



Advancing Urban Water Resilience through Multilevel Governance:

A Collaborative Call to Action

COP28 AND BEYOND

Foreword:

H.E. Razan Al Mubarak

Over the past year, numerous cities across the world have borne the brunt of severe climate-change induced water shocks, including ravaging floods and water scarcity.

This is concerning, as approximately 2.5 billion people will be added into cities by 2050, the bulk of this urbanisation occurring in Africa and Asia, in cities that are the least equipped to absorb this growth in terms of governance, infrastructure and economy. Despite this, planning, funding and investment in urban water resilience across the world remains low.

'Advancing Urban Water Resilience through Multilevel Governance: A Collaborative Call to Action' presents the potential of multi-level governance as an enabler to building water-resilient cities.

This report, the second of an annual series, shares insights from dialogues held at COP28, as well as the key messaging on urban water resilience that lays the groundwork for COP29 and beyond. It also serves as a testament to the legacy efforts of multiple COP Presidencies and a community of non-state actors since COP27.

Finding the solutions to address the complex and multidimensional challenges to building urban water resilience, significantly made worse by climate change, requires a multi-level governance approach. This must be accompanied by a strong scientific understanding of climate risks, innovation, streamlined investments, strong partnerships and equity.

I hope that this report will serve to raise the ambition of all partners to act. Acknowledging that the bulk of implementation will occur at the local level, national governments should embed strong urban water content in their updated nationally determined contributions (NDCs) and national adaptation plans (NAPs).

Financial institutions and investors should work to ensure that more funding, including private finance opportunities, flows to building water resilient cities. Finally, inclusion of local communities, particularly the most vulnerable persons in our cities, will ensure that solutions reflect local realities, and leave no one behind.

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H.E. Razan Al Mubarak
UN Climate Change High-Level Champion for COP28

Foreword: Joint Partners

As climate change continues to intensify, its impact is most profoundly felt in our cities - places where people's lives and livelihoods depend on water.

Water sustains us, yet it can also expose our vulnerabilities, especially when access is unequal, or when floods and droughts threaten the most marginalized among us. In this context, the urgency to develop just and equitable urban adaptation strategies has never been more pressing.

Cities, where the consequences of water-related climate risks are most immediate, have an unparalleled opportunity to drive transformative change that benefits all people, not just the privileged few.

At the heart of this challenge is the need to ensure that those who are most affected by climate impacts – low-income communities, communities of colour, and those living in informal settlements – are not left behind. Water must be managed in ways that enhance justice, safeguard dignity, and ensure every person has access to clean, safe, and reliable water and sanitation services.

Local governments are uniquely positioned to lead this effort, with their direct connection to communities and their ability to respond with localized solutions. This work must also align with broader national and regional goals, ensuring that local actions reinforce a larger vision for sustainable development.

A multilevel governance approach is critical for centering water in our climate adaptation efforts. By coordinating across local, regional, and national governments, we can break down silos, amplify voices often overlooked, and ensure that policies not only address the technical aspects of water management but also the social, economic and environmental inequities that exacerbate climate vulnerability.

Water is not just a resource; it is a matter of justice. By working together, learning from each other's successes and missteps, and leveraging our collective knowledge, we can build urban water resilience that uplifts all communities, especially those historically marginalized.

This publication is a call to action—a call to recognize the critical role that cities play in confronting water and climate challenges and to ensure that their efforts are fully represented in the international climate agenda. By strengthening partnerships and aligning strategies, we can improve the way national and local governments coordinate on water resilience, embedding equity at the core of our climate commitments. As we present these findings at COP29, we hope to inspire a collective response that advances water security and resilience while prioritizing justice for all people.

Together, we can shape a future where water is not only managed sustainably but is used as a force for equity and a foundation for resilient, thriving communities.

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Mark Fletcher
Global Water Business Leader,
Arup



Toon Segeren
Director of International and
Director Marine and Coastal
Systems, Deltares



Katrin Bruebach
Global Director, Programs &
Delivery, Resilient Cities Network



Introduction

Water crises consistently rank among the foremost global risks identified in the Global Risk Report (World Economic Forum, 2023¹).

The rapid pace of urbanization has profoundly altered water availability and quality, rendering communities more susceptible to a spectrum of challenges, including floods, droughts, water scarcity, and pollution, with associated adverse health impacts. Climate change exacerbates these risks, as almost 90% of natural disasters are water-related².

90%

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Water Rescue crew
Searching for people stuck in their flooded homes.

¹ World Economic Forum (2023). The Global Risks Report 2023. 18th Edition. Insight Report. Geneva: World Economic Forum. Available at https://www3.weforum.org/docs/WEF_Global_Risks_Report_2023.pdf

² Water-related risks, especially those induced by climate change, have been and will affect different communities and individuals in distinct ways, depending on their socio-economic status, geographic location, and access to resources. With the world still lagging behind on its commitments to ensuring availability and sustainable management of water and sanitation for all, the everchanging and increasing risks we are facing is further distancing scores of people across the globe from accessing their basic needs.

This paper articulates the key messages emanating from

COP28



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Water-related risks are also contributing to increasing inequities, impacting communities and individuals in distinct ways, depending on their socio-economic status, geographic location, and access to resources. With the world still lagging on its commitments to ensuring availability and sustainable management of water and sanitation for all, the everchanging and increasing risks the world is facing further distance scores of people globally from accessing their basic needs.

Building resilience in urban areas emerges as a basic condition for transformative and equitable urban development planning, requiring evidence-based, long-term, and inclusive strategies to reduce vulnerability and enhance adaptive capacity.

Recognizing the need for integrated solutions, combining water management and urban planning strategies is crucial.

Cities are intimately linked to the basins in which they are situated. The strengthening of urban water resilience requires multi-level governance that extends beyond the administrative boundaries of cities. This means that careful mapping of complex stakeholder roles and responsibilities is a prerequisite understanding the complexities of the governance structure of both engineered and natural systems.



Sharm El Sheikh,
Al Sahab mosque and old town

Embarking on the evolution pathway towards urban water resilience demands a collaborative, multilevel governance approach that bridges the efforts of cities and national governments to achieve common goals in alignment with global efforts to achieve the Global Goal on Adaptation, including the Sharm El-Sheikh Adaptation Agenda 2030 solutions. Cities across the globe face escalating challenges in managing water resources amid the dual pressures of urbanization and climate uncertainty.

This paper articulates the key messages emanating from the High-Level Multilevel Roundtable discussions which took place at COP28 in Dubai, and subsequent dialogues emphasizing the pivotal role of collaboration and underscoring the leadership of cities in the realm of climate action and water resilience. It delineates actionable steps for decision-makers and stakeholders, providing first concepts for a roadmap to foster a sustainable and resilient future. It builds upon the successes of the Cities Solve, Cities Deliver Event at the New York Water Week 2023, and the firm commitments to the Water Action Agenda. The overarching goal is to establish a regular dialogue starting at COP28, COP29 and beyond, convened by Sharm El-Sheikh Adaptation Agenda and extending beyond to 2030, fostering commitment and synergy between national and local actions to best practices and shared lessons learned.

Recognizing the need for integrated solutions, combining water management and urban planning strategies is crucial.



In the complex landscape of increasing urbanization and the uncertainties impacting urban water systems, cities find themselves at the forefront of addressing challenges posed by climate change.

Advancing Urban Water Resilience: A Strategic Multilevel Approach

In the complex landscape of increasing urbanization and the uncertainties impacting urban water systems, cities find themselves at the forefront of addressing challenges posed by climate change.

However, the success of city-level initiatives is intricately tied to the broader national context. This interdependence requires a collaborative approach deeply influenced by the dynamics of national governance. Simultaneously, national governments are increasingly reliant on the active participation of local governments and cities to expedite the fulfillment of their climate commitments. In this intricate dance between local and national priorities, the imperative of multilevel dialogues and collaboration becomes evident.

The strategic significance of these multilevel interactions lies in their ability to foster timely and effective climate action. They serve as platforms that encourage a coordinated approach, facilitating resource mobilization, promoting policy synergy, encouraging knowledge sharing, and providing essential political support. Acknowledging the

pivotal role of cities in addressing the intricate nexus of water and climate challenges, the multilevel approach sets out to leverage strategies and systematic approaches tailored specifically for cities. By positioning cities as leaders in the broader landscape of climate action, regional governments, and national authorities can optimize the impact of climate investments. This optimization becomes a catalyst propelling the transition toward a sustainable and resilient future, reflecting the collective commitment to address the imminent challenges posed by climate change, and stressing multi-stakeholder collaboration in managing water ecosystems.

Multilevel governance and policy alignment

An imperative for sustainable urban water resilience is the adoption of a collaborative, multilevel governance approach³. This approach needs a harmonized alignment of endeavors among cities, regional governments, and national authorities. This alignment is not merely administrative but ensures the formulation of coherent, consistent, and mutually reinforcing policies and monitoring systems. Recognizing the pivotal role cities play in addressing water and climate challenges, the multilevel approach underscores the strategic leverage of systematic approaches and strategies tailored for cities.

³ The Recommendations of the Global Taskforce of Local and Regional Governments' Statement at the 2023 UN Water Conference also highlight the "crucial role of multi-level governance and multi-stakeholder collaboration in the managing water ecosystems and the inclusion of cities, regions and territories in water related policy making". See: [eng-declaracion-gtf-uclg-web.pdf](#)

A key aspect for this endeavor is for cities to actively participate in national climate planning processes, such as the formulation of Nationally Determined Contributions (NDC) and National Adaptation Plans (NAP). The emphasis lies in fostering cooperation and instigating joint decision-making. The commitment to establishing a regular dialogue becomes the cornerstone for ensuring sustained progress, an imperative for decision-makers keen on perpetuating the collaborative momentum initiated during COP sessions.

Comprehensive Risk Management

Efforts to strengthen urban water resilience demand a holistic understanding of water and climate-related risks, risk appetite and solutions. The multilevel approach is not merely a structural framework but a strategic instrument for promoting the efficiency of risk assessment tools and indicators.

Emphasis is placed on the facilitation of knowledge exchange and the proliferation of innovative practices among cities.

Additionally, the sustained multilevel approach is indispensable for augmenting the understanding of risks associated with climate change, urbanization and water management. It places a deliberate focus on fostering awareness of the interconnected challenges.



Collaborative endeavors with existing initiatives, projects and programs becomes a strategic need. This approach aims to build on existing efforts, fostering a harmonized and comprehensive strategy for urban water resilience, aligning decisively with the priorities of discerning decision-makers.

Innovation

Cities have real potential to serve as early implementers of change and incubators for adaptation and resilience action through their water systems. Cities can significantly lower emissions while making bold investments that enhance their capacity to withstand climate related shocks and stresses to their water system.

Being at the forefront of dealing with climate change, cities are in a unique position to deliver impact due to their concentration of economic activity, dense social networks, human resource capacity, high levels of investment in infrastructure and buildings, relatively agile local governments, and tradition of innovation.

Thus, acknowledging the critical role cities play in building resilient water systems that survive, adapt and thrive in the face of water-related shocks and stresses can fast track efforts to meet climate goals and leverage their potential for innovation.

Additionally, as cities drive action towards water resilience, their experiences, successes, and lessons learned can help national governments, regions and communities overcome implementation barriers, avoid pitfalls, and replicate proven strategies. This knowledge exchange fosters collaboration, promotes collective learning, and enables the scaling up of impactful climate actions across different regions and contexts.

Chicago skyline, from the park

Cities have real potential to serve as early implementers of change and incubators for adaptation and resilience action through their water systems.

Case Study:

Just Transitions for Water Security under the FCDO

The UK's Foreign, Commonwealth & Development Office (FCDO) has instigated a £39 million initiative to address water security in climate-vulnerable countries through its Just Transition for Water Security program.

This five-year program aims to scale up support for sustainable, climate-resilient agricultural practices and improved access to clean water. By integrating water resource management into national climate agendas, the program aims to enhance resilience across ecosystems, economies, and communities.

The program is jointly made up of three key initiatives, which includes:

- The Water Resilience Tracker for National Climate Planning - Recognizing the pivotal but neglected role of water in climate response, the WRT uses the Nationally Determined Contributions and National Adaptation Planning approaches to climate action as an entry point to provide technical assistance supporting governments to diagnose, design and implement climate-resilient policies and programs in a way which promotes effective water governance. The WRT also breaks down governance silos, ensuring coordination across sectors such as agriculture, energy, municipal services, and others to promote comprehensive climate resilience.

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- Through this integrated approach, the WRT supports countries in closing critical policy gaps, fostering cross-sectoral collaboration, and securing long-term access to climate finance. Led by AGWA, IWMI, Arup and Deltares.
- Resilient Water Accelerator, The RWA aims to increase investment into water related infrastructure and services for climate adaptation and resilience. It will bring private sector, policy makers and other stakeholders together at an early stage to analyze barriers to investment and develop workable solutions that are attractive to private investment and contribute to build water resilience for communities.
- The RWA's principal value-add is therefore through developing new business approaches and models to finance water interventions. Led by WaterAid.
- Fair Water Footprints The FWF initiative works primarily through international supply chains and international trading relationships to stimulate action and investment on water and climate risks, and drive sustainable, resilient, and inclusive growth. The initiative uses targeted engagement, constructive advocacy, and governance reform to promote transformation in global business norms on the demand side, while working with source/production countries to mitigate water risks on the supply side, to realize systemic change in trade, financing, and investment. Led by CDP, Water Witness, Chatham House, and IIED.

Together, these efforts aim to improve policy, investment, and accountability in water governance. By supporting climate-vulnerable countries in better managing their water resources, the Just Transition for Water Security programme helps ensure equitable access to clean water while bolstering resilience to climate impacts like droughts and floods.

Case Study: Up-scaling Water as Leverage



The “Water as Leverage” (WaL) initiative, launched by the Netherlands government, uses water as a catalyst for sustainable urban development and climate resilience, breaking institutional and financial barriers to achieve lasting impact.

WaL focuses on three key transitions: unlocking funding for pre-project preparation, fostering inclusive stakeholder collaboration in project development, and broadening the focus to include processes and enabling environments for transformative water infrastructure projects.

To support its global scaling efforts, WaL has launched two core initiatives: the Water as Leverage Factory and the Water as Leverage Academy. The Factory aims to facilitate collaboration between governments, UN agencies, financial institutions, NGOs, and research bodies to develop and implement water and climate resilience strategies.

By 2030, the Factory will have contributed to the development of sustainable water infrastructure projects, helping to secure clean water for 15 million people.

More information can be found on the program here
<https://www.worldwateratlas.org/curated/water-as-leverage/>

It also serves as a platform for fostering public-private partnerships and catalyzing investment for transformative, climate-adaptive projects globally.

The Water as Leverage Academy focuses on capacity building, offering training and knowledge-sharing to water practitioners, policymakers, and students worldwide.

By 2030, the Academy aims to strengthen the capacity of thousands of change-makers, preparing them to address urban and rural climate adaptation challenges. Through real-life case studies and hands-on experience, the Academy nurtures future leaders in water resilience and helps expand the WaL approach across geographies.

Together, the Factory and Academy are essential for scaling the WaL approach, which directly supports the key priorities of scaling climate adaptation and building resilience in vulnerable regions. WaL exemplifies how partnerships and innovative finance can be leveraged to accelerate global climate goals, offering a blueprint for broader adaptation efforts and sustainable development leading up to COP29 and beyond.

Advancing Urban Water Resilience

Streamlined investments

Efficient and effective investments require a comprehensive approach that considers the multifaceted landscape of governance and finance, while prioritizing capacity building.

Within the intricate web of responsibilities spanning local, regional, and national levels of government, as well as involving diverse stakeholders, addressing boundary-less and cross-boundary water issues demands a streamlined and integrated strategy.

To achieve this, it is imperative to establish conditions for robust financial support, ensuring that resources are allocated strategically across different tiers of governance. Simultaneously, fostering good governance practices becomes key to navigate the complexities and potential overlaps in responsibilities.

Moreover, a focus on capacity building at all levels will empower stakeholders to proactively engage in initiatives that contribute to a resilient and sustainable water future.

Equity, Awareness, and Collaborative Initiatives

Cities, functioning as the critical nexus between governments and communities, emerge as hubs for achieving equitable and just transitions in response to climate change. The multilevel approach is unambiguous in its insistence on equitable engagement for community resilience. It recognizes that community involvement in decision-making is imperative for the development of inclusive water investments that address the disparate impacts of water risks.

Simultaneously, fostering good governance practices becomes key to navigate the complexities and potential overlaps in responsibilities.



Case Study: Local governments centering communities in understanding and responding to water risks: Resilience for Communities Program

The Resilience for Communities (R4C) program was launched in 2022 as a partnership between Resilient Cities Network (R-cities), the Z-Zurich Foundation and Zurich insurance. Globally, four (4) of R-Cities' member cities are participating in the R4C program including Boston and Houston in North America, Greater Manchester in the United Kingdom and Melaka in Malaysia.

Through the R4C program R-Cities supports cities and communities to enhance their capacity and resources to improve their resilience to floods and heatwaves through community engagement, co-production of resilience action plans, improved collaboration between city stakeholders and residents, and the co-design and implementation of resilience interventions that center equity at their core.

Through the program, member cities are working with their residents to create community-led, climate-resilient and equitable interventions, addressing growing water risks.

The main objectives of R4C are to:

- Better understand risks and vulnerabilities and the status of resilience of cities through the implementation of the Climate Resilience Measurement for Communities (CRMC) tool which measures community perceptions of local shocks and stresses;
- Enhance equitable City, community, and stakeholder engagement through prioritizing community participation, thus fostering the collaborative development of resilience solutions;
- Build local capacity through innovative tools and processes and technical assistance brought together by the Z Zurich Foundation, Zurich Insurance and the Resilient Cities Network;

- Drive investment into solutions that will increase resilience utilizing R-Cities' RCIFunds platform (grant-making instrument).

By fostering relationship building and trusted partnerships between core stakeholders and across networks and city ecosystems, cities participating in the program are leading the way in enhancing community resilience awareness and validating practical recommendations and scalable solutions for the future.

Additionally, the cities are identifying common climate resilience trends and overlapping shocks, and stresses, thus contributing to a more comprehensive understanding of community resilience challenges and potential solutions.

The program emphasizes public-private partnerships, evidence-based decision-making, and equity-centred solutions, positioning participating local governments as leaders for community led response to growing water risks.

R4C is a part of the larger Urban Climate Resilience Program, which is active in 10 countries across the globe. This program brings together the Zurich Foundation, local Zurich Insurance teams, and five international organisations engaged in different aspects of global sustainable development and resilience building.

More information can be found on the program here
> <https://resilientcitiesnetwork.org/resilience-for-communities-r4c/>



Case Study: Prioritizing Resilient Water Investments for Water Security

A collaborative study involving The World Bank, Arup, Nexsys Analytics, HR Wallingford, and DNK Associates focused on prioritizing resilient water investments to enhance water security in the face of deeply uncertain future conditions.

The project aimed to identify large-scale investment options that improve resilience, considering future climate risks and fluctuating socio-economic factors. The approach was applied at national, transboundary, and city levels, offering a comprehensive framework for water resource management.

The study assessed and prioritize proposed investments and additional resilience options for water resource systems, factoring in the unpredictability of climate change and socio-economic shifts.

A key element of the approach was the use of Decision Making under Deep Uncertainty (DMDU) methodologies, which help guide investment decisions through phased adaptation strategies.

These strategies were aimed at enhancing multi-dimensional resilience, focusing on evaluating the vulnerability of various infrastructure alternatives and trade-offs in water management investments.

The study quantitatively assessed the risks posed by climate change on water resources and projected changes in water demands driven by socio-economic factors.

A central goal was to create a clear, adaptable roadmap for water investments that increase the resilience of water systems while addressing future uncertainties.

This included examining the wider uses of water within each country, including agriculture, food security, industrial uses, and ecosystem services, with a strong focus on social equity and development outcomes.

Key components of the study include:

- **National, Transboundary, and City-Level Resilience:** The study's strategy spanned national, transboundary, and urban levels, providing tailored solutions for water resilience in each context. It delivered critical insights into prioritizing investments that can withstand both immediate and long-term challenges.
- **Capacity Building:** A significant focus was on building local capacity in water management. This included training professionals to use DMDU tools and improving decision-making skills to ensure long-term resilience in water governance.

In Botswana, the study was carried out in partnership with the Department of Water and Sanitation, developing a national framework for prioritizing resilient water investments. This included securing water for agriculture, industrial, and domestic uses amid climate variability.

In Ethiopia, the study was applied in the Upper Awash Basin and Genale Dawa Basin, collaborating with the Ethiopian Government to assess water resource vulnerabilities and future demands across sectors, including agriculture, energy, and ecosystems.



Case Study: Scaling community resilience to water risks and child friendly urban development across cities: Oasis Schoolyards Program

In acknowledgement of the rise in heatwaves globally and the life-long impacts increased heat has on the development of children - both physically and mentally- the Oasis Schoolyards program transforms schoolyards into innovative, non-formal learning spaces that utilize nature-based solutions to enhance climate resilience.

Through the program, cities are working with schools, teachers and children to adapt traditional schoolyards to green, resilient and community-centric areas that also function as cooling centres during heatwaves.



The program represents a groundbreaking effort to reimagine schoolyards as 'urban oases' that promote environmental awareness and community engagement. Additionally, the program is creating spaces for outdoor learning, enhancing educational experiences and raising awareness of sustainability and environmental issues.

The Oasis Schoolyards initiative was initially launched in Paris in 2018 as one of the city's flagship projects from its resilience strategy and is now adopted by Quezon City and Semarang through the support of Resilient Cities Network.

The program, implemented through a collaborative approach that centres active community involvement, highlights how city governments are working to empower school communities to actively improve and take ownership of their surroundings across the globe.

By sharing best practices and engaging in cross-learning between cities, Paris, Quezon City, and Semarang are not only transforming school grounds into vibrant hubs of sustainability and resilience but also fostering a global dialogue on community-centred design and climate adaptation strategies that can be adapted and implemented in diverse urban contexts and are actively tackling the impacts of climate change at a localized level.

More information can be found on the program here
> https://resilientcitiesnetwork.org/wp-content/uploads/2024/08/OASIS-Schoolyards-Program-Brochure_Aug24.pdf

At the national level, governments recognize the critical importance of supporting urban water resilience as a cornerstone of their climate action strategy.

Key messages from Multi-level Dialogue at COP28

Key messages from Multi-level Dialogue at COP28

The multi-level roundtable at COP28 brought together government representatives from national, regional and local levels to discuss challenges in tackling water and climate issues.

This forms part of a series of workshops and dialogues during key events across various UNFCCC regional climate weeks that will foster action for Urban Water Resilience. Key discussion areas included governance, capacity, leadership, inclusion, and knowledge, tools, and solutions for financing. This is the first of several multilevel dialogue sessions expected to expand in subsequent COPs.

Key messages are presented below.

National Level Support for Urban Water Resilience

At the national level, governments recognize the critical importance of supporting urban water resilience as a cornerstone of their climate action strategy.

Policies that integrate water resilience considerations into national development and adaptation plans, emphasizing the need for coordinated efforts between local and national governments were highlighted.

Implementation mechanisms, like financial support and capacity building need to be established to enable cities to adopt sustainable water management practices, with for example dedicated funds allocated for climate-resilient infrastructure projects.

Additionally, capacity-building programs to equip local authorities with the knowledge and tools needed to address water and climate challenges effectively is fundamental.

Dubai
COP 28

Local Level Leadership

Local leaders are instrumental in fostering community engagement and ownership of adaptation initiatives, ensuring that solutions are not only tailored to local needs but are also embraced by the people they directly affect. This grassroots involvement enhances the sustainability and success of adaptation measures, as communities are more likely to adopt and adhere to strategies developed with their input.

In the context of National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs) local level leadership acts as a bridge between national policies and on-the-ground realities. It facilitates the translation of overarching climate goals into actionable plans at the community level, aligning global targets with local priorities.

Local frameworks should exist for coordination between national and local stakeholders - 'locally determined contributions', which provide institutional frameworks, a business case, and scale and ambition to align with NDCs.



Communities are more likely to adopt and adhere to strategies developed with local leaders input.

City Focus: Kigali's Investments in Water Resilience

Kigali's investments in understanding water vulnerabilities through its Resilience Road Map and Water Resilience Action Plan demonstrate a commitment to climate action.

Multilevel governance is essential in Kigali's approach, facilitating collaboration with the Ministries but also bringing diverse stakeholders and secondary cities to the table.

This is important to ensure community buy-in and preparing the city to actively respond to climate impacts.

The Road Map and Action Plan have been catalysts to identify the solutions and required phases for the implementation and Kigali is not engaging in a phase of scaling up.

It exemplifies how investing in urban water resilience is key to meeting national climate goals and fostering a more sustainable and inclusive future.



Case Study:

Local Leaders advancing water security through people-centered nature-based solutions

Through the Scaling Nature-based Solutions for Climate Adaptation in Sub-Saharan Africa (SUNCASA) project, the Cities of Johannesburg, Kigali and Dire Dawa are working directly with vulnerable communities to advance holistic solutions to floods and urban water stress.

Working with the International Institute for Sustainable Development (IISD) and the World Resources Institute (WRI), local leaders in the three cities are rehabilitating local catchments through a people-centered approach, prioritizing gender and social equity considerations by removing barriers for women and underrepresented groups in climate adaptation decision making, planning, delivery, and monitoring.

In addition to reducing flood risk and helping to ensure water security, the project works with local leaders to advance opportunities for communities in the three cities: creating green jobs, building resilient livelihoods and protecting local biodiversity while also improving the well-being of communities by developing green public spaces.

With \$22 million in funding from the Canadian Government, the project is led by IISD and WRI together with a host of local partners in each city: Johannesburg City Parks and Zoo, Women for Climate Justice South Africa (GenderCC),

The Johannesburg Inner City Partnership, Water for the Future, Alexandra Water Warriors and Zutari in the City of Johannesburg; the Albertine Rift Conservation Society (ARCOS), the Rwanda Young Water Professionals and the Association of Widows of the Genocide (AVEGA-AGAHOZO) in the City of Kigali; the Hararghe Catholic Secretariat, Haramaya University, the Dire Dawa Environment Forest and Climate Change Authority in the Dire Dawa Administration.

\$22m

in funding from the Canadian
Government



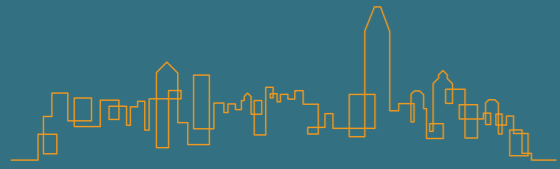
Image Credits: Eden Takele, WRI/SUNCASA

NDCs and NAPS as Catalysts for Multi-Level Governance

The multilevel governance approach positions the development and implementation of National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs) at its core, recognizing the imperative of enhancing cities' roles in climate change co-policy-making.

These national level commitments offer a concrete entry-point to engage in the multi-level approach.

City Focus: Understanding Risks, Aligning Investments, and Efficient Responses in Brazil



Rio de Janeiro faces heightened flooding risks due to various factors, including increased rains, infrastructure gaps, and sea level rise.

The city is actively planning for rising risks, prioritizing vulnerable groups.

Multilevel governance plays a crucial role in understanding and aligning investments to efficiently respond to these risks in line with Brazil's climate commitments.

Collaboration between national, regional, and local authorities is vital to develop comprehensive strategies, share knowledge, and implement effective responses.



For instance, according to a recent study by UN-Habitat, only 47 of the 193 NDCs have a strong focus on urban areas while 70 NDCs have low or no urban content⁴.

Reinforcing intentional alignment creates a cohesive and coordinated response to urban water challenges, which do not recognize administrative boundaries.

Decision-makers are prompted to acknowledge the interconnectedness of actions at both the city and national levels, emphasizing the pivotal role of collaboration in accelerating progress toward shared climate goals.

The NDCs are central to discussions during COP28, serving as catalysts for fostering multi-level governance towards water and climate-resilient cities.

At the national level, governments regard NDCs not only as commitments to global climate targets but also as strategic frameworks for enhancing collaboration between national and local governments.

This intentional alignment resonates with the SAA Working Group, as it aims to provide a platform for ongoing collaboration beyond COP for the integration of water-related targets within NDCs to align priorities and actions across different levels of governance.

This catalytic role of NDCs encourages the formulation of comprehensive strategies, with specific focus on urban water resilience, ensuring that the impacts of climate change are effectively addressed at both the national and local levels.

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⁴ Energy, transport and mobility and waste are the most mentioned sectors in urban mitigation challenges and responses. Infrastructure and water are the two most mentioned sectors in urban adaptation challenges and responses.

Case Study: Strengthening Multilevel Governance for Hydro-Climatic Risk Management: The EPIC Response Framework and Assessment Methodology

Developed in collaboration between Deltares and the World Bank, with the support of the Global Water Partnership and the World Meteorological Organization, the EPIC Response Framework represents a paradigm shift in understanding floods and droughts not as isolated events, but as interconnected components of the hydroclimatic spectrum, emphasizing collaboration among various government agencies and promoting a “whole-of-government” and “whole-of-society” effort for risk management.

By identifying institutional roles, promoting cross sectoral and stakeholder collaboration, and offering a comprehensive guide to flood and drought management, the framework presents a valuable model for addressing complex water-related challenges.

The EPIC Response Framework supports governments in assessing and improving their flood and drought risk management systems by identifying gaps and overlaps in agency mandates and governance structures.

The EPIC Response Assessment Methodology (ERAM) operationalizes the EPIC Response Framework, allowing users to produce rapid assessments or in-depth policy dialogues through participatory processes that engage government agencies and stakeholders.

This adaptability makes it a powerful tool for both short-term diagnostics and long-term institutional strengthening processes. ERAM has been applied in several countries and across governance levels including the Netherlands, California (USA), Tanzania, Philippines, the state of Assam (India), The Gambia, Mozambique, Comoros, Madagascar, the city of Beira (Mozambique), Egypt and Suriname.

A recent expansion of the EPIC Response Framework includes the development of a multilevel governance approach that specifically analyses the interactions and dependencies between institutions at various levels of government (local, regional and national).

By identifying synergies between national and local programs, this multilevel approach aims to improve coordination across different administrative layers, fostering a more integrated approach to flood and drought risk management.

This multi-layered framework ensures that the strengths of each governance level are fully leveraged to create equitable and effective water resilience strategies in others.

As the global climate agenda moves towards COP29 and beyond, the framework's focus on breaking institutional silos and enhancing collaboration across government levels becomes increasingly vital.

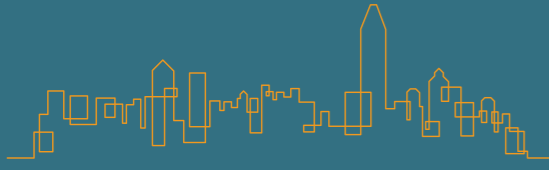
By addressing gaps in governance, fostering inter-agency cooperation, and ensuring alignment between local and national policies, EPIC provides a pathway to more coordinated and resilient flood and drought risk management.

Its commitment to a “whole-of-society” approach further ensures that these strategies are not only effective but equitable, reinforcing the global push for inclusive and climate-resilient development under the Sharm-El-Sheikh Adaptation Agenda.

Through its systematic and flexible approach, ERAM serves as a critical tool for countries to advance their climate adaptation efforts and strengthen their institutional frameworks in the face of growing hydro-climatic challenges.

More information can be found on the program here
<https://www.deltares.nl/en/news/floods-and-droughts-an-epic-response-to-these-hazards-in-the-era-of-climate-change>

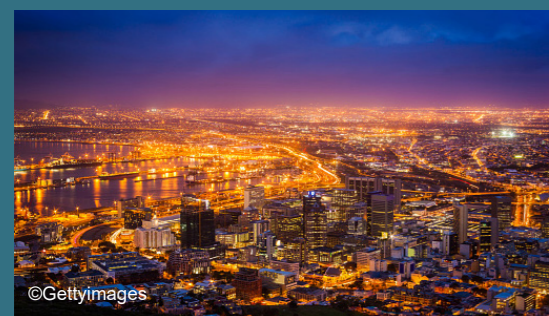
City Focus: Cape Town's Day Zero



Day zero was a pivotal moment for Cape Town. Ultimately Cape Town succeeded in moving away from Day zero and this has been possible through partnerships.

The role of the Municipality has been central, but they have worked together with the private sector and other government entities including the national government. Nowadays, Cape Town has a firm commitment to never end up anymore in a situation where water is restricted.

Despite new droughts to come and a growing population, the City has committed to never restrict as they did in 2018. To do so, the City builds a resilient system, and to achieve this goal, partnerships and multi-level dialogues are seen as pillars towards results.



Strengthening Substantive Dialogue and Engagement

Recognizing the pivotal role of dialogue and engagement between local and national governments, steps can be taken to reinforce and deepen this substantive interaction.

First, there is a need for a dedicated mechanism that encourages regular and structured communication between local, national authorities and other stakeholders. It should be established to encourage the exchange of expertise, knowledge, experiences, challenges, and best practices related to water and climate resilience.

Additionally, as part of the implementation process, financial incentives, capacity building projects, and stakeholder and community engagement initiatives should be explored to motivate local governments to actively participate in national climate planning processes, such as the formulation and implementation of NDCs and NAPs.

Strengthening the capacity of local authorities through training programs, access to innovative tools and bringing in local community engagement will further empower them to engage meaningfully in the multilevel governance landscape.

By linking substantive dialogues with concrete actions and resources, we not only encourage knowledge exchange but also facilitate a collaborative and integrated approach to addressing the challenges of water and climate resilience within the broader context of adaptation.

Recognizing the pivotal role of dialogue and engagement between local and national governments, steps can be taken to reinforce and deepen this substantive interaction.

Transformative Action, Multilevel Efforts

Transformative action requires a concerted effort between cities and national governments. The implementation of visionary projects that integrate innovative solutions for urban water resilience showcases the commitment of both levels of governance.

Multilevel governance, in this context, involves joint decision-making processes, alignment of policies, and coordination of resources to achieve common goals.

Transparent communication channels and collaborative platforms should be established to facilitate dialogue and ensure that the actions taken at each level complement and reinforce one another. This approach not only enhances the effectiveness of climate action but also fosters a sense of shared responsibility in addressing water and climate hazards.

Innovative Tools and Finance for Multi-Level Action

Innovation is key to addressing the complex challenges of urban water resilience. Both national and local governments should actively seek and promote the adoption of innovative tools and technologies that enhance water management and climate adaptation.

At the national level, the exploration of innovative financing mechanisms, such as green bonds or public-private partnerships, can provide the necessary resources for large-scale projects. Simultaneously, local governments should be encouraged to leverage technology for data collection, monitoring, and early warning systems.

The exchange of experiences and best practices in utilizing innovative tools and financing mechanisms should be facilitated to catalyze transformative action at both levels of governance.



Seoul City
Romance Stream Sunset In Seoul City

Case Study: The City Water Resilience Approach (CWRA)

The City Water Resilience Approach (CWRA) was developed to help cities grow their capacity to provide high quality water resources for all residents, to protect them from water-related hazards, and to connect them through water-based transportation networks ('provide, protect, connect').

It helps leaders navigate these issues, bringing the most effective practices to always local issues.

Resilience is a complex outcome to produce, necessitating time, investment in infrastructure, governance, communication and regulation.

It was co-developed, by Arup, Stockholm International Water Institute (SIWI), Resilient Cities Network, The Resilience Shift, The World Bank and the Rockefeller Foundation, and has been applied in 20 cities globally to respond to profound water issues and produce long-term solutions that address each of these dimension of the resilience puzzle.

At its heart, the CWRA provides clear insights on the most effective sequencing and prioritization with a water programme, helping clients to engage with the complexity of the water system and prepare for changes in demand and use.

It helps unlock investment and funding to much needed water infrastructure and adopts a nature-first ethos, prioritizing interventions that do not rely on hard infrastructure where natural factors can play a role.

More information can be found on the program here

<https://www.arup.com/insights/the-city-water-resilience-approach/>

The CWRA bring method and insight to a city's water resilience in five key stages:

- Understanding the system: explore shocks and stresses, identify system interdependencies, convene stakeholders, maps assets and processes.
- Assess urban water resilience: assess the city's approach to the framework to identify existing strengths and weaknesses and establish baselines.
- Develop an action plan: the action plan is a holistic evaluation of anticipated benefits, costs and prioritization of key projects.
- Implement the action plan: based on the city assessment, a plan is developed for realizing interventions that build water resilience.

– Evaluate, learn and adapt: Implementation of resilience measures is evaluated and changes in context and stakeholder involvement are analyzed.

Looking beyond infrastructure, this approach highlights the social role of citizens and governance, ensuring the rights incentive structure and communications are in place to drive cultural change around water and sanitation.

For corporates, the CWRA works hand in hand with business strategy, risk management, establishing how water plays a role in a business's operations and future. Overall, it enables cities to develop solutions at the portfolio level, dovetailing many related projects at once, to achieve resilience at scale.

Stockholm city center Gamla stan



Beyond COP28: Going Forward, A Call to Action

Building on the momentum generated by the UN 2023 Water Conference, the Water Action Agenda, and the collaborative efforts to launch the SAA Multilevel Working Groups in COP28, actions must continue beyond, to propel urban water resilience to new heights.

Recognizing the pivotal role of cities in achieving national climate targets and the imperative of enhanced multi-level coordination, a sustained dialogue for synergies between national and local actions must be created.

The Sharm el-Sheikh Adaptation Agenda Working Group on Urban Water Resilience, launched at the COP28, can act as a catalyst to foster multilevel collaboration and coordinated action between local, regional, and national levels of governments and stakeholders to effectively address water-related climate challenges in urban areas.

A catalyst to foster multilevel collaboration and coordinated action

This will be achieved through common action towards:

- **Recognition** of the critical role of cities in tackling water and climate challenges and the importance of cities and urban areas in achieving equitable and just transitions in response to climate change;
- **Leveraging** partnerships to enable cities to develop aligned strategies and systematic approaches in dealing with climate and water-related challenges, and mainstream climate change, integrated water management, and sanitation in their development plans and strategies;
- **Improving** representation of cities in the international climate agenda;
- **Coordination** of the work of different partners to support countries in enhancing their national climate commitments around urban water resilience, in particular supporting the NAP process. The first ever climate compendium of case studies from a diverse set of stakeholders seeking to build water resilience launched by the Race to Resilience and Sanitation and Water for All Secretariat as an outcome of COP28 is one great launching point to initiate alignment of interventions and progress.

The incorporation of stakeholder-influenced decision-making processes lays the foundation for a resilient and adaptable approach, fostering a sustained bottom-up resilience that can dynamically respond to changes as they unfold.

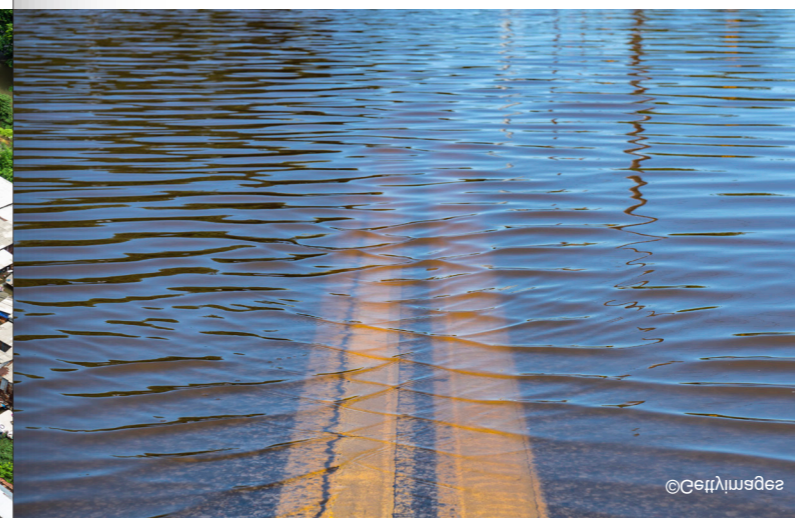
By embracing multiple planning goals, including equity and environmental considerations, the SAA Urban Water Resilience strategy ensures a comprehensive assessment of service reliability.

The metrics employed must extend beyond the mere cost of infrastructures, taking into account the provisioning of services, the impact on natural capital, economic opportunities and ecosystem services.

Managing trade-offs for resilience involves local resourcing and economically efficient water use, promoting sustainable practices.

Given the broad scope of water-related challenges, a holistic approach advocates for a balanced integration of qualitative and quantitative measures to achieve robust resilience in the face of evolving conditions.

This comprehensive strategy not only addresses immediate concerns but also establishes a framework for long-term success and adaptability.



Case Study:

Urban Water Resilience Working Group under the Sharm el Sheikh Adaptation Agenda (SAA)

COP28 presented a pivotal opportunity to connect urban water resilience efforts to the broader climate action agenda, specifically through platforms like the Sharm el-Sheikh Adaptation Agenda (SAA).

Despite many cities actively working on urban water issues, these efforts are often disconnected from national climate planning and fragmented across various sectors and organizations.

By leveraging the momentum of COP29 and beyond, there is potential to unite different actors, including city networks, researchers, civil society, and private companies, under a coordinated approach.

The draft objectives of a dedicated working group emphasize fostering collaboration across local, regional, and national levels of government to tackle urban water challenges more effectively.

A key focus will be recognizing the critical role cities play in managing climate-related water issues, while ensuring equitable transitions in response to climate change.



Additionally, the working group aims to help cities integrate climate change, water management, and sanitation into their development plans, and ensure that cities are better represented in international climate discussions.

Four key sub-working groups were outlined as critical areas to accelerate progress and include:

- Climate-resilient utilities
- Climate-resilient Water Sanitation and Hygiene (WASH)
- Basin-scale planning and Disaster Risk & Resilience (DRR)
- Enabling environment: Finance and investment

Coordination is essential, and the working group seeks to unite existing initiatives and partners without prioritizing any single approach. Instead, it will focus on enhancing cooperation between national governments, cities, city networks, the private sector, and UN entities. The prioritization of key thematic areas, aligned with the expertise of working group members, will help deliver impactful solutions for urban water resilience.

The working group on urban water resilience has outlined several key outputs aimed at fostering progress in this critical area:

- **Toolkit:** existing initiatives on Urban Water Resilience
- **Workshops and Dialogues:** during key events such as UNFCC regional climate weeks.
- **Guidance for NDCs and NAPs:** integration through national climate policies.

Targets for 2030: developing a specific target(s) as part of the SAA 2030 goals.

This initiative highlights the importance of cities in addressing water-related climate challenges, while emphasizing the need for systematic, multilevel collaboration to ensure that urban water resilience becomes a central part of national and international climate commitments.

With the engagement of diverse stakeholders, COP28 offers a crucial moment to advance the urban water resilience agenda, promoting a more cohesive and strategic approach to building climate-resilient urban environments.



This paper resonates with the outcome of the multilevel roundtable and the call for decision-makers and stakeholders to embrace the dialogue between local and national authorities, elevate political visibility, and commit to concrete actions for urban water resilience through multilevel governance, fostering a resilient and sustainable future for cities worldwide.

The SAA Urban Water Resilience Working group aims to drive such actions between the local and national level and ensure crosspollination of water prioritization across other sectors.

Conclusion

Cities' water resilience is paramount in the face of urbanization and climate uncertainty. Multilevel governance emerges as a cornerstone in fostering collaboration, coherence, and efficiency in climate action between local and national governments.

Achieving urban water resilience requires a collective and concerted effort across government bodies, academia, the public sector, private sector, NGOs, and communities. Through collaboration and shared commitment, we can transform challenges into opportunities and secure a water-resilient future for generations to come.



1. Policy Prioritization and Multi-level governance

Urban water resilience requires policy prioritization through frameworks such as NDCs, NAPs, or other national or urban climate and resilience strategies. Multilevel governance is essential for effective collaboration, implementation, and fundraising, involving a broad range of stakeholders such as local governments, national ministries, private sector actors, and NGOs

2. Urban Water Equity: Access for all to water and sanitation

Water equity emphasizes the right to safe drinking water and sanitation services, with a focus on protecting vulnerable populations and ensuring water for social resilience and public health. Equitable access to water and sanitation is essential for inclusive urban development and health equity in the cities.

3. Climate Resilient Infrastructure and Financing

Planning and financing solutions for aging water and sanitation infrastructure, utilizing climate finance, private equity, and other funding mechanisms and partnership mechanisms between private sector and public sector.

Draft key messages on urban water resilience
(Water Pavillion UWR Thematic Group)

