

Water service delivery

Perspectives on market processes following in setting water services tariffs

This study published by the WRC in 2013 is contributing to the debate on the best market structure to support water service delivery.

Introduction

South Africa's private sector and using market processes are often dismissed by the government as a service providing option because they increase costs and fail the poor population. There is some substance to the government's position, given that there is a natural monopoly advantage in water service production, it would be expected that a single firm would emerge as dominant in the provision of these services to urban customers.

On its own this outcome would not necessarily be undesirable, but were this firm to be a private one, and regulated, it could be expected to practice exploitative pricing, make excess profits and undersupply wastewater management service. A private firm would also not provide services to the poor unless their service was subsidised. However, most of these deficiencies can be regulated and also occur under public sector provision.

Providing perspectives on market processes

This assessment forms part of a WRC project that critically reviews the South African water service tariff structure in the light of the twin objectives of cost recovery and affordability.

The objectives of this WRC project were the following:

- To provide an overview of the legal framework and national guidelines within which municipalities and boards provide water services in South Africa
- To assess the consistency of water service provision in practice with the content and spirit of other South African law
- To outline the nature of the social failure that can occur

when choosing private sector provision of water services within this legal framework, and Department of Water Affairs (DWA) guidelines

- To examine examples of alleged social failures in municipal water service provision with a view to comparing them with those occurring under private sector provision
- To survey selected elements with an interest in public water service provision with a view to deepening insight into the nature of social failure under public sector provision
- To report a case study of tariff setting within the Nelson Mandela Bay Municipality
- To draw conclusions about the merit of inviting private sector participation on the basis of the various assessments and questionnaire evidence

Methodology

The study employed four research methodologies, namely desktop analysis of relevant South African law governing municipal water services and national guidelines for this provision; economic modelling with a view to generating predictions about water service provision under the relevant market conditions (a natural monopoly); ethical assessment based on selected economic ethics, welfare, efficiency and equity; and structures questionnaires to elicit opinion on selected public sector water service provision activities.

The legal framework

There is a well-defined legal framework that regulates the municipal provision of water services in South Africa. This framework makes provision for private sector participation in water service delivery.

Under the South African model for water service provision, the DWA regulates supply, the Treasury subsidises shortfalls in cost recovery, and local government is mandated to administer the delivery of the water services. The mandate provided permits own provision, or outsourcing to private firms or public entities, but very little use has been made of the private sector option. The main Act within which all this occurs is the Water Services Act of 1997.

In turn, the National Water Act of 1998 governs the provision of raw water by the DWA to the water treatment facilities and/or distribution centres; and the Raw Water Pricing Strategy, a document detailing the necessary steps to maintain a financially viable treatment facility. In addition, the Minister of Water Affairs may prescribe national standards relating to the use of water resources, the provision of water services, and the quality of the water used and discharged.

The Local Government Municipal Systems Act of 2000 provides that each municipality must implement a tariff policy on the levying of fees for municipal services and must adopt bylaws to give effect to the implementation and enforcement of its tariff policy.

It is concluded that the legal framework for water service provision in South Africa provides scope for private sector participation after all public options have been considered. The private sector provider would be subject to the same requirements as the public sector provider. Certain aspects would be difficult, under private water sector provision, e.g. to cross-subsidise non-water services.

Non-water law and water service delivery

In addition to the various water Acts, non-water Acts also have relevance to aspects of water service provision. Two such Acts are the Competition Act of 1998 and the Consumer Protection Act of 2011. The former aims to limit the abuse of dominant positions in market operations, while the latter is designed to promote and advance the social and economic welfare of consumers in South Africa by regulating the transactions between consumers and suppliers.

Private sector failure in providing water services

There is no overwhelming *prima facie* reason for favouring regulated and subsidised (outsourced) public entity provision over (outsourced) private sector provision. Within the private sector market model, failures can be expected to

occur, but with regulation and subsidies, improvements can be affected in social welfare, efficiency and equity.

Within a public sector market model, similar failures also occur (for different reasons) and they too can be redressed with regulation. For this reason, no general conclusion can be drawn on the relative welfare merit of private versus public entity provision of water services. The social welfare failures associated with private sector provision of services in the water market do not provide justification for rejecting the private sector option in favour of a public sector one.

This report argues that the broad ranging political antagonism evident within the South African national government towards participation by the private sector in service provision is misplaced (or misinformed). Economic theory does not support the case for this antagonism, and nor does empirical analysis.

If South African municipalities are to reap success from privatisation of their water services, they will need to pay careful attention to the preconditions for private sector success. If these preconditions are not met, a distorted outcome can easily result from private sector experimentation. The most effective regulation of price discrimination in South Africa would be to ensure that the provider follows the existing legislature, including the Competition Act, prohibiting price discrimination.

Regulation against abnormal profits could be solved by specifying only normal profits as a result of production. This specification would also include an additional constraint that the costs of production be maintained at an efficient level. The creation of a public utility company is also an attractive method by which to avert the generation and capturing of abnormal profits.

A way to regulate against the under-cost recovery in the wastewater sector and the free-riding problem is to include a clause that links the water service charges together. An alternative solution is to recover the wastewater charges through tax revenue collection, similar to other public goods.

Failure in public water service provision

The report identifies several reasons for failure in public sector water service provision. This includes, among others:

- Rent seeking behaviour
- Lack of incentive to be innovative
- Short-term public official incentive structures

- The way tariff structures are constructed
- Cost recovery and challenges of cross-subsidisation

There are many options for organising public sector water service provision, and a number of potential failures that can occur. South African government (municipal) suppliers of water are susceptible to many of these failures, including organisational slack, rent seeking behaviour, ministerial disinterest, and abuse of dominance.

Given the potential for government failure in water service provision, there is a need for regulation of the government providers. The regulator and tariff setting aspects of the public sector are almost as important as they would be for the private sector, diminishing the advantage of the public sector over the private sector in their respect.

Integrity in tariff setting – Case study of Nelson Mandela Bay Municipality

The examination of a case study on Nelson Mandela Municipal tariff setting reveals a mismatch between economic principle and policy practice, and indicates that economic principle plays a lesser role in the design of tariff structures than other factors. Given the problems of public sector water service provision, the study concludes the case for dismissing private sector or public utility models for water service delivery may be weaker than is believed by the South African government.

Conclusion

There is great variation in the circumstances and customers served on which different South African municipalities provide water services – so that it will be very difficult to improve uniform ‘one size fits all’ norms and standards. Even in tariff setting there are many unique features that have evolved. Two results of this diversity of circumstances are

that the DWA’s regulatory hand has been ‘loose’ rather than ‘tight’ on the reins, and there has been little obvious benefits of scale of operation, outside of the metropolitan areas.

Recommendations

- **An independent regulator needs to be created as soon as possible** to govern over the water services sector. This independent regulator needs to be empowered correctly with the necessary skills and training to regulate the water sector effectively according to the legislature.
- **Municipalities need to perform water services cost calculations** so that an effective base for cost recovery can be established. The regulator needs to endorse and follow the legislation and guidelines when governing the water services sector, while still testing the efficiency.
- **The consumer protection allowable under the Competition Act and the Consumer Act should be extended to the water sector** despite the present public services provider, especially in the case of ineffective regulation, or regulation of indeterminate effect.
- Any reforms that are put in place should have **economic rationality in its design, political sensitivity in its implementation and close and constant attention to political-economic interactions** and social-institutional factors, so as to determine in each case the dynamics to follow.
- **Any reforms should be launched after sufficient and extensive awareness campaigns**, where a clear economic rationale and broad reform agenda are presented.

Further reading:

To order the report, *Perspectives on the market processes followed in setting South African water services tariffs* (Report No. 2087/2/P/13) contact Publications at Tel: (012) 330-0340, Email: orders@wrc.org.za, or Visit: www.wrc.org.za to download a free copy.