Government inaction, Community Participation, Water & Waste Mangement—and hopes for dignity and safety.
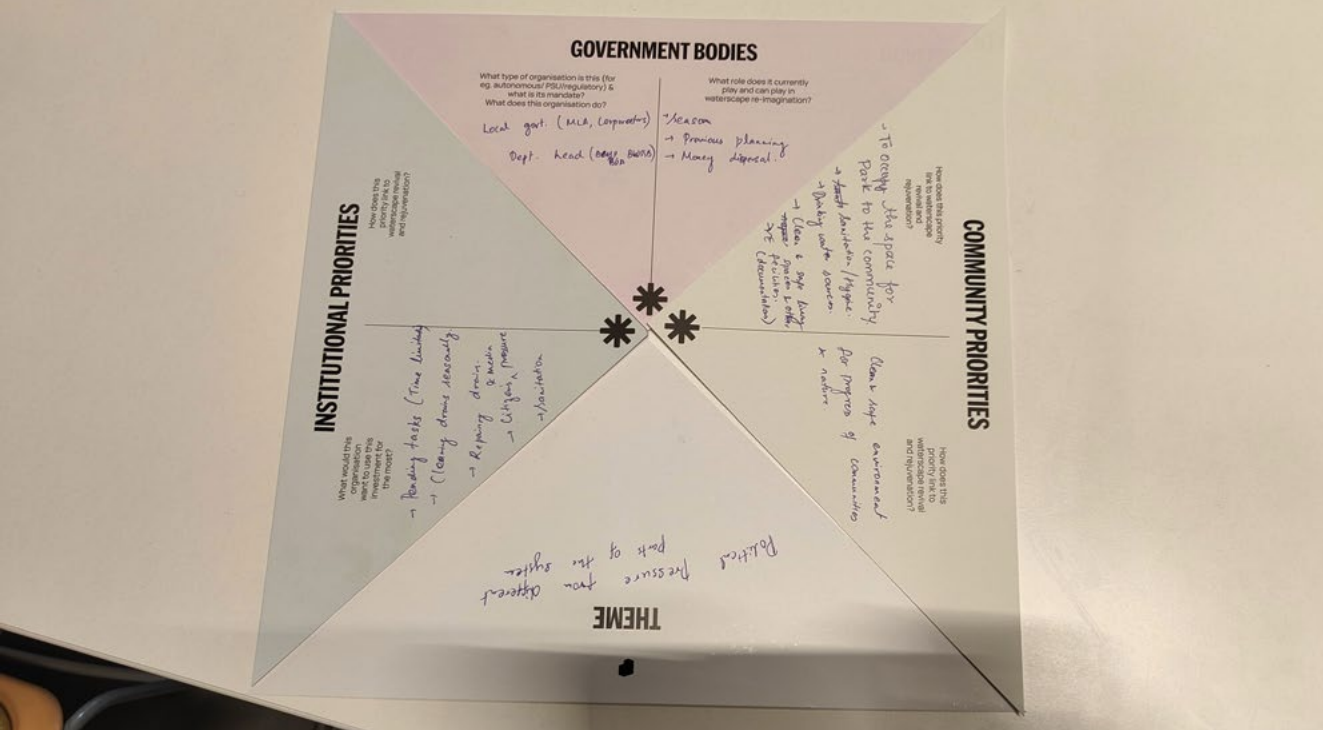
Laxmi's map highlighted institutional pressures, coordination challenges, and ecological mandates. Together, they exposed gaps between lived realities and systemic constraints, informing inclusive SOPs for stormwater drain (SWD) rejuvenation.

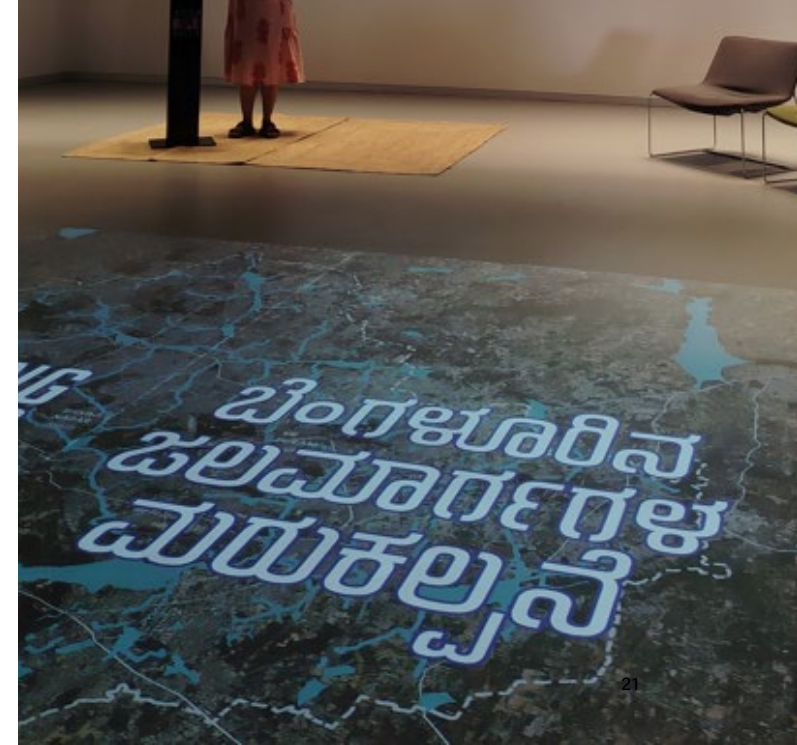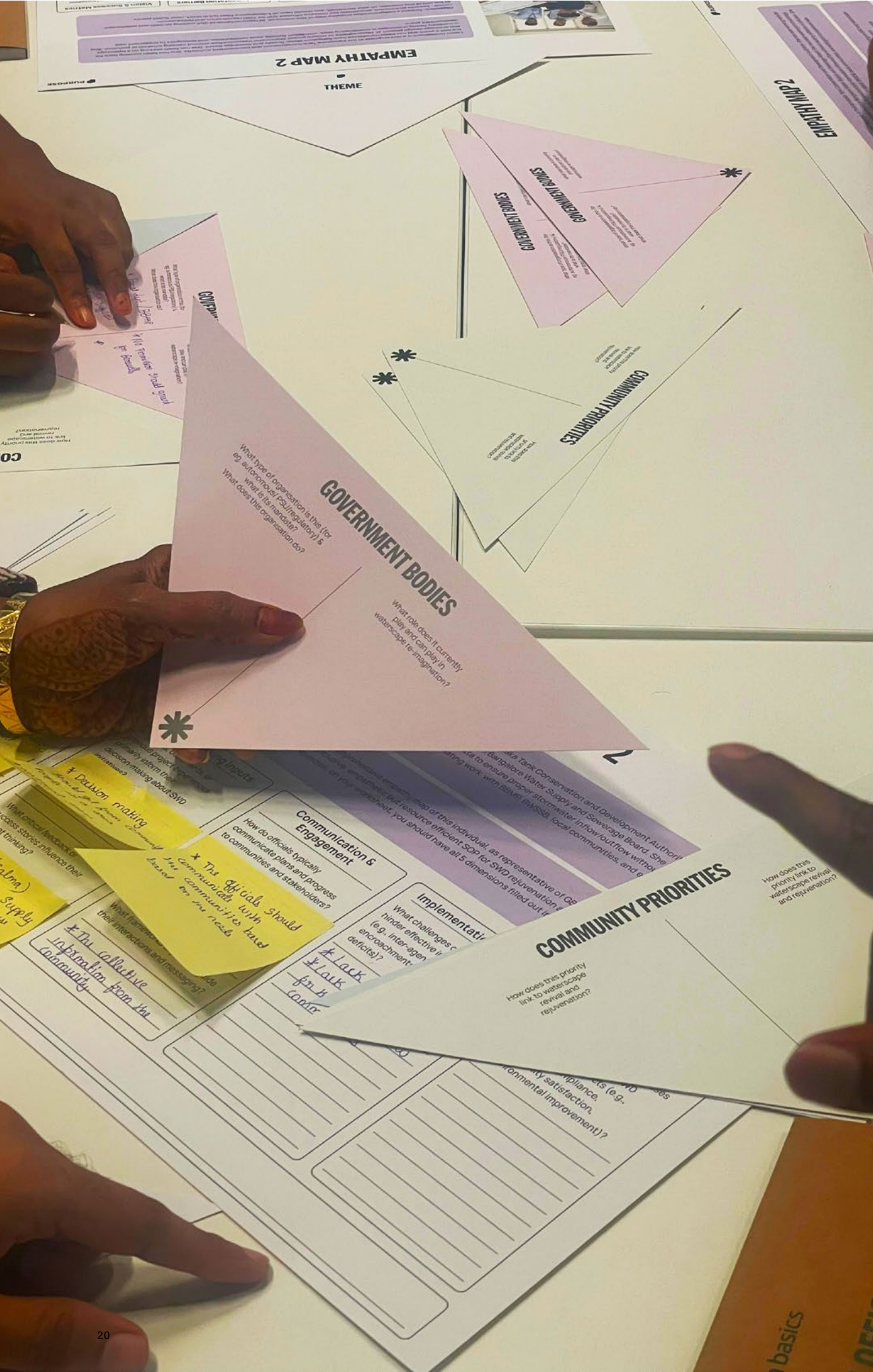## BRIDGING THE GAP - OUTCOMES

Using cards for government bodies, institutional priorities, and community needs, teams built balanced themes linking policy with lived experiences. Each theme required a responsible body, ensuring technical mandates aligned with goals like sanitation, safety, and inclusion. The exercise fostered negotiation, collaboration, and integrated strategies, showing that SWD revitalization succeeds only when community priorities and institutional responsibilities converge.

EXPECTED OUTCOMES | A BEGINNING

1 A community-led roadmap for enhancing the K100 transformation, ensuring it serves the needs of those most affected.

2 Policy recommendations to strengthen participatory governance in stormwater management.

3 A framework for replicability, scaling this model across other urban water systems.

4 Stronger collaborations between civic bodies, NGOs, and local communities to drive future interventions.

~~CLOSING~~ 'OPENING' NOTE

Reimagining Bengaluru's Waterscapes workshop marks an important step in reimagining how Bengaluru can respond to the challenges of flooding and water insecurity. We have seen that resilience cannot be engineered through infrastructure alone—it must be built collectively, with citizens at the heart of the process. When communities are included, solutions become more grounded in lived realities, more adaptable to change, and more deeply connected to the city's ecological and cultural fabric.

This workshop marked a beginning. Building a Resilient Bengaluru is not a single project or a one-time effort—it is an ongoing process that demands many more conversations, many more collaborations, and the continuous sharing of knowledge across neighborhoods, institutions, and governance structures. Each dialogue strengthens our collective ability to observe, question, and reimagine the systems that sustain the city.

We invite you to continue engaging—with your ideas, your networks, and your lived experiences—to help shape a future where Bengaluru's waterways are reclaimed, its communities empowered, and its resilience secured. Together, we can transform vulnerability into strength, and ensure that the city not only survives its challenges but thrives as a healthier, more equitable, and more sustainable urban environment.

ABOUT US

Mod Foundation

Mod Foundation,established in 2010, is an interdisciplinary urban action and research institute based in Bengaluru. By leveraging interdisciplinary research and creative practices, we aim to reimagine urban environments that are deeply rooted in cultural context, responsive to contemporary challenges, and adaptable to future needs

The work we do is design-driven, with an emphasis on exploring the underlying dimensions in the urban fabric, focussing on everyday spaces and objects. We are fascinated with cities, and interpreting them by visualising their information and analyses, hands-on design and mapping techniques.

Mod Foundation is the urban design and research team at Venkataramanan Associates (VA), an architecture, interiors and urban design practice headquartered in Bangalore.

BLR Design Centre

BLR Design Centre, established in December 2024, is the public engagement platform of Mod Foundation. It is a collaborative workspace focused on transforming urban living environments through architectural partnerships, cultural dialogue and design-led solutions. Recognizing urban change as a cultural challenge, not merely a technical issue, the Centre promotes architectural innovation across disciplines.

Through exhibitions, talks and projects, it builds collaborations to address pressing societal issues. By studying built environments, cultural histories and societal structures, the Centre aims to develop implementable models that shape Bengaluru's future, positioning the city as a living laboratory for architectural and urban research, intervention & design.

WE WORK BETTER TOGETHER

Our partnerships drive meaningful conversations and on-ground action. From design studios and research institutes to citizen groups and government bodies, we're proud to collaborate with organisations that share our commitment to shaping better urban futures.