

## Conference Report

### **Workshop on Water Pricing for the Americas, Brasilia, Brasil, 3–5 June 2002**

The economic value of water and how water should be priced, have been debated at the international level for decades. With increasing water scarcities in many parts of the world, this debate has intensified in recent years. The proponents of water pricing claim that it will significantly improve existing water management practices, while the opponents argue that this will lead to the commodification of water, and the poor will be adversely affected. Not surprisingly, the issue of water pricing was one of the two topics that generated maximum controversy at the World Water Forum in The Hague in March 2000.

As a contribution to this global debate on water pricing, a workshop was organized in Brasilia, 3–5 June 2002, to objectively review and assess the experiences on water pricing from the Americas. It was sponsored by the National Water Agency (Agencia Nacional de Aguas) of Brazil, the Inter-American Development Bank and the Third World Centre for Water Management, Mexico. The discussions were based on specially commissioned case studies from Argentina, Brazil, Canada, Chile, Mexico, Spain, USA, and the perspectives of the World Bank.

The workshop participants generally recognized that water pricing is an important policy component for water resources planning and management, mainly as a means to recover (partially or totally) the costs of water services and to promote its rational use by influencing the behaviour of the users. It was agreed that properly instituted water pricing can reduce misallocation of water, promote efficient use, reduce water quality degradation, improve the financial situations of government agencies, and also service delivery to the users, especially the poor.

The objective of pricing the use of water, rather than pricing of water, should be to influence the behaviours of users and managers, and to raise revenues. Hence, the pricing strategy should not be mechanical, but tailored according to the specific circumstances of the locality. It must be acceptable to the community, who should participate in this process. Hence, pricing the use of water should not be seen as a tax, but as a public price, that is, users pay for utilization of a common good. It must be differentiated from the payment for a service or the means to recover the cost of providing water services.

Full or partial cost recovery through pricing was extensively discussed, as well as whether pricing is an end by itself, or a means to an end, the end being efficient and socially acceptable water management. It was noted that water markets are not a pre-requisite for water pricing.

The situations and experiences with water pricing vary in different North and South American countries. They can even differ significantly within one single country. For example, in Mexico, there are charges for obtaining water rights,

abstracting water from the sources, and for discharging wastewaters. While water rights and abstractions are charged for at present, wastewater discharges are mostly neglected, irrespective of the legal requirements. The experiences from the state of Guanajuato in Mexico indicated the disadvantages of universal subsidies which benefit sectors of the population who do not need them. Low tariffs for water supply services are affecting the poor, since there are simply not enough investment funds to increase the coverage of water and sanitation services that could benefit them. During the 1995–2001 period, over US\$160 million of water rates were not collected in Guanajuato, an amount which would have provided water to the entire urban population of that state (140 000 people). In order to provide water to this population, nearly US\$50 million is required. This is less than the US\$53 million that was not collected because of unnecessary subsidies during the 2000–2001 period.

In the case of Chile, the price of water is defined by the market value of water rights. There is no universal subsidy. Tariffs are based on marginal costs, which are calculated individually for each stage of the service: production, distribution, collection and treatment. At present, nearly 20% of the poorest families receive subsidies for water supply and sanitation services. The State, through the municipalities, pays directly to the water utilities the bills of the families identified to receive the subsidy. The number of beneficiaries of the subsidy has increased from 315 000 in 1992 to 520 000 in 2000. During this period, the monthly value of the subsidy has increased five-fold.

For Buenos Aires, a public–private consortium, Argentinian Waters Inc., has the concession to provide water and sanitation services. The operator of this concession is Suez-Lyonnais des Eaux, and their operation is regulated by the State. Tariffs, which are the core of any concession, are to cover operational costs, taxation, part of the investment costs, and reasonable return on the capital. The tariffs are reviewed every five years, with annual revisions to account for cost variations. The unit rate varies from US\$0.2 to US\$1.78/m<sup>3</sup>, depending upon the number of people in a household. The service coverage has increased since the concession was awarded. The company invoicing has increased from US\$540 million in 1999 to US\$650 million in 2001. The private management has made only a minor impact in reducing losses, from 40–45% at the beginning to 35% at present.

The economic conditions in Argentina have sharply deteriorated because of the devaluation of the local currency. In only five months, the peso has lost its value from parity with the US dollar to only US\$0.294. This devaluation could not be reflected in the water charges because of the current socio-political conditions. A new tariff regime was expected to start at the beginning of 2002, but its enforcement has been postponed. If the economic conditions improve, it could be included in the tariff proposal of January 2003, and could be applied from January 2004.

For the USA, permits are increasingly required in the eastern states and water rights must be acquired in the western states by establishing new rights or purchasing existing ones. There are no significant charges for the abstraction of water from the source. The permit systems in the eastern states are increasingly allowing trading. Since water rights are tradable in all the western states, markets for permits and rights are generating appropriate prices for water.

Bulk water supply is obtained in the United States, either from the private appropriation of surface and groundwater supplies through private infrastruc-

tures, or from larger projects undertaken by individual States or the Federal Government. Early water development were mostly private, both for agriculture and municipal uses. At present, both the State and Federal Governments are involved in providing water, since water developments have become more and more costly, as well as technologically complex. Private and public water developments must follow existing state regulations, permit systems and/or the rules for acquiring water rights.

In Canada, as in the USA, the provinces are responsible for managing water resources within their geographical areas. In Canada, in 1999, 43% of households with municipal water services paid flat fees. Even for volume-based systems, some 3.4 million households fell within the basic allowance covered by the fixed monthly fee, and thus were essentially paying a flat fee. In 1999, the average unit charge was C\$0.96. Charges for wastewater collection and treatment are usually integrated with water charges.

In the case of Brasil, studies have been carried out to define the optimal prices for water for different uses. Pricing has already been implemented in the state of Ceara, and it is under implementation in the river basin of Paraiba do Sul.

In Ceara, water pricing was initiated in 1996, when charges were established for domestic and industrial sectors. During the 1998–2000 period, water charges for irrigation were established. In Fortaleza, the capital city, the price of water to the concessionaires is US\$11/1000 m<sup>3</sup>, and varies between US\$1.6 and US\$7.4/1000 m<sup>3</sup> for irrigation uses.

For the state of Pernambuco, the State Water Council decided in December 1998 that US\$0.004/m<sup>3</sup> would be charged for water supply and sanitation sector as of 1 January 1999. It was also planned to establish a charge for the industrial sector by 1 July 1999. However, these charges have not yet been implemented.

In the state of Parana, it is planned to recover 43.2% of the costs of water supply and 56.8% for discharges of wastewaters from the year 2006.

No single concept of water pricing exists in Spain. This is because conditions are not identical. Charges depend on issues such as uses of reservoirs, areas they are situated in, when they were constructed and the uses of water. Water prices for irrigation are generally on the low side. With the exception of some specific cases of infrastructure maintenance, such as the Tagus-Segura aqueduct, or of certain city councils who pass the total costs onto the end-users, these prices are often symbolic.

The actual economic–financial framework in practice in Spain varies from area to area, and has certain structural shortcomings. The degree of compliance with the payment of the regulation charges and water tariffs is much higher, for example, in the Ebro Catchment area, compared to other areas. Furthermore, there are constant legal attempts to establish the setting of specific tariffs in order to reduce the payments.

There is currently an internal debate on the price of water in Europe. This debate is affected by the declaration of the European Parliament and Council Directive 2000/60/EC of 23 October 2000. This establishes a community framework for action in water policy and includes the principle of the ‘recovery of the costs of water services’. The principle is highly complex and full of nuances, although it takes a clear line with regard to transferring costs to the beneficiaries of water services, including ‘environmental’ costs. However, it would take some time to define precisely what these ‘environmental costs’ are, how they are to be

estimated, any exception that could be made to recover costs, and if so, under what circumstances.

Formulation of appropriate pricing policies should include consideration of the inelasticity and elasticity of residential/industrial and agricultural demands. For inelastic demands, when prices are raised, revenue collections will rise. However, for elastic demands, an increase in price will reduce revenues. It was agreed that one of the most important issues when considering water pricing is the fairness or equity among water users. It is sometimes argued that the increase in the price of water will result in further inequity towards the poor. This, however, can be overcome by appropriate tariff structures and targeted subsidies.

There was general agreement that no single approach can be used universally. Pricing practices will depend on the objectives and the specific circumstances. Economic instruments should be considered concurrently with social and environmental requirements. The main concern is not so much the methodologies to calculate the prices for the use of water, but the implementation of the concept itself, and its socio-economic and environmental impacts, both real and perceived. Setting the tariffs for water supply and sanitation is often more of an art than a science, since there must be trade-offs between the economic needs of the water utilities, social requirements of the populations, preservation of the environment, and political considerations.

The workshop was an excellent example as to how a controversial issue such as water pricing could be objectively and comprehensively discussed in a dispassionate and undogmatic way, where, while opinions of the participants varied on some issues, the discussions were always non-polemical.

The three co-sponsors are organizing a second workshop on public-private partnership in the water sector for the Americas in Mexico City, 25-27 September 2002. The results of these workshops and the main commissioned papers will be published as books in English and Spanish languages through major publishers. There is no doubt that these books will be an important contribution to the global debate on the complex issue of water pricing.

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