



ECO-Asia Water and Sanitation Program Improving Performance of Water Services Utilities

The Paul Simon Water for the Poor Act of 2005 strengthens the United States Government commitment to enabling access to safe water and sanitation for developing countries, and supports achievement of Target 10 of the UN Millennium Development Goals to reduce by half the proportion of people without sustainable access to safe drinking water by 2015.

In Asia, the United States Agency for International Development (USAID) implements regional water and sanitation activities through the Environmental Cooperation-Asia (ECO-Asia) Water and Sanitation Program. ECO-Asia develops and implements pilot projects that demonstrate innovative strategies for expanding, improving and financing water services delivery in Asia. One program focus is to improve the operational performance of water and wastewater utilities by promoting the adoption of improved policies, practices and technologies.

Challenge. An estimated 84 million people in Asian cities do not have access to safe drinking water, and 255 million people lack basic sanitation. To address this challenge, the majority of water and wastewater utilities in Asia must overcome serious technical, management and financial challenges. Most utilities operate inefficiently, which often leads to poor service in terms of both water quality and quantity, resulting to customer dissatisfaction and low willingness to pay. Reduced revenues mean that many utilities lack the financial resources necessary to cover operations and maintenance requirements, and to service their debt.

While in many cases political factors prevent utilities from obtaining necessary tariff increases, utilities can, however, break the cycle by working to improve operational performance. By addressing operational deficiencies, utilities can gradually improve performance, increase customer satisfaction and strengthen revenue streams, including increasing debt. One key strategy for increasing revenues is to reduce “non-revenue water” (NRW), which is a measurement of how much produced water is lost or not billed. With NRW ranging from 25 to over 50 percent for most utilities in Asia, there is tremendous scope for increasing revenues.



Water utility operators receive on-the-job training in optimizing operation of water pumps. (Lina Damayanti/ECO-Asia)

Utilities can also work to lower operational costs through a range of efficiency interventions, including more efficient use of electricity, chemicals and other inputs. Strengthening the capacity of utility operators or introducing new staff incentives can also lead to more efficient operations. Improving strategic planning and adopting improved practices on billing and collections, metering and information technology can also lead to more efficient and effective operations.

Improved management and more transparent and accountable governance and decision-making arrangements are also crucial to improved utility performance. Through an ECO-Asia survey of over 40 water utility managers, there is a strong recognition within the region that improved leadership and management skills are critical for enhancing and expanding service delivery.

ECO-Asia Response. To demonstrate key strategies for enhancing utility performance, ECO-Asia develops and implements pilot projects and regional initiatives with partner utilities. One key ECO-Asia strategy in promoting improved performance is to facilitate focused utility-to-utility linkages via “twinning” arrangement that enable utilities to share experience, best practices and information. ECO-Asia also works with regional organizations and networks to promote dissemination and replication of program results and findings.

Pilot Activities. ECO-Asia pilot projects focus on key strategies for reducing operational costs and increasing revenues by reducing NRW, improving energy efficiency, strengthening leadership and management, training operators, and improving customer satisfaction through improved water quality and service delivery.

Pune, India. ECO-Asia works with the Pune Municipal Corporation (PMC) to convert intermittent water supply to continuous supply through introduction of the District Metering Areas (DMAs) to help manage demand and control water losses associated with NRW. ECO-Asia is linking PMC with the Manila Water Company to promote the adoption of best practices on DMAs, which will benefit an estimated 65,000 residents and will serve as a model for city-wide replication.

Provincial Waterworks Authority, Thailand. ECO-Asia is building the capacity of staff at Thailand's Provincial Waterworks Authority (PWA) to reduce NRW via a twinning arrangement with Ranhill Utilities Berhad, a Malaysian utility recognized for its success in reducing NRW. PWA is now integrating new management processes into its NRW management strategy that applies to 225 waterworks throughout Thailand.

Bac Ninh, Vietnam. Through a twinning arrangement between Ranhill Utilities Berhad and Bac Ninh Water Supply and Sewerage Company (BNWSSC), ECO-Asia is demonstrating new strategies for improving NRW management and strengthening customer outreach.

Halong City, Vietnam. ECO-Asia works in Halong City to improve sanitation through a training program for operators of the new Bai Chay wastewater treatment plant. Ensuring that the new system is maintained and operated correctly will mean sustainable water services for thousands in this rapidly developing city adjacent to Halong Bay, a UNESCO World Heritage site.

Indonesia. ECO-Asia trained water utility staff in the Indonesian cities of Bogor, Bandung, Gresik and Surabaya on techniques for reducing energy consumption. Energy auditors from the Energy Management Association of the Philippines provided on-the-job training and outlined methods for conducting energy audits and developing energy efficiency strategies. As a result, the Surabaya Water Company purchased new equipment to increase its power factor and reduce energy costs. The company also installed energy efficient pumps that increased water production by 8 percent, resulting in increased revenues and energy savings.

Water Utility Leadership Center-Asia. In partnership with the Asian Institute of Technology (AIT), ECO-

Asia has established the Water Utility Leadership Center-Asia (WULC-Asia), a regional professional development center of excellence providing water utility managers with in-depth leadership training and continuing education on key management skills. Beginning in 2007, the three-phase residential and on-site mentoring program will offer structured shared learning sessions led by recognized Asian experts, dialogues with successful utility leaders, and peer-to-peer exchange.

Regional Cooperation. ECO-Asia facilitates regional dialogue and promotes sharing of lessons learned via toolkits, training and regional workshops. ECO-Asia disseminates results and findings through regional networks, such as the Southeast Asia Water Utilities Network and the South Asia Water Utilities Network.

ECO-Asia Utility Twinning Arrangements: Common Challenges, Common Solutions

To assist utilities in addressing common challenges, ECO-Asia facilitates focused utility-to-utility linkages via "twinning" arrangement that enable utilities to share experience, best practices and information. Through twinning, utilities engage in a series of counterpart visits, and engage in peer-to-peer exchange, on-the-job training and technical assistance. Twinning arrangements complement ECO-Asia pilot projects, and help the target utility achieve a particular performance target. Ongoing twinning arrangements include:

- Regional Waterworks Authority, Thailand – Ranhill Utilities Berhad, Malaysia: NRW reduction
- Bac Ninh Water Supply and Sewerage Company, Vietnam – Ranhill Utilities Berhad, Malaysia: NRW reduction; customer relations
- Pune Municipal Corporation (PMC), India – Manila Water Company, Philippines: District metering areas

Partner utility share expertise and information on a pro-bono basis, based on core ECO-Asia principles of mutual sharing and cooperation.

Environmental Cooperation-Asia

Environmental Cooperation-Asia (ECO-Asia) is a regional program of the United States Agency for International Development (USAID). The ECO-Asia Water and Sanitation Program is active in Cambodia, India, Indonesia, Philippines, Sri Lanka, Thailand, and Vietnam.

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