

IWA Book on “PBC for Improving Utilities’ Efficiency”

(Version 6, 4 October 2016)

Performance Based Contracts (PBC) and Regulatory issues

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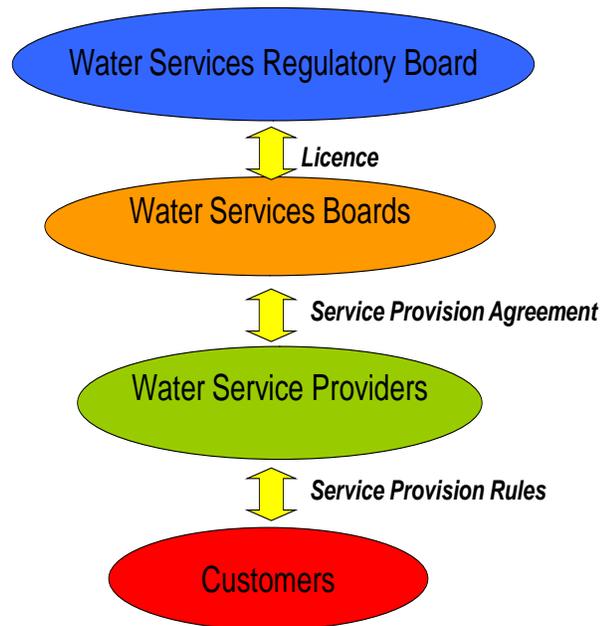
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1. Background

In Kenya, the last few decades have seen growth in population and rapid development of low-income areas (LIA) within urban and peri-urban areas. This situation, coupled with the decline in performance of service providers, resulted in users of water resources competing for those limited resources. An increasing number of people had no or limited access to regulated water and sanitation services provided by state institutions. In response, the government introduced far-reaching reforms in the water services and water resources management sectors with the objective of improving performance, governance, and management. The new institutional arrangement involved the separation of policy formulation, policy implementation (regulation), asset development and service provision. The reforms created the Water Services Regulatory Board (Wasreb) in 2003: this regulator for water services in Kenya has the responsibility of overseeing the implementation of policies and strategies relating to provision of water services. Wasreb sets rules and enforces standards that guide the sector towards ensuring that consumers are protected and have access to efficient, adequate, affordable and sustainable services. Figure 1 below shows the current institutional arrangements after the reforms.

Figure 1



The Kenya constitution has embedded the right to water and sanitation in the Bill of Rights, effectively identifying water and sanitation as human rights. Attaining these rights depends on three crucial elements: (1) investment levels, (2) operating performance of the utilities, and (3) service improvement to the poor (meeting targets based on effective governance). Public policy determines the allocation of resources and ensures that funds are linked to the sector investment needs. The other two aspects of ensuring increased focus to the poor and the continued improvement in performance by the utilities is within the domain of the utilities and the shareholders (county governments). The role of regulation in this arrangement is to ensure the progressive realization of these rights within a framework that protects consumers and the environment and helps to reconcile potentially conflicting social needs with financial sustainability (as well as water resource sustainability).

As a foundation for moving forward, sector leaders have embraced three key approaches: formalization, professionalization and socially acceptable commercialisation. Formalization means that services are provided by licensed utilities which are held accountable in providing quality services in a sustainable and affordable manner and according to minimum standards set by the regulator. Professionalization and commercialisation imply that at the local level there is a

clear separation between politics and service provision, with the later being undertaken through utilities which have been formed as public limited companies and which operate according to socially responsible commercial business principles which protect the poor. To safeguard the abuse of dominance by monopolies, regulators employ performance-based contracts to simulate competition amongst utilities (Berg, 2013).

2. Building information systems with Key Performance Indicators (KPIs) that enable regulators to monitor, and evaluate operators

The Water Regulation Information System, WARIS, is the regulator's main tool for data collection. WARIS has been in use for the last six years and has undergone a number of system modifications to make it more user-friendly. The latest system upgrade converted the system to an online database with one central shared database. The system also has a provision for offline data entry, which enables the importing and exporting of the data to and from the central database with internet availability. The system has been designed to ensure the maintenance of data protection and integrity. In order to improve on the quality of the data that are submitted, the system provides for validation checks--both internal and external; and provides an audit trail for tracking of any changes made.

Benefits of WARIS

- Increases transparency in the sector
- Facilitates publication of periodic sector performance review reports
- Improves accessibility of data and information for monitoring, planning, and decision making
- Supports effective management audits
- Supports the monitoring of the performance of utilities, WSBs and County governments in investments and water service provision

Once the regulator makes a data request, the utilities activate the specific data sets and provide the data required within an identified time. Figure 2 presents the data collection cycle within WARIS.

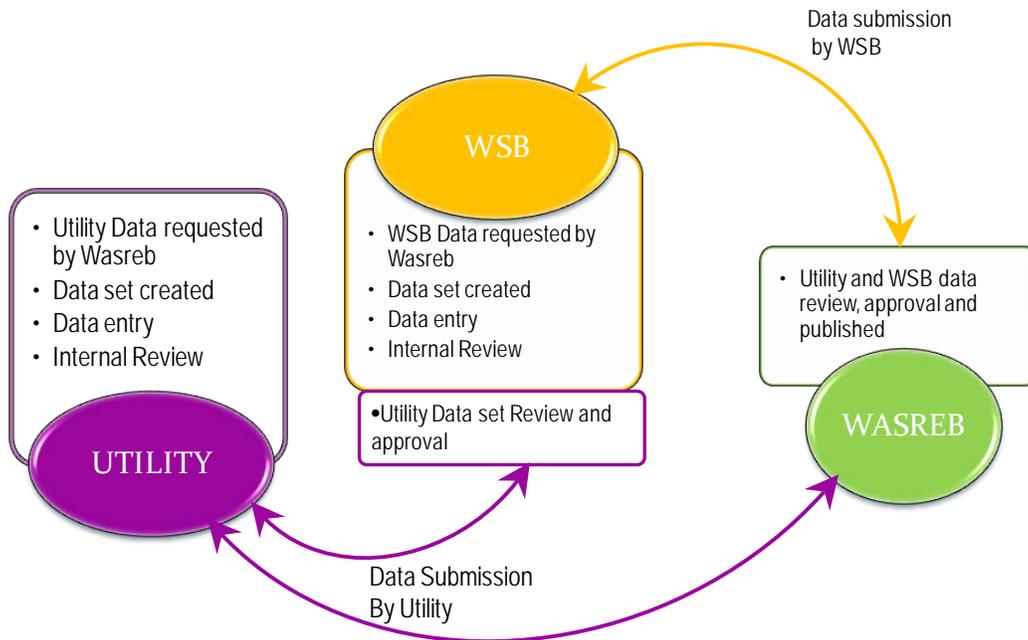


Figure 2. The data collection cycle within WARIS

WARIS has the ability to provide information on sixty seven (67) indicators in the different areas of utility operations: technical, financial, commercial and human resources. The system also has a provision for reporting on pro-poor performance which covers identified low income areas for each utility. In order to improve accuracy, the system is linked to national census data, from which the annual population projection rates are also obtained, alongside relevant socio-economic data. This increases the precision and timeliness of population data for the service areas. Reports pertaining to the indicators can be generated at all levels. The reporting feature is enriched to highlight improvement, stagnation or declining performance for the different indicators. National performance is based on the nine Key Performance Indicators (KPIs) which are used to rank comparative performance as well. These performance reviews are detailed and available on the web annually.

The data-collection process recognizes that information systems are not free; at the same time, *decision makers manage what they measure*—so data on trends and patterns across geographic areas are central to sound regulation, effective management, and access to both public and

private capital (Rouse, 2007). When infrastructure is provided by government (taxpayers), evidence regarding the cost effectiveness of these scarce funds is one determinant of more predictable government transfers (and loans) in the future. Demonstrating unbiasedness and expertise is one way ministries and regulators can signal their ability to promote new investment. Additionally, the data collection/reporting process enables regulators to engage stakeholders in a process of joint-sector reviews that bring different groups together and help them identify common goals.

Collecting data from multiple, dispersed, low-capacity operators serving small communities is challenging. Wasreb has worked to increase the value of data collection to the local leadership and community. Information about customers, delivered output, cash flow, and other indicators is essential if citizens are to be in a position to evaluate whether their project is moving in the right direction in terms of service quality, access, and sustainability. Local capacity in financial management may be lacking, but recruiting and training people to collect, authenticate and report data is essential for the long-term success of small, local projects and provides the foundation for future expansion and improvements. Even a simple business plan establishes operating parameters and targets that can be reviewed at the end of each period. Without such plans (and associated procedures and a clear organizational chart indicating roles and responsibilities), performance improvement can lag and not meet citizens' expectations. Transparency becomes a tool that puts pressure on managers to meet targets and performance well relative to managers for comparable towns.

3. Setting performance targets and monitoring performance with limited data

The existence of a robust data collection system is crucial in this process. Despite the existence of WARIS, data flow from the utilities is however not a seamless process. Among the key factors that impact on data submission by the utilities are:

- i) Inadequate capacities within the utilities to make use of the reporting tool
- ii) Lack of baseline data for some utilities
- iii) Inconsistent data submission depending on the purpose.

To improve on the quality of data submitted, Wasreb corroborates the data that is submitted through WARIS with data submitted through other sources. These other sources that provide a

basis for cross- checking are inspection reports and tariff data. Performance assessment is carried out on the basis of 9 KPIs grouped into three key areas of operation of the utility.

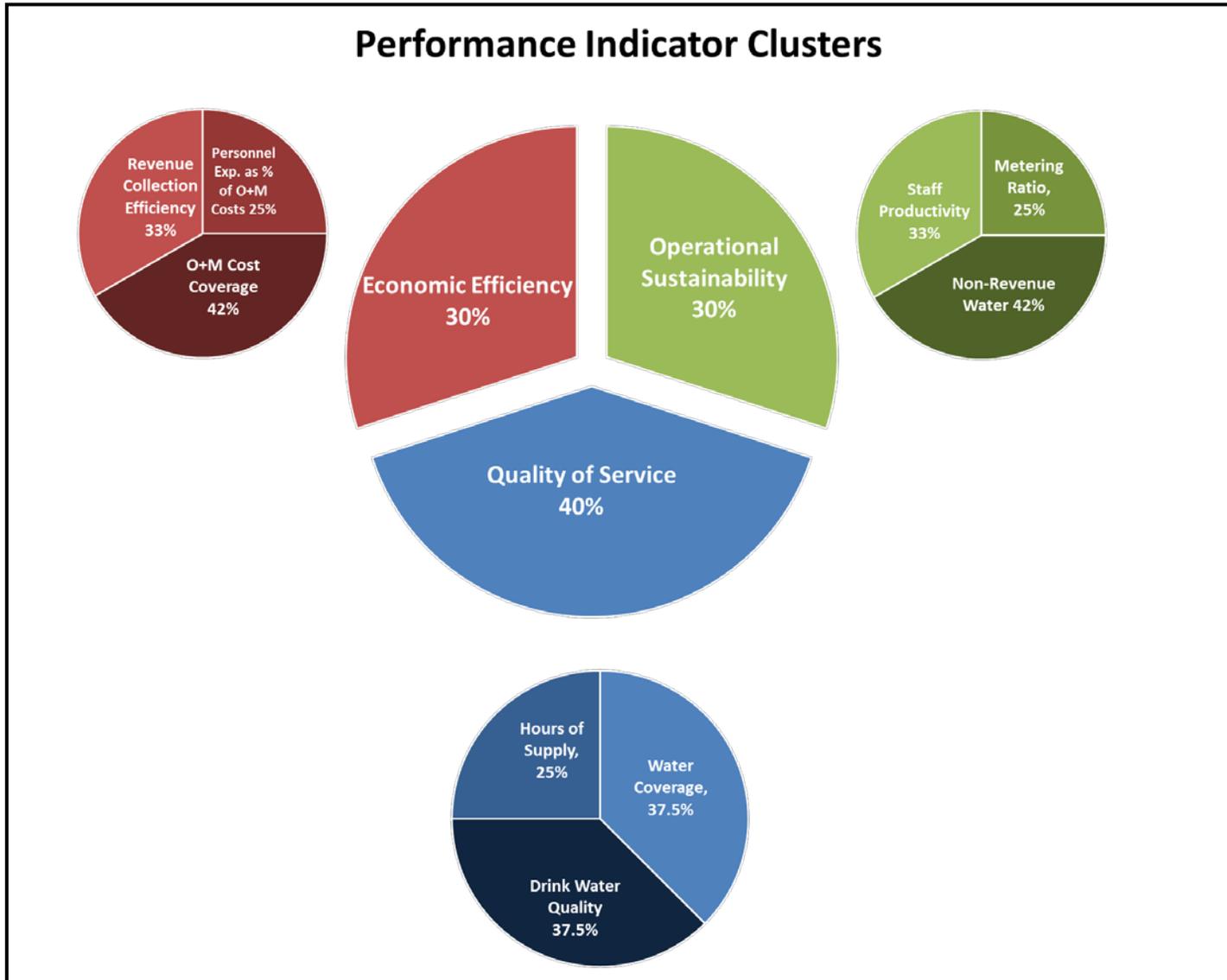


Figure 3: Weights for the indicator clusters

The three broad areas that are prioritized are quality of service, economic efficiency and operational sustainability. The choice of the 9 KPIs was based on the main goals of the sector then which were access, water losses and cost recovery. Figure 3 shows the weights allocated to the clusters of indicators have based on the sector goals.

Developing incentives for quality improvements, cost containment and network/service expansion

Data definitions and collection are just the first steps in developing incentives for improving performance. Targets need to be based on the reality that is captured in past trends, current patterns across comparable service providers, and best practice. The information requirements are substantial, because Wasreb must do the following:

- Collect historical financial and operating data (with clear definitions and authentication procedures);
- Analyze data across comparable operators (where topology, customer density and mix, and system ages are similar, or fully accounted for);
- Identify the preeminent supplier (so the feasibility of meeting the target is well established); and
- Determine the time frame for meeting the target, with explicit dates (because adjustments to complex delivery systems cannot be made quickly).

Unrealistically challenging targets frustrate managers; on the other hand, excessively low hurdles do not affect behavior (Sappington, 1994). Identifying baselines and realistic targets requires data, but obtaining and authenticating data is the first challenge facing those attempting to monitor and improve infrastructure performance (Mugisha, 2011).

Since the provision of water services is largely monopolistic in nature, comparative performance reporting is a means to spur competition. To improve performance however, it is crucial that good performance be incentivized while poor performance is sanctioned. The role of incentives is to promote, encourage, motivate or obligate the actors to exercise their mandates with clear objectives. Wasreb has developed a scoring regime for KPIs that considers three performance ranges which are good, acceptable and not acceptable: green, amber, and red, respectively. The resulting Figures in Reports give clear, visual information that can help local leaders and

residents understand “their” utility’s performance relative to comparable utilities. The limits for each performance level have been defined based on international good practice, taking into consideration the current status of the Kenyan water sector. The scoring regime is dynamic and is reviewed on the basis of the developments in the sector. Thus, weights can be changed as utilities in Kenya move towards meeting international standards for different dimensions of performance.

The application of this scoring regime enables the regulator to evaluate and rate the performance of utilities. These scores are then incorporated into incentives and sanctions. This blending of incentives and sanctions works to advance the regulatory function beyond the Minimum Service Level (MSLs) commitments. Generally, quality improvements on services have a tendency to level off with the attainment of minimum service levels as utilities are likely to slacken their effort. Managers face no local competitors, but regulation can substitute for competition through the establishment of additional targets and incentives. Regulations raises standards and efficiency in operations: customers get value for money on account of its effective application. The effective application of incentives and sanctions to the utilities impacts positively on the service delivery.

Effective PBC application requires systematically-collected quantitative data to provide a baseline for setting targets. Wasreb’s annual publishing of the water services sector reports has laid the foundation for the introduction of performance-based contracting: as part of the contract, the regulator needs to establish baseline data of good quality (accurate, timely, and reliable), enabling the identification of achievable targets.

Incentive regulation requires the collection and publication of comparative performance information based on generally agreed-upon KPIs. The creation of appropriate penalties for performance below a certain threshold is now ripe for implementation in Kenya. The annual performance report “Impact” ranks utilities on the basis of a scoring regime that is drawn from the sector goals (<http://www.wasreb.go.ke/impact-reports>). The goals are aligned with agreed sector benchmarks. To date, only naming and shaming has been applied for high and low performing utilities. The next step involves evaluating access beyond minimum levels: where there is deterioration in performance, the consequences for management should be significant.

That involves ensuring that the local governance arrangements are consistent with promoting strong performance. Beyond that, penalties and fines need to be imposed and enforced for incentive regulation based on PBCs to have a positive impact. A comprehensive overview of launching and revitalizing regulatory systems is available at a new website whose development was funded by the Public Private Infrastructure Advisory Facility (PPIAF): <http://regulationbodyofknowledge.org/launching-or-revitalizing-regulatory-systems/> . The site includes material on data collection, setting targets for KPIs, and establishing incentives for improving infrastructure performance.

Note, however, that important trade-offs are seen between improving the service quality for current customers and expanding the network to meet the needs of future customers. This issue needs to be part of a public discussion, with input from local political leaders and consumer organizations. Measures of citizen satisfaction reflect perceptions regarding the mix of service coverage, tariffs and quality. Public information regarding service quality by geographic area is often woefully inadequate, limiting the ability of public input to put pressure on local infrastructure managers. That is why Wasreb's data collection and publication initiatives have been so important. Of course, performance standards regarding service quality and reliability have cost and tariff implications because they involve resources. Consumers are willing to pay for a defined standard of service quality, but performance standards have implications for the cost of service and the utility's financial sustainability. Monitoring the outcomes associated with these standards involves KPI benchmarking. The fundamental issue is whether incentives and disincentives are available to the regulator (and if so, which ones) if the performance standard is not met. If the penalty for a state-owned or municipal operation is a price reduction, the impact on managers could be minimal. Current customers may be unaware of what is possible, due to lack of information about what comparable operators are achieving, and are happy to see prices fall. The losers are future customers (generally, the poor) and those who do not obtain access to the service because of the delay of network expansion initiatives. Of course, ability to pay is a serious issue, but establishing a culture of even "symbolic" payment is a foundation for *future* financial sustainability.

The bottom line is that Evidence-Based Decisions are more likely to be accepted by stakeholders than regulatory rulings that seem to come out of thin air. It is said that “the fewer the facts, the stronger the opinion.” This suggests that data and supporting analyses can defuse some potential conflicts. Decisions based on managerial discretion and political pressures characterize settings where data are not systematically collected. Evidence-based decisions cannot be made without historical statistics on finances (cash flows, income statements, and balance sheets) and operations (inputs, delivered outputs, service quality, customers, etc.). Wasreb has taken the position that it is important to publicize information about trends over time and performance patterns across suppliers. Ultimately, the question of data availability and data quality relates to how well inputs (networks, maintenance, labor, etc.) are translated into outputs (infrastructure services that are delivered to residences, industrial customers, and commercial demanders). Without financial and operating statistics, it is difficult (if not impossible) to evaluate sector performance and to identify the strengths and weaknesses of current regulatory and managerial arrangements. Kenya now has a track record that demonstrates the formalization of its information collection processes, professionalism in the analysis and presentation of utility comparisons, and socially-acceptable commercialization via a focus on important KPIs.

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