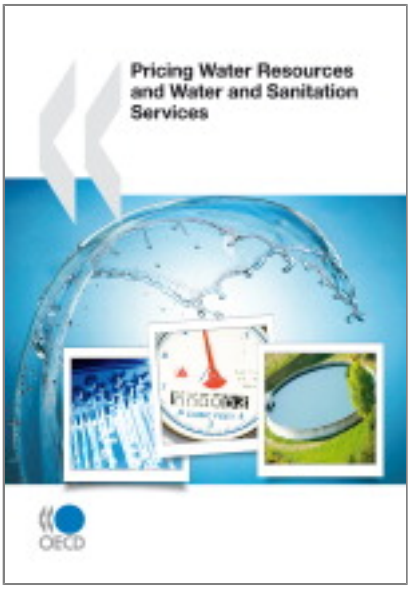
OECD *Multilingual Summaries*

Pricing Water Resources and Water and Sanitation Services

Summary in English



- In both OECD and non-OECD countries the water sector is facing the challenges of increased competition for water resources, deteriorating water quality, and the effects of climate change and poor management. In this context, how can countries ensure access to adequate, sustainable and affordable water and sanitation services for all?
- Pricing water-related services is an essential part of the answer. This report compiles reliable and comparable data on pricing water and on water supply and sanitation services across OECD countries. It sheds additional light on such policy issues as the choice of tariff structures for water services, cost recovery for water services and affordability.

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Objective and scope of the report

This report updates two previous reviews of OECD countries' experience with pricing for water-related services. It is based on the OECD 2007-08 Survey which was set up to address two sets of policy questions:

- What proportion of costs is recovered by revenues from tariffs? What alternative cost-sharing mechanisms may be appropriate for different water-related activities?
- Are average tariff levels affordable for all? And if not, are adequate tariff structures, including social tariffs, or other income-support mechanisms being adopted?

The data was collected at national and local levels, on prices and tariff structures for water supply and sanitation (WSS) services, for domestic (households) and industrial uses. It also covers the diffusion of metering, and cost recovery. In addition, available information on abstraction and pollution charges is presented. Data was used to assess affordability of water supply and sanitation in OECD countries.

A new context for water pricing

Two main sets of challenges face the water sector in OECD and non- OECD countries. One regards the increasing competition for the use of water resources for human consumption, productive uses, and the support of ecosystems. Limited availability of water resources, their deteriorating quality, the impacts of climate change and poor management, all contribute to the problem.

The other challenge is the need to ensure access to adequate, sustainable and affordable water and sanitation services for all, including poor households. While in some regions water scarcity is one limiting factor, this goal is mainly constrained by management factors including ill-conceivedinvestment, the deterioration of infrastructure due to insufficient cash flows, or inappropriate regulatory frameworks.

These challenges are not confined to developing countries: recent analyses confirm that OECD countries are facing similar (although different) issues.

In this context, water policies need a mechanism to allocate water where it is most needed, and a financing instrument to generate revenues. Appropriately designed and tailored to local conditions, pricing waterrelated services can contribute to the achievement of these policies. This requires that both tariff levels and structures are considered, in co-ordination with other financing instruments (taxes and transfers).

Water pricing in OECD countries

OECD countries are gaining experience with abstraction charges, pollution/effluent charges and other economic instruments – such as tradable water use permits – to achieve more economically efficient and environmentally sustainable abstraction and allocation among competing uses. In most countries, abstraction charges are designed with the objective of providing funding for water resources management or for watershed protection activities. Despite this, they tend to be relatively low. In the limited sample available, higher charges are imposed on groundwater than on surface water. In most cases, charges are collected and retained locally.

More countries reported the use of pollution charges. Pollution charges can be linked to different characteristics of the polluter, the effluents or the recipient water body. In most cases, fees/charges are collected at the local level – but only seldom at the river basin level – to finance environmental activities. Some systems provide incentives to continuously reduce discharges in water bodies. In some instances, countries adopted alternative cost-allocation mechanisms that recognise the existence of a broader set of beneficiaries. For example, revenues collected from downstream beneficiaries are used to compensate upstream residents for losses due to land use regulation, an important step towards truly integrated water and land management at the river basin level.

Tariff levels charged to households for WSS services vary greatly among OECD countries, reflecting contrasted efforts to recover the costs of the services through prices. The data show that in half of the countries, wastewater

services can be more expensive than drinking water supply. It also confirms that prices have risen over the last decade (although at times more slowly in the most recent years), primarily driven by wastewater charges, which were brought in line with the costs of investment needed for environmental compliance. Value-added tax (VAT) and other taxes also explain part of the increase.

Tariff structures for water supply vary within and across OECD countries. The diversity of tariff structures in a country reflects the degree of decentralisation of the tariff-setting process. The main difference with previous surveys is a smaller number of countries where the use of flat fees and decreasing block tariff structures were detected. An emerging trend in some OECD countries is the increasing use of fixed charges alongside volumetric components, or the progressive increase in the weight of fixed charges in the overall bill.

Increasingly, separate wastewater charges are being introduced to recover wastewater management costs. Most countries levy separate charges for sewerage vs. wastewater treatment, although in most cases the basis for charging remains water consumption; only the size of the volumetric rate differs.

Data collection is even more difficult for industrial water supply and sanitation services; differences across productive sectors, for instance, provide an additional layer of complexity. With regard to water supply, the main difference with household tariff structures is that a few more countries and regions use decreasing block tariffs, particularly for large users. The objective of keeping large customers that provide substantial revenues and stable flows seems to inhibit the use of tariff structures that may provide incentives to reduce water use. With regards to wastewater management, data shows an increasing use of separate charges for wastewater collection and for wastewater treatment, with the latter increasingly based on the pollution load of industrial effluents, thus better reflecting actual treatment costs.

Taxes are applied to water bills more often than a decade ago. It is noteworthy that VAT and other taxes can affect final demand and the affordability of service, but do not contribute to cost recovery. Data shows that taxes on water-related services vary greatly across countries and make cross-country comparisons difficult.

Data on water supply and sanitation in non-OECD countries was only collected at local level and national computations are difficult. Reported data indicate a (sometimes steep) increase in prices over the last decade for water supply and sanitation services, however from usually low levels. Some countries in Asia, Latin America and the Middle East have tariffs above USD 1/m3 (compared with tariffs ranging from USD 1 to USD 4/m3 in most OECD countries). However, in most cases, tariffs provide little incentives to use water efficiently (including by curbing down leakages) and contribute little to cost recovery.

Consequences for selected policy issues

The data collected through the OECD 2007-08 Survey sheds some light on selected policy issues related to pricing water supply and sanitation services.

First, it confirms that metering is unevenly spread across OECD countries. This forbids use of the first best option for achieving economic efficiency, which is marginal cost pricing. There may be good reasons for this (metering is costly and applying marginal cost pricing to water generates difficulties), but it follows that economic efficiency can only be met through second best choices.

Second, data indicate that, in OECD countries, the operation and maintenance costs of domestic and industrial WSS services are generally covered. However, there doesn't appear to be a large margin for operators to also face the need to renew and replace ageing infrastructure, although very few countries provided data on this item. Generating revenues to cover full economic or sustainability costs seems to be a remote target only.

An analysis of specific cases suggests that efforts have been made to increase cost recovery from tariffs in many OECD countries. The focus has been primarily on ensuring that effective funding mechanisms are in place to ensure the financial sustainability of the sector, and particularly of wastewater management, where larger investments are needed.

Third, the data has made it possible to assess affordability of water supply and sanitation in selected OECD countries. Figures confirm that water supply and sanitation bills do not represent a considerable burden on disposable

household income when using average income figures. The picture is more contrasted when one considers the lowest decile of the population: average representative bills would represent a significant share of the disposable income of these groups in a number of countries.

It is important to note that many countries have introduced social tariffs or accompanying measures. The analysis of these measures indicates that, properly designed and tailored to local conditions, pricing can be an effective instrument to contribute to the environmental, social, economic and financial dimensions of water policies.

There would be important benefits from more work to regularly document these trends, identify best practices (e.g. on financing the renewal of infrastructures or on coping with affordability issues) and learn lessons (e.g. on price elasticity of demand, or the effects of specific taxes). This would fill in the knowledge gaps and facilitate cross-country comparisons. The lessons could be reflected in a checklist for policy makers involved in the design, or the revision of, pricing policies for water-related services. This report paves the way forward.