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Enhancing integrity to improve service delivery in water supply service provision

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Abstract

This paper addresses the experience of Transparency International (TI) exploring the integrity in water supply service provision (WSP) in Ghana, Kenya and Senegal as part of its "Transparency and Integrity in Service Delivery in Sub-Saharan Africa (TISDA)" project. WSP in Sub-Saharan countries are strongly affected by corruption practices and characterized by low performing water supply services. Despite a number of initiatives taken to overcome this situation including water sector reform, the problems persist better approaches are needed to fight corruption. The research undertaken by TISDA uses a case study approach to explore water system performance and integrity in terms of transparency, accountability, and participation (TAP). The case study looks at the relation between public officials, regulators, service providers and users in a specific governance-management model. Risk maps are used to assess the transactions between actors and its level of integrity in terms of TAP. The first findings suggest that the methodology is suitable to analyze the complexity of WSP sector providing a good basis for TI for evidence based advocacy, creating opportunities for rapid change in terms of enhancing integrity and improving WSP performance.

Key words

Water supply service provision, integrity, performance, risk map

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1. INTRODUCTION

Corruption has been associated with the incompetence of the state to ensure efficiency in water provision and cost recovery. It was therefore expected that commercialisation through Private Sector Management and sector reform (regulation, decentralization) would help to reduce corruption and improve the performance of water utilities (Repetto, 1986).

Nevertheless, Boehm (2007) suggests that the low levels of efficiency of water utilities, persistent patterns of corruption and limited water access of the most vulnerable population show that this approach has failed. On the other hand, Krause (2009) argues that: "key elements of good political governance, have a statistically significant positive effect on the access to water supply services... by contrasts influence of PSP has no significant effect but contributes to higher internal efficiency of providers".

Water supply service delivery is prone to corrupt practices because it involves different actors with a complex network of relationships. These relationships include many transactions in water supply service development (water allocation, licensing, financing, construction etc.) and provision (selection of provider, management, tariff setting, metering etc.). Thus, multiple opportunities for corruption exist ranging from taking a part of 'project funding' to circumventing rules and regulations in service delivery (speed-up money, misreading meters, illegal connections, including assignment of service management contracts, corporate governance issues...) (Davis, 2004).

Four main reasons for social actors in water supply services to engage in corruption and capture are:

- For economic benefit: the bribe is greater than the potential cost of breaking the rule and risk of being caught
- Because it is a common in the organization, for example to pay for a job or to use company asset for personal means
- Because of nepotism, doing a favour to a relative or friend based upon relationship
- As a response to unequal resource distribution in which the availability of goods and services are out of balance with needs

The research methodology aims at gaining better understanding of possible corrupt practices existing in water service provision by mapping the lack of integrity in the relationships between different actors in different governance-management models².

This research methodology investigating transparency, accountability and participation proceeds in two complementary steps:

² Governance-management models, characterized by different water control practices involving power relation in between the different players in the decision-making process, can be defined according to institutions, organizations and governance processes (Modified from Bakker, 2007).

- A performance analysis to identify limitations in the water service provision. Efficiency and access indicators are used to diagnosis the water service governance-management and to point out inadequacies of resources (technical or financial), capacities and knowledge or mismanagement and are used as a warning signal for possible integrity problems (O'Leary, 2009)
- 2. An actor analysis (risk map) following the principal-agent-client model (Furubotn & Richter, 1997; Huppert, 2005). Integrity risk maps are participatory tools to identify and assess the lack of transparency, accountability and participation between actors' relationships. Relations between actors are defined in terms of governance coordination mechanisms (rules such as contracts and regulations) and transactions (services and returns).

The research methodology has been developed and applied in the scope of the project "Transparency and Integrity in Service Delivery in Sub-Saharan Africa (TISDA)". TISDA is carried out by Transparency International (TI) in 8 Sub-Saharan countries aiming to increase access to education, health and water by improving transparency and integrity in basic service delivery. The water sector is being assessed in Senegal, Ghana and Kenya. The three year program is executed by the TI National Chapters and has, as its main output, to develop an advocacy approach that will raise awareness amongst government, private sector and civil society as well as suggest possibilities to improve the quality of water service delivery.

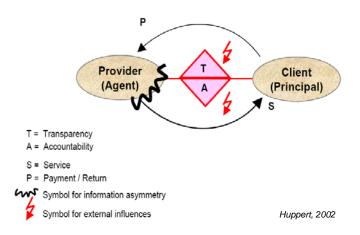


Figure 1 the principal-agent model

Source: Huppert (2002)

A case study approach has been adopted to explore the performance and integrity of different water supply service situations.

2. THE EXPERIENCE OF MOMBASA OLD TOWN CASE STUDY

2.1 The Water Supply Situation in the case study of Old Town Mombasa³

Old Town Mombasa with a population of more than 146.334 (census1999) is an urban community located in Mombasa Island. The area is densely populated with narrow streets and consists of ancient buildings (2 to 4 floors) many dating back 500 years. The inhabitants are faced with poor infrastructure, water shortage and inadequate sewerage and sanitation facilities.

The water supply situation in Old Town Mombasa is summarised in Table 1. The location is connected to the piped water supply of Mombasa municipality that was constructed in early 1900. The piped water supply is operated and managed by the Mombasa Water and Sanitation Company (MOWASCO). The system is old and dilapidated experiencing persistent breakdown and possible cases of cross-contamination with sewage effluent from the old sewer system.

It is estimated that over 150 residents have sunk shallow boreholes in their backyards. They share connections with, on average, 12 neighbours and operate water selling points selling water to individuals and push carts. Part of the borehole water is salty and unpleasant to drink. It seems that in general owners have not taken permission from Water Resources Management authority (WRMA) for their borehole. Boreholes have also been developed by Mosques, some of which give part of the water for free to poor residents. Push cart water vendors sell water they buy from the borehole owners.

Type of supply	Coverage	Remark	
Piped water	27%	Although 3,301 registered connections exist, only some 1,200 are active	
supply (formal		(estimated by area manager MOWASCO Island North)	
utility provider)		This may reduce as MOWASCO is targeting illegal connections but exact	
		number could not be confirmed by MOWASCO staff	
Water vendors	35% (estimate)	Push carts supply water to most HH with MOWASCO connections (to	
(push carts) from		complement when supply is down), plus 10% HH indicate that pushcarts	
boreholes		are main source of water	
Individual water	73 - 90% ¹	Some 36% of total population has shared connections to one of the many	
vendors	(including kiosks	boreholes (mini network) including some with MOWASCO connection.	
(boreholes)	and pushcarts)	Others, including pushcarts, buy water bringing jerry cans.	
Mosques	1%	sharing with HH + given free to poor HH	
4 4 1: 1 11	1		

^{1.} According to the data from MOWASCO, 27% have connections leaving 73% that depend directly or indirectly (pushcarts, direct fetching) from boreholes. But taking the data from the HH questionnaires in the dry season only 10% indicate MOWASCO as main source suggesting that 90% depends on boreholes in that period of the year

References: TISDA Survey 2010, Mowasco interview and the area manager Island North

Table 1 Water supply situation in Old Town Mombasa (28,000 population; 4,600 HH)

³ This case study is part of the TISDA research conducted in Kenya and comprising 5 more case studies. The case study of Old Town Mombasa (see Table 1) was carried out between 22nd and 26th March 2010 by a team of Transparency International Kenya. The report is based in 50 HH interviews, focus groups discussions with community leaders and water local vendors and interviews with MOWASCO staff and MD. Data have been triangulated by using observations and available information on internet.

Users under MOWASCO piped system get water 3 times per week but those at the tail end may even get less. Many store the water in ground tanks of between 1 and 2 cubic meters. When the building has more than one floor, water is pumped with small electric pumps to overhead tanks. Over half of the users need to supplement the water from the system by buying water from push carts. The overall performance of the system shows many limitations as can be seen in Table 3.

2.2 The governance-management model of the Mombasa Water and Sewerage Company (MOWASCO)

2.2.1 The institutional framework in Kenya: policy and regulatory reform

The institutional framework and legislation of the Kenyan water supply sector is largely defined by the National Water Plan (1999) and the more recent Water Act of 2002. The main thrust is a major sector reform including decentralization of decision making to regional and local authorities, increasing participatory policy-making and encouragement of investments.

Water is recognised as an economic and social good for which the adoption is sought of sustainable tariff strategies overseen by a regulator. The responsibility for policy formulation, regulation, water resource management and service provision are split into separate bodies (Figure 2).

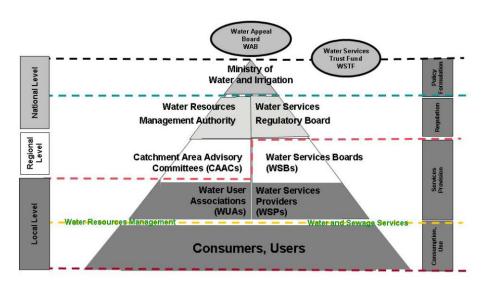


Figure 2 Overview of the water sector organization

Source: Water Act (2002)

According to TI Kenya (2009), the adoption of the Water Act has not been smooth as happens with any large paradigm shift. Implementation of the overall reform faces considerable challenges and even contradictions. Roles of institutions are not fully clear especially when it comes to implementation. Some conflicting areas exist between the Water Resource Management Authority and the Water Services Regulatory Board

(WASREB). Whilst the overall policy aims at decentralization, the ultimate authority is still in the Ministry of Water which still interferes in appointments in the management of devolved institutions. Lastly the envisaged transfer of assets to Water Services Boards (WSBs) is still pending. Despite these limitations, positive developments exist such as the much better documentation of sector performance. WASREB produces annual impact reports which publicly show the important challenges that exist as most water supply systems have a high level of Non Revenue Water (NRW) with an average of 44% and insufficient collection efficiency with a national average of 75% (WASREB, 2009). In several large cities, water systems are being rehabilitated and this seems gradually starting to pay off, but specially the increasing poverty orientation.

2.2.2 The organizational structure of MOWASCO as Water Service Provider

In 2003 the Water and Sewerage Department of the Mombasa Municipal Council (MMC) was transformed into the Mombasa Water and Sewerage Company (MOWASCO) whilst also adding some staff from other organizations including the ministry and the National Water Conservation & Pipeline Corporation. In 2005 this commercial utility with the Council (MMC) as only shareholder signed a Service Provision Agreement (SPA) with the Coastal Water Service Board (CWSB) to supply water to urban Mombasa.

MOWASCO (Table 6) has 418 staff and a Board of 9 directors including three from the Mombasa Municipal Council. Early 2007 the Board was dissolved by the Water Minister over alleged mismanagement of funds (MOWASCO 2009). A new board has not yet been approved due to disagreement over appointment process. Pending the resolution of this problem, MOWASCO is operating under the Ministry of Water and Irrigation through the National Water Conservation and Pipeline Corporation (NWCPC) following Cap 67 of the Water Act 2002.

Actor	Roles
NWCPC	Temporarily replacing the MOWASCO board to supervise the management.
CWSB	Provides bulk water supply to MOWASCO and oversees their water service provision as outlined in the Service Provision Agreement: CWSB – MOWASCO. They maintain the system up to the bulk water meters by involving private contractors for which they receive 54% of the revenue of MOWASCO. For the moment they lease the facilities from the MCM and sublease them to MOWASCO
MOWASCO	Provide water and sanitation services to Mombasa within the prescribed area of jurisdiction. They operation and maintain the system, meter readings and billings.
Municipal Council of Mombasa (MCM)	Still has infrastructure in trust from National Treasury (claiming fees for that) as the transfer of assets (stipulated in the Water Act 2002) to CWSB has not yet materialized.
WASREB	Approves the operators that is selected and regulates tariffs for water service providers through CWSB. They charge an annual fee of 1% of the revenues of MOWASCO.
Water Resource Management Agency	They manage and conserve water resources and catchment areas and issue water licenses, for which they claim a license fee of 0.5 KSh per m ³ per year

Table 5 Main actors involved in the management of the system and their roles

Item	Comment
Who owns the	Despite the Water Act the municipality still has the infrastructure in trust for
infrastructure	the National Treasury and is leasing it to the Coastal Water Service Board
	(CWSB).
Capital investment in	Government invests in the system partly with funding from external donors.
system	
Legal status of the	Publicly (municipality) owned private company, in which the Ministry is
operator	currently intervening putting its own national corporation (NWCPC)
	(temporarily) in charge pending the election of a new Governing Board
Who owns the shares	Mombasa municipal council owns 100% of the shares (MOWASCO is the
	continuation of the municipal water supply and sewerage department).
Type of contract owner-	Service Provision Agreement (Management contract). MOWASCO was
operator	contracted by CWSB to ensure water service provision.
Commercial risk	The commercial risk rests with MOWASCO. The risk is high as it has taken
	over bad depth from the municipal company.

Table 6 Main data about the ownership and legal status of the provider

Investments and	The Coastal Water Service Board (CWSB) board is undertaking major
recovery	rehabilitation of existing water facilities to improve access and reliability of
	water supply for which it is receiving support from the French Government
	and WB to the amount of Kshs 7 billion for works in the next 2 years.
Autonomy	MOWASCO is a private company answerable to their Governing Board and
	bound by their contract with CWSB. The MWI has interfered however and
	has discharged the Board and given the responsibility to NWCPC to oversee
	the company. So at the moment there is no autonomy.
Credibility / reputation	Users in the HH visits see MOWASCO as not honest with its water provision
	services. Many since the complaints were mainly on poor billing services,
	poor quality of water and unreliable supply and inequitable distribution of
	water
Profit orientation	The company is pursuing an interest for the share holders which in this case
	are public (the municipality). Yet the company has taken over a lot of bad
	debts from its predecessor (the municipal water company)

Table 7Key management capabilities

Different control mechanisms exist within the system including clear manuals and written procedures but the application is not always clear (Table 8).

Control mechanism	Brief description of application (internal and/or external)
Reporting	They hold annual general meetings where they appoint the new directors or
Keporting	chairman and give annual reports of the company.
Financial audit	Annual reports are audited by both internal and external auditors and
	presented to the company board and CWSB and now also to the MWI.
Technical audit	Procedures are in place for technical performance monitoring which is done
Technical addit	quarterly. But these are not compared with other companies (bench-
	marking)
Anti-bribery measures	All staff members have to sign a code of conduct of conduct when contracted
	and this includes sanctions
Staff recruitment and	Written staff recruitment procedures, recruitment is done by the
supervision	management after an open application process

Procurement	Procurement is done according to the rules. For lower amounts, the	
procedures and	management takes the decisions, while for large contracts there is a	
contracting	tendering committee.	
Internal complaints	There is an internal staff advisory team that handles internal complaints.	
Customer care and external complaints	There is a customer care desk that handles the issues of the users including payments as well as channelling complaints to respective departments. The customers sign a customer complaint slip and these are filed at the customer relation office and the complaints are handled by relevant departments. MOWACO has developed a Customer Service Charter that is in the process of	
	approval	
Sanctions & incentives	Staff gets sanctions if they breach the code of conduct. Good performance is recognised. Trophies or awards are given for outstanding performance	
Performance Monitoring	Performance is monitored at different managerial levels almost daily but overall monitoring and reporting is done quarterly to CWSB	
Users participation (consultation)	Users are not informed of any meetings that allow them to contribute to any decision making.	
Users rights and obligations chart	Users are made aware of their rights and obligations through newspapers, radio, leaflets etc.	
Ombudsman	No ombudsman in place	

Table 8 Overview of internal and external control mechanisms and their application

Mechanisms include a users complaints mechanisms where customers fill in a complaints slip which is then processed and filed. Most complaints are handled successfully according to the company. MOWASCO is a private company with public interest and therefore has to comply with government procedures such as the Public Procurement Act. In relation to gender balance the application of policies is not clear. Moreover MOWASCO doesn't have a pro-poor policy.

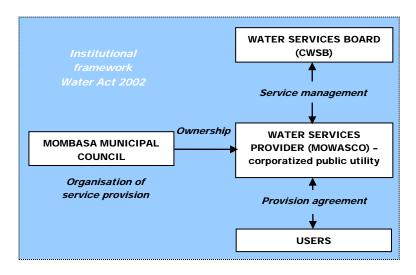


Figure 3 Governance-management model of MOWASCO

3. PERFORMANCE AND INTEGRITY RISK ANALYSIS

The MOWASCO operated water supply system (Table 9) although scoring number 8 in the overall ranking of the performance report of WASREB (2009), has low technical efficiency with considerable non-revenue water (NRW) and frequent breakdowns. The system is old, may suffer from poor repairs and limitations in operational management (commercial loss, lack of monitoring). Financial performance scores medium and the company has taken over a considerable debts portfolio from MCM. Access scores medium because the service is limited and several people have abandoned their connection which explains the large number of inactive connections. The management is trying to cope with the situation where there is a huge gap between supply and demand. It uses the revenues for operation and maintenance and for paying CWSB.

Theme	Variables	Score	Scoring levels
Technical	■ NRW	0	0 = >30%; 1 = 15-30%; 2 = < 15%
efficiency	Supply hours	0	0 = < 4hrs; 1 = 4 – 10 hrs; 2 = > 10 hrs
	Breakdown frequency	0	0 = > 20 breakdowns per year; 1 = 5-20; 2 = < 5
	TOTAL SCORE	Low	
Financial	 Balance income 	2	0 = negative; 1 = break even; 2 positive
efficiency	expenditures		
	collection ratio	1	0 = > 15% users; 1 = 5-15% users; 2 = <5% users
	staff ratio	1	0 = > 12; 1 = 8-12; 2 = < 8
	TOTAL SCORE	Medium	
Access	Coverage	0	0 = <50%; 1 = 50-90%; 2 = > 90%
	Affordability (gender	2	0 = >10% of people restrict water use because
	and poverty equity)		of cost; 1= 5-10%; 2 = < 5%
	TOTAL SCORE	Medium	
Management	Investments &	1	0 = revenue is used for other issues; 1 =
effectiveness	recovery		revenue invested in O&M 2 = O&M + savings
	Responsiveness to	1	0 = non-responsive; 1 = acting on complaints; 2
	user interest		= pro-active seeking users views and acting on
	TOTAL SCORE	Medium	it

Each variable is scored from 0 to 2 according to technical criteria (being 2 the highest). Then combine the n scores/ divide by n; final score (low < 0.9; medium 0.9 – 1.9; high > 1.9). Scoring was done by the research team on the basis of collected information and discussion with the actors

Table 9 Summary of performance of the MOWASCO water supply system

The following section assesses in detail some relationships between actors which constitute the main risks for integrity because transparency, accountability and participation are weak or not fully understood at the moment of the research was conducted with the information provided by the different actors involved. We will discuss three sections of the risk map for MOWASCO to illustrate the suitability of the risk map to identify, asses, and analyze lack of integrity in governance-management models⁴. The section also attempts to link the main risks that are identified with the theory of corruption (Boehm, 2007; Huppert, 2005)

⁴ The risk map examines the relationships between all actors involved in water service provision. It looks at governance coordination mechanisms (CM) between actors, the provided services (S) and returns (R) (fees/payments/taxes). For each of these relationships the Transparency, Accountability and Participation are assessed based on the criteria indicated in table 10.

3.1 The relationship Municipal Council MOWASCO and CWSB

The relationship among the Municipal Council, MOWASCO and Coastal Water Services Board is shown in the integrity risk map (Figure 5). The transparency-accountability and participation scores for the relationship between the Municipal Council and the Water Board (CWSB) are very low because it is not clear how the Municipal Council and CWSB are engaged in a lease contract and what are the conditions of contract. This relationship is a relic from the past when the system was managed by the Council water and sewerage department with revenues going to the Council. Under the Water Act 2002, the assets are supposed to be transferred by the MC's to the Water Board, but this is still being disputed by the Municipal Councils. headed by the Ministry of Local Government with on the other side the water boards and the Ministry of Water and Irrigation.

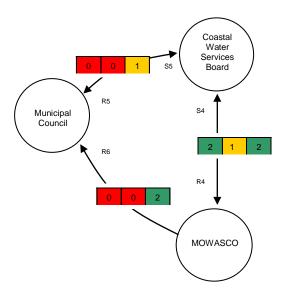


Figure 4 Integrity risk map of the relationships MOWASCO, MC and CWSB

An intermediary solution was found where the water boards would pay a fixed lease fee to the municipal council (R5) for using the piped system and the land (S5). We have not been able to establish whether there is an "official" lease contract so that is not transparent (score T=0), nor do clear control mechanisms exist so accountability score A=0. Nevertheless, the annual fee is verifiable for third parties as this is published in the annual report of MOWASCO company (score P=1). When the assets are transferred, the situation will be transparent because then the lease contract and therewith the relationship between water board and municipal councils will end. The municipal council then will only have a link with MOWASCO and as only shareholder may receive dividends if the company does well (R6). The relationship between the municipal council and MOWASCO is governed by law because they own the company as shareholders. In terms of corporate governance, there are clear rules about the nomination of the Board of Directors (BoD)⁵ but the Ministry of water and Irrigation has intervened and dismissed the BoD and its role is temporarily taken over by NWCPC but arrangement is not clear (score T=0). Interestingly the municipal council has no majority in the company's Board of Directors, which suggests that management of the

⁵ Corporate governance guidelines made available by WASREB looking at the appointment of BoD and MD but it is not clear whether these are being followed

company is independent. However, as noted earlier, the Board is taken over by the Ministry. There are still annual General Assemblies where financial reports are presented but accountable control mechanisms are weak and anti-corruption measures inexistent. It is not clear how it can be avoided that BoD members pursue their own interest, interfere with management and do not represent user's interest. (score A==0). Information is available to third parties (MWI), and they can influence decisions (score P=2). Finally, the relation between MOWASCO and CWSB is, when it comes into effect again, regulated by a clear service agreement contract (SPA) (score T=2). MOWASCO will manage the service provision (S4) and in return they receive the profit (revenues minus cost: administrative fee to operate the system and bulk supply fee that will serve to cover the lease fee between CWSB and the municipal council). The SPA includes performance targets and possible sanctions including interruption of contract. The latter however is not very realistic as firing the whole staff and finding another company to take over is unlikely to happen (this constitutes a hold-up problem⁶) (score A=1). Annual reports are not readily available on line, but are reflected in the WASREB reports (score P=2).

The integrity risks described for the case in MOWASCO are similar for many other systems in Kenya and constitute a case of what Boehm (2007) defines as **political opportunism** and **clientelism.** The Municipal Council's interest is to continue receiving the income from the lease but if the assets are transferred they will only get a dividend if the company makes profit. Another interest is that Municipal Councillors who are Board Members will get a sitting allowance, but more importantly might be able to do something for their constituency. On the other hand the Ministry of Water and Irrigation wants the physical assets to go to the Water Service Boards as this will create a basis for getting additional support from Development Partners for investments in the sector.

The situation still poses important challenges concerning the future of water service providers and also still entails a potential risk that even though the value of the service providers is much lower as they do not have assets. However, further privatization may occur if municipal councils sell their shares to private companies which may lead to an increase in the lack of transparency especially under the influence of international water companies.

3.2 The relationship MOWASCO, meter readers and users

The relationship between MOWASCO, the meter readers and users is shown in Figure 6. This risk map is not unique as the same situation was found in other case studies in Kenya. The main integrity risk relates to the fact that commonly users have no control over the meter readers, there is no "sign-off" control mechanism, and users are not aware of their rights and obligations. MOWASCO provides water (S1) to users who in return pay a fee (R1). This relationship is (usually) governed by an agreement form. The contract is clear on measures to take when MOWASCO does not provide water or when the users are over charged (score

⁶ According to Huppert (2002), a hold-up problem may result from a unilateral specific investment awaiting the upcoming service delivery. From this follows a dependency of the investing party of the good-will of the service providing party. The non-investing party can then try to extract additional benefits from the relationship for himself.

⁷This was established from the SPA clause 12(pg 33) that 'The WSP should pay a compensation to customers for its failure to provide service or for otherwise failing to comply with the provisions of the SPA.

T=2). Control mechanism is billing against "meter reading" which can be enforced by users complaining and sanctions applied; Users are disconnected if not paying, but no information could be obtained on cases where MOWASCO compensates users (score A=1). Information is accessible to third parties and complaints can be filed with WASREB if not addressed by MOWASCO making that participation score high (score P=2).

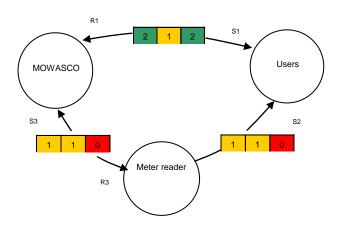


Figure 5 Integrity risk map of the relationship MOWASCO, meter reader and user

The meter reader provides the meter reading data (S3) to the MOWASCO and in return receives a salary (R3). Most of the meter readers in MOWASCO and in many other water service providers in Kenya are temporary staff, not well paid and without much motivation although they play an important role in the water value chain. A contract exist between MOWASCO and meter readers but is not clear about duration of employment and payment of wages⁸ (score T=1). Accountability is fair as meter readers are supervised and can get fired if they don't meet their targets in terms of number of meters 'read', but there are no incentives for the staff (such as obtaining a permanent contract) and they can not reinforce their rights. Besides staff do not sign a code of conduct (score A=1). Supervision practices are not properly recorded and information is not available to third parties (score P=0).

Meter readers provide the service of meter reading on behalf of MOWASCO (S2) but do not have a clear contract with users as their role is not explained in the agreement between MOWASCO and users. They are perceived by users as unfriendly people and not as a means to communicate with the company. Neither does the company see them as a way to improve its image to the users (supporting customer care) (score T=1). The accountability of their relationship is ensured by the existence of the meter (provided it functions) but most users have no control over the meter readers because they may have difficulty in reading the meter and do not have to sign off on the registration by the meter reader (score A=1). Also meters may not be accurate or are inoperative. In the latter case water consumption is estimated on basis of historic data. The meter readers logbooks are not accessible to third parties (score P=0).

 $^{^{8}}$ According to other case studies conducted in Kenya, also supervisors may be on temporary contracts

The relationship between meter readers and users constitutes a typical case of **moral hazard**⁹. The integrity risk relates to the fact that meter readers can misuse their role as intermediaries because a number of checks and balances are not in place or are weakly applied. Strengthening the integrity of this relationship goes beyond the well-known talk about user's right and needs to include emphasis on user's obligations to pay for the service and provide checks themselves.

3.3 The relationship MWI, WASREB, CWSB and MOWASCO

The third example concerns the relationship between the Ministry, regulator, Coastal Water Services Board (CWSB) and MOWASCO (Figure 7). The relationship between regulatory board and MOWASCO is governed by the Water Act 2002. The regulator grants a 10 year license to CWSB to organize services in their area with an envisaged review after 5 years. This license stipulates among others that the CWSB needs to establish a service provision agreement (SPA) with each water provider in their area who must be selected in a competitive bidding procedure and each of them needs to be approved by regulator. The only formal responsibility of the provider towards the regulatory board indicated in the agreement is the submitting of a copy of the annual technical and financial audit within six month of the end of the financial year. In addition it is indicated that the regulatory board can undertake inspection visits to the SPA and that they need to approve any changes in the service agreement and in the tariff. Regulator controls the reported compliance with the performance standards according to the service agreement between MOWASCO and the CWSB (S7) and in return receives 1% of its revenues of MOWASCO (R7). This is a transparent arrangement (T=2) but the control mechanism to ensure that MOWASCO company provides information to regulator is not clear and seems not enforceable (score A=1). Third parties can only access information published by regulatory board about the providers, but not reject it. This situation poses a problem in terms of external accountability to the regulatory body (score P=1). In fact the only indirect mechanism the regulator has is to reject the license of the water service board 10, which then automatically becomes a temporary license.

⁹ Huppert (2002) defines a moral hazard risk may arise in situations where two actors are joined in a client-supplier relationship. The client (principal) commissions the supplier (agent) to perform a service on his behalf and thus confers a certain scope for decision-making on the supplier. If we presume that the agent's activities cannot be directly monitored by the client, and that the agent makes certain observations and experiences during the execution of the order which the principal has not made, then this leads to an 'asymmetrical information status' between the two actors concerned. If it is also presumed that the order is so complex that it can be influenced by many other external factors, the following problem can arise: Following conclusion of the contract, the agent might reduce his efforts to fulfill the order (reduce his cost), without the principal being able to call him to account. The agent can always claim that a poor result is due to circumstances beyond his control, thus relieving him of any guilt or responsibility.

¹⁰ Case of Athi water services board

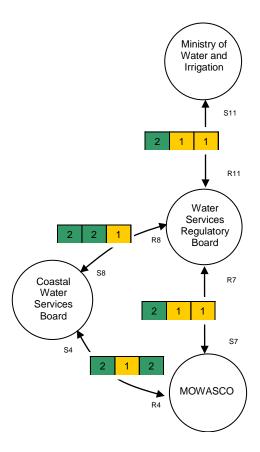


Figure 6 Integrity risk map of the relationship MWI, WASREB, CWSB and MOWASCO

Regarding the relationship between WASREB and MWI, this is guided by a performance contract although only a copy of the contract for the period 2006 - 2007 is available on line. WASREB regulates WSSP under the Water Act 2002 (S11) and is developing a lot of tools for this including model SPAs for different types of providers, issuing licenses, monitoring performance etc. In return MWI provides to WASREB with financial resources to implement its mission (R11) although this now may have been replaced by income received from licenses which in 2007/2008 were just added to the capital of WASREB. This lack of clarity on the funding and the fact that Board members are nominated by the Minister suggests that WASREB is not a fully independent body. Also the issue of sanctions is not clear and the last annual report available on line is from 2008 (A=1). On participation WASREB is holding meetings with stakeholders but these are only of consultative nature (P=1).

So eight years after sector reform which started in 2002, we still find that considerable integrity risks exist. The objectives have not yet been fully achieved of separating management of water resources and service provision and decentralizing functions to the lower state hierarchy, to separate policy making from the daily administration and regulation of services (TI Kenya 2009). In fact the actual regulatory situation in Kenya is an example of **regulatory opportunism**¹¹ Regulation presents some major challenges as the regulatory role is still weak and not well understood; and, the water boards and service providers fail in accountability towards the regulator.

¹¹ According to Boehm (2207) a situation of "regulatory opportunism happens when politicians may abuse regulatory powers for own purposes

Table 10 provides an overview of the integrity (TAP) of the MOWASCO governance-management model. ¹² The overall transparency is medium as most of the relations between actors are governed by written rules or contracts. Some of the relations however need further clarification. Accountability is weak as control mechanisms are only partly in place, MOWASCO has limited management autonomy and provides weak supervision of daily operations such as billing and customer care and the regulator lacks independence. In term of participation, access to information has limitations and not all potential problems can be redressed by external third parties.

Theme	Variables	Total Score	Scoring levels
Transparency	 Written rules/regulations between actors TOTAL SCORE 	1.3 Medium	0 = non existing; 1 = existing but unclear; 2 = fully comprehensive
Accountability	 Control mechanisms between actors TOTAL SCORE 	0.8 Medium	0 = non existing; 1 = existing but not enforced; 2 = enforced by applied sanctions, incentives, anticorruption measures
Participation (external accountability)	 Transactions overseen by third parties TOTAL SCORE 	1 Medium	0 = no access to written information; 1 = access to written information; 2 = parties able to redress failures in rules and control mechanisms

Each relationship is scored, then sum the TAP scores and divide each sum by the total number of relations between actors; final score (low < 0.7; medium 0.7 - 1.4; high > 1.4)

Table 10 Scoring table for the main elements of integrity

4. EVIDENCE BASED ADVOCACY

Case study research facilitates assessing how targeted advocacy can contribute to creating change. The strongest push for change will come if users and key stakeholders experience a quick rate of return when performance in service delivery is improved and risks of integrity are reduced. Therefore, it is necessary to create a "momentum" amongst main water stakeholders involving formal and informal water providers (which play an important role in the water supply chain) and users using networks and coalitions for collective action while building capacity of the different involved actors (such as sharing best practices and success stories from case studies, which can be used elsewhere through learning-information platforms). The TISDA project brings the main findings from case studies together in National Water supply Integrity Studies¹³) which include recommendations targeting policy making and regulation looking for "institutional buy in" to ensure long term impact and sustainability.

¹² The map shows risks related to lack of transparency, accountability and participation, but this does not imply that corruption takes place nor does it say something about the possible level of impact if corruption would occur. It just implies that the checks and balances are not sufficiently in place.

¹³ NWIS are based on the finding of the case studies pointing out the main integrity risks The NWIS provide country level risk maps that serve as basis for advocacy.

Under the present TISDA research, advocacy focuses on establishing collective action in the form of **development pacts** ¹⁴. Such pacts emerge from users seeking vertical accountability from policy makers, political leaders or top-managers TI (2010) and stimulate participation of all stakeholders involved in the water service provision decision-making though a negotiation process. Development pacts require a certain level of participation and commitment (engagement) of the stakeholders involved in the process in order to achieve results against objectives (recommendations) in a way that can be monitored and evaluated (accountability for results).

Mombasa Old case study is adopting this approach. It held validation sessions of findings and recommendations initially with MOWASCO, informal providers and users separately. The next step that is on-going involves establishing dialogue among these different actors with the aim to establish a water service provision improvement plan with specific actions to improve integrity and performance. Thereafter the plan can be "publically" agreed, signed and monitored by "partners" involved. Change can be evaluated against performance and integrity benchmark indicators as defined in table 9 and 10.

Integrity risks maps play and important role as starting point for evidence-based advocacy. They show priority areas for improvements and therefore can be used as opportunity maps to help improve transparency, accountability and participation (TAP) in existing relationships but perhaps also to enhance integrity by establishing new relationships. Thus, the risk map transforms from an assessment tool into an advocacy tool visualizing specific priorities in improving TAP (e.g. during the validation with the stakeholders). This ensures the reliability of the findings and already is a first step in getting a better understanding of the situation. Through this, the risk map also becomes a learning tool for the actors involved.

MOWASCO has already shown interest to follow up on recommendations related to integrity issues, such as improving customer's relationship through an "educational campaign" tackling user's rights and obligations. MOWASCO is also seeking training for its staff in anti-corruption measures (Business Principles to Counter Bribery) in order to strengthen the corporate governance. This clearly demonstrates that the process of integrity risk mapping in water service provision is promising and seems to fit the interest of MOWASCO as well as users.

¹⁴ Based on the notion of a social contract, the pacts are used to ensure a just and fair society combined with the premise of a private sector contract that presumes clear deliverables and timelines. Development Pacts introduce greater contractual specificity, incentives and sanctions into the relationship between those that entrust power to the government and those that exercise it on their behalf.

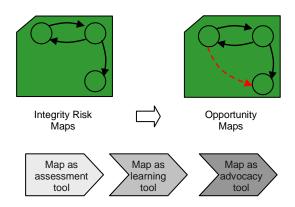


Figure 7 From integrity risk map to risk reduction map

Main recommendations resulting from case study regarding MOWASCO are shown in Table 11.

Performance at WSP level	Mitigation actions in relation with performance
 MOWASCO cannot meet the water demand and the system still has a high level of NRW although some improvements have been achieved Supply is rationed and many people use local drilled wells as main or supplementary water source, but these are seen as informal providers and not as part of the overall solution to the water supply problem Rationing of water implies that some people even cannot obtain 6 m3 per month even though they pay for it (minimum for monthly bill) 	 To differentiate between drinking water and other uses, assigning different sources to each (piped MOWASCO system and existing boreholes). MOWASCO could set up a number of kiosks with large storage tanks in key areas and using regulated push carts to distribute drinking water at an agreed price. This pro-poor approach might allow them to access WSTF funding More equitable cost sharing e.g. not a fixed price for the first 6 m³ but more gradual and a stronger incremental tariff for larger use.
Integrity risk	Risk reduction in relation with integrity
Only few users control the meter readers when they visit, but there is no obligation for users to "sign-off" on the meter reading.	Review the efforts to improve customer relations and explore how to better inform the public (perhaps developing a campaign with some users that include right & obligations (customer service charter), meter readers role, the complaint service and illegal connections by involving users in system monitoring.
 Users are not very aware of their rights and even less of their obligations and do not have sufficient understanding of the overall situation and the need for rationing. 	 Enhance users understanding of the water scarcity situation e.g. encourage water saving and clarify the issue of illegal connections (stealing from MOWASCO but indirectly from all paying users), hence seeking support to help reduce illegal connections.
MOWASCO is trying to improve customer's relations but still has a long way to go. In fact they do not have a good counterpart that can speak for the users.	 Encourage the establishment of a Water Resources Users Associations (linked to the local level organization structure) as a discussion partners for MOWASCO and to initiate local action. Improve internal MOWASCO's corporative
Limitations in MOWASCO's internal corporate governance and monitoring by WASREB as indicated in the SPA	governance (autonomy in Board of directors appointment and MD) and SPA monitoring (benchmarking)

Table 11 Main risks and options for improvement in the MOWASCO case

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