WIN Water Integrity Network
Fighting corruption in water worldwide

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Mirpur slum in Dhaka, Bangladesh © G. M. B. Akahs / Winner of the WIN Photo Competition 2011

Corruption Risks and Integrity in Urban Water Supply and Sanitation

By the Water Integrity Network Secretariat

Background

About half of the world's population lives in cities, with a UN estimate that by 2030, five billion people will be urban citizens. Moreover, the developing world, that had previously not seen a majority of its people as city dwellers, now faces urbanisation as a dramatically growing trend with as many as five million new urban citizens per month[1]. One consequence of this urbanisation is that issues of poor governance linked to water supply and sanitation in the developing world can significantly increase the risk of corruption, in particular when the effects of the gaps between rich and poor become more evident in service delivery. Rapid and often uncontrolled population growth with all of its consequences, combined with the complexity of urban water management makes it an ideal ground for corruption to fester on, and the poor are particularly prone to fall victim to it.

This WIN Brief is an initial step in addressing corruption risks in urban water supply and sanitation services. It is based on a literature review and a consultation of 14 experienced experts from the water sector. It provides an overview of general challenges in urban water supply and sanitation, points out links to related corruption risks and describes several governance aspects that are key to reducing these risks.

Challenges of urban water supply and sanitation services

Urban water and sanitation faces a number of important challenges. Identifying and understanding these challenges helps us in focusing our attention on the areas with the highest potential impact and identify potential links between these challenges and corruption. Indeed, corruption may be an underlying cause of some of these challenges and an aggravating factor in others. Tackling the challenges of urban water supply and sanitation services efficiently in the future therefore has to take into account corruption risks and, more broadly, pay special attention to improving the governance situation within and beyond the urban water sector.

The four main challenges that have been identified are;

The highest (1) **growth rates of urban population** occur in developing countries, where it often results in inadequate infrastructure, insufficient provision of (water and sanitation) services, increasing traffic congestion, environmental degradation, pollution of water sources, spreading of squatter settlements and slums associated with lack of access to acceptable environmental sanitation services and situations. Particularly urban low-income areas often lack access to piped water systems or even safe sources of water, and are confronted with a deteriorating living environments. Frequently the inhabitants have to rely upon alternative, informal, water supply that may bear hygienic risks or stress the ground water reserves and revert to open defecation situations.

It has been convincingly argued that the current water crisis is mainly a crisis of governance - with corruption at its core – and not one of water scarcity or lack of financial resources[2]. Here (2) **water and environmental sanitation[3] sector governance** is defined as the institutional environment and the way how administrative and political decisions are made, and enforced, within the sector. Bad water governance is therefore reflected through weak public policies, lack of political interest, and the lack of an adequate institutional framework and regulation. This often results in a lack of transparency, accountability, participation as well as impunity – an overall environment that allows corruption to flourish. At the same time corruption itself drives inefficiency and hinders attempts to reform governance structures by biasing decision-making and weakening deficient institutional settings.

The water sector – at least the "traditional" utilities-based system with pipes and water treatment plants – has to cover significant fixed costs and not negligible marginal costs (related to the treatment and depending of the quality of the raw water). However various experts interviewed for this specific study confirmed that in many cases (3) **sustainable financing strategies** are not in place. Tariffs often do not

1 For more information see www.unhabitat.org

2 Transparency International, 2008

3 Environmental sanitation, or Environmental Hygiene, refers to activities aimed at improving and maintaining the standard of basic environmental conditions affecting the well-being of people, including; clean and safe water supply, clean and safe ambient, efficient waste disposal, protecting food from chemical and biological contaminants and, adequate housing in a clean and safe surrounding.

cover costs of the existing system, without even considering the investment needs to cover increasing demand (e.g. because of urban population growth). This may be partly related to the social sensitivity of water tariffs which would explain the reluctance to raise the price for water. However, Auriol and Blanc (2009), argue that for Sub-Saharan Africa this may also be explained by capture: "[...] public utilities are not optimally managed in SSA [Sub-Saharan Africa]. Prices are too low. Moreover the government and the elite do not pay their bills. This situation clearly suggests a capture problem: the powerful and wealthy subsidise their consumption of utilities services with scarce public funds."

Finally, many of the challenges faced by the urban water sector are partly or entirely outside the narrow scope of the water sector. (4) **Issues beyond the sector** are related to environmental challenges, poverty, and broader governance issues such as justice or budget transparency. It would also be a mistake to narrow urban problems to the limits of the city area. E.g. waste disposal outside of cities may contaminate the phreatic water sources, raising the costs of water treatment and public health issues. Also climate change, together with deforestation is a highly problematic mixture that may affect urban water supply in the future[4]. Town planning and regulation of land uses are issues that favour the possibility of actually providing services or the opposite with land grapping and speculation as causes of trouble.

The main challenges described above show that to understand corruption in urban water and sanitation requires looking both beyond urban areas and beyond the water sector. To design sound, context specific anti-corruption measures it is important to understand the underlying factors that cause the main problems in urban water supply and sanitation services. At the same time specific knowledge of the sector is required to get a clear grasp of the risk areas of corruption in urban water supply and sanitation supply.

Corruption risks in urban water supply and sanitation

It is by now well established that corruption risks in the water sector are particularly high. In the case of Africa, Plummer and Cross (2006) found that "corrupt practices are endemic to most water supply and sanitation institutions and transactions, either in decision-making over the allocation of water resources, or bribery and fraud in procurement or construction". Davis (2004) comes to a similar finding in an in-depth exploration of both petty and grand corruption in South Asian water utilities.

The World Bank(2008) defines "hotspots" as points in a sector where discretionary decisions are made. Opportunities for corruption arise between different actors (public, private, civil society), at different stages of service delivery and at the national or sub national level. Mapping corruption at the sector level is necessary as a tool for understanding how corruption occurs; taking into account water and sanitation sector particularities[5].

Some of the characteristics that make the urban water and sanitation sector prone to corruption are:

- the monopolistic nature of formal service delivery through urban water utilities, with high capital costs, economies of scale and economies of scope. This often only leaves room for informal competitors, and thus reduces competitive pressures.
- the discretion pointed out by Plummer and Cross (2006) in planning, design, contracting, implementation, monitoring and regulation is favoured by the complex setup and large scale projects of the urban water and sanitation sector
- the often well established informal water providers add to the many different actors and interests within the urban water sector. As Bellaubi and Visscher (2010) underscore "[..] 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 [...]"
- especially public utilities – that are usually established for urban water supply and sanitation services – offer room for interference of political interest and capture (e.g. in search for votes), which may hamper sustainable financing of services. An interview partner from Zambia for the study made by Boehm (2011)[6] points to the scope for political abuse of the water utility board for 'political engineering', as he framed it: "Needs-based projects? Yes, but based on the needs of the local politicians..."

The issue of informality and slums dwellers

One of the main challenges of water and sanitation provision in urban and peri-urban areas is to provide coverage and quality services to squatters and slums dwellers as they usually do not receive formal services. Allen explains the existence of these informal settlements without improved services through *"the lack of a regulatory framework for informal housing, land development coupled with the absence of coordination between land use and the development of water and sanitation systems"*[7].

Informality in urban areas can increase the risks of corruption significantly. According to Baken (2007) political leaders in slums usually represent a political party. Their relationship with the inhabitants is based on reciprocal benefits: for slum dwellers they are the only way to obtain the goods and services they need – in this context water supply and sanitation are some of the most essential services. At the same time it is the easiest way for the political party to secure votes. In this asymmetric and unstable relationship there can be active competition in capturing the support of the poor with the Sword of Damocles threatening the provision of water supply and sanitation services[8].

Further the informal water market can become so lucrative that it may eventually become controlled by local mafias. This is an old phenomenon that was already observed in the 18th century Paris, where public fountains and the river Seine were controlled by a kind of mafia extorting fees, although the access to water was until then, at least theoretically, free. Informal markets often go hand in hand with corruption when bribes are paid to police officers or to other public employees charged with control functions. Local politicians may receive a share of the gains in order to turn a blind eye on these practices. In the worst case

4 See National Geographic, 2009

5 Information on generic corruption risks in the water sector can be found in, among others, Plummer and Cross (2006), World Bank (2008), González de Asis et al (2009)

6 Boehm 2011

7 Allen, A., Dávila, J., and Hofmann, P. (2006)

8 Baken, R., IRC Symposium (2008)

such setups and power-relations can even hinder network extensions to underserved areas as they would endanger corrupt profits.

One possible approach to address this issue is to provide adequate incentives to utilities to extend network coverage and service provision to informal and low-income areas. As one interview partner during the research for this study noted, utilities are not per se unwilling to expand networks and increase coverage to low-income areas. They are just making a cold cost-benefit analysis. If incentives are not provided, it is unlikely that they will engage in activities aiming at increasing coverage.

Another option that is frequently mentioned in literature[9] is to legalise informal suppliers. The debate on this subject is still inconclusive; on the one hand, legalisation could be an option in order to provide water services to these settlements, because by legalising alternative water providers, the government also gains back the opportunity to regulate and control them. On the other hand (formal) water utilities may then neglect investments in improvement of service provision and coverage.

Public versus Private Operation

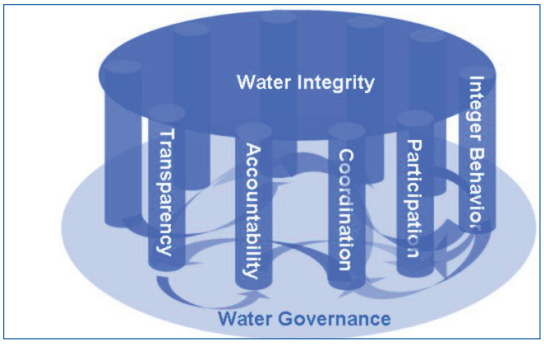
Various failed big concession contracts and their renegotiations call for a more cautious approach in private sector participation[10]. Guasch and Straub (2009), for example, analyse renegotiations in water and transport concession contracts in Latin America. Their studies show that the level of corruption is a significant determinant of renegotiations: a more corrupt environment leads to more company-led renegotiations, but significantly reduces the incidence of government led renegotiations.

The debate around private sector participation has become less ideologically-driven and more pragmatic[11]. It seems that ownership does not matter so much and that a lot will depend on the specific institutional environment. One of the most important lessons learned from the "concession area" is the importance of good quality regulation; all studies on private-sector participation reviewed put a strong emphasis on the quality of regulation as a prerequisite for success or failure of concession-type arrangements. Currently most water utilities in the world are publicly managed. Translating lessons learned from private sector regulation is a challenging task but may significantly contribute to curbing corruption in public utilities.

Increasing urban water integrity

The research undertaken for this study pointed out a number of challenges the urban water and sanitation sector faces. Figure 1 below shows a number of the governance pillars important to increase water integrity and key to reducing corruption risks[12].

Many of these pillars are interlinked as it is, for example, necessary to coordinate responsibilities between urban planning, environmental sanitation, and water and sanitation services to close loopholes where corrupt behaviour may flourish. At the same time clearly assigned responsibilities can contribute to increase transparency in the sector. Transparency and participation are essential to increasing accountability. Accountability implies being held responsible for the tasks that have been entrusted to a person or organisation. Holding decision-makers responsible requires some form of negative feed-back mechanisms (sanctions) which in return helps to mitigate corruption risks.



Graph 1: Water governance integrity pillars

As Roger and Hall (2003) point out, the law can address the problem of corruption but it is a heavy and expensive instrument, a measure of last resort, as it is difficult and costly to bring people to court. They identify regulators and watchdogs as alternative ways that can produce social sanctions that could *"deter all but the most unscrupulous from corruption"*[13]. Watchdogs can be different types of institutions - e.g. NGOs, a strong independent media or self governance (see Box 1 for an example from Zambia). Their complex role and setup often go beyond the urban water sector.

According to Boehm (2011) "good" regulation can foster the above mentioned principles of transparency, participation and accountability in the sector as a whole. By collecting and reviewing information or monitoring performance and sanctioning underperformance, regulators can shed light into deficiencies that might have remained hidden without regulation and thus would be prone to corruption. As in the example from Zambia, the regulator can also actively foster user participation.

Regulation requires balancing different interests (among others water users', utilities' or political interests). Most would therefore agree that such regulation should be 'independent' from any one of these interests. But independence is at risk if corruption is an option for the players in the regulatory game. In order to minimie risks of corruption within regulatory processes, four key elements are relevant: (i) preventing political interference, (ii) safeguarding regulatory integrity, (iii) preventing fraud and political interference at utility level, and (iv) improving overall accountability (transparency, participation, sanctions) in regulation[14].

Beyond safeguarding the integrity of the regulatory process and contributing to a more accountable environment it needs to be explored how governance aspects could be included into the tasks of the regulator. Further approaches to address informal water providers within the regulatory framework need to be developed.

Conclusions and final remarks

Corruption and integrity in urban water supply and sanitation is a complex issue with related challenges that go beyond city limits and beyond the water sector itself. The links to environmental issues, land management, and broader governance problems are very important. The most pressing challenge is perhaps how to provide informal

9 Allen et al (2006a)

10 Guasch, J. L., Laffont, J.-J., & Straub, S. (2008)

11 One example is the success story of the public utilities in Phnom Penh, Cambodia, in overcoming some aspects of petty corruption and expanding services to poor areas (see Transparency International, 2008: 48, or World bank, 2006).

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13 Roger, P. and Hall, A.W. (2003) page 14

14 Boehm 2011

settlements and peri-urban areas with adequate, sustainable and affordable water supply and sanitation services. Misuse of entrusted power for private gain may be a major obstacle in extending access to inhabitants of such settlements.

Literature and the experts interviewed coincide that corruption is an important threat to the sector not just today but also with respect to the future. It is likely that corruption, and bad governance in general, will compound the challenges faced by the sector. Reforms introduced with good intentions may fail because the political economy, nor related issues of corruption, were considered in the planning stages.

It is thus more important to get a good understanding of a specific urban context, in order to minimise the risks of failure than trying to import-export "best practices". Tackling corruption therefore requires an approach that helps us to understand how corruption works and to identify the root causes of the different types of corruption. A feeling for what matters in the fight against corruption together with sound knowledge of the context will help us to develop the innovative approaches that are needed in order to enhance the integrity of the water and sanitation sector in urban contexts and beyond.

Box 1: Participation in Action – Water Watch Groups in Zambia

"In order to foster the participation of users in the sector, NWASCO [the National Water and Sanitation Council, = regulator] has created Water Watch Groups at the community level in order to establish a direct link between regulation and users. These Water Watch Groups are mediators between commercial utilities, users, and the regulator. They are composed of volunteers who educate users on their rights and obligations, and assist users to resolve complaints vis-à-vis their service provider. Moreover, the Water Watch Groups provide feedback directly to NWASCO about these activities.

Without a doubt, the Water Watch Groups have helped in facilitating and resolving complaints within reasonable time periods. Complaints are now increasingly taken seriously by the commercial utilities. Arguably, this has also helped reducing petty corruption in the sector, such as paying for connections or repairs or fraud by users who manipulate meters, which are quite common in low-income urban areas. Indeed, it is quite common in Zambia to pay a bribe for a connection to the electricity grid, while this type of bribe is almost absent for water connections. One possible explanation is that complaints in the water sector concerning delays are effectively treated, while this is not the case in the electricity sector."[15]

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