

Practical Lessons for Performance Monitoring in Low-Income Countries: The Case of National Water and Sewerage Corporation, Uganda

Silver Mugisha (National Water and Sewerage Corporation),
Sanford V. Berg (Public Utility Research Center, University of Florida), and
Heather Skilling (Consultant, Stone & Webster)

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A number of perceived risks stand in the way of private participation in infrastructure. Attracting credible private operators in developing countries is difficult, since investors face the following stubborn facts: the market is small, political risks are high, and citizens are especially sensitive to changes in institutional arrangements, even when current performance seems weak. Consequently, most African water utilities start small, with simple forms of water-based operations management (WOM) contracts. This fact, however, seems to be overlooked when effective performance monitoring schemes are considered. In pursuing institutional reform, there is a tendency to concentrate on incentive regulation and monitoring through an independent regulatory commission. Such initiatives often focus on the design of rate structures (tariffs). The resulting policy debates emphasize the regulation of lease and concession contracts where rents from efficiency improvements and investments can easily be captured by consumers. Performance monitoring of basic WOM contracts (performance contracts, service contracts and management contracts), which are common in Africa, has not received comparable attention. This paper describes a monitoring approach used by the National Water and Sewerage Corporation, Uganda, one that incorporates both process and metrics benchmarking. The paper concludes that these forms of benchmarking complement each other as long as there is an adequate balance so that process benchmarking does not fall prey to command and control, thereby interfering in the operator's business.

1. The Context

This paper extends an earlier one that described key elements of good utility performance monitoring in an environment typical of a low-income country like Uganda (Mugisha, Berg, and Katashaya, 2004). The earlier paper highlights a research project, which is being carried out in urban water utilities under the National Water and Sewerage Corporation (NWSC). In addition, the paper outlined the significant efficiency improvements that have been realized in NWSC since 1998. These include reduction of unaccounted-for water from 51 percent to 39 percent, with most of the utilities registering less than 20 percent currently. In addition, the number of connections has gone up by more than 90 percent, while water service coverage has increased from 48 to 63 percent. NWSC's annual income has increased by more than 90 percent, significantly improving the overall financial sustainability of the utility. The question is how NWSC created mechanisms that improved performance to such a degree.

Mugisha et al. (2004) described a management fee structure currently being applied under the Internally Delegated Area Management Contract (IDAMC) framework. Under this fee structure, the best performing operating utilities receive a maximum performance fee compensation of 5 percent of total operating costs, on average. The performance fee guards against performance declines and is therefore based on weighted minimum performance standards according to average performance in the last six months prior to signing the IDAMCs. In addition to the performance fee compensation, the best performing utilities get an incentive fee compensation of about 25 percent of total operating costs (including the incentive fee itself). This means the total compensation (performance and incentive fees) is 30 percent of operating costs. The remaining operating costs (base fee) are passed through and incentives to reduce them are implicitly embedded in the sharing of cash operating margin (cash collection minus operating costs).

The incentive fee encourages the utilities to reduce operating costs, maximize revenue collection, reduce unaccounted-for water, reduce accounts receivables, reduce the number of disconnected accounts and maximize billed income. The incentive fee compensation is a share of the cash operating margin realized, which ranges from 30 percent for large utilities to 50 percent for small utilities. The remuneration structure is an improvement from the previous arrangement under Area Performance Contracts (in effect 2000-03), which started with an incentive compensation of 5 percent of operating costs. This was later increased to 10 percent of operating costs when the Stretch-Out program was introduced in September 2002.

Dr. William T. Muhairwe, chief executive officer of NWSC and a champion of its internal reforms, emphasizes performance monitoring as the key tool for achieving improved performance. [\[1\]](#)

The framework he has helped design separates service provision and management from the monitoring function, which enhances performance accountability. This paper develops the rationale for tailor-made performance monitoring in low-income country water utilities. Specifically, it looks at both process and metrics benchmarking and how the two forms complement each other as water utilities transition from lower forms of commercial contracts to higher forms of contractual arrangements, such as lease and concession contracts.

2. The Quest for Improved Performance in Low-Income Countries

The term “efficiency” is frequently heard in discussions about improving performance of water utilities, especially those in low-income countries. The assumption is that the inefficiencies of many public water utilities limit managerial efforts to improve service quality and coverage. In response to perceived incentive problems, public water utilities seek to improve efficiency through Water Operation Management (WOM) contracts and other strategies.

Many utility managers see separation of water utility operations and management from the performance monitoring and regulatory function as a key element in improving efficiency. Once this separation has been achieved, opportunities for efficiency gains, can be more readily

identified, achieved, assessed, and rewarded, with or without public- private partnerships (PPP).

PPP contracts alone do not deliver or guarantee sustained improved performance. As noted above, some oversight group must have the ability to undertake effective performance monitoring. Managing contracts oriented toward performance enhancement for water services and effectively monitoring performance is a relatively new activity and requires a unique set of professional skills. WOM contracts require a specialized monitoring approach since they relate to buried assets for which information is largely inaccurate, especially in Africa where the culture of information management is relatively weak.

Furthermore, numerous exogenous factors can affect the potential efficiency gains expected to accrue from WOM contracts. Such factors include customers' ability and willingness to pay for improved services, non-payment by government institutions, corrupt operational staff, the pace of investments linked to efficiency improvements, and the view that water is a God-given right and therefore should be free. Effective performance monitoring and management of WOM contracts are not simple tasks, and professionals must be able to assess the degree to which such contracts are delivering intended efficiency gains to customers.

The recent trend has been to shift from command and control oriented performance monitoring (regulation) to incentive-based performance monitoring (regulation). In the latter case, the principal (the regulator) uses rewards and penalties to induce the agent (utility manager) to achieve desired goals, with the agent afforded some discretion in the way those objectives are achieved. There seem to be two questions: (1) the degree to which incentive-based performance monitoring influences outcomes (performance), and (2) how the ongoing process of monitoring management contracts might promote best practice through education.

Incentive-based performance regulation is, by and large, associated with a philosophy of non-interference. The intent is to give the operator maximum incentive for innovation and to reduce oversight costs by the performance monitor/regulator. This approach can be very effective if it is not misinterpreted or misunderstood. This paper argues that the bottom-line objective of the non-interference policy is to enable the operating utility managers (agents) to use their informational superiority to enhance efficiency gains. When the operator lacks knowledge of new technologies or management techniques (because of the small scale of operations or through lack of experience), non-interference might lead to weaker performance than if the regulator/monitor (the principal) collaborated with the operator in a meaningful way.

Although the monitor may lack knowledge about local demand conditions and resources, he or she may have access to other types of information that local operators lack. This situation certainly applies to African water utilities: new international operators have to learn the local operating conditions, while the local operating staff has to learn best practice that can deliver sustained improvements. The professionals responsible for monitoring the contract typically come from the operating side of the utility and possess a good level of operational and commercial knowledge. Despite their access to technical information, inexperienced African

performance monitors/regulators might have a tendency to rigidly adhere to a non-interventionist approach in relating to their agents (local utility managers). As a result, most performance monitors passively wait for quarterly (or annual) reports of performance results, thinking that they will enforce the contract in case of non-compliance to performance outputs. They may be further hindered in their efforts to enforce compliance standards because of poor initial contract design, lack of political support for continued private sector participation and their own inexperience in monitoring contracts. As a result the customer—the final recipient of services—bears the ultimate cost of poor service.

3. Selecting the Mode of Performance Monitoring: The Role of Benchmarking

The fundamental problems identified here are the knowledge gaps regarding operations management—gaps for both the principal and the agent. The key element of monitoring that needs to be explicitly incorporated into the process is benchmarking. Watson (1993) defines benchmarking as a management practice that facilitates the continuous input of new information to an organization. However, in this case there is a need to broaden the scope beyond metrics benchmarking, which gives the operating utilities incentives to improve performance only through horizontal comparative competition. Kingdom (1998) classifies benchmarking into two main categories: metrics and process benchmarking. Metrics benchmarking, as applied to performance monitoring, is a quantitative comparative assessment that enables utilities to track internal performance and compare this performance against that of similar utilities. Process benchmarking involves studying how things are done in other organizations, learning from experience and adapting the new and better approaches to improve performance.

Most performance monitors/regulators use detailed metrics benchmarking to identify performance pacesetters and laggards and use this analytical tool to push for better performance. This push is based on the fear of managers of operating utilities, who do not want to appear as poor performers in the face of public scrutiny. This approach is often labelled the “shaming and naming” game. The NWSC performance monitoring framework has, for some time now, utilized a metrics benchmarking framework. Every month, a performance evaluation scorecard involving all operating sub-utilities is prepared and posted on all utility notice boards as an information feedback mechanism. The scorecard shows individual utility performances in specified performance areas. The monitor’s feedback verifies the incentive fees earned and provides background information on the process and progress. The key performance objectives include reduction of unaccounted-for water, increase in billed income and revenue collection, reduction of accounts receivables, growth of customer base and cost containment. Pacesetters and laggards are all subjected to public scrutiny, an important performance driver. No manager wants to be labelled a poor performer. Improvements rather than absolute performances are emphasised here to account for significant disparities in operating conditions that are beyond the managers’ control. There is no doubt that the use of this metrics benchmarking approach has significantly contributed to efficiency gains registered in NWSC to date.

The other form of benchmarking, process benchmarking, does not appear to be

emphasized by many performance monitors/regulators. The NWSC has utilized this approach in an attempt to close the unavoidable operating knowledge gaps highlighted above. The process benchmarking approach, as applied in NWSC, involves regularly looking at the operator's management systems and advising on possible improvements. In particular, the interaction involves regularly carrying out field visits and audits and giving technical advice on how to overcome problems. The monitor is genuinely interested in the practical problems hindering the operator's current efforts at improving performance. In addition the approach involves giving explicit support and encouragement to the operator's performance improvement initiatives. As part of the information dissemination process, the monitor attempts to share with the operator approaches taken by peer operators to address specific operational problems.

The Water Herald, a monthly magazine recently introduced, systematically documents all approaches and practices relating to the previous month's successes and failures. *The Water Herald* also includes a number of advice-oriented briefs from the NWSC staff at headquarters (performance monitors) regarding outstanding operational problems and how they can be approached and solved. The magazine augments the established system of periodic presentation of best practices and approaches by identified operating utilities. This information sharing normally takes place in performance evaluation workshops organized in the best performing utility's area of operation to recognise good performance.

To ensure that the NWSC process benchmarking approach does not fall prey to command and control and, hence, gross interference in the operators' innovative activities, the NWSC performance monitoring approach stresses partnerships to resolve issues. The performance monitor is trained to encourage dialogues to determine the best way to solve operational issues. In addition the system adopts the "we must work together" principle, practicing good faith and fair dealing while monitoring contract implementation. The approach attempts to build mutual trust between principal and agent, so the latter gains a deeper understanding of the operator's strengths and weaknesses. The monitor is evaluated on his or her ability to avoid hierarchical power plays, so the interactions focus on identifying win-win options. The process utilizes supportive language that encourages the operator to perform better and shows appreciation for the operator's efforts toward achieving performance targets. The relationship recognizes that "the contract is not a perfect document," and the monitor has some flexibility in the enforcement

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process.

As stated, the process benchmarking approach has been utilized while continuing the usual metrics benchmarking. Process benchmarking tries to minimize excessive interference and thus avoid a command and control approach to what, by necessity, is a collaborative relationship. The approach is based on a core principle: "advise your partner and let him or her take it or leave it." At the end of the day, incentive remunerations are based on achievement of performance indicators (outputs) and not processes (or inputs). The process monitoring approach is simply aimed at providing a wide menu of operating knowledge from which the operator may base

possible improvement initiatives and innovations.

NWSC staff attempt to better understand how managers perceive the interactions associated with process monitoring. Do current procedures verge on interference in the operator's business? How significant is the relationship between the operators' views about process benchmarking/partnering and their perceptions regarding monitoring? Does the application of process benchmarking and partnering approaches diminish the legality of the contract between the two parties or do they reinforce one another? How important are the perceived technical capabilities of the performance monitors on monitoring effectiveness? The answers to these questions will help document the strengths and limitations of current NWSC strategies that integrate both metrics and process benchmarking to provide better incentives and new tools for operating utilities.

4. Concluding Remarks: Regulators/Monitors Should Advise and Decentralize

We know that command and control has failed as a technique for mobilizing and allocating resources efficiently. At NWSC the focus has been on “advise and decentralize.” The NWSC has demonstrated that starting from low levels of water operations management contracts (service, performance and management contracts) can establish a high performance track record. The lesson is especially applicable to water utilities in low-income areas. The monitoring of such contracts needs to take a slightly different approach from higher forms of commercial contracts, such as lease and concessions, where financial incentives are easily applicable. The key issue involves initial operating knowledge gaps associated with new international private operators who have just entered the market in a new operating environment. Even if the operator is a local company fully aware of the local conditions, the practical situation in low-income countries is that such operators generally do not have knowledge of best practice. The gap in operating knowledge is fundamental in low forms of commercial contracts, which by their nature do not have strong incentives for efficiency improvement.

The NWSC case suggests that, in addition to the usual performance monitoring/regulatory tool of metrics benchmarking, monitors need to carry out careful process benchmarking. The latter activity serves as a means for widening the knowledge base for operating utilities, enabling local managers to implement tailor-made innovations and performance improvement initiatives. The authors add a further caution. Process benchmarking, although apparently vital for information dissemination (as evident in NWSC commercial programs), can verge on interference in the operator's business. Monitors need to adopt a core consulting principle: “I have advised you; build on the idea or try another approach. The *choice* is yours. The *rewards* for good

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performance are yours as well.”

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See “Performance Improvement Programmes: Current Achievements and Proposed Reforms – A Case of National Water and Sewerage Corporation” presented by Dr. Muhairwe for DELHI JAL BOARD, Workshop on Vision for UWSS Sector in Delhi, March 2004.

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In their recent *Water21* article, Taylor and Balance (2003, p. 57) underscore this point: “No contract, regardless of its level of detail, is sufficient on its own to constitute a full regulatory regime.”

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Another issue is “Who watches the watcher?” or “Who monitors the monitor?” Accountability involves openness and reciprocity. So some attention needs to be given to reciprocal evaluation procedures. Of course, strong local utility performance provides some evidence that the two benchmarking strategies (as used by NWSC) are, indeed, being applied in a fair, responsible, and expert manner.