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The WRC operates in terms of the Water Research Act (Act 34 of 1971) and its mandate is to support water research and development as well as the building of a sustainable water research capacity in South Africa.

POLICY BRIEF

IWRM

Generating revenue for CMAs

A completed Water Research Commission (WRC) project investigated the water pricing instruments and their potential for generating revenue for catchment management agencies (CMAs).

Background

This investigation assumed a resource economics-based point of departure. Common pool resources such as air, water and certain types of land are public property, and hence the ecosystem services provided by this resource are implicitly public resources.

Public resources, being non-excludable and subtractable, are subject to overuse and degradation. In order to limit negative externalities and improve allocative efficiency, market intervention is required, enacted through a management authority. CMAs, enabling the devolution of water resource management to the local level facilitate broad-based user participation and are intended to manage the resource towards this end.

They key purpose of this study was to investigate the mechanisms, conditions and viability of revenue selected streams required to address the cost structure of CMAs in South Africa. In any organisation, the organisational mandate guides the organisational functions, while the organisational functions determine the cost structure. Successful organisations manage to acquire the funding required to address the cost structure.

CMAs are statutory bodies with jurisdiction in defined water management areas. The mandate of the CMA has been clearly defined. The various functions required of the CMA have been spelled out in the National Water Act (NWA) and various publications of the Department of Water Affairs (DWA). The foundational strategies, as defined in this report, address the core business of managing water resources and of complying with operating requirements.

Policy recommendations

Raw water use charges

The current raw water use charge structure in South Africa does not reflect the full anticipated cost of water resource management as detailed by the NWA (1998), the Water Services Act (1997), and the Raw Water Pricing Strategy (2007).

In the 2010/11 financial year, expenditure on water resource management activities was R250-million, with the DWA having budgeted R350-million for that financial year. The budget allocated by the DWA for water resource management in the 2011/12 financial year was R450-million.

A budget of R214-million per annum would be required to fully account for the cost of establishing the CMAs (Phase 1 and 2 of CMA development). At this tariff level, assuming zero grant funding from DWA, average charge would be 1.51 cents/m^3.

However, by phase 6, which is the fully matured stage of CMA development, these water resource charges would have to be increased by an average of 270% across all water management areas (WMAs) to generate sufficient revenue to fully account for the cost of operating the CMAs. At this tariff level, the average charge would be 5.84 cents/m^3 and would generate revenue of approximately R828-million.

Develop a handover schedule

The slow delegation of functions, with the associated authority, responsibility and delays in the transfer of funds, has impeded the effective establishment and functioning of CMAs.

At present, the responsibility of water resources management is assigned to the DWA regional offices. Over the short to medium term, the intention is to shift that responsibility from the regional offices to the CMAs as they come online and mature towards full functionality.

The CMAs will first need to be established before responsibility for water resource management activities can be assumed from the DWA regional offices. A handover schedule needs to be

developed to determine an order of priority for water resource management activities to be transferred to the CMAs. The handover schedule will act as a guideline to assist in the developmental pathway for CMAs.

Assess priority CMA functions through cost benefit analysis

South Africa is a developing state with a long list of high priority development objectives. State departments compete for a limited pool of available revenue with which to fund their development initiatives. The demand for this revenue greatly exceeds the available supply.

South Africa, in its current and foreseeable medium-term economic position does not have sufficient revenue available to fund all of its development objectives concurrently. This position holds true for water resource management and the current quantity of funds available to establish and fully develop CMAs.

A cost benefit analysis of the various CMA functions needs to be undertaken to identify which specific functions will yield the greatest benefit for a given level of expenditure. The capacity of CMAs will have to be incrementally developed, with essential, higher order functions taking priority. Functionality can be augmented as additional funding sources are secured by the CMA.

CMA budgets should be set relative to expected revenue

A relatively modest percentage of the water resource management charges due to water management authorities are currently being collected. The setting of budgets for water resource management does, at present, not take this revenue recovery shortfall into account.

The CMAs will be responsible for collecting water resource management charges. Setting operating budgets relative to the expected recovery of charges will incentivise CMAs to increase their levels of recovery while simultaneously stimulating prioritisation of activities which will support the generation/recovery of revenue. Budgets may then be augmented as recovery increases.

CMAs should have access to a WARMS terminal and have the authority to update the database

Access to, and management of, the WARMS database, is currently managed at a national level, while the management of water resource users, charges, and revenue collection is in the process of being delegated to a catchment level through the CMAs.

The activity of water resource user data is fundamentally related to efforts to improve the recovery of water resource management charges and to the management of water resource allocations to those users.

Having access to accurate data would be supportive of efforts related to the collection/recovery of water resource management charges. Thus CMAs would be intrinsically motivated maintain accurate and up-to-date data in the WARMS database.

CMAs should thus have access to WARMS terminal and should be granted access to the database for the purpose of managing data related to water resource users and their corresponding allocations.

Establish a contractual obligation between water resource users and their corresponding CMA

At present, water resource users are charged for water resource management, with the pool of water resource management activities paid for being broadly defined by the mandated functions for CMAs and other active water resource management paid authorities.

The nature of this relationship between users and management authorities allows for a great deal of uncertainty in terms of the specific services the management authority in question is expected to deliver.

By establishing a contractual, charge to service specific agreement, between the management authority (CMAs in this instance) and the user, the following can be achieved:

- The water resource users will have clarity regarding the services they are being charged for and whether or not those services are being delivered.
- Water management authorities will have clarity around which services water resource users are specifically paying for, allowing them to prioritise provision of services.

Further reading:
To obtain the report, *An analysis of water pricing instruments governed by the DWA water pricing strategy, and its potential for generating revenue for CMAs* (**Report No. 2078/1/13**) contact Publications at Tel: (012) 330-0340; Fax: (012) 331-2565; Email: orders@wrc.org.za or Visit: www.wrc.org.za to download a free copy.