Policy Briefs

Manila's Water Supply: Getting Water To Work

Water supply is a key issue across Southeast Asia, and nowhere more so than in the Philippines, where widespread water shortages and pollution have made it a central policy issue.

Two EEPSEA-sponsored projects in Manila have recently played important roles in the development of this policy. The first looked at the pressing problem of domestic water supply in the run-up to its privatization. The second looked at the industrial use of groundwater. Both studies showed that economic principles can be applied to the management of this scarce resource with positive results.

The problem of domestic water supply was tackled in 1995 by EEPSEA-funded researchers Cristina David and Arlene Inocencio at the Philippines Institute for Development Studies (PIDS). Their study was carried out just after crisis legislation had been enacted to speed the development of water supply infrastructure. About $7 million had been slated for an action program to privatize the Metro Manila Waterworks and Sewerage System (MWSS). Action was critical Ð Manila had the worst record of all major ASEAN cities in the efficiency of its water supply. Over 30% of the population was not reached by any public water service.

In explaining the thinking behind their research, David and Inocencio say that "a key priority in designing urban water policy and institutional reforms is the appropriate structure of water charges to ensure long-term sustainability of supply." In order to determine such an optimal pricing policy, estimates of the demand for and supply of water are required. The researchers' study therefore focused on understanding the water supply situation in Manila.

David and Inocencio found that people coped with the limited supply of water in a variety of ways, using everything from private waterworks to buying water from vendors. The impact of this on the poor was significant.

The average income of households forced to buy water from vendors was a third of that of households with MWSS connections. But water from vendors cost up to 10 times as much as water from the MWSS.

As a result the researchers found that, "poorer households have to spend a much greater

proportion of their available income on water than do wealthier households." They therefore concluded that high costs had more to do with lack of supply than with the tariff rate. They saw that the most important issue regarding pricing was not 'affordability', but whether it would allow for investment in and expansion of the water supply system to meet the needs of the poor.

In 1997 Maria Ebarvia, another EEPSEA-sponsored researcher, investigated the other pressing water problem in the city: that of industrial supply.

Due to recent industrial development in Manila, the demand for water has rapidly outpaced supply and has forced many businesses to dig their own wells. In fact, about 80% of industries rely on this as their main source, with only about 20% getting water from the MWSS. As a result, ground-water extraction is lowering the water table by 6-12 metres per year and groundwater is threatened by salination and other kinds of pollution.

Ebarvia's study aimed to determine the right mix of pricing, fiscal and regulatory measures needed for the efficient use of ground water. She calculated the true costs of various supply options, including the cost of depletion and other environmental impacts such as saltwater intrusion.

She found that, in the long run, the most costly option would be for businesses to continue to use ground-water, since water would become steadily scarcer and more polluted.

Consistent with David and Inocencio's findings for household water, Ebarvia found that the best policy option would be a conservation program to control groundwater use coupled with improvements in the supply offered by the MWSS. Ebarvia recommended that regulatory measures to bring this about could be complemented and partly financed by economic incentives, such as charges for the use of groundwater. These could be designed to induce companies to both restrict their water use and to install water-saving technology.

In light of the findings of these two projects, the Presidential Task Force on Water, headed by the Department of Environment and Natural Resources (DENR), commissioned PIDS to do a water resource pricing project in Manila and Cebu - financed to the tune of PHP 2.5 million. Partly because of the expertise developed and demonstrated in its EEPSEA project, PIDS has been designated to lead this activity. Information from the two EEPSEA studies is being used extensively.

January 1998

The full text of the two studies are available as EEPSEA Research Reports:
1) Understanding Household Demand for Water: The Metro Manila Case
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2) Pricing for Groundwater Use of Industries in Metro Manila, Philippines
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