Good Practices in Urban Water Management
Decoding Good Practices for a Successful Future
Case Studies by Asian Development Bank and Lee Kuan Yew School of Public Policy

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The 21st century will be the Asian century. What Asia does in meeting the water challenge should be of global interest.

The Asian Development Bank, in partnership with the Institute of Water Policy, Lee Kuan Yew School of Public Policy, National University of Singapore, embarked on a study aimed to identify a community of good practices in the areas of water, wastewater, and storm water management from eight urban centers. “Good Practices in Urban Water Management” provides significant new insights into urban water management in the cities of Bangkok, Thailand; Colombo, Sri Lanka; Jamshedpur, India; Kuala Lumpur, Malaysia; Manila, Philippines; Phnom Penh, Cambodia; Shenzhen, People’s Republic of China; and Singapore.

The study draws lessons from these Asian cities in addressing the challenges of urban water management by offering comprehensive reviews and analyses of the performance, as well as the key factors that contribute to progress. It also examines the continuing challenges that cities face and their responses to these challenges. The study hopes to inspire other developing countries to overcome their own challenges in water management and provide better service to their people.

The Water Challenge

Water remains to be a major global challenge with more than half of the people living in town and cities than in rural areas. Since Asia is home to more than half of the world’s population and is also producing the biggest surge in urban populations, what Asia does in meeting the water challenge should be of global interest.

The water problems in Asia’s cities are similar. These include sources and uses of raw water, the large proportion of water loss in distribution networks, intermittent supply, and the quality of tap water. In some cities, excessive use of groundwater resources has caused serious environmental problems. Many cities suffer from inadequate sewerage networks and wastewater treatment systems. The majority is still dependent on septic tanks while others use on-site sanitation facilities. For several reasons, cities have to struggle to provide clean and reliable water supply to all.

Inadequate leadership and poor governance have been identified as the fundamental reasons for these challenges.

Setting the Context

The study reveals three aspects during the assessment of the urban water management practices and processes:

1. Rapid progress in performance improvement and service delivery achieved by the selected Asian water utilities relative to their historical and national or regional contexts
2. Heterogeneity of the socioeconomic contexts in which these utilities operate, thereby challenging the approach of “one-size-fits-all” to define good practices among water utilities
3. Water utilities still face challenges in other aspects of water management despite having made impressive strides along certain dimensions.

Objective of the Case Studies

Certain Asian utilities have made rapid progress in various aspects of urban water management.

Rather than look at these successes as exceptions, a few crosscutting good practice themes should be identified from relatively better-performing utilities for universal adoption and replication.

The study therefore attempts to evolve a framework to define a set of good practices for wider adoption and replication across Asia and in similar contexts worldwide.

"Many parts of Asia and the Pacific are in a water crisis. The task of reaching the unserved population and delivering water and sanitation services to those who are covered may only grow more challenging. The case studies in ‘Good Practices in Urban Water Management’ proved there are common elements for success. I hope that leaders throughout the developing world can use these cases to help craft their own solutions for their specific local circumstances.”

Bindu N. Lohani
Vice-President for Knowledge Management and Sustainable Development, ADB
“There is a pressing need to study in depth Asia’s record in water management practices and to share best practices in a two-way flow of understanding between Asia and the world. This is why the Lee Kuan Yew School of Public Policy set up the Institute of Water Policy in 2008. There can be no doubt that the world can learn a lot from the Asian record in this area.”

Kishore Mahbubani
Dean, Lee Kuan Yew School of Public Policy, National University of Singapore

Case Studies

Five case studies (Bangkok, Jamshedpur, Manila, Phnom Penh, and Singapore) offer comprehensive review of utility performance and lessons learned, while three case studies (Colombo, Kuala Lumpur, and Shenzhen) focused on specific lessons learned in certain areas.

Bangkok, Thailand
The Metropolitan Waterworks Authority has made significant improvements in water supply management, including improvements in service coverage, water quality, service efficiency, and financial performance.

Jamshedpur, India
The case study offers insights for other utilities attempting to leapfrog from mediocre-to-moderate levels of performance to better service delivery standards.

Manila, Philippines
The privatization of water services in Metro Manila provides useful points of comparison from which urban water management lessons can be drawn.

Phnom Penh, Cambodia
From a near-bankrupt, demoralized, and corrupt institution, the Phnom Penh Water Supply Authority has transformed itself into a viable institution that is in the same league as the best water utilities in the world.

Singapore
The lessons learned from the country’s adoption of an integrated and innovative approach to water management shows that a public-owned water utility, with a high degree of autonomy, can be as efficient as a private organization.

Colombo, Sri Lanka
The National Water Supply and Drainage Board is among the few South Asian utilities that have achieved more than 99% of metered water connections and a continuous supply in its service areas. Its ability to keep pace with the rapid growth in population and substantial increase in its area of responsibility is remarkable.

Kuala Lumpur, Malaysia
From its experience, the government has realized that a privatization model may not be the best practice. Rather, a new public–private partnerships model is being pursued, one which shares the financial responsibility of infrastructure development with the private sector.

Shenzhen, People’s Republic of China
The city of Shenzhen has established a relatively complete legal system for water management and is one of the first cities in the country to combine all water-related government functions into one agency. It also promulgated the first set of measures in the country for the administration of concessions of municipal public utilities.

Overcoming the Challenges: Principles of Sound Water Governance and Good Practices

To overcome the challenges in the water sector, policymakers and water agencies must first understand the underlying principles of good water governance in relation to water scarcity and climate change. Sound governance can help create a favorable environment to increase both public and private sector investments and ensure that these investments are used correctly and efficiently.

The study identified good practices in key areas. These include:

- **Fundamentals** – Regulation is required to make water utilities accountable to the public. Hence, a corporate approach to water supply—but not necessarily private ownership—is essential to reliable, efficient, and equitable operations.
• **Efficient and Effective Service Delivery** – Water utilities should take an integrated, holistic service delivery approach that includes water supply management, demand management, wastewater management, research and development, and public–private partnerships where applicable.

• **Financial and Human Resources Management** – Utilities need to strive to be financially self-reliant by operating as independent, business-like institutions emphasizing on improvement of revenue and effective management of cash flow.

**Good Practices in Urban Water Management**

The study concludes that no one single model of urban water management will be suitable for all urban areas. The conventional approach of “one-size-fits-all” and “solution-in-search-of-a-problem” should not be applied as this will most likely fail.

Seven universal themes have been identified to serve as a model for replication by water utilities in Asia and in the developing world.

• **Staff Productivity** – Leadership and leveraged commitment at the highest level to create an empowered and highly motivated staff across various levels of the utility.

• **Unaccounted-for-Water (UFW) Reduction** – Low UFW is critical for efficient service delivery. Water wasted through losses in the system signifies lost revenue and lost opportunity for better service at lower cost.

• **Corporatize for Better Accountability** – Water utilities need to function autonomously for better accountability and empowerment of staff members. “Corporatization” can balance the powers and duties of a water utility for better performance.

• **Collaborative Engagement among Government, Corporations, and Society** – There is a need for a new paradigm to address integrated water management which engages the government, corporations, and society in a three-way collaborative effort toward defining and driving service delivery.

• **Empowering the Urban Poor** – Asian water utilities need to show innovation geared toward a more inclusive approach of addressing the needs of the poor, while at the same time ensuring sustainable access.

• **Sustainability: Economic and Ecological** – Policy that applies universal metering and differential tariffs based on volume of consumption and the ability to bear cross-subsidies for the poor, which integrates a healthy water balance that preserves ecological and environmental sustainability.

• **Sanitation** – An integrated and holistic approach to effectively manage water resources that includes wastewater management is needed. Expanding the wastewater network coverage should be given priority, and integrated planning should be carried out in implementing wastewater management projects.

To request a copy of the book, please e-mail adbpub@adb.org

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