PATHWAYS TO INCLUSIVE CITY-WIDE WATER AND SANITATION SERVICES

SUMMARY

Rapid urbanization in low- and middle-income countries has put pressure on water and sanitation providers, resulting in uneven progress on access to services, especially among the poorest and most vulnerable people. This study reviewed the policies, regulations, and institutional arrangements that have driven progress across 11 cities with outstanding improvements in inclusive service provision. It identified three pathways to progress defined by the type of actor that spearheaded improvements: utilities, regulators, or municipalities, demonstrating that entry points for service strengthening should be adapted to the context. This study revealed a total of 12 cross-cutting characteristics that enabled inclusive citywide service provision, such as clear indicators and incentives, integrating small-scale providers, customer engagement, and specific pro-poor approaches. The findings of this study provide a foundation on which urban decision makers can encourage locally appropriate types of progress.

WHY THIS MATTERS

Fewer than 58% of urban residents in low-income countries had safely managed drinking water services in 2020, and just 21% had safely managed sanitation[1], threatening human health and the environment. These figures mask significant disparities between rich and poor populations. Inclusive water and sanitation service delivery depends on coordinated efforts among various public and private actors operating across different scales, geographic areas, and stages of the service chain.

By examining low and middle income cities that have successfully progressed toward inclusive service provision, this study identified conditions and actions that could be replicated in other cities where water and sanitation services are not keeping up with the pressures of population growth and income inequality. These findings indicate multiple possible entry points to promote effective enabling environments and can help to best target interventions.

How does this research connect to USAID's Action Research Initiative?

USAID's Global Water Strategy Action Research Initiative generates evidence to improve the effectiveness of its investments in water, sanitation and hygiene (WASH) and water resources management, as well as that of programs by partner governments, other funders, and practitioners.

Under this initiative, the Urban Resilience by Building Partnerships and Applying New evidence in WASH (URBAN WASH) project is partnering with local, regional, and global stakeholders to conduct research on the enabling environment for improved city-wide water quality and sanitation. It will further USAID's goals of strengthening regulatory frameworks and institutional capacity to ensure equitable access to safe, sustainable, and climate-resilient drinking water and sanitation services.

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METHODOLOGY

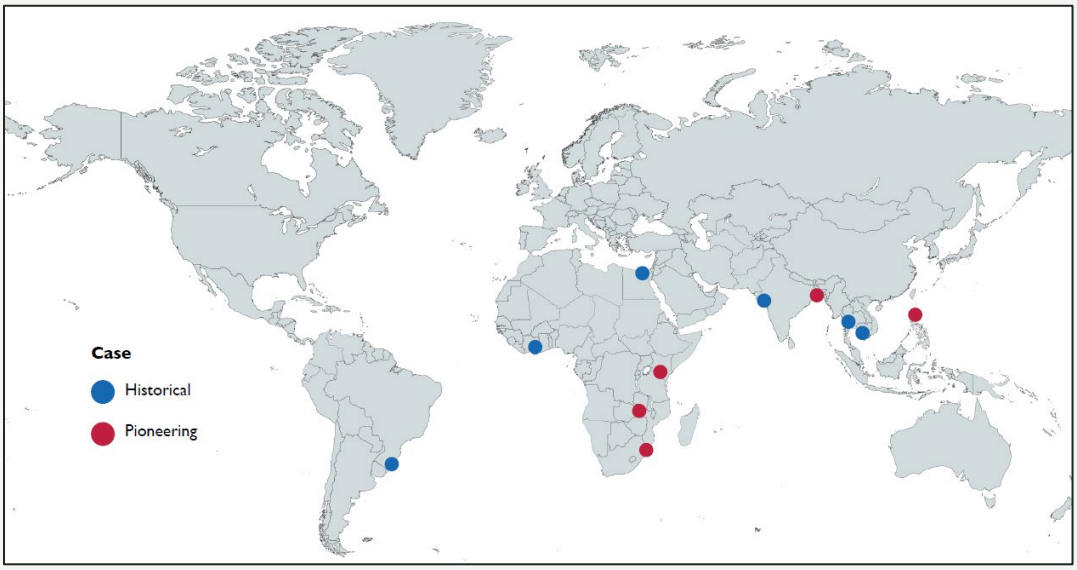
This study investigated two research questions:

- What policies, regulations, and institutional arrangements have historically been instrumental in driving inclusive improvements in piped water access and citywide sanitation?
- To what extent do the characteristics identified from historical examples of success play into current innovative efforts toward improving urban water and sanitation services?

Following a broad literature review, this study selected and examined 11 cities that demonstrated outstanding progress toward inclusive water and sanitation services. These cases, all located in low- or middle-income countries during periods of progress, outperformed other cities with similar economic circumstances and captured a wide range of demographic, economic, political, and environmental contexts. They included:

- Six historical cases of inclusive water service provision: Abidjan (Côte d'Ivoire), Ahmedabad (India), Bangkok (Thailand), Cairo (Egypt), Phnom Penh (Cambodia), and Porto Alegre (Brazil).
- Five pioneering cases of citywide sanitation coverage: Faridpur (Bangladesh), Lusaka (Zambia), Maputo (Mozambique), Nairobi (Kenya), and San Fernando (Philippines).

CASE STUDY LOCATIONS



Locations of included low- and middle-income case study cities for urban water (historical) and sanitation (pioneering) access improvements.

HISTORICAL CASE

- High performance with respect to piped water access
- Service expansion occurred at a time of relatively low national income

PIONEERING CASE

- Literature documented efforts to scale up safe sanitation access in low-income areas

The study employed comparative case study analyses informed by literature and 18 key informant interviews, using a modified version of the social-ecological systems framework[2] to identify and categorize drivers of progress.

STUDY LIMITATIONS

- Literature was limited to records publicly available and written in English or French (Abidjan only), and key informants were selected among representatives available in 2022.
- Historical case studies were completed retrospectively, and contemporaneous pioneer case studies had limited outcome data. Other innovative examples or strategies may exist.
- Low-performing cities were not included for direct comparison.

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FINDINGS

#1. Different actors can initiate progress and provide momentum for improvements.

Across the 11 cities, there were three distinct pathways to progress, with initial improvements driven either by utilities, regulators, or municipalities. Supporting progress requires identifying a dominant pathway and area for improvement.

#2. Common characteristics contributed to inclusive water and sanitation services across contexts.

Regardless of the actors driving progress, 12 common characteristics, such as clear performance indicators and incentives, community participation, and formalization of small scale providers contributed to progress.

#3. Progress on inclusive sanitation services does not always align with lessons from the water sector.

The complexity and diversity of actors involved in urban sanitation necessitate dedicated institutional and regulatory frameworks and experimentation to identify new technologies and financing options.

ORIGINS OF PROGRESS

Across cases, there were three distinct pathways to progress, which differed by the primary actor that spearheaded improvements:

- **Utility-driven** (Bangkok, Phnom Penh, Porto Alegre, Nairobi): Utilities with autonomy and strong leadership proactively drove progress through actions such as institutional reforms, efficiency improvements, increased metering, appropriate tariff increases, and public engagement.
- **Regulator-supported** (Abidjan, Cairo, Lusaka, Maputo): Independent regulatory institutions provided strong monitoring and coordination of the sector, prompting greater quality control, performance monitoring, additional investments, and development of regulatory frameworks tailored to local practices.
- **Municipality-driven** (Ahmedabad, Faridpur, San Fernando): A combination of elected officials and technically specialized civil servants who directly provided water and sanitation services drove improvements using integrated measures such as: slum upgrading programs, surcharges associated with property taxes (as opposed to tariffs), and public-private partnerships.

These findings reflect multiple pathways of achieving progress. Strategic entry points for strengthening services vary among locations, depending on social, political, economic, and environmental contexts.

TWELVE DRIVERS OF PROGRESS

Twelve characteristics across the five domains of the social-ecological systems framework contributed to a favorable or “enabling” environment for expanding inclusive urban water and sanitation services (Figure 1). Some improved overall organizational function and capacity, while others focused specifically on serving the poor. For example, for service providers, employing staff incentives, performance indicators, pro-poor subsidies, community engagement mechanisms, metering, and arrangements with small-scale private service providers benefited outcomes. The external socio-ecological context also contributed to service expansion, for instance via public support for reducing pollution, stable political systems that attracted financing, and social acceptance of low-income urban residents. In some cases, acute crisis situations, such as a cholera outbreak, financial crisis or water scarcity, spurred drastic actions to address underlying issues.

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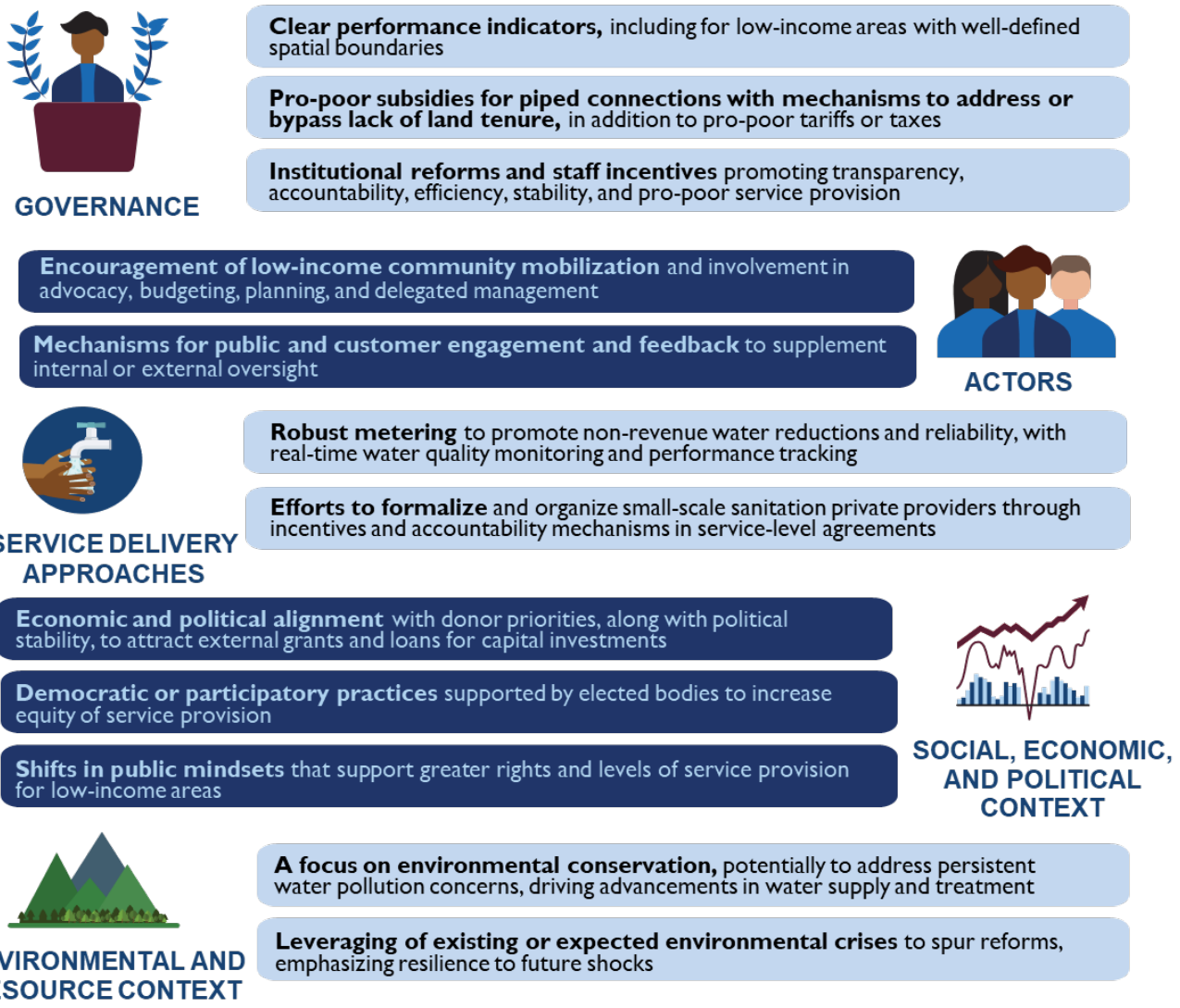
Figure 1: Twelve cross-cutting characteristics, organized by domains within the social-ecological systems framework, supported inclusive urban water and sanitation services.



POLICY IMPLICATIONS

1. **Recognizing that pathways to progress differ between cities, water and sanitation initiatives should first identify the most catalytic local actor among the service provider, municipal government, and regulator.** Supporting this actor and lowering the barriers it faces –following historical examples– is a promising entry point to promote change.

2. **External interventions can influence several enabling factors,** particularly those relating to governance, actors, and service delivery. Practical entry points for external interventions include incentives for staff professionalization, consumer input mechanisms, and expanded metering.

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3 **Making urban water and sanitation services more inclusive requires explicit pro-poor measures, such as participatory decision-making, removal of land tenure requirements, and subsidies.** A high performing service provider is a prerequisite to improve access among the poor but is not sufficient. Further, because one standard service approach might not reach vulnerable populations, decision-makers should explicitly permit and oversee a mix of varied service delivery approaches, including engaging small local providers.

Contributors to progress identified in this study offer multiple entry points for urban water and sanitation programming in low-resource settings. While not all the identified factors can be easily influenced by external interventions (such as those relating to the social, political, or environmental context), there are practical entry points related to governance, actors, and service delivery that will promote favorable enabling environments, and these will differ depending on whether efforts are focused on the utility, municipality, or regulator.

UTILITY	MUNICIPALITY	REGULATOR
➢ Encourage champions to institutionalize reforms, policies, and culture that promote sustainability of service delivery and improvements in efficiency	➢ Create clear policy mandates for service provision in low-income areas and integrate water and sanitation with other urban services where possible	➢ Develop regulatory frameworks that define clear roles and responsibilities, coordinate actors, and monitor performance
➢ Promote a set of clear key performance indicators that can be monitored by a body internal to the utility but with some degree of separation from service provision	➢ Ensure appropriate oversight and authority to sanction or reward performance by a body with some degree of separation from the service provider	➢ Develop clear performance indicators with a specific focus on services in low-income areas
➢ Prior to raising tariffs to improve financial sustainability, build credibility through public engagement and performance improvements	➢ Encourage strong financial management systems and maintain effective tax collection to support affordable services and access to credit for infrastructure investments	➢ Explore cross-subsidization mechanisms (e.g., tariff surcharges for higher-income residents) to fund service provision improvements in low-income areas

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https://www.globalwaters.org/content/urban-resilience-building-partnerships-and-applying-new-evidence-wash

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