FIGHTING CORRUPTION IN THE WATER SECTOR
METHODS, TOOLS AND GOOD PRACTICES

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Over the past decade, impressive progress has been made towards meeting the global commitments outlined in the Millennium Development Goals (MDGs). Legal frameworks, systems and processes are in place, and aggregate public spending on social services such as education, health, water and sanitation has increased in many countries. However, disaggregated data on MDG achievements present a picture of uneven progress across regions, between and within countries.

The reason for insufficient progress is not just due to a failure to address entrenched disparities and inequalities or the lack of financial resources generated within and/or flowing to developing countries, but also from the major bottlenecks such as systemic corruption that result in diversion of valuable resources. The poor and vulnerable sections of the society are ultimately the ones to suffer the consequences of corruption.

The outcome document of the 2010 MDGs Review Summit has identified corruption as the major barrier for achieving the MDGs. It calls for decisive steps to be taken to combat corruption in all its manifestations. This requires an understanding on how corruption manifests itself and where corruption risks exist in different sectors, in order to devise strategies to address the underlying governance and anti-corruption bottlenecks impeding MDG progress.

This UNDP-sponsored study presents methods, tools and good practices to map corruption risks, develop strategies and sustain partnerships to address challenges and tackle corruption in the water sector. It complements UNDP's MDG Acceleration Framework (MAF), which has been endorsed by the UN Development Group and enables governments and development partners, within established national processes, to identify and systematically prioritize the bottlenecks to progress toward achieving the MDGs, and then devise ways to overcome them.

The study brings together UNDP's efforts to support countries to develop frameworks to accelerate their efforts to meet the MDGs as well as successfully meet the commitments of the UN Convention against Corruption. It also specifically takes forward UNDP's agenda to develop sectoral approaches to address corruption in different sectors.

Water is a basic element that sustains life, including human life. Yet approximately one billion people still lack access to safe water. Given current projected population growth rates and the impact of climate change, it is likely that more than half of the world population will face water-based vulnerability by the year 2030. Addressing corruption and mismanagement in this sector is vital to sustain achievements toward the MDGs. This study maps corruption risks in the water sector (including irrigation and hydropower) and presents methods and tools to measure corruption in the sector. It also presents good practices in improving oversight and promoting better water resource management.

We sincerely hope that this study will inspire further analysis of the corruption risks in the water sector at a country level. We also expect that the methods, approaches and good practices presented in this study will serve as a resource for developing country-level interventions and building sustainable partnerships for promoting accountability and improving efficiency in service delivery.

Sincerely,

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ADB	Asian Development Bank
CSO	Civil society organization
Danida	Danish International Development Assistance
EIA	Environmental impact assessment
GRECO	Council of Europe Group of States against Corruption
MDG	Millennium Development Goal
NGO	Non-governmental organization
NWASCO	National Water Supply and Sanitation Council (Zambia)
OECD	Organization for Economic Cooperation and Development
PACDE	Global Thematic Programme on Anti-Corruption for Development Efficiency
PPP	Public-private partnership
SIWI	Stockholm International Water Institute
TISDA	Transparency and Integrity in Service Delivery in Africa
UNDP	United Nations Development Programme
UNTOC	United Nations Convention against Transnational Organized Crime
WIN	Water Integrity Network
WSP	Water and Sanitation Programme (administrated by the World Bank)
WWW	Water watch group

UN Photo/Jeffrey Foxx

Corruption in the water sector is a major problem and reduces the effectiveness of efforts to attain the Millennium Development Goals (MDGs) in drinking water and sanitation. It results in higher costs to society because it increases costs of water service provision and weakens the quality of services. People of limited economic means are especially affected: fewer infrastructures are built because of over-pricing, leaving the poorest families without water services.

The results of this desk study, commissioned by UNDP in 2010, show that corruption can be found in all water subsectors: drinking water and sanitation, irrigation, water resources management and hydropower. Different forms of grand corruption include collusion, policy capture by the elite, embezzlement of government assets and funds, bribery in international deals, bid rigging and nepotism. A notable example of grand corruption discussed in this reported occurred in the Lesotho Highlands Water Project. The chief executive of the project was sentenced 15 years in of imprisonment in 2002 after illegally receiving US$6 million from international construction companies. Many other examples exist, but prosecution rates are low. Petty corruption in the water sector includes extortion of bribes for water connections and water use licenses. Poor water quality monitoring and low levels of sanctioning water pollution can also be related to corruption.

It is often difficult to measure levels of corruption because of its hidden character. Corruption is complex, multi-layered and frequently interwoven with politics and wider social structures. It is often systemic and institutionalized, in the sense that persistent informal rules have developed that reinforce corrupt practices within organizations. International building and service contracts in the water sector enhance the complexity and related corruption risks.

Good practices in anti-corruption are defined as those with lasting and significant reduction of corruption, which address specific risks, and which (where possible) are enacted in partnership and create a sense of ownership with stakeholders. Anti-corruption measures increase accountability, transparency and integrity. Three types of such measures are identified in this study: increased government oversight, pro-market reforms and increased voice of citizens and consumers.

To be able to evaluate the impact of anti-corruption measures it is necessary to measure levels of corruption. The four methods used most commonly to measure levels of corruption in the water sector are i) benchmarking of performance of water utilities, ii) general corruption perception indexes, iii) financial indicators that compare awarded with estimated prices in procurement procedures, and iv) household surveys on bribery.

Effective government oversight is the principle measure to curb corruption. Strategies might therefore include seeking to enhance the effectiveness of monitoring and auditing by the central audit agency, Parliament, anti-corruption agency, ombudsman and specific sector and local government organizations. Other useful options might include better protection for whistleblowers, more effective prosecution, and establishing or strengthening an independent water sector regulator to monitor decentralized or privatized water service providers.

Different tools exist to curb collusion and bid rigging in tender procedures. In Pakistan and Mexico, for example, civil society witnesses have been used successfully to prevent over-pricing. Within government organizations several measures can be implemented, including those promoting transparency and integrity in employee appointment and job promotion regulations. Increasingly, monitoring systems include citizen information ('citizen report cards' in India, hotlines, etc.) to monitor public and private utilities. As this study notes, political will to curb corruption is important but not sufficient. Political leaders with the will to end corruption should implement concrete reforms, enforce sanctions and mobilize a wide range of stakeholders. Furthermore, anti-corruption requires allocation of public resources over a prolonged period of time.

Pro-market reforms that might curb corruption include privatization of service provision, subcontracting of services, public-private partnerships, and tendering of concessions, operation and water use licenses. However, privatization processes themselves are susceptible to risks of corruption. Social corporate responsibility initiatives might be useful in addressing corruption. For example, member companies of the national association of pipe manufactures in Colombia and Argentina have agreed to refrain from price deals and bid-rigging, thus reducing costs of drinking water and sanitation projects.

Meaningful participation by representatives of citizens and organizations of water users in the management of water utilities can increase accountability and transparency. Users can participate in decision making (social budgeting) and through social auditing. Democracy, rule of law and free press are essential for attaining high levels of accountability towards water users. Bolivia and Uganda have implemented forms of decentralized government budgeting where councils of citizens take decisions and can prioritize municipal water projects. In Peru, the management of large-scale irrigation systems was transferred to water users' associations that obtained high levels of financial and water delivery performance. Claims of groups of organized citizens in Riobamba in Ecuador helped to curb corruption in licensing of water use rights for irrigation.

The findings of this desk study show that it is important to fight corruption in the water sector with all three types of anti-corruption methods: increased government oversight, reform of regulations that stimulate performance, and increased accountability towards citizens through increased participation in decision-making.

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1.1 Introduction

Corruption is a global phenomenon and is as old as government itself. The word 'corruption' stems from an old French word referring to unhealthy bodies and souls, and it has been used from the early 15th century in relation to public offices. Corruption has been reported throughout history—for example during the Roman Empire, in India around 300 BC, and in 17th century Europe (Klitgaard, 1988).

Corruption affects the poor more than the wealthier, including in the water sector. Corruption also affects efforts to meet the Millennium Development Goals (MDGs). For example, government funds and water fees for system operation and maintenance are misused and funds for construction of water projects are diverted. Lax compliance with and enforcement of water quality regulations can also be related to corruption.

In many countries governments have initiated anti-corruption programmes; however, the results of those programmes are varied. Curbing corruption is difficult because it is not manifested solely in the illegal or unethical behaviour of some criminal officials. Instead, corruption is often systemic and institutionalized in the sense that long-entrenched informal rules are adhered to inside government

agencies and private enterprises that ensure that corrupt practices are continued and reinforced. Individuals with good intentions cannot easily change the system. For example, honest people are excluded from certain jobs or are forced to adhere to corrupt practices if they want to keep their jobs.

At the international level important conventions have been signed to combat corruption such as the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, the UN Convention against Corruption (UNCAC), and the United Nations Convention against Transnational Organized Crime (UNTOC). In 2005 UNCAC came into force; as of 14 October 2011, a total of 154 member states had signed and ratified the Convention, but many have acknowledged that they need technical assistance to implement its provisions.

Anti-corruption norms and standards also exist at the regional level such as the African Union (African Union Convention on Preventing and Combating Corruption and Related Offences), the Organization of American States (Inter-American Convention against Corruption), the European Union (Council of Europe Group of States against Corruption [GRECO]), and the Asia and Pacific region (ADB-OECD Anti-Corruption Initiative for Asia-Pacific).

At international level different organizations have developed technical assistance programmes to support anti-corruption programmes of national governments. UNDP has been involved in anti-corruption promotion activities for more than a decade; in 1999, it published an influential manual on combating corruption titled 'Fighting Corruption to Improve Governance', and in 2008 the agency developed a support programme to provide technical assistance more effectively through the Global Thematic Programme on Anti-Corruption for Development Efficiency (PACDE). Besides UNDP, several other international organizations have programmes aimed at combating corruption, including the United Nations Office on Drugs and Crime (UNODC), the World Bank, the Organization for Economic Cooperation and Development (OECD), and GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit), formerly German Technical Cooperation.

The most important initiative in the area of corruption and water governance is the Water Integrity Network (WIN). Collaborating entities include Transparency International (which houses WIN), the World Bank's Water and Sanitation Program (WSP), the IRC International Water and Sanitation Centre and the Stockholm International Water Institute (SIWI). Other relevant organizations working on anti-corruption in the water sector are the U4 Anti-Corruption Resource Centre, the Asian Development Bank and WaterAid. In Africa, the Transparency and Integrity in Service Delivery in Africa (TISDA) programme has started a broad research and advocacy programme on corruption in the water, health and education sector. It is implemented by Transparency International chapters in Cameroon, Ghana, Kenya, Nigeria, Senegal, South Africa, Uganda and Zambia.

Two publications on corruption in the water sector are particularly noteworthy. Both 'Corruption in the water sector: causes, consequences and potential reform' (Stålgren, 2006) and the 'Global corruption report 2008: corruption in the water sector' (Transparency International, 2008) have drawn worldwide attention to the issue.

1.2 About this report

The main objectives of this report are to i) map existing tools and good practices of anti-corruption interventions in the water sector by governments, civil society and development partners; and ii) analyze the evidence of impacts from the applications of tools and implementation of good practices in order to develop a methodology to map out good practices at the country level.

This desk study examines the impact of anti-corruption initiatives in the water sector. Evaluation of impact is difficult because of the complexity and hidden character of corruption, which is therefore difficult to gauge itself. Nevertheless, an analytical framework and categorization of anti-corruption measures is presented as well as examples of good practices of anti-corruption in the water sector.

For the purpose of this study, 'good practice' is defined as activities that contribute significantly to corruption reduction. Good practice may be innovative and newly implemented, piloted or evaluated, and may be implemented or evaluated at levels ranging from the broad policy/macro level to the grassroots level. Activities (methods and tools) may be stand alone or as part of a broader reform process.

> This study defines a good practice as an activity that contributes significantly to the reduction of corruption in the water sector. A good practice may be implemented or evaluated across the spectrum from policy/macro level to the grassroots level.

Common characteristics of good practice are that it:

- addresses a specific risk,
- takes account of different contexts, incentive structures, etc.,
- is owned by those responsible (or affected),
- is developed and implemented in partnership, including with civil society,
- is sustainable, and
- has a demonstrable impact on duty bearers and rights holders/beneficiaries

Finding the right indicators and corresponding sources of information has been essential to this research. Information from selected stakeholders was scrutinized, including:

- anti-corruption agencies (ACAs) or commissions;
- parliamentary committees that investigate cases of corruption;
- civil society organizations in the water sector, including consumers' organizations, professional associations, labour unions, and associations of irrigation water users;
- public water providers (municipal drinking water utilities); and
- private water providers.

It is important to note that the examples of corruption used in the text and boxes do not imply that in certain subsectors in certain countries more corruption occurs or that in the mentioned countries better and more effective anti-corruption interventions exist. The examples are used as illustrations, and are not meant to be representative or indicative of any statistical evidence of occurrence.

1.2.1 Structure of report

The report has five main sections. Background information is provided in Section 1, including the definition of corruption and an overview of the costs to the poor of corruption in the water sector. Section 2 discusses the different forms of corruption in the sector.

Section 3 describes three types of anti-corruption measures. This categorization will facilitate the understanding and analyses of the mechanisms of anti-corruption. It first addresses the assessment of the impacts of anti-corruption measures: the difficulties of measuring corruption and in finding the right indicators. It then describes three main ways to combat corruption: increased government oversight, pro-market approaches, and bottom-up approaches.

Section 4 gives examples of anti-corruption measures and their impacts in four water subsectors (drinking water and sanitation, irrigation, water resources management and hydropower) according to the type of anti-corruption measure.

In the concluding Section 5, a brief analysis is provided of the drivers and conditions of anti-corruption measures. Finally, general conclusions and some policy implications are presented.

1.3 Defining corruption

Different definitions of corruption exist, but for the purposes of this report a relatively simple term will suffice: 'the misuse of entrusted power for private gain'. This definition is also used by UNDP and Transparency International (UNDP, 2008a; Transparency International, 2008).

Generally a distinction is made between 'petty' and 'grand' corruption (Butterworth and de la Harpe, 2009a and 2009b). Petty corruption relates mainly to practices of bribery of officials by clients, and grand corruption refers mainly to collusion during procurement procedures for major construction works. However, petty and grand corruption might be related and many other forms of corruption exist.

Corruption is hardly ever the act of one subversive individual; rather it is very often systemic and institutionalized. It is also related to political will to control corruption (Klitgaard, 1988). The level of corruption in government institutions can differ widely. Some states are labelled *neo-patrimonial* or kleptocracy states. In these nations the elite captures the state. Once corruption is both systemic and *generalized*, it is self-maintained and has its own internal rules (Médard, 2002; see also Stålgren, 2006 and UNDP, 2008d).

Box 1. Example of systematic corruption

Robert Wade (1982) provided a detailed account of institutionalized corruption in large-scale irrigation in southern India. The account is from 1982, but the detailed description of the informal rules governing the system of administrative and political corruption in a 'hydraulic bureaucracy' is unique. (The author has no data on actual practices in the irrigation sector in India.)

Wade observed that canal officials had great discretionary power. They sought and obtained kickbacks from construction contracts, which totalled a minimum of 16 percent of the value of each contract. Furthermore, during the construction, allowing for low quality and less work, up to 50 percent of the contract value could be siphoned off. The illegal revenues were shared among contractors and officials. An executive engineer with an official salary of about US$3,500 annually could make an illegal income of some US$32,000 from construction works once kickbacks and bribes were factored in. Their subordinates, assistant engineers, could make some US$10,000 annually, more than three times their official salaries of about US$3,000, from bribing farmers in return for (reliable) irrigation water supply. The posts of the irrigation engineers were 'auctioned' illegally. Every three years the engineers were transferred, and to get a preferred position the engineers paid somewhere between US$12,000 and US$50,000 to a representative of the state irrigation minister.

In this example from southern India, petty corruption forms the basis of a 'pyramid' of corruption: bribes and revenues from collusion travelled up in the hierarchy. An engineer who did not want to pay for his post was unlikely to be hired; thus, the system was self reinforcing. An honest engineer might even have been publicly accused of corruption so as to remove him from his post.

Corruption can also come from outside the bureaucracy. For instance, extortion from criminal groups might force officials to act dishonestly. This happens for example in Kenya and in Peru. In Peru 'protection' money (locally called *cupos*) is extorted from government officials and private construction companies by mafia-like organizations. Officials might feel forced to commit fraud in tender procedures to allow for this kind of payments.

Three main views exist regarding corruption and corresponding anti-corruption efforts (based on Everett et al., 2007):

- The 'rotten apple' view of corruption: corruption is the misconduct of some criminal and low moral individual civil servants. The solution is strict oversight of state bureaucracy. With sufficient political will and the right anti-corruption tools the 'rotten apples' can be removed. This approach rests on upward accountability. Servants in the hierarchical bureaucracy should be answerable towards higher ranking officials. This is the 'orthodox' view on corruption.

- The 'rent-seeking civil servant' view of corruption: the self-interest of civil servant makes them all susceptible to corruption (the 'culture of corruption'). This means that more oversight is not the solution; there will always be many ways to find new and more hidden manners to extract private gain from civil servant positions. New control organizations might only create a new layer of officials to be bribed. The solution proposed is the 'exit strategy'. Privatization of

state companies and subcontracting services to private companies is often viewed as the best solution; this is the neoliberal response (see Klitgaard, 1997, and World Bank, 1997). However, private operation requires strict and intensive government oversight which might give rise to more corruption, and privatization processes themselves are also susceptible to corruption.

- The 'comprehensive' view of corruption sees it as a complex socio-economic-political phenomenon. Corruption has no clear boundaries and is deeply intertwined with politics and the social-economic fabric of society. It is systematic and institutionalized, in the sense that relatively stable informal rules in government agencies and private enterprises perpetuate corrupt activities; as such corruption forms an intrinsic part of society because it is not caused by some individual culprits. In the comprehensive view, corruption is related to power struggles between different groups in society: it is about gaining control over resources and institutions. Moreover, politicians combating corruption might be as corrupt as their opponents. Politicians might use the rhetoric of anti-corruption to attack political opponents and create a smoke screen to hide their own corrupt practices. Corruption is intertwined with party politics, election fraud and authoritarian rule. The solutions suggested are increased empowerment of users' groups, consumer committees and civil society organization, and a robustly free press (see e.g., Everett et al., 2007).

This study is not based on one of these three views. Instead, it starts from the idea that in specific circumstances one or more of these different views might be useful for understanding the situation and developing the most effective anti-corruption strategy.

1.3.1 Defining corruption in the water sector

Water management is complex and needs governance at different levels and areas, from watersheds to local water resources management, from national policies to specific local solutions. The physical properties of water imply that these governance levels are interrelated (geographically, institutionally and politically). Choices regarding central control over water resources (big dams or many smaller dams, large-scale public irrigation or many smaller farmer-managed irrigation systems, central or decentralized water quality monitoring) influence the governance structure and, by extension, transparency and accountability relations. Levels of corruption risk vary based on those relations.

Some causes of corruption in the water sector:

- Weak enabling environment (e.g., weak rule of law, political environment, etc.)
- Low levels of accountability and transparency
- Weak technical and management capacity
- Political capture of water policies and projects
- Gaps in laws and policies
- International dimension of corruption (multi-national companies, etc.)

Corruption in the water sector is often entangled with legal activities, political governance and other social processes. It is often hard to determine the border between legal and illicit activities. Corruption in the water sector is interwoven with wider problems in the society in several ways, including the following:

- Deficient levels of technical and management capacity can increase and entrench corruption. In many cases it is difficult to distinguish between (legal) maladministration and corruption. Delays and low quality of construction and maintenance of water works, 'white elephants', and water contamination might be due to low technical and management capacity or lack of government funds, rather than to corruption. Weak capacity in government can stem from lack of resources and lack of qualified officers. Mismanagement does not equal corruption; thus fighting corruption is not the sole solution for combating poor performance. Yet at the same time, many anti-corruption measures such as increased citizens' oversight do not only curb corruption, but may also enhance the quality of the policy and management decisions and their implementation.

- Political capture of water policies and projects by certain powerful stakeholders is not always clearly detectable, and it can be hard to prove that they are illicit. Processes of privatization are particularly vulnerable to benefiting the elite. High financial revenues from the operation of a water utility (helped by its monopoly position in most cases) are legal when the utility is private. However, if the same utility were state operated, the siphoning off of revenues would have been labelled rent-seeking.

- The spill-over from corruption in other government sectors or criminal activities to the water sector is another reason for complexity. For example, procurement processes for the construction of water works might be affected by private companies bidding with unrealistically low prices made possible by criminal money. This kind of low bidding can be an effort to launder money obtained illegally. Another example of criminal practice related to water is the installation of water service not based on objective measures or policies regarding urban development, but influenced by criminal elements interested in making money by illegal housing projects on agricultural or barren land they have acquired.

- Gaps in laws and policies because of fragmented government agencies (and in some cases across different countries) are another problem. This is a particular problem, for example, in regards to river contamination in upstream parts of transboundary watersheds.

- Transnational investment in the water sector may involve high risks of corruption because national laws and enforcement can be more easily evaded, e.g., when jurisdiction is unclear.

- In municipal water companies, problems might arise when low water tariffs are offered during election campaigns to win votes. The low tariffs subsequently cause problems in financing the municipal water company. This practice is not corrupt in itself, but it is notable that politicians who have been found to embezzle funds have used populist promises to get in office, and promising low water tariffs can be an effective way to win votes with a relative big constituency in poor countries where water fees account for a relatively big part of the taxes paid to the municipality.

- More positively, it is true that good democratic practices at national and local government levels—including fair elections, accountability of politicians towards their constituencies

and free press—help a great deal in curbing corruption in general. This also applies to water governance, which after all, is not an isolated sector.

UN Photo/Gill Fickling

1.4 The costs of corruption in water to the poor

Corruption in the water sector has a disproportionate impact on the poor because higher costs and bribes for water services affect them relatively more than wealthier counterparts.

The poor are affected more by corruption than the rich (UNDP, 2008). In the water sector, this stems from the fact that any increase in costs for water services affects them relatively more extensively than the rich. Whether poor or rich, people cannot avoid the impact: water is a basic need for which there is no alternative. The poor have less social and political power and therefore they are usually the victims, not the culprits of corruption. They pay the price for poor performance.

The following are some specific ways in which the poor might be affected by various forms of corruption in the water sector:

■ Water from tankers is more costly than a regular connection. For example in Lima, Peru, slum-dwellers pay five times more per cubic meter of water in comparison to those living in higher-

income parts of the city (Defensoria, 2005). Corruption can prevent the building of new pipe networks and connections; the poor are thus forced to buy expensive and low quality tanker water, while the rich benefit from subsidies to the public supply system with higher quality piped water (see also Swyngedouw, 1997).

- Less water infrastructure is built and maintained because of overpricing related to corruption.

- Bribes need to be paid to get a water connection. These extra costs might exclude the most marginalized households from gaining access to in-home connections.

- Corruption might influence decisions on water right licenses, for example when large-scale and influential farmers obtain water rights to the disadvantage of smaller ones (see e.g., Warner et al., 2009).

- 'Hydro-mining' of groundwater by agribusiness companies deplete aquifers and thus directly impacts local open and shallow tube wells used for drinking water and irrigation by local communities.

- Low quality river water affects poor farmers who use the water to irrigate. This might be linked to corruption when pollution is not stopped because companies that pollute river water evade control and/or punishment by bribing officials.

- Poor-quality drinking water and sanitation services disproportionately affect children from poorer families; many children in such communities die from diarrheal illnesses spread by contaminated water. This is particularly true because the burden of providing households with water lies mostly with women and children in developing countries. Moreover, if children get ill from diarrhea it is their mothers who do the caring.

1.4.1 Water and the MDGs

The MDGs define targets for access to drinking water and sanitation. Target 10 of MDG 7 is to halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation.

A 2009 UN report on progress toward meeting the MDGs states the following about this target:

The world is ahead of schedule in meeting the 2015 drinking water target. Yet a number of countries face an uphill battle: 884 million people worldwide still rely on unimproved water sources for their drinking, cooking, bathing and other domestic activities. Of these, 84 percent (746 million people) live in rural areas (UN, 2009a, p. 46).

The situation in regards to sanitation is daunting, according to the report:

From 1990 to 2006, 1.1 billion people in the developing world gained access to toilets, latrines and other forms of improved sanitation. An additional 1.4 billion people will require such facilities if the 2015 target is to be met….Rapid acceleration of progress is needed to bring improved sanitation to the 1.4 billion people who were doing without in 2006, with all its attendant consequences for the health of communities and the local environment. At the present rate of progress, the 2015 sanitation target will be missed (UN, 2009a, pp. 45 and 5).

Corruption increases the costs of building water infrastructure by as much as 40 percent, which implies that US$12 billion extra per year are needed to attain the MDG target on safe drinking water and sanitation.

The Camdessus Panel estimated the global investments required to meet the drinking water and sanitation targets of the MDGs to be about US$13 billion and US$17 billion per year, respectively. These figures do not take into account operation and maintenance costs of existing infrastructure and the costs of training (Winpenny, 2003; Mehta et al., 2005). More recent calculations by the private sector regarding the investments needed to close the gap between worldwide demand and supply in drinking water have provided much higher estimates of annual capital investments: between US$50 billion and US$200 billion a year (2030 Water Resources Group, 2009, p. 70).

It is estimated that costs of building water infrastructure are increased by between 20 and 40 percent because of corruption (estimates by the World Bank cited in: Stålgren, 2006). This would imply that between US$6 billion and US$12 billion extra per year are needed to achieve the MDG target on safe drinking water and sanitation, based on the costs estimated by the Camdessus Panel.

UN Photo/Eskinder Debebe

Examples of corruption in the water sector are grouped in this section in four specific areas: the water supply and sanitation sector, the irrigation sector, water resources management and the hydropower sector. The information and observations are not meant to be comprehensive; instead, they aim to provide a useful examination of the scope and nature of corruption in the water sector.

Corruption in water sector by specific areas:

- Water supply and sanitation sector
- Irrigation sector
- Water resource management
- Hydropower sector

2.1 Water supply and sanitation sector

Most cases of corruption in the water sector that have been documented are related to the drinking water and sanitation sector. Drinking water is a basic need and has no alternatives, and proper sanitation is of fundamental importance for individual and public health. The lack of adequate services in this sector therefore can be deadly. As many as five million children and adults die each year because of lack of drinking water and proper sanitation facilities (UNDP, 2002).

This subsector has high risks of corruption because of monopoly positions of the providers and the large sums of money involved in investments, rehabilitation and operation and maintenance (Plummer and Cross, 2006; Shordt et al., 2006).

Davis (2004) provides a detailed account of the systematic character of corruption in the public water and sanitation sector in India and Pakistan. Three main forms of corruption found were bribery related to water meter reading and illegal connections; collusion in contract bidding; and a market for job transfers. Contractors told Davis that prices were inflated by 15 percent due to collusion (p. 57).

The construction of water works can yield considerable amounts of illegal revenue to politicians and officials; thus water scarcity might be artificially maintained or worsened. For example, Giglioli and Swyngedouw (2008) show that it was in national and local political interest to first worsen a water crisis in Sicily, Italy, in 2002 so that revenue could be made through private tanker provision and public support increased for the building of new infrastructure to be inaugurated by senior politicians.

Box 2 provides a list of some types of corruption that can be found in the drinking water and sanitation sector. This list is not exhaustive. See also de la Harpe and Butterworth (2009) and Butterworth and de la Harpe (2009a) for descriptions of corruption risks in the water sector.

Box 2. Summary of types of corruption in the drinking water and sanitation sector

- Collusion (kickbacks or bid-rigging) and extortion in the procurement procedures for construction and maintenance works
- Collusion during the quality control of construction and rehabilitation of water infrastructure works
- Unwarranted contract variations and re-negotiations
- Capture of profitable contracts and (re)negotiations by private companies for water concessions
- Embezzlement of government and foreign aid funds and assets
- Bribery of utility officials to evade water fee payments or allow illegal connections
- Political mismanagement of municipality utilities to win votes with low tariffs
- Nepotism and kickbacks in the appointment and promotion to lucrative positions
- Officials profiting from giving 'licenses' to informal water providers
- Central and/or local level elite capture of water provision services and committees

2.2 Irrigation sector

The irrigation sector is susceptible to corruption because of the large investments made by governments in large-scale irrigation infrastructure—such as dams, canals, tunnels, wells and drains—as well as in large projects with many small irrigation schemes. Corruption is also associated with the value of the irrigation water itself.

A report by Robert Repetto, 'Skimming the water: rent-seeking and the performance of public irrigation systems', published by the World Resources Institute in 1986, was one of the first to address the linkages among irrigation sector subsidies, low official water prices and the favours paid by water users to canal managers in exchange for reallocation of water to their fields. Repetto stresses the negative effects of the policy capture by large farmers, including the fact that such water use is inefficient and taxpayers subsidize irrigation to wealthy land owners.

The article by Robert Wade (see Box 1) stressed the institutionalized character of corruption in the irrigation sector in India in the 1980s. The case description makes clear that in a hydraulic bureaucracy petty corruption, such as bribery regarding water turns, can be linked to grand corruption, such as the market for transfers.

However, under some specific circumstances unexpected positive side effects of illegal payments can be found. For instance, the water distribution performance in a large-scale irrigation system along the arid northern coast of Peru was found to be surprisingly good. The water distribution benefitted from illicit water selling by canal operators contracted by the water users' association. The canal operators earned extra money by selling all water saved by means of a precise delivery of the volumes ordered and paid for by other water users (Vos, 2008).

Box 3 provides a summary of the types of corruption that can be found in the irrigation sector.

Box 3. Summary of types of corruption in the irrigation sector

- Collusion (kickbacks or bid-rigging) and extortion in the procurement procedures for construction and maintenance works
- Political capture of big projects and subsidies by big land users
- Embezzlement of government and foreign aid funds and assets
- Unwarranted contract variations and re-negotiations
- Bribery and nepotism in assigning water rights and irrigation turns
- Bribery for allowing informal groundwater extraction
- Bribery of irrigation system officials to evade water fee payments
- Political mismanagement to win votes with low tariffs
- Nepotism and kickbacks in the appointment and promotion to lucrative positions

2.3 Water resource management

Water resources management is a broad subsector, with a wide range of activities. Therefore, the types and forms of corruption also differ widely.

Water resources management includes assignment of water use rights; reforestation of the upper catchments of watersheds; erosion control; regulation of groundwater use; water harvesting; control of pollution of water by domestic waste water, industry and agriculture; protection of river banks; flood control works (dikes and sluices); and climate change mitigation projects.

Pollution control poses a particularly high risk area in regards to corruption. Recently, for example, several cases have been reported from China. In October 2009 a major case of corruption was reported in the water quality improvement projects for three large rivers and three lakes in the country. The National Auditing Office discovered that some US$59 million allocated for water pollution control had been misused and embezzled between 2001 and 2007. Furthermore, some US$650 million was stolen, misdirected or never used. Companies responsible for polluting water did not pay fees totaling more than US$300 million that were supposed to go to projects addressing water contamination. Recently also other cases of corruption in environmental protection in China have drawn attention to this problem. Most notably, many factories specifically choose to not treat their waste waters because the penalties are lower than the operation costs of effective treatment plants[1].

Also, water rights allocation decisions are vulnerable to corruption. In water scarce areas, different water sectors and different water users' collectives might be interested in securing water rights by bribing. In the case of ground water the depletion of aquifers can be accelerated by corruption and political influence of large farmers (see cases in Mexico by Wester [2008]; and Peru by Hepworth et al. [2010]). Depletion can also be related to informal water providers that supply areas that have no formal water supply (possibly because of corruption).

Climate change adaptation and mitigation projects might also be plagued by corruption. According to Jacobson and Tropp (2010), corruption in climate change adaptation projects will lead to more costly projects and a slower adaptation, which might allow irreversible damage to ecosystems and slow down development and poverty reduction efforts. See also Water Integrity Network (2010) for several presentations on the risks and opportunities in the relation between corruption and climate change mitigation and adaptation programmes.

Box 4 gives a summary list of the types of corruption that can be found in the sector of water resources management.

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1   'Report finds dirty money, water in China', Washington Times, 12 November 2009. Online: www.washingtontimes.com/news/2009/nov/12/report-finds-dirty-money-water-in-china/?page=all#pagebreak.

Box 4. Summary of types of corruption in the water resources management sector

- Bribery related to the awarding of licenses for waste water discharges that pollute open water

- Corruption in sector water use rights (including ground water)

- Bribery and cover up of environmental impacts of projects or industry

- Corruption that affects forest cover in upper watersheds

- Corruption in climate change mitigation projects

- Misuse of funds for water resources management, including river bank protection and flood protection works and flood emergency funds

- Nepotism and kickbacks in the appointment and promotion to lucrative positions

2.4 Hydropower sector

About 17 percent of global electricity is generated by hydropower. As with other large construction works, there are high risks of collusion, kickbacks and bid-rigging during procurement processes. The extensive complexity, large sums of money and international tendering (with expertise concentrated among a few specialized design and construction companies) augment these risks. Poor people in areas flooded by dams and the environment suffer especially from corruption in the hydropower sector (Jennett, 2007).

Despite the high risk of corruption in megaprojects, not much documentation is available as to concrete, investigated and confirmed cases of corruption in the hydropower sector. McCully (2001) mentions cases of corruption with large dam construction projects in Japan, Thailand, Brazil, Italy, Spain, France and Portugal. A better documented case of corruption concerns the Itaipú and Yacyretá dams on the Paraná River along the border of Brazil and Paraguay. It was the largest hydropower project at the time (the 1970s), and was built without a market to satisfy military governments in power in the two countries. The initially estimated construction cost of the Itaipú dam was US$3.4 billion; the actual cost was US$20 billion. The Yacyretá dam was initially estimated to cost US$2.7 billion, and ended up costing more than four times as much, US$11.5 billion (McCully, 2001). Randall (2009) reports: "Glen Switkes, head of the Brazilian branch of International Rivers, an organization that works to protect rivers and the communities that depend on them, claims that 'corruption was the order of the day' during the construction of Itaipú." He adds that money associated with it has "filled the Swiss bank accounts of a lot of Brazilian politicians and corporations" (Rose-Ackerman, 1999).

Many other mega projects with large dams have been criticized. One example is the Narmada dam (Sardar Sarovar Project) in India, where corruption is associated with resettlement funds (see Friends of River Narmada: www.narmada.org).

Controversial dams that are now under construction include the Three Gorges dam and associated dams on China's Yangtze River. Allegedly, funds for relocating 13,000 farmers around Gaoyang disappeared after being sent to the local government, leaving residents without compensation. In

2000, a total of 97 officials were convicted of embezzlement from the dam fund[2]. Dai Qing, China's foremost environmental journalist and a long-time critic of the dam, described the project as "a goldmine for corrupt officials" (Qing, 1998). A new mega project in the planning phase that has received wide criticism, partly related to expected corruption risks, is the Grand Inga dam in the Democratic Republic of the Congo.

Box 5 provides a list of examples of acts of corruption that are associated with hydropower projects.

Box 5. Summary of types of corruption in the hydropower sector

- Collusion (kickbacks or bid-rigging) and extortion in the procurement procedures for design, and construction and maintenance works
- Bribery and nepotism in assigning water use licenses (including regarding environmental impact studies)
- Unwarranted contract variations and re-negotiations
- Misuse of resettlement and environmental mitigation funds
- Insurance fraud on equipment
- Corruption in energy provision deals

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2   "Cracks" in China's Three Gorges dam', BBC News website, 12 April 2002. Online: http://news.bbc.co.uk/2/hi/asia-pacific/1925172.stm.

UN Photo/Albert Gonzalez Farran

3.1 Key underlying factors: accountability, transparency and integrity

Generally three issues are held essential for anti-corruption measures: accountability, transparency and integrity. Transparency is the right of access to information and existence of written rules and regulations. It is an important part of efforts to prevent and combat corruption. However, transparency is only useful in combination with accountability and training. Information has to be specific and detailed, audit committees should be trained to interpret the information, and citizens need in-depth information in order to combat corruption. Poorly maintained 'information kiosks' and 'public signboards' are only marginally useful in promoting and sustaining transparency (Jenkins and Goetz, 1999).

Accountability too is essential to anti-corruption. Accountability means objectively holding people and agencies responsible for their performance. It implies being obliged to report, inform and take responsibility for one's decisions and actions towards an entity that can enforce sanctions. Higher degrees of accountability reduce levels of corruption.

Accountability can work in three directions: upward, downward, and horizontal (Devas and Grant, 2003; Véron et al., 2006). Upward accountability implies being answerable to higher level officials or authorities (the case of delegated functions within hierarchical organizations). Downward accountability implies being answerable to users or clients, or to a constituency in general. Horizontal accountability implies being answerable to peers (e.g., a body of professionals).

As corruption is the abuse of entrusted power, anti-corruption measures are best based on countervailing power. Seven types of institutions can be identified that mobilize countervailing power:

■ government (national or local) and independent sector regulators,

■ Parliament (and other regional and locally elected authorities),

■ the judiciary or justice systems,

■ independent anti-corruption agencies and/or ombudsman's offices,

■ civil society organizations (in general),

■ users' or consumers' organizations (also employee unions), and

■ media outlets (from print to online blogs).

Integrity—which is defined as incorruptibility, an unimpaired condition or soundness, and is a synonymous with honesty (UNDP, 2008d)—is an even more difficult concept to define than transparency or accountability. Training and awareness-raising programmes on integrity and anti-corruption should be jointly implemented with wider sector reforms and concrete anti-corruption measures; otherwise, integrity programmes will generate few results. Also, technical assistance and training is needed. Governments tend to be responsive to this approach (Earle et al., 2008).

3.2 Assessing the impact of anti-corruption measures in general

3.2.1 Output, outcome and impact

To assess the impacts of corruption, it is useful to distinguish among output, outcome and impact of anti-corruption measures (see e.g., UNDP, 2009). 'Output' refers to actual measures (e.g., laws, regulations, anti-corruption commissions, capacity training programmes)[3]; it can be assessed by scrutinizing national or local government legislation and the establishment of specific anti-corruption agencies. Examples of other indicators are the number of officials participating in training regarding public office ethics, funds destined for anti-corruption agencies, and number of independent financial audits executed and publicized.

'Outcome' refers to better functioning of state bureaucracy and public utilities. An outcome is a level of performance, or achievement. It can be assessed by evaluating the performance according to certain indicators: for example, the number of corruption cases investigated by parliament, fewer cases of embezzlement (theft) of public funds and assets, better personal hired, and less political capture by powerful players. A major problem is that relations between specific measures and the

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3   Others call this level 'input' (see for example: UNDP and Global Integrity, 2008).

changes observed in performance are not necessarily direct. For example, the intense focus on cases of embezzlement by a corruption watchdog might result in more cases investigated. This does not necessarily mean that corruption increased, but instead that more cases are being investigated, thereby potentially leading to less corruption in the future.

'Impact' refers to more effective investments and more equal distribution of costs and benefits—for example, more effective investments in drinking water and sanitation projects or less adverse redistribution of subsidies. Finding good indicators to assess impact of particular anti-corruption measures is difficult as impacts are generated by a complex process in which many factors play a role. Questionnaires on the perception of corruption in the water sector could be distributed and reviewed before and after the introduction of the measure. Water-related indicators could include the percentage of clandestine water connections, the costs per connection in new drinking water system constructions, the percentage of subsidies diverted to irrigation projects of large land owners, river water quality, or enforcement of watershed protection.

3.2.2 Indicators

The main objective of this study is to assess the outcomes and impact of anti-corruption measures in the water sector. Such assessments are difficult. For one thing, corruption has to be measured both before and after the anti-corruption intervention. Moreover, changes in levels of corruption are often hard to associate with one single factor or anti-corruption measure. The processes of corruption are complex, multi-layered and institutionalized. Interventions to curb corruption might diminish corruption in one site (or occasion), while corruption increases in other locations (or occasions).

Measuring effects of an intervention requires sound baseline studies before the intervention and sound evaluations afterwards, with sufficient scope and precision to detect changes. This is challenging because of differing interpretation of what exactly constitutes corruption and also because corrupt activities usually are hidden and most corrupt acts are not recorded.

Four types of indicators are generally used to both assess the level of corruption and the impact of anti-corruption measures:

- indicators of performance (if this is done in a comparative and systematic way, it is a form of benchmarking);
- indicators related to the perception of corruption (at national scale or at the level of an individual service provider);
- financial indicators that show the effectiveness of procurement procedures (such indicators compare estimated prices with actually awarded contract prices); and
- household surveys on bribery (or when other specific groups are asked about the number of times and amounts paid in the form of bribes to obtain certain services during a certain period)

Each type of indicator has its specific areas of use and its advantages and disadvantages. Listed below are examples of how corruption has been measured through the use of these four indicators, with specific attention paid to the water sector.

Benchmarking

Indicators of technical and financial performance have been used for over a decade to compare performance of public and private water service delivery. Benchmarking refers to the use of indicators to compare between systems (with comparable characteristics) and over time. It is a continuous process that helps managers of systems to improve performance. The International Benchmarking Network for Water and Sanitation (IBNET) provides information on hundreds of drinking water utilities around the globe.

González de Asís et al. (2009) provide ample examples of the use of benchmarking to detect poor governance in the drinking water sector. Standard performance indicators include percentage of population covered by drinking water and sewerage service, water production per consumer, service continuity (hours per day), percentage of water samples with sufficient residual chlorine in tail-end connections, unaccounted-for water, coverage of metering, pipe breaks per kilometre of pipe per year, sewerage blockages per kilometre per year, and the percentage of waste water treated. Financial indicators can also be used for benchmarking; for example, staff per 1,000 connections and the total annual investments per person served.

Benchmarking can be used to detect corruption. However, a deviating value for a certain performance indicator is not a causal indicator of corruption. Many factors can cause a deviation from the average. Specific local circumstances can cause different costs or performance of utilities, such as local price levels of labour and construction materials; geography; the condition and age of existing infrastructure; and availability of water resources. The comparison through benchmarking only serves to initiate analysis. The reverse is also true: a track record of good performance indicators does not automatically imply the absence of corruption. In general, though, the publication of benchmark indicators can prevent corruption if the deviations in indicators draw attention from the general public.

An example is the Public Record of Operation and Finance (PROOF) in Bangalore, India, where four non-governmental organizations (NGOs) together with the local government published and discussed quarterly revenue and expenditure statements (compared with original budget figures) and key performance indicators. The subsequent 'Third citizen report card on public services in Bangalore' (2003) documented striking improvement in the quality of service across the board. The percentage of people 'satisfied' with the water and sanitation service provided by the Bangalore Water Supply and Sewerage Board increased from 4 percent in 1994 to 73 percent in 2003. Over the same time, satisfaction with the behaviour of the board's staff rose from 26 percent to 92 percent. Between 1999 and 2003, the accuracy of water bills increased from 32 percent to 90 percent. For all city services, the percentage of people reported to have paid 'speed money' fell from 23 percent in 1999 to 11 percent in 2003 (González de Asís et al., 2009, p. 57).

Perception of corruption

Transparency International's Corruption Perception Index (CPI) ranks all nations according to over 25 indicators of corruption as perceived by a variety of focus groups. Other organizations like the World Bank Institute also use composite indicators to determine the level of corruption in countries based on perceptions. These and other international and national 'corruption indexes' are widely cited in the press and used by donors to assess progress in curbing corruption, but inherent limitations nevertheless raise questions about the validity and value of the rankings (Galtung, 2005; UNDP and Global Integrity, 2008).

Using the perception of corruption as an indicator for corruption has five main disadvantages (see Galtung, 2005). First, the perception is always subjective and relative to certain uncontrolled definitions, standards and norms. For example, after an awareness campaign the perception of corruption might increase because of the increased awareness, not because of increased levels of corruption. Also, international (or interregional) comparison of perception indicators is risky because standards of what is considered low, medium or high levels of corruption might differ among places. Second, the results depend significantly on the sampling of respondents; thus it is important to choose an adequate sample size and minimize bias. Third, the questions in the survey and the way the respondents are approached are likely to influence the outcomes. Standardization of the questions and sampling of respondents enables the comparison among different places and discover trends; however, corruption is site and time specific, and thus questionnaires need specific questions. Fourth, a survey mostly captures the bribe/extortion side of corruption; it does not capture the active involvement of the respondents themselves (the bribe offering). Equally important, it focuses more on petty corruption (bribing) than on grand corruption (e.g., collusion at procurement procedures) that might be more hidden and unknown to the respondents. Fifth, outcomes of such surveys are likely to be influenced by lack of trust and fear of repercussions if high levels of corruption are singled out (i.e., even though the survey may guarantee to be anonymous, respondents might fear their answers can be traced back to them).

Another type of problem related to the use of perception indices is the global comparison (ranking) of corruption perception indicators. This provides a moral justification for not helping to alleviate poverty because it becomes easy to blame poor countries for being untrustworthy (i.e., 'they are poor because they are corrupt'). No causal relation exists, however, between corruption and poverty.

Relative procurement prices

The use of contract price levels relative to the estimated reference price in a procurement process can indicate a level of collusion, be it due to kickback payments to officials or bid-rigging by supposedly competing companies.

A problem with this indicator for corruption is that officials might early on manipulate the estimated reference price of a project so as to conceal a substantial mark-up in the contract price. (See for example the detailed description of manipulation of estimates in Indian irrigation works in the 1980s by Wade [1982], showing a mark-up of 16 percent). A third party price calculator should be able to provide a reasonable estimated price reference to curb this problem, including in regards to more complex projects. Another problem is that over-inflation of prices might happen during re-negotiation of project contracts after bids are awarded. In mega projects it is common to see large extra costs during the final design and construction phases of the project; an initial 'competitive' price might later be 'compensated' by steep price increases in contracts for additional works.

Household surveys of bribery

Household surveys or surveys among specific group of professionals are experience-based tools used to assess the amounts of bribes paid to get or maintain access to certain goods, resources or services. They can provide a good and direct measure of petty corruption. However, they only measure the bribes paid by the victims of extortion by officials. The bribes paid voluntarily by the

'clients' to get illegal access will normally not come to surface. As with all surveys, it is important to avoid biases based on class, gender, ethnicity or location.

3.3 Anti-corruption themes and focus areas of particular relevance for the water sector

In Section 1.3, three views on corruption and corresponding directions for solutions were presented: the increased government oversight approach, the pro-market approach and the bottom-up approach. The three views provide a basis to classify concrete anti-corruption measures. In the following sections the application of these three approaches is described in regard to the water sector.

3.3.1 Increased government oversight

Increased government oversight is a common anti-corruption measure. In all countries some form of auditor general (e.g., the Federal Accountant General in India and the National Auditing Office in China) is in charge of monitoring the expenses of different government organizations. Often there is a prosecutor general in charge of prosecuting officials and elected government authorities. In many countries, auditors and prosecutors are also found at lower levels of government (province, state, county, etc.). In some countries too there are other governmental agencies that have legal oversight and responsibilities vis-à-vis corruption, including anti-corruption agencies, a special parliamentary commission, an ombudsman, etc.

Public sector accounting is a specific sort of accounting and can benefit from international exchange of experience. Professional accountants exchange ideas and experiences through various organizations. The International Public Sector Accounting Standards Board (IPSASB) focuses on the accounting and financial reporting needs of national, regional and local governments, and related governmental agencies. IPSASB forms part of the International Federation of Accountants (IFAC). The International Organisation of Supreme Audit Institutions (INTOSAI) operates as an umbrella organization for the external government audit community. For more than 50 years it has provided an institutionalised framework for supreme audit institutions to promote development and transfer of knowledge; improve government auditing worldwide; and enhance professional capacities, standing and influence of member supreme audit institutions in their respective countries. Both organizations issue standards for auditing. An INTOSAI focus group on water has published a guide on auditing of water entities[4].

Box 6 provides an overview of the anti-corruption organizations in Uganda. The sheer number of separate institutions underscores the need for coordination among them to prevent duplication and omissions in auditing and prosecution.

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4   The guide, 'Auditing water issues: experiences of supreme audit institutions', is available at: www.environmental-auditing.org/Portals/0/eng04pu_guidewater.pdf.

Box 6. Anti-corruption organizations in Uganda

■ The Inspectorate of Government (IGG's office)

■ Directorate of Ethics and Integrity (DEI)

■ Office of the Auditor General (OAG)

■ Directorate of Public Prosecutions (DPP)

■ Public Procurement and Disposal of Public Assets Authority (PPDA)

■ Anti-Corruption Court

■ Public Accounts Committee (PAC)

■ Standing Committee on Commissions, Statutory Authorities and State Enterprises (COSASE)

■ Criminal Investigations Directorate (CID)

■ Local Government Finance Commission

■ Ad hoc initiatives — commissions of inquiry

■ Accountability Sector

■ Office of the President

■ Civil society initiatives like the Community Integrated Development Initiative (CIDI)

Source: WIN/WSP (2009, p. 9)

More specifically in regards to the water sector, there are often independent sector regulators that monitor and audit public utilities. Such agencies set norms and monitor water utilities according to existing laws and regulations. The auditing of relative small municipality utilities is different from the auditing of large commercial enterprises or national governments. In 2001 eight Latin American countries initiated the American Association of Water Sector Regulators (Asociación de Entes Reguladores de Agua Potable y Saneamiento de las Américas, ADERASA). This organization supports national regulators with exchange of experiences, publications and debates. In 2011 a total 16 Latin American countries were member of ADERASA.

Most auditing offices, anti-corruption agencies and sector regulators still need to be strengthened. (For more information on this theme, see: UN, 2004; UNDP Bangkok Regional Centre, 2005; UNDP, 2008b and 2008c; Hussmann et al., 2009; Peñailillo, 2009; and UNDP Bratislava Regional Centre, 2010.)

The following are examples of entities, structures, processes or systems that contribute to government oversight regarding corruption:

■ anti-corruption agencies (or commissions), and ombudsman's offices,

■ specific reforms in tendering and procurement procedures,

- independent financial audits, investigation and prosecution,

- regulations for appointment and promotion of employees (selection according to merits),

- protection of whistleblowers,

- special anti-corruption parliamentary commissions (or ad hoc commissions for specific corruption cases),

- capacity development and training of officials,

- promotion of ethics and integrity in public organizations, and

- feedback on service provision from users ('citizen report cards', hotlines).

In general, the following are three limitations of internal auditing that can be found in different countries: i) the focus is more on compliance and less on efficacy of public spending; ii) auditing entities are dependent on executive power; and iii) insufficient funds. Changes in structure and emphasis are possible, though. Box 7, for example, highlights a change in scope of audit reports in Peru.

World Bank / Julio Pantoja

Box 7. The audits of the General Auditing Agency in nature reserves in Peru

Ten percent of the surface of Peru is part of a declared nature reserve; however, local government agencies are understaffed and underequipped and can do little to prevent illegal logging and spreading of agriculture into the reserves. The forest inspection effort in the Amazon is quite vulnerable to corruption.

From 2003 to 2006 more than 50 inspection reports were produced and published by the General Auditing Agency (Controlaría General) of the Government of Peru concerning the performance of nature reserve conservation and natural resource management by the responsible government organization, the National Institute of National Resources (INRENA). The reports were produced with help of a Dutch advisory project.

What is special about the audit reports is that they go into great detail regarding the actual activities of the local watershed organizations and local government conservation units. Generally, the audits of the government's General Auditing Agency look into legal and financial matters only. They normally do not study the effectiveness or sustainability of the activities, and instead only focus on whether funds have been spent according to the relevant legislation. Looking into the performance of the government organizations is much more difficult. The audit reports investigate the reasons behind poor performance found in some activities of the conservation units and make useful recommendations beyond the usual legal and financial auditing matters.

Source: Inspection reports can be found at: www.controlaria.gob.pe

Whistleblowers play an important role because they often know exactly where and how corruption takes place and who is involved. Protection of whistleblowers is therefore essential (Whitton, 2008), and recently the role and protection of whistleblowers have been given more attention. In a major collusion case in the construction sector in the Netherlands, for example, the whistleblower who showed the complete 'shadow administration' to the prosecutor, thereby giving evidence of price inflation of millions of euros for public works, was ignored for two years (Van den Heuvel, 2005). Only after a documentary was broadcast on national television did the public attorney's office initiate prosecution of the involved parties; shortly thereafter, a parliamentary enquiry was initiated (in 2002). The whistleblower was fired from his job and was not able to find another job in the construction sector. He was also prosecuted himself by the public prosecutor's office for collusion and bribery. However he was not convicted and in 2009 he received a financial compensation from the Dutch government.

3.3.2 Pro-market water sector reforms

Pro-market reforms such as privatization, public-private partnerships (PPPs) and sub-contracting of service provision have been promoted over the last two decades. The general idea is that private-service providers are more cost effective and less corrupt because of market competition.

The privatization of drinking water has been controversial, however (Hukka and Katko, 2003; Swyngedouw, 2005). Provision of drinking water is seen as a basic need (or human right), and providers often have a monopoly because of physical infrastructure constraints.

Pro-market water sector reforms may include the following:

- privatization of water utilities,
- subcontracting to private companies,
- public-private partnerships,
- the establishment of an independent sector regulator,
- promotion of transparency in the private water sector and performance benchmarking, and
- promotion of ethical business values in the private water sector.

In some countries in Europe water utilities have been managed by private companies for over a century (for example in France and the United Kingdom). In many other countries the privatization of municipal and/or national drinking water utilities has occurred over the past two decades; examples include Guayaquil (Ecuador), Abidjan (Côte d'Ivoire), Gabon, Niger, Tangier (Morocco), Cameroon, and Burkina Faso.

Social protests have stopped privatization processes in Cochabamba and El Alto in Bolivia and in several towns in Peru. Also in many other cases private operation deals have been terminated or not renewed, for example in Mali, Guinea, the Central African Republic, Chad, Cape Verde, Dar es Salaam (Tanzania), Uganda, Johannesburg (South Africa), Rwanda and Madagascar (Auriol and Blanc, 2009).

The literature notes several drawbacks of privatization of public drinking water and sewerage utilities. Contracts tend to be incomplete, leading to costly re-negotiations. Long-term concession contracts are necessary to allow for mid- and long-term investments in infrastructure, but they reduce competition. Profit margins usually can only be increased by raising the price of water delivery (if allowed in the contract); reducing costs of operation and maintenance (which risks decreasing quality if not done properly); or reducing coverage (especially regarding remote connections, which are relatively costly). However, since the provision of drinking water of a certain minimum quality level is generally considered to be a government responsibility, this coverage and quality should be stipulated in the contract (see Estache et al., 2009). Such requirements drive up the costs of monitoring. Overall, studies suggest that private operation does not yield better results or is more efficient in comparison with public operation (Budds and McGranahan, 2003; Hukka and Katko, 2003).

Some institutional and legal conditions leading to problems in water service privatization are mentioned in a World Bank paper by Rivera (1996). The paper mentions the difficulty in changing the institutional setting, passing legislation, creating new regulatory agencies, and designing better tariff regimes. (See also Kaufmann and Siegelbaum, 1997.)

Some documented cases of corruption in regards to privatization deals in the water sector in France are as follows (quoted from Hall, 2001):

> *Two of the French water multinationals have been convicted of paying bribes to obtain water contracts in France. In Grenoble in 1996, a former mayor and government minister and a senior executive of Lyonnaise des Eaux (now Suez-Lyonnaise des Eaux) both received prison sentences for receiving and giving bribes to award the water contract to a subsidiary of Lyonnaise des Eaux. In Angoulème, the former mayor was jailed in 1997 for two years, with another two years suspended, for taking bribes from companies bidding for contracts, including Générale des Eaux. Executives of Générale des Eaux were also convicted of bribing the mayor of St-Denis (Ile de la Réunion) to obtain the water concession. The same groups—Suez-Lyonnaise and Vivendi, together with Bouygues—have been investigated in France for corruption practiced by their construction divisions, in a scandal described as 'an agreed system for misappropriation of public funds'. The companies ran a corrupt cartel over building work for schools in the Ile-de-France region (around Paris) between 1989 and 1996. Contracts worth 2.8 billion francs (about US$500million) were shared out by the three groups.*

The process of negotiation and re-negotiation of privatization contracts opens up all manner of corrupt practices. Guasch and Straub (2009) studied such corruption during dozens of re-negotiations of private drinking water concessions in Latin America. Such renegotiations are quite frequent: in 76 percent of the privatization deals the re-negotiation was started on average only 1.6 years after the original contract had been signed. Guasch and Straub found a positive statistical correlation between the corruption perception index of a country and the percentage of renegotiations initiated by the company. (In other words, in more corrupt countries the private companies get better deals.) This may indicate that 'revenues' are shared with government officials.

Pro-market reforms in the drinking water sector can also take other forms. In Peru the National Rural Water Supply and Sanitation Project (PRONASAR) financed the construction of small communal drinking water systems. PRONASAR is executed by a government organization known as the Peruvian Social Fund (FONCODES). However, the construction and the supervision of the local construction works were both subcontracted to national NGOs, with one NGO supervising the work of the other. Initiated in 2002, PRONASAR aimed to build 100 communal drinking water systems in rural areas. The total budget of US$80 million came from Peruvian government (US$25 million), a US$50 million World Bank loan, and a US$5 million donation from the Canadian government. The donors held yearly financial audits, which were undertaken with international accounting standards. (More information about the project is available at www.pronasar.gob.pe.)

Pro-market reforms in the irrigation sector are mainly concerned with tube well irrigation using groundwater. Private tube well irrigation is subsidized with low electricity prices (flat rates) in many Asian countries. Now, to reduce overdraft, volumetric fees are being promoted.

Most large-scale canal irrigation systems have been built by governments. In the past some private companies have started large-scale canal irrigation projects (e.g., in India and the United States), but the scale of investments, high risks and low returns have discouraged most investors. Reforms in government-run canal irrigation systems tend to be 'irrigation management transfer' to water user associations. This is not an example of privatization per se, but rather constitutes a sector reform that improves community engagement.

Pro-market reforms in water resources management take different forms. One fairly new approach is the 'payment for environmental services' (PES) mechanism. The idea is that one group of citizens produces an environmental service (e.g., capture CO2 or store water) and that the people who benefit from this service will pay or compensate the first group. In relation to water, PES schemes have been initiated in some countries in Latin America (Costa Rica, Colombia, Ecuador) where upstream users conserve or improve land cover to increase water retention capacity of the soil so as to increase the base flow and reduce the peak flow of the river downstream. This type of mechanism tends to face many legal, economical and technical difficulties, however.

Another example of pro-market reform in water resources management is the water use rights privatization in Chile. Bauer (2004) has shown that this has led to speculation and hoarding of water rights and suboptimal use of scarce water in the country. It also has led to loss of water rights and inefficient operation of small indigenous irrigation systems. Pro-market reforms in hydropower can take different forms like build-operate-transfer (BOT), or concessions.

3.3.3 Increased user and civil society oversight and free press

Grassroots protests can be an effective way to fight corruption and pressure for reforms. However, protests are often only effective if they target concrete cases of corruption. More systematic monitoring is expensive; most non-governmental national corruption watchdogs that scrutinize corruption only survive with donor funds.

Several anti-corruption initiatives start from grassroots protests and from programmes that organize and empower the poor. Social protests against corruption are closely linked to wider national and local political processes. A free press that can investigate and report cases of corruption and freely cover protests organized against corruption is important. The news media can inform on mismanagement and mobilize citizens. Civil society organizations (CSOs) play an important role as 'corruption watchdogs'. In many cases where corrupt leaders and officials have been convicted, the role of CSOs and news media has been crucial.

Examples of factors that favour the bottom-up approach include the following:

■ increased democracy and rule of law (includes accountability of political authorities towards water users),

■ effective citizen oversight/social audits,

■ increased awareness about corruption in the water sector among the general public,

■ active participation of representatives of users in boards of water provider utilities,

■ participatory budgeting,

- participation in the construction of water works and rehabilitation projects,

- strengthened and mobilized organizations of water users and workers in the water sector (with enhanced training for organizers),

- mobilized coalitions of organizations for advocacy, investigation and networking in anti-corruption in the water sector, and

- free and independent media outlets, and reporters who have been trained on corruption issues.

The participation of water users in decision making about, and social oversight over, water management can be an important preventive measure against corruption. Three specific water sector reforms have the aim of increasing user participation in decision making and oversight: decentralization, users' representatives on utility boards, and irrigation management transfer.

World Bank / Dominic Sansoni, 2002

Decentralization implies the shift of decision-making power and funds to lower levels of government (Robinson, 2007). Different opinions exist as to whether decentralization reduces corruption or whether decentralization merely 'decentralizes corruption'. Local governments operate closer to service recipients and thus might be easier to monitor; however, fragmented roles and lack of transparency can also increase risks of corruption (Devas and Grant, 2003; Verón et al., 2006; Asthana, 2008).

Some forms of decentralization also introduce direct participation of citizens in planning and oversight (see examples of Bolivia and Uganda in Box 8). Such participatory decentralization is supposed to increase the voice of the poor and marginalized; in ideal situations, village and neighbourhood committees participate actively in decision making about projects initiated or supported by their local governments. Participatory decentralization also installs mechanisms of social oversight on local governance. As noted in Box 8, the evaluation of the participatory decentralization in Bolivia and Uganda has shown that local committees need better training to be able to perform effective social audits.

Box 8. Participatory decentralization in Bolivia and Uganda

Sweeping decentralization policies have been implemented in Bolivia since 1994 and in Uganda since 1997. Adult citizens have the possibility to participate actively at local government level in the drafting of budgets, and they can also be directly involved in social audits of municipal budgets.

In addition to funds distributed from the central government to municipalities, in both countries most municipalities also receive funds from the HIPC (Highly Indebted Poor Countries) debt-reduction initiative.

In Bolivia, according to the *Ley de Participación Popular* (Law on Popular Participation), each village and neighbourhood has formed its own OTB (*Organización Territorial de Base*, or neighbourhood committee). Each OTB elects a chairperson who represents the village or neighbourhood in the *Comité de Vigilancia* (Oversight Committee) at the district municipality level. Each year the *Comité de Vigilancia* prioritizes the projects to be executed by the municipality. The *Comité de Vigilancia* (through its OTBs) also monitors the execution of projects. The projects include communal drinking water systems and small irrigation systems. Also, small-scale reforestation for catchment protection is financed locally. The municipalities report to the central government auditor, and also to a special National Parliament Committee.

The system in Uganda is similar. According to the Local Governance Act, at village level (L1) committees are formed that have direct say in project prioritization. Representatives of those committees participate in bodies at higher levels: the parish (L2), the county (L3) and district (L5) level. Local project management committees (PMCs) monitor the projects, and local radio stations help to create downward accountability. There is also upward accountability in the form of reporting to central bodies of government.

In both Bolivia and Uganda poor people gained influence in local governance with the decentralization. However, participation is not equal. Local elites have more power and women and youth are less involved in decision making. It is very difficult for a *Comité de Vigilancia* or a PMC to perform an effective financial audit because of low levels of education and lack of specific training. Even so, the overall evaluation is mainly positive; local priorities influence budgets and the social auditing can in many instances prevent major forms of embezzlement, nepotism and political capture.

Sources: Devas and Grant, 2003; Kohl, 2003; Pape, 2008

The installation of users' representatives on the board of a water service utility can be an effective way to increase water users' influence and accountability. The representatives can channel the ideas, preferences, expertise and opinions of the water users towards the board and they have voice and vote in taking decisions. They also channel information about the management of the utility towards the water users. This two-way information flow only functions well if the representatives are held accountable by the service recipients. Frequent elections of new representatives should be organized as well as regular meetings where the representatives and water users exchange information and the representatives consult the water users on positions to be taken in board decision-making processes. The water users' organizations should have the ability and inclination to change representatives if one is not performing well. The quality of the consultation process is crucial.

Irrigation management transfer (IMT) has been an important policy issue since the 1990s, and has been promoted by the World Bank, the International Water Management Institute (IWMI) and other international institutions. The basic idea is to transfer the management (and in some cases ownership) of complete irrigation schemes from a government agency to a water users' association (WUA). By building a sense of ownership, this step theoretically enhances the performance of the irrigation system and reduces overhead and bureaucracy. At the same time, the risks of corruption (rent-seeking through illegal water selling or bribing) should decrease as fees paid to a WUA would become closer to the value of the water to the farmers. IMT success stories have been reported in the Philippines, Mexico and Peru (Korten and Siy, 1989; Vos, 2002; Rap, 2006). In other countries the impact of IMT processes has been reported to be much less substantial, for example in Indonesia, Sri Lanka and Ethiopia (Vermillion and Sagardoy, 1999; Suhardiman, 2008).

UN Photo/Milton Grant

As noted in Section 3.2, four main types of indicators are used to assess levels of corruption: benchmarking of performance, perception of corruption, price levels of bids relative to estimated prices in procurement procedures, and household surveys on bribery. These four indicators are also used to assess the impact of anti-corruption measures. This section reviews several case studies of anti-corruption measures undertaken in the water sector; one caveat, however, is that most cases rely heavily on anecdotal observations because more in-depth, quantitative and long-term analyses are not available. Even so, many elements of good practices can be identified. Strong and institutionalized upward, downward and horizontal accountability are crucial factors for success. Information and capacity to organize are also important.

4.1 Outcome and impact of increased government oversight

4.1.1 Water supply and sanitation sector

Enhanced oversight by government agencies is a common response to corruption in the water supply and sanitation sector. Increased inspection, monitoring and sanctioning are thought to curb bribery, embezzlement and collusion. Some examples from Africa, Asia and Europe are presented in Boxes 9, 10, 11 and 12.

Box 9. The Lesotho Highlands Water Project: 'grand collusion' faced justice

The Lesotho Highlands Water Project (LHWP) is one of the largest water infrastructure projects in the world. Based on a treaty signed by the governments of South Africa and Lesotho in 1986, it comprises a system of several large dams and tunnels, mostly located in Lesotho's highlands, to augment the water supply to the Johannesburg metropolitan region of South Africa and generate electricity for Lesotho in the process. The total expected cost of all phases is estimated at US$8 billion; in return, the project promises huge royalties from water sales as well as from hydroelectric power.

The project was financed through a range of international finance institutions including the World Bank, the European Investment Bank, the Southern African Development Bank, Banque Nationale de Paris, Credit Lyonnais, Dresdner and several export credit agencies as well as the Government of Lesotho.

The LHWP was overseen by the Lesotho Highlands Development Authority (LHDA), a parastatal organization. During an internal audit in 1993 ordered by the minister of natural resources, irregularities were found in declarations by the LHDA's chief executive. Further investigation by Lesotho officials led to the discovery of bank accounts for the chief executive in Switzerland and South Africa and illegal payments to those accounts by local representatives of international construction firms. In total more than US$6 million in bribes were paid during the bidding process. In 2002 the chief executive was found guilty of 11 counts of bribery and two of fraud, and was subsequently convicted to 18 years in prison by the High Court of Lesotho (later reduced to 15 years on appeal).

The intermediaries who bribed the chief executive were also prosecuted, with several convictions resulting (most of which required payments of fines). Moreover, three construction firms were convicted of paying bribes to the chief executive through intermediaries. In total, 19 construction firms were involved, and the World Bank debarred two companies for several years from bidding on Bank-funded projects.

Three issues have been important in this high profile court case. One was the initial audit ordered by the minister of natural resources, which uncovered a number of irregularities that led to further investigation. Second, the Swiss government agreed to lift secrecy provisions of the chief executive's bank accounts. And thirdly, the persistence of the High Court of Lesotho in unravelling the international network of bribery through intermediaries was critical—an effort it successfully pursued with help from the Government of South Africa and the European Union's anti-fraud agency, OLAF.

Early (2007) reports that the trials improved public governance and private business in Lesotho beyond the LHWP.

Sources: WIN Case Information Sheet 05/2008 (www.waterintegritynetwork.net/page/2201); Earle, 2007

The Lesotho case study (Box 9) raises several important issues concerning international corruption prosecution. For example, how should bribery by legally defined? How can it be proved it in court? And how should the jurisdiction of bribery be determined when payments are made outside the

country affected? The High Court of Lesotho resolved these questions effectively, and therefore was able to prosecute.

Sector oversight is sometimes delegated to sector regulators. To be fully effective, independent sector regulators should have integrity and be transparent. However, staffing of the regulator can pose a problem as experts might be closely linked to the commercial service of the providing companies they monitor. The water sector regulator in Colombia, the Potable Water and Basic Sanitation Regulation Commission (CRA), offers as a positive example. The CRA has several procedures in place to ensure staff changes. Experts serve for a fixed four-year period, and freelance experts are contracted for specific projects. The CRA employed 43 staff members and 45 contract-based professionals in 2008. Experts with ties to the water industry are prohibited by law from working with the regulator. Former employees of regulated firms are disqualified from working for the regulator for a period of one year after having terminated their work for the firms, and kinship with employees from a regulated firm is also a disqualification to work for the regulator. Bribes and other forms of corrupt behaviour are subject to penal law, with sanctions including up to eight years in prisons, monetary fines and exclusion from public offices for as many as eight years. It has become an informal rule in Colombia that regulators should never be alone during contacts with managers from regulated firms[5].

Box 10 presents an example of the savings made possible in open procurement procedures in the Greater Karachi Water Supply Scheme in Pakistan.

World Bank / Edwin Huffman,

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5   Source: WIN Case information Sheet 02/2009 (www.waterintegritynetwork.net/page/2201).

Box 10. Transparent procurement procedures in the Greater Karachi Water Supply Scheme, Pakistan

The Greater Karachi Water Supply Scheme is an important sanitation project in Pakistan. In 2001 the Managing Committee of the Karachi Water & Sewerage Board (KW&SB) decided that there was a need for transparency in its public procurement. Transparency International-Pakistan was brought in to devise and implement an 'integrity pact' in the Greater Karachi Water Supply Scheme (K-III Project), with an estimated contract value of some US$880 million.

An integrity pact is an agreement between a government agency and the companies that participate in the bidding process for the supply of goods or services for a selected contract. It stipulates that bribes will not be offered, granted or sought, both during the bidding process and during implementation of the contract by the successful bidder. Integrity pacts typically have the following main features (as cited by Transparency International-Pakistan):

- a formal no-bribery commitment by the bidder, as part of the signed tender document (supported by a company code of conduct and a compliance programme;

- a corresponding commitment of the government to prevent extortion and the acceptance of bribes by its officials;

- disclosure of all payments to agents and other third parties;

- sanctions against bidders who violate their no-bribery commitment;

- the involvement of civil society in monitoring the bid evaluation, the award decision process and the implementation of the contract; and

- public disclosure of the award decision, including the major elements of the evaluation and the reasons for the selection of the successful bidder.

Sanctions normally include denial/cancellation of the contract, liability for damages (to the government as well as to the competing bidders), and forfeiture of the bid security and debarment of the offender from all business with that government for an appropriate period of time.

Following the standards prescribed by the Pakistan Engineering Council and supported by Transparency International-Pakistan, the management of KW&SB fully implemented the procurement standards in the process of tendering of services and works. The project tendering was reorganized into packages, and 18 tenders were combined and reduced to eight packages. This arrangement was essential not only in order to ensure an economical workload for the bidders and to complete the tender award in the shortest possible time frame, but also to enhance the monitoring capability of the awarded contracts.

Transparency International-Pakistan executed the first phase of the project in 2002. The integrity pact was signed by all participating consultants and contractors on the Greater Karachi Water Supply Scheme, Phase-V, Stage-II, 2nd 100 MGD, K-III Project.

Based on the integrity pact, in July 2002 KW&SB awarded a consultancy contract totalling US$10 million. This constituted a net saving to KW&SB of nearly US$30 million, or 75 percent, based on initial estimates of the cost of that contract.

The tender process for procurement contracts was completed in September 2003 and all major construction contracts were awarded at a total cost of US$740 million, an amount below initial department estimates of US$880 million. The entire process, which to all intents and purpose was wholly transparent and in accordance with the spirit of the integrity pact, resulted in total savings of 16 percent.

In its analysis, Transparency International-Pakistan (2003, p. 6) stressed the following:

The results would have not been possible without the commitment, integrity and professionalism of the new managing director Brig. Sardar Javed Ashraf Khan. In an environment where contract awards are subject to intense pulls and pressures and rules are subject to discretion and not vice versa, an example of transparent and merit-based tendering has been established perhaps for the first time in the history of a mega project award in Pakistan. It is also a unique example where during pre-bid meetings, bid evaluation and contract award no negotiations were held to either change the contract stipulations, scope of work or for reduction of quoted prices.

Source: Transparency International-Pakistan, 2003 (www.transparency.org.pk/documents/KW&SB.pdf)

One can argue that the case of the Greater Karachi Water Supply Scheme is more appropriately categorized as an example of effective citizens' oversight rather than increased government oversight. Nevertheless, the case is presented here as a case of increased government oversight because the citizens' participation during the tender procedure is only one element of the anti-corruption measure. Citizens cannot sanction the parties involved; the power to monitor and sanction remains with the government.

In a similar situation, the water watch groups (WWGs) in Zambia that serve as watchdogs to the National Water Supply and Sanitation Council (NWASCO) help the national regulator to better perform its duties in monitoring the commercial utilities in urban areas. There is an element of users' participation; nevertheless the actual sanctioning depends on the actions of the government oversight organization. Also, NWASCO contracts the WWG members (for a renewable period of one year) and can also end membership terms early. See Annex 3 for more detailed discussed of WWGs in Zambia; also, D'Souza and Barmeier, 2006).

A third interesting case in this regard is presented in Box 11, regarding the use of citizen report cards in India to help monitor quality of service of utilities. In most cases, however, the cards do not ensure a real voice for water users in the management of utilities.

In Kuria, Kenya, Nuru International (a US-based NGO) has taken an innovative approach to monitoring by introducing mobile phones as a way to collect data during independent inspections of sanitation projects. The farmers participating in the projects use the mobile phones to take pictures of inspection sites and send data via text to a central computer.

Box 11. Citizen report cards in India: 'Holding a mirror to local governments'

Citizen report cards (CRCs) and community scorecards are tools that can be used to evaluate the perception of consumers of drinking water utilities to inform the management about their performance. They can function as a benchmark tool to compare the performance of institutions. CRCs were first used in Bangalore, India in 1993 by the Public Affairs Centre (PAC). The success of this initial pilot was shown in two consecutive assessments of the water delivery services in Bangalore. The second consecutive assessment report based on scorecards in 1999 and third report in 2003 showed remarkable improvements in the perception of the service.

Another pilot project in India was undertaken in 2006 by the Tata Institute of Social Sciences in Mumbai, in partnership with the World Bank-sponsored Jalswarajya Project (Maharashtra Rural Water Supply Program), in the Indian state of Maharashtra. The project aimed at providing potable drinking water to rural people. The CRC methodology was used to improve the management of small drinking water systems managed locally by village-level water and sanitation committees. The implementation phase included a community assessment with focus group discussions with both women and men, which generated indicators for service assessment. The implementation phase also included a self-evaluation by the service providers (using the indicators of the community) and an interface meeting between the service providers and the water users to discuss an action plan based on the comparison between the scores of the community and providers.

The CRC tool has been used in many places in India—including the states of Tamil Nadu, Karnataka and Maharashtra as well as the cities of Mumbai and New Delhi—and in other countries including the Philippines, Bangladesh, Sri Lanka, Viet Nam, Ukraine, Tajikistan, Kyrgyzstan, Uganda, Kenya, the United Republic of Tanzania (in Zanzibar), Ethiopia and Peru. CRCs are promoted by the World Bank, the Asian Development Bank, UNDP (in Kyrgyzstan) and PAC.

Although CRCs do reveal consumers' grievances and can mobilize consumers' demands, the tool mainly functions to inform managers about the perception of the consumers. Water users could attain more 'voice' when the CRC methodology is complemented with social accountability mechanisms such as participating budgeting, social audits and expenditure tracking.

Sources: Murty et al., 2007 and www.citizenreportcard.com.

The role of international donors in corruption has come under increasingly critical scrutiny because the mega projects they often finance are especially vulnerable to corruption. Several donors have taken action against corruption in their own organizations (see Box 12, for an example).

Box 12. Danida's anti-corruption hotline

The Danish International Development Assistance (Danida) is the Danish government's main bilateral aid agency. As a step in the implementation of the Danida Anti-Corruption Plan, the agency has established an anti-corruption hotline to enable people both from and outside Denmark to report corruption or other misuse of Danida funds. The hotline was established in October 2007 and is available in both English and Danish. Its aim is to create more responsibility in regards to the use of Danida funds.

Source: www.ambkampala.um.dk/en/menu/DevelopmentPolicy/DanidasAnti-CorruptionPolicy/

Danida's creation of a hotline is a rare case of anti-corruption programming in the area of international development cooperation. The Danish government uses complaints of citizens and officials (whistleblowers) to curb possible corruption in Danida and other agencies. Also, the World Bank has an international hotline to allow callers to anonymously report alleged cases of corruption.

4.1.2 Irrigation sector

Increased government oversight has not been a favoured approach in the irrigation sector. Irrigation management transfer to users' associations has been promoted instead. The main reason is that the technical complexity of large-scale irrigation systems allow only specialized experts to adequately investigate financial-technical issues. In Peru, for example, a special parliamentary commission investigated alleged corruption in the Rio Cachi irrigation system in Ayacucho during the 1990s. Many irregularities and re-negotiations of contract were found[6].

Computer-based administration of water service delivery can limit corruption. In Spain, Italy and Bangladesh, for example, automated systems are used to pay for irrigation water delivery in piped supply systems. Individual water users have magnetic cards that are used to order and pay water turns; these automated and automatic systems limit face-to-face interactions between service providers and water users. Automated systems can potentially also be more transparent as records are kept automatically. However, the technology is only a tool. The effect on bribery depends not only on the technology but also on factors such as the institutional setting, political will and accountability relations among politicians, water service providers and water users.

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6   The report is available at www.congreso.gob.pe/comisiones/2002/CIDEF/oscuga/InformeRioCachi.pdf.

4.1.3 Water resources management

Management of water resources is considered an essential role for governments in most countries. In some places water users can participate in watershed committees, but governments make the most important decisions. Watershed committees and other sorts of decentralized water organizations have faced mixed evaluations. Corruption risks exist in areas such as the allocation of water use rights, granting of permissions for discharge of polluted water in natural water bodies, and the protection of natural vegetation in aquifer recharge areas.

Shordt et al. (2004) conclude that although macro-level reforms such as decentralization were strongly advocated by international agencies as part of ways to improve effectiveness and reduce corruption, the reforms have not provided these results as rapidly as anticipated and the reforms have raised new challenges. Much depends on local capacity, leadership and funds to implement sound systems of decentralized water resources management.

When large infrastructure, industry or mining projects are planned, in most countries a type of environmental impact assessment (EIA) has to be conducted. They are required because such projects can have considerable negative impact on water quality and quantity. Yet the powerful interests involved and unclear legislation might allow for corruption in the form of bribery or political influence. Transparency and accountability can be enhanced if an independent sector agency evaluates the process and outcome of an EIA and when social witnesses participate in the EIA process. However, most important factor for transparent EIA processes is the genuine participation in decision making of the affected population.

Box 13 presents an example of a decentralized government programme which implemented several anti-corruption measures.

Box 13. The Kecamatan Development Project in Indonesia

The Indonesian Kecamatan Development Programme (KDP) was a nation-wide programme run by the Indonesian government and supported by the World Bank and other donors. It was executed from 1998 to 2009. KDP covered some 34,000 villages in Indonesia, covering almost half of the country's 70,000 villages. The total loan, grant and government financing amounted to some US$1.6 billion.

The project was a decentralized project that worked with some 2,000 facilitators in the field. It provided funds and assistance at village level, and allowed village boards prioritize projects. Water was one of the areas covered along with health, infrastructure and agricultural development, among others. In regards to water alone, 5,200 irrigation systems, 2,800 clean water supply units and 1,300 sanitation units built.

The corruption risk was high for several reasons, but especially because of Indonesia's weak control institutions and authoritarian rule at village level. At the heart of KDP's anti-corruption approach was the principle that villagers themselves had decision making power over planning, procurement, and management of funds. Concrete measures underlying this approach included:

■ Simple financial formats that could be understood easily by villagers (the project had maximum two-page documents for all procedures)

■ Transferring funds directly into collective village bank accounts

■ Insisting that all financial transactions had at least three signatures and that villagers charged with procuring goods obtained at least three quotations for doing so and shared the results at public village meetings

■ Insisting that details of all financial transactions were posted on village notice boards

■ Requiring regular village meetings to be held to account for project funds—and giving villagers the right to suspend further disbursements if irregularities were found

■ Providing village-level sources of information and channels for complaints that were independent of local government

■ Intensive field-level supervision by elected village facilitators (two in each village) and sub-district project facilitators and measuring missing infrastructure, e.g., digging up sampling of roads to measure quantities of materials that were really used.

■ Villages cross-auditing each other

■ Independent monitoring of the project by NGOs and local journalists

■ Reducing discretion, e.g., through fixed block grants (even though good development practice might call for flexible funding in different places)

■ Promoting competition, e.g., allowing villages to buy infrastructure on the open market and encouraging inter-village competition for project proposals

The KDP was a large and complex project in a fast changing, complex and diverse society. Thus, evaluating the impact of the anti-corruption measures is not easy. According to Woodhouse (2005), as of 2005 the measures had some success, although corruption persisted in KDP. Guggenheim (cited in Otto and Butterworth, 2007, p. 3) concluded the following: "The scale of the project enabled anti-corruption measures to be tested and assessed, and there have been some unexpected findings. For example, it has been determined that while communities could track prices quite well, they struggled with quantities of materials and infrastructure. The most effective measures shifted corruption into new domains and did not reduce the overall burden". Woodhouse (2005; p. v) however also found that "there is evidence also of some governance spillovers from KDP, illustrated by examples of villagers using their experience of KDP as a precedent for protesting against corruption in other non-KDP projects."

Sources: WIN case information sheet 2/2008 (www.waterintegritynetwork.net/page/2201);
World Bank information page on KDP (www.worldbank.org/id/kdp); Woodhouse, 2005; Otto and Butterworth, 2007.

4.1.4 Hydropower sector

The large sums of money involved in the construction of hydropower projects increase the corruption risk in the sector. Box 14 presents a case study of increased monitoring of the tender process with the help of a citizen witness.

Box 14. Social audits: a Mexican hydropower plant procurement case (El Cajón)

In 2001 Transparencia Mexicana (the national chapter of Transparency International in Mexico) began implementing integrity pacts in collaboration with several agencies of the Government of Mexico. The integrity pacts, which were aimed to improve the procedure for the award of contracts, included a declaration with integrity rules signed by all stakeholders and the participation of an outside observer called 'social witness'. The social witness was selected by Transparencia Mexicana and was an independent and respected technical expert in the field. The social witness was to oversee the contracting process and communicate the results to civil society.

Some 50 pacts had been implemented through 2007. One such integrity pact concerned the El Cajón hydroelectric project. The 750 MW project was tendered in 2002. At the end of the process in 2003 the contract, totaling some US$748 million, was awarded to the lowest evaluated bid. The winning bid was 8.5 percent lower than the estimated costs.

Source: www.transparency.org/global_priorities/other_thematic_issues/corruption_in_water/ti_ national_chapter_publications.

Criticism of the social witness structure

In November 2008, the Mexican magazine Contralínea published an article by Nancy Flores criticizing the social witnesses introduced by Transparencia Mexicana. Flores stated that the problems began in December 2004, when the Mexican Government institutionalized the social witness initiative, which is now regulated by the Secretaria de la Funcion Publica (the national audit office). Flores provided three arguments as to why the social witness was no longer independent:

- The social witnesses never complained about procedures, and never denounced anyone, in the 78 observed cases between 2004 and 2006. In at least four cases, however, irregularities were reported by others (including some of the direct participants in the tender).

- Social witnesses are paid for their services (between some US$8,500 and US$40,000 per contract) by the ministries or government agencies they are supposed to control. Some social witnesses have obtained several contracts (with a maximum of 10 contracts), giving rise to the suspicion of having formed some sort of dependency relation with the institution they are observing.

- Social witnesses are appointed by the national auditing agency, a government institution.

Source: http://contralinea.info/archivo-revista/index.php/2008/11/01/testigos-sociales-la-simulacion/.

It is notable from the examples that all examples of anti-corruption measures implemented by governments have some form of citizen involvement. Nevertheless, it is important to distinguish these anti-corruption measures from civil society initiatives that empower users, consumers and citizens in general in the fight against corruption. In the former case government agencies still control the processes and use the information of citizens at their own discretion. In the latter cases, which are examined in Section 4.3, citizens are empowered by their own organization.

4.2 Outcome and impact of pro-market sector reforms

4.2.1 Water supply and sanitation sector

Many different forms of pro-market mechanisms exist that might potentially curb corruption. Not all measures need to come from government regulation; the private sector itself can implement anti-corruption measures. Box 15 provides two examples of such 'corporate social responsibility' measures in the pipe-producing industry, which is important in the drinking water and sanitation sector.

Box 15. Ethical conduct by pipe manufacturers in Colombia and Argentina

In both Colombia and Argentina several pipe manufacturers have established sectoral anti-bribery agreements. The ultimate goal is to reduce overall prices for construction, rehabilitation and repair of drinking water and sewer systems.

In Colombia in 2004, a total of 11 manufacturers initiated the process of ensuring ethical conduct. All pipe manufacturers in Colombia are associated with the Asociación Colombiana de Ingeniería Sanitaria y Ambiental (ACODAL). This association approached Transparencia por Colombia (the national chapter of Transparency International) to develop an agreement.

The purpose of this initiative is to advance collective commitments, beyond the individual efforts of business people, in order to promote changes in the business conditions. It also seeks to engage business people in various institutional issues, which is important given the critical role played by the sector in the development of society. As part of a regional strategy, a group of drinking water and drain pipe manufacturers and Transparency International are prompting their Latin American affiliates and local chapters, respectively, to promote processes leading to sectoral agreements on transparency in their dealings with the State and the private sector itself. As of 2008, about half of all 167 pipe manufacturers had signed up. Average pipe prices have been reduced by 30 percent.

In Argentina in 2005, the nine major plastic pipe producers signed an agreement with the Asociación Argentina de Ingeniería Sanitaria y Ciencias del Ambiente (AIDIS) to adhere to an ethical chart including transparent tenders, fighting corruption and eliminating tax evasion. The process was facilitated by AVINA and Poder Ciudadano (the Argentinean chapter of Transparency International.

Sources: Stålgren, 2006; WIN Case Information Sheet 04/2008 (www.waterintegritynetwork.net/page/2201)

Box 16 presents the text of a news article about the privatization of water tanks in New Delhi, India. In many major cities in poor countries tankers provide water in the poorest neighbourhoods. However, the water prices per cubic meter are relatively high compared with piped water, making the business prone to corruption.

Box 16. India: water tank privatization in New Delhi

This box contains the text of an article published in June 2010 on the New Kerala website.

Four companies show interests in DJB's move to privatise water tankers

New Delhi, June 7 : Four companies have shown interest and submitted technical proposals for the tenders issued by Delhi Jal Board (DJB) to privatise the tanker management system and cut pilferage of potable water by the 'tanker mafia'.

A senior DJB official said: "Financial bids would open after the technical evaluation, which would take 15 days."

The DJB has decided to privatise tanker management system to check water wastage and corruption in its own ranks. The contract would ensure a total revamp of the system and introduction of new technologies.

Officials say that this would help DJB monitor the movement of tankers to and from various delivery points. The project also proposes to put a check on water wastage due to leakages in tankers.

"There have also been complaints of our tankers supplying water to hotels and malls for extra money. With corruption prevailing within the department and in the absence of a monitoring system, it is difficult to say if the tankers even reach the destination," a senior DJB official said.

The DJB's decision to enter into a public-private partnership to revamp tanker management involves introduction of technological changes to tankers. These changes would include biometric identification for drivers, a GPS system to monitor the tanker movement, a flow meter to account for the amount of water taken and supplied, a chlorimeter to ensure the water quality and an auto lock system to put a check on leaking tankers.

The DJB is mandated to supply water tankers at 18,349 fixed delivery points in the city. Besides that, water tankers are also supplied to regular colonies in case of common emergencies like pipeline burst or shortage of raw water supply. The department owns 250 tankers and hires at least 600 private tankers on a daily basis to ensure supply to at least 1,600 unauthorised-regularised colonies.

Source: www.newkerala.com/news/fullnews-123147.html

4.2.2 Irrigation sector

A more market-oriented approach in irrigation is mainly used in systems that use groundwater. A major debate on flat rates for electricity for tube well operations has been going on for many years in India. Corruption is not the main issue of the debate; however, controls placed on drilling of

new wells to stop the overexploitation of the aquifers are vulnerable to corruption. Some experts promote the metering of electricity as part of an effort to reduce the pumping of groundwater. Metering is seen as a useful step in reducing the need for allocation of drilling permits and improving the monitoring of illegal pumps, and thus reducing opportunities for corruption.

4.2.3 Water resources management

Pro-market reforms in water resource management are rare. An example of pro-market reforms in water use right allocation can be found in Chile, where water use rights were privatized in a 1992 water law. This step theoretically could have reduced corruption in the allocation of water use rights, but among its results were speculation regarding (and hoarding of) water use rights (Bauer, 2004).

Pro-market mechanisms are also part of the 'payment for environmental services' (PES) schemes now developed in different parts of the world. These are not specifically anti-corruption measures, but the schemes themselves have certain corruption risks. Those risks are related to the intensive monitoring needed to account for the conservation targets, and also to who receives the payments for the environmental services. Anti-corruption measures focusing on the payment of environmental services schemes have not been documented.

4.2.4 Hydropower sector

Many major dam construction projects for hydropower development have been structured as public-private partnerships of some form—for example, build-operate-transfer (BOT) schemes, or concessions. The impact of pro-market reforms on corruption in the hydropower sector is hard to assess because the projects are complex and have unique designs.

Wrold Bank

4.3 Outcome and impact of increased oversight by users, civil society and the media

4.3.1 Water supply and sanitation sector

An effective way to improve service provision is to increase the voice and influence of users in the management of utilities. Yet this is often easier said than done. Box 17 provides an example from Peru of how a government has sought to prevent water users from selecting their own representatives on influential boards of municipal drinking water utilities.

Interestingly, it has not been groups of water users that have protested the most against corruption in water utilities. Instead, the most significant protests have come from trade unions of workers of municipality utilities, which tend to be well organized and have few qualms about seeking to identify and expose corruption among their employers. The local trade unions are organized in a national federation called FENTAP (Federación de Trabajadores del agua potable y alcantarillado del Perú), established in 1981.

Box 17. Challenges to water users' representatives in Peru

In Peru several forms of organization of drinking water utilities exist. In urban areas most utilities are structured as a semi-independent 'municipal company' (empresa prestadora de saneamiento, or EPS). In some 50 middle-sized cities the EPS is governed by a board of shareholders comprising provincial and district municipal mayors (or their representatives). These boards appoint boards of directors which have three or five members (depending on the size of the utility), including at least one representative of the regional government and one or two representatives of water users.

Many cases of EPS corruption appear in local newspapers. The corruption is mainly concentrated at the level of the mayor and higher-level officials, and is related to construction works. Few cases of petty corruption are reported.

The current General Sanitation Law of 2006 specified that water users' representatives on the boards of directors should be directly elected by their constituencies (two representatives for major utilities and one users' representative for smaller utilities). However, in December of that year the government passed a decree stating that these representatives should be appointed by the shareholder board that is formed by the municipality. In response to widespread protests, this was changed by a decree in April 2007 stipulating that the 'user' representatives be appointed by the chambers of commerce and professional bodies of the locality. This eliminated a good opportunity for direct downward accountability.

Sources: www.fentap.org.pe; http://gua30.wordpress.com/2008/10/03/dia-interamericano-del-agua-sociedad-civil-tienen-derecho-a-co-gestionar-los-sistemas-publicos/.

In contrast to recent developments in Peru (Box 17), water users' representatives in Cochabamba, Bolivia have gained hard-won independence and influence, although with mixed results (see Box 18).

> *Box 18. Users' representatives on the board of the public water utility of Cochabamba, Bolivia*
>
> In February and April 2000, massive protests in the so-called water war in Cochabamba, Bolivia, resulted in cancelling of the service contract already signed with the private company that was to execute the Misicuni project to bring more water to the city and operate the drinking water system. The 'water war" received worldwide attention, but the subsequent process of the constitution of a public service company with improved management through citizen oversight got less attention.
>
> After the cancelling of the privatization of the service provision, the organizing committee of the protests (the Coordinadora del Agua) proposed several mechanisms to have citizen participation in the reclaimed municipal water company, SEMAPA. However, most proposals were rejected by the representatives of the municipality and company. The Coordinadora did succeed in having 4 out of 9 members of the Board of Directors of SEMAPA to be 'citizen representatives' elected by popular vote by water users.
>
> Several problems subsequently arose in the management of SEMAPA. The citizen representatives could not prevent poor performance and major acts of corruption by the general management. Among the reasons were that the citizens of Cochabamba lost interest in holding the citizen representatives accountable for their actions in the board. Also, many of the citizen representatives were either not informed well about the management or got involved themselves in illicit practices.
>
> However, the citizen representatives, together with social movements, did act in two important occasions. In 2005 a group of protesters succeeded in removing a union representative from the board who did not function well. In 2007 the general manager was removed from office after accusation of corruption related to a project SEMAPA started to extent the service in the southern part of the city.
>
> *Sources: WIN Case Information Sheet 01/2009 (www.waterintegritynetwork.net/page/2201); Driessen, 2008*

Box 19 shows how water users can be empowered to hold their utility accountable by using financial information to bring about social pressure. This way of gaining empowerment is different from the citizen report cards discussed previously because in the India case (Box 11), the citizens mainly provided information to the utility, while in the Uganda case (Box 19), the citizens define targets and exercise pressure.

Box 19. Community monitoring in Kawempe, Uganda

WaterAid works with community monitoring in sanitation projects in 15 regions in six countries. The Kawempe Division in Kampala in Uganda is one of them.

Kawempe is one of the poorest administrative divisions of Kampala and has a population of some 269,000 in an area of only 32 square kilometres (slightly more than 12 square miles). In Kawempe and elsewhere, one of the greatest problems for slum-dwellers is the high cost of clean, drinkable water and adequate sanitation.

WIN/WSP (2009), based on two study commissioned by the Government of Uganda in 2007 and 2008 and its own field investigation, provides examples poor performance and of grand and petty corruption in the water sector in Uganda:

- Collusion and bribery in procurement for construction contracts: in a 2004 World Bank report the auditor general of Uganda is quoted to say that "20 percent of the value of public procurement is lost through corrupt practices", collusion led to overdesign and overpricing of public sanitation works.

- Bribery regarding water connections

- Abuse of office (e.g., in recruitment) and embezzlement of funds (stealing of service fees paid at the cashier's office) and fuel.

A local NGO in Kawempe, Community Integrated Development Initiative (CIDI), in partnership with WaterAid has implemented the Citizens' Action Project. The project has helped the water users to collect information regarding expenditure of funds, performance and cases of bribery and present the results to the water providers and the wider public.

CIDI has provided community capacity building and facilitated meetings between dwellers of the slumps and service providers. It also published a quarterly newsletter called Community Voices. The initiative also executed an inventory of the houses with and without access to sanitation. The information gathered in the inventory and monitoring of construction projects proved to be effective tools to enhance the service provision.

Sources: WIN Case Information Sheet 03/2009 (www.waterintegritynetwork.net/page/2201); World Bank (2004). A Country Procurement Assessment Report: Uganda (CPAR) Vol. II. Main Findings and Recommendations, 9; Government of Uganda (2007). Fiduciary Risk Assessment for the Water and Sanitation Sector: Final Report, April 2007; Ministry of Water and Environment / Directorate of Water Development (2008). Tracking Study for the Water and Sanitation Sector (WSS) Cost Variation: Final Report, Vol. 1, September 2008; WIN/WSP, 2009.

World Bank Alex Baluyut, 2002

4.3.2 Irrigation sector

In many countries the process of transferring the management of irrigation systems to water users' associations has only been partly successful. That is because in most countries the users only manage the tertiary blocks, and do not have much say in the management of the secondary canals and main system. Yet in Peru the management of the main irrigation system of some large-scale systems along the northern coast was transferred with relative success to the water users' association (see Box 20).

Box 20. Large-scale irrigation management transfer in Peru

Along the arid northern coast of Peru, the operation and maintenance of three large-scale irrigation systems have been transferred from complete government control to that of water users' associations since 1992. This irrigation management transfer proved to be successful: the fee recovery rate is high and the water delivery continues according to established rules. The success is related to the strong downward accountability of the elected leaders of the water users' associations towards the users. Before the transfer the farmers had to bribe the agriculture ministry officials to get access to water. Much less bribery has been reported since the turnover to the associations, although canal operators manage to distribute illegal water turns with water 'saved' by precise distribution of the official water turns.

Source: Vos, 2002 and 2008

4.3.3 Water resources management

The allocation of water use rights is a process with high risks of corruption (Warner et al., 2009). Box 21 highlights the struggle of small farmers' associations in Ecuador to curb corruption in the local governmental agency charged with allocation of water titles.

Box 21. The success of social audits in a Water Agency in Ecuador

Since April 2006, Ecuador law has permitted social organizations to conduct a social audit (veeduria ciudadana) of government entities. The water agencies (agencias de agua) are government organizations that function at province level and distribute water use rights to individual and collective water users. In much of Ecuador water availability is increasingly becoming a problem, thereby threatening to reduce agricultural production. The problem is exacerbated by the fact that water use rights are concentrated in the hands of large landholders, and in several cases more water use rights have been granted than water available in the river. This causes social conflicts.

Staff and representatives of some water agencies have been accused by groups of small water users of accepting bribes in favour of rewarding new water use rights to powerful landholders. Indigenous and small water users feel deprived of a resource vital for their survival. In 2005 the director of the Chimborazo provincial water agency was accused of corruption, and some 200 farmers subsequently demanded his resignation. Their efforts were not successful. Two months later, Interjuntas, the organization of water users (communal irrigation and drinking water systems) of Chimborazo, organized additional protests in which 400 farmers forced the director resign.

This victory was short-lived: within a few months, the director was restored to office after a new national government took over. Again the farmers protested; some 4,000 protesters blocked the entrance of the office of the provincial water agency for 16 days in June 2005. They demanded the resignation of the director and a social audit concerning the new water titles that had been issued. A six-member board was formed including representatives from civil society, academic and users' organizations, and the board initiated a social audit under a process managed by a special government committee. The social audit consisted of the inspection and analysis of all documents in the office of the agency. After the audit report was presented in June 2007, several illegally issued water rights to big landholders were discovered and annulled.

Source: Dávila and Olazával (2006); Los Andes (newspaper), 8 June 2007.

4.3.4 Hydropower sector

Increasing the voice of citizens in mega projects is difficult. Box 22 showcases a social struggle against corruption related to the construction of two small hydropower plants in Ayacucho, Peru.

Box 22. Water users' protest against corruption in the financing of two hydropower plants in Ayacucho, Peru

In 1998 the Government of Peru initiated in Ayacucho the construction of one of the largest irrigation schemes in the Andean mountains, the Proyecto Especial Rio Cachi (PERC). The project design foresaw the irrigation of 15,000 hectares, provision of drinking water to the capital of the Ayacucho region, and the construction of two middle-sized hydropower plants. In 2003 the national government transferred the system to the regional government. At that time, the system lacked secondary and tertiary canals and the hydropower plants had not been built. The regional electricity provider Electrocentro considered the hydropower plants not sufficiently profitable to finance.

The regional government did not have funds to finish the construction of the system. In 2007 a private company called Sun Land Group Corp (based in the Dominican Republic but registered in Miami, Florida) offered to arrange a loan of US$60 million with the Export-Import Bank of the United States to construct the hydropower plants and finish the construction of the canals. In March 2007 the council of the regional government officially accepted that offer.

Shortly thereafter, the water users' association of the PERC irrigation system discovered the bad track record of Sun Land Group in the Dominican Republic. It found that the company had offered several loans to the Dominican government (totalling over US$450 million between 2001 and 2004), but that after Sun Land Group received the first payments of millions of dollars covering the service fees, the agreed-upon projects were not executed.

The situation in the Dominican Republic did not necessarily mean that the agreement between the Ayacucho regional government and Sun Land Group itself was illegal, but it did raise suspicions of kickbacks being paid by the company. Those suspicions were heightened after the water users' association began sharing information about the company's track record, and the leader of the association received telephone threats.

In February 2008 the water users' association organized a massive street protest against several national government policies (including a free trade agreement with the United States ratified in 2006 and the new water law) and the plans of the regional government as part of a national farmers' protest day. The protest march started peacefully; however, it became violent after a police officer killed two farmers participating in the march.

Ultimately, though, the protest led to the rejection of the loan proposal of Sun Land Group and the resignation of the main official of the regional government. The police officer and his superiors were never sanctioned for the killing of the farmers, however.

Source: No comprehensive documentation exists on this case, but several articles of the national newspaper La Republica cover the protests. For example:
www.larepublica.pe/archive/all/larepublica/20080220/pasadas/01/todos
and www.larepublica.pe/archive/all/larepublica/20080220/pasadas/15/25704 .

UNDP Photo / Photographer Name

5.1 Analysis of conditions and drivers of anti-corruption measures

The following conclusions regarding key drivers and conditions for anti-corruption measures are based on the discussion in Sections 1 through 4:

- Important drivers for anti-corruption measures include:
- political will, related to political prestige, ideology and peer pressure;
- political will, related to downward accountability (pressure from constituency);
- pressure to comply with transparency and integrity rules of international donors;
- mobilization of citizens (especially when they are affected directly by corruption); and
- commitment of private companies.

Important conditions for anti-corruption measures to have positive impact include:

- good and fair judicial system (rule of law);
- democratic political environment (at least to some extent);
- free and independent press;
- sufficient staffing at national anti-corruption agencies;
- civil society organizations that serve as corruption watchdogs, and have adequate funding and trained staff;
- whistleblower protection policies and enforcement; and
- sound consultation mechanisms for representatives of water users on the boards of water utilities.

5.2 Main conclusions

Some general conclusions can be formulated based on the analyses and case studies in this report:

- Corruption has been reported in the drinking water, irrigation and hydropower subsectors and also in water resources management activities. Corruption in the water sector is often strongly intertwined with political processes, and thus is a difficult problem without easy solutions. Corruption can be systematic and institutionalized, and often has its own informal rules that reinforce the illegal activities. Corruption in the water sector costs millions of lives and hinders progress toward achieving the MDGs.

- It proved difficult to measure the impact of anti-corruption measures. This is partly due to the grey areas between mismanagement and corruption, and partly because corruption levels are hard to measure. Few cases are documented with a thorough analysis of the impact of anti-corruption measures in the water sector. Most cases only describe the corruption problem and the measures that have been implemented; some mention the main successes of this implementation, but few make a good quantitative and qualitative evaluation of the impact and its sustainability.

- Most reported cases of anti-corruption measures in the water sector are in regard to drinking water and sanitation. Far fewer cases have been documented in the irrigation, water resources management and hydropower subsectors.

- Although only a few cases of the impact of anti-corruption measures have been thoroughly documented, one notable characteristic of most cases is that success in combating corruption is related to a combination of upward and downward accountability. That finding indicates that both stricter control from above (in the form of political will and government oversight) and mobilization of users' voices (social audits, representation on boards, participatory budgeting) are required to effectively fight corruption.

- Social oversight on procurement procedures resulted in lower-priced bids in Mexico and Pakistan.

- Social protests and grassroots anti-corruption movements are important in the fight against corruption. However, if political will is limited or lacking, the protests will only achieve partial success in responding to the problem. In many cases publicly accused officials are simply transferred to other posts without further punishment.

- The participation of users' representatives on the boards of drinking water utilities and irrigation projects seems to constitute an effective means to help curb corruption. However, it is indispensable to guarantee real representation of all users by regular elections of the representatives and frequent reporting to constituencies. In cases where the management of complete irrigation systems has been transferred to water users' associations, as in northern Peru, ensuring accountability towards the water users is equally crucial to maintaining transparency and preventing corruption.

- New technologies like SMS (with mobile phones), and posting and sharing information on Google Earth and specific mobile phone applications offer promising tools to empower water users seeking to identify and publicize corrupt practices.

5. 3 Policy considerations

Some policy recommendations can be formulated based on the analyses in this report:

- Effective anti-corruption initiatives work from different 'fronts': from below, from above and horizontally. There is a need for a mix of measures that strengthen accountability in all these directions. Increased government control becomes more effective with citizen participation (social auditing), and grassroots movements achieve more change when accountable governments and juridical systems respond to their claims.

- Grassroots organizations and civil society organizations need training and financial assistance to adequately investigate corruption.

- There is a need for training of water users' groups so they are able to audit and monitor government organizations and utilities. Examples of the success of such efforts can be found in regards to participatory budgeting and auditing in Bolivia and Uganda; social audits in Ecuador; and citizen report cards in India and elsewhere.

- The effects of sector reforms (especially privatization) should be evaluated for the impact they might have on the poor and marginalized.

- Press freedom should be encouraged and respected, and national and local journalist should be trained about different aspects of corruption and anti-corruption measures.

- Laws and policies should be developed to protect whistleblowers and encourage them to come forward.

- There is a need to strengthen capacities and ensure financial support for (inter)national and parliamentary investigations of public officials and private companies accused of corruption. As was demonstrated in Lesotho, such efforts require substantial financial resources.

- There is a need to encourage the anti-corruption efforts of political leaders. Political will might

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not always be genuine because anti-corruption zeal might be solely calculated for political purposes. Regardless, political commitment is needed for effective implementation of anti-corruption initiatives.

- There is a need to build networks and alliances of private, public and civil society anti-corruption actors at local, national, regional and international levels.

- There is a need for further research in mapping successful anti-corruption measures and analyzing their drivers, costs, effects, sustainability and conditions.

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1. Background

Corruption in the water sector hinders efforts to achieve the MDGs by reducing access to clean water service and diverting resources away from investments in infrastructure, maintenance and operation.

A literature review conducted internationally reveals that anti-corruption initiatives in the water sector are not well documented or reported upon. Opportunities for sharing learning on good practice across countries and agencies are scarce. Moreover, the literature review establishes the need to increase the understanding of the enabling environment and drivers for anti-corruption measures and to more systematically evaluate anti-corruption interventions to gauge their results on corruption reduction, and their sustainability.

The literature review identifies three views on corruption with a corresponding anti-corruption approach. Roughly three views exist on corruption and the corresponding anti-corruption measures (based on Everett et al., 2007):

The 'orthodox' or 'rotten apple' view of corruption: corruption is the misconduct of some criminal and low moral individual civil servants. The solution is strict oversight of state bureaucracy. With sufficient political willingness and the right anti-corruption tools the 'rotten apples' can be removed. This approach rests on upward accountability. Servants in the hierarchical bureaucracy should be answerable towards higher ranking officials.

The 'rent seeking civil servant' view of corruption: The self-interest of civil servants makes them all susceptible to corruption (the "culture of corruption"). This makes that more oversight is not the solution; there will always be many ways to find new and more hidden manners to extract private gain from civil servant positions. The solution proposed is the 'exit strategy'. Privatization of state companies and subcontracting services to private companies is viewed as the best solution. This is the 'neoliberal' view on corruption (see Klitgaard, 1997, and World Bank, 1997). However, private operation requires strict and intensive government oversight which might give rise to more corruption and privatization processes themselves are also susceptible to corruption.

The 'radical view' is the third view. It sees corruption as a complex socio-economic-political phenomenon. Corruption has no clear boundaries. Corruption is deeply intertwined with politics and the social-economic fabric of society. Corruption is an intrinsic part of society in the sense that it is not caused by some individual culprits. Corruption is related to power struggle between different groups in society: it is about gaining control. Increased oversight can create more opportunities for bribery and collusion. Private operations can allow for siphoning off huge amounts of money. Politicians combating corruption might be as corrupt as their opponents. Privatization deals might involve corruption. Corruption is also a discursive battle; it relates to legitimizing authority and moral judgments as sources of social power. Politicians might use the rhetoric of anti-corruption to attack political opponents and put a smoke screen to hide their own corrupt practices. Corruption is intertwined with party politics, election fraud and authoritarian rule. The solutions suggested are increased empowerment of users' groups, consumer committees and civil society organization and guarantee free press (see, e.g., Everett et al., 2007).

In this study we do not select one of the views, rather in specific circumstances one or more views might be helpful to help understand the situation and develop the most suited anti-corruption strategy.

I. Examples of increased government oversight:

- Anti-corruption agency (or commission) or ombudsman's office
- Specific reforms in tendering and procurement procedures
- Independent financial audits, investigation and prosecution
- Regulations for appointment and promotion of employees (selection according to merits)
- Protection of whistleblowers
- Special anti-corruption commission of parliament (or ad-hoc commission for specific corruption case)
- Capacity development and training of officials
- Promote ethics and integrity in public organizations
- Feedback on service provision from users ('citizen report cards', "hotlines")

II. Examples of pro-market water sector reforms:

- Concessions for the operation of water utilities, hydropower and irrigation systems to private companies
- Subcontracting specific tasks to private companies
- Public-private partnerships
- Independent sector regulators to supervise private companies
- Promotion of transparency in the private water sector and performance benchmarking
- Promotion of ethical business values in the private water sector

III. Examples of increased 'voice':

- Increased democracy and 'rule of law' (includes accountability of political authorities towards water users)
- Citizen oversight / social audits
- Create awareness about corruption in the water sector in the general public
- Active participation of users (or their representatives) in boards of water provider utilities, and water works construction and rehabilitation projects (include training for representatives)
- Strengthen and mobilize organizations of water users (and workers) in the water sector (includes training for organizers)
- Mobilize coalitions of organizations for advocacy, investigation and networking in anti-corruption in the water sector
- Guarantee free press and train reporters on corruption issues

2. Purpose and scope

The field research is to identify 'good practices' of anti-corruption measures and tools in the water sector. We consider measures and tools that have been used and describe them in detail, with their contexts, enabling and constraining factors and, to the extent possible assess their success and impact on corruption reduction in the water sector. The water sector comprises drinking water and sanitation, irrigation, hydropower and water resource management.

The country study contains a general country-level overview and some four detailed case studies of particular measures or tools (if possible in different subsectors).

For the purpose of the country studies we define good practice as activities ranging from broad policy/macro level to the grassroots level. Activities (methods and tools) may be stand alone or part of a process but where attribution or significant contribution to corruption reduction and change vis-à-vis corruption can be clearly identified. Good practice may be innovative and newly implemented, piloted, or evaluated. The validity of non-evaluated practice will have to be assessed by interviews with a range of stakeholders and supporting documentation.

Where possible replicated good practice will be identified, when practice in different contexts has resulted in positive effects.

Possible characteristics of good practice:

- Addresses a specific risk
- Takes account of different contexts, incentive structures etc.
- Ownership by those responsible (or affected)
- Partnership, including with civil society.
- Sustainability
- Impact on duty bearers
- Impact on rights holders/beneficiaries

3. Methodology

Based on the literature review and consultation meetings, map corruption risks:

- Analyse each risk and the power dynamics, values and cultural practices that are embedded in individuals' and groups' attitudes towards risks areas and corruption.
- Map anti-corruption measures and tools that have been used in various water sub-sectors and analyze how these relate to identified corruption risks.

i. Desk review (literature, legislation, reports)

Sources to be used:

- Government: legislation, water sector plans and national policies, procurement procedures, independent sector regulator, etc.
- National agencies/bodies: anti-corruption commission, Supreme Court, audit commission, etc.
- UN and multilateral agencies: background documents, studies and programme and project documents from UNDP, UNESCO, the World Bank and regional development banks (AfDB, ADB etc), the EC.
- Bilateral donors: DFID, AFD, Norad, CIDA, SIDA, GTZ, etc.
- Civil society organizations: water organizations and transparency and anti-corruption organizations and national and local levels (Transparency International national chapters and others)
- University, research institutes and NGOs
- Media

ii. Stakeholder survey

A rapid stakeholder survey questionnaire will be designed and administrated to relevant multilateral agencies, bilateral agencies, government officials (Ministry of Agriculture, Ministry of Energy (hydropower), Ministry of Environment, Ministry of Finance, Ministry of Planning, etc.), selected local water authorities, water workers unions, selected universities and civil society organizations and NGOs. The questionnaire will aim to: i) identify key players in anti-corruption interventions, ii) identify (perceived) corruption risks in the water subsectors, iii) identify anti-corruption interventions; and iv) identify relevant documentation for the desk review.

iii. In-depth interviews and consultation meetings

The rapid survey questionnaire and the desk review will inform the design of question checklists for consultation with key stakeholders involved in anti-corruption interventions in the water sector. Representatives will be interviewed at national and local level wherever relevant. Stakeholder consultation meetings can be organized to discuss particular issues.

iv. Reporting

The research will result in a report of no more than 40 pages (plus annexes) presenting the context within which corruption in water and anti-corruption interventions occur, outlining the key corruption risk areas in the water sector and describing the anti-corruption interventions devised to tackle these. The analysis will be guided by the investigation questions outlined in this ToRs and any others that are deem relevant in a given country context.

The (four) case studies of anti-corruption measures or tools will be analyzed in the annex. A report annex will summarise the key dimensions and lessons from each anti-corruption intervention under scrutiny using the template below:

Area/risk	Water sector specific
Type of anti-corruption intervention	
Context	Political, Social, Economic, Cultural, Historical, National/local, Governance system
Structure	Including legislative and regulatory frameworks
Process	
Preventive mechanisms	
Sanction	
Results	
Success/failure factors	
Hindering/fostering factors	
Enabling environment characteristics	
Elements of replicability	

3. Sample questions for country level study

a. Core questions related to the enabling environment:

What are the national institutional and contextual parameters?

- Legal, regulatory and institutional contexts of the water subsectors (private involvement, accountability relations, (fiscal) decentralization (of drinking water utilities), procurement procedures)
- Role of international donors and water and construction companies
- Specific anti-corruption legislation, financing, sanctions and enforcement
- Political willingness and leadership to curb corruption (government and parliament)
- Role and tasks of independent sector regulators and benchmarking of performance of utilities
- Financial planning and subsidies in the water sector
- National auditing and prosecution system (monitoring, investigation, sanctioning, court system, enforcement mechanisms, whistleblowers protection)
- Anti-corruption agency (or commission)
- Citizen participation (also irrigation water users' organizations), social budgeting and social auditing
- Role of workers' unions

- Initiatives of the private sector

- Role of national CSO corruption watchdogs (TI national chapters, consumers' organizations) and national news media (radio, television, newspapers, blogs) and spontaneous grassroots protests

- Networks of the above mentioned organizations

- Specific awareness raising campaigns and training efforts

b. *Questions related to the corruption risks per water sub-sector*

- Identify specific corruption risks per water subsector

- Describe major national corruption scandals related to the water sector

- Analyses of institutionalized and systemic mechanisms of corruption

c. *Question related to the good practices in water sector:*

- What anti-corruption intervention was initiated?

- What were the drivers?

- What specific corruption risks have they addressed?

- What has been the approach of the anti-corruption intervention?

- Through what implementation partnership was the intervention conducted?

- How have activities tackled the diverse range of factors of the identified corrupt practice or risk?

- What have been the results of the anti-corruption intervention? (Try to be as specific as possible and provide qualitative and quantitative data, and if possible baseline studies). Supported by what evidence?

- What have been the enabling and hindering factors of the anti-corruption intervention's results? How have constraints and obstacles been overcome during intervention implementation?

- What sustainability mechanisms were built into the anti-corruption intervention? Have these been effective?

- What lessons can be drawn from the anti-corruption intervention?

- What elements of replicability could be singled out from the intervention?

4. Resource implications

The estimated level of effort for a case study is study is 60 days.

Team specification

- Team leader: more than 10 years professional experience, with strong background in anti-corruption and public administration in the water sector

- Public governance specialist: strong background in water finance and sound understanding of procurement issues.

- Water utility specialist: proven experience of working with institutional issues of water utilities and regulators. Strong understanding of the water utilities and private-public partnerships. Ability to conduct interviews at ministry level on sensitive issues.

- Civil society engagement specialist: robust understanding of the role of civil society in taking the government into account, proven experience of civil society campaigns.

- Research assistant.

These case studies build on the desk review and provide more detailed information and analysis of specific reforms in Uganda, Kenya and Zambia. (The terms of reference for the case studies are presented in full in Annex 2.) The three case studies were chosen in part because they highlight reforms that have led to an increase in the supply of safe water and enhanced sanitation services.

World Bank / Yosef Hadar

1. Uganda Case Study: Increased Government Oversight through a Strengthened National Water and Sewerage Corporation

1.1 Introduction

The Uganda water supply and sanitation sector has made marked progress in urban areas since the mid-1990s, with substantial increases in coverage as well as in operational and commercial performance. The sector has been reformed through several laws and policies introduced since 1995, leading to decentralization and increased private participation. The operations of the National Water and Sewerage Corporation (NWSC) in that period, as well as innovative service contracts in small towns, have attracted significant international attention (CR Uganda-MWE, 2009). Access to improved water supplies in rural areas stands at 63 percent but with huge regional disparities ranging from as low as 12 percent in Kaabong (north-eastern Uganda) to more than 90 percent in Kabale (south-western Uganda). In urban areas, which are mostly served by NWSC, access to safe water stands at between 61 percent and 72 percent (MWE, 2005 in WIN/WSP, 2009).

1.2 Drivers of progress in the water sector

a. Policy and regulatory reforms. The water sector has been guided by sound and well- coordinated policy and regulatory frameworks. Uganda's Water Act 1997 provides for the establishment of water authorities, while the Local Government Act (1997) empowers local governments to provide water and sanitation services.

b. Clear institutional and management framework. The water sector has numerous institutions and management structures with clear roles. It should be noted, however, that there is no independent economic regulatory body for water supply. Key agencies include:

   ■ Ministry of Water and Environment (MWE): The lead agency for formulating national water and sanitation policies, and coordinating and regulating the sector.

   ■ The Directorate of Water Development under the MWE acts as the executive arm and provides support to local governments and other service providers.

   ■ NWSC, which is regulated by a performance contract with the government and is responsible for provision of water and sewerage services.

   ■ The Water Policy Committee is a multi-sectoral body that acts as a principal advisory organ to the minister and whose role includes setting national policies, standards and priorities, including coordinating revisions to sector legislation and regulations.

   The 1997 water statute also provides for the formation of water and sanitation committees, water users' groups and water users' associations as local community level organizations, with roles including ensuring the sustainability of the water supply and sanitation facilities through proper management, operation and maintenance.

   Over 180 NGOs involved in water sector activities have formed the Uganda Water and Sanitation Network (UWASNET). The network aims to improve coordination of their activities and serve as a platform for constructive engagement with government and donors in the water sector.

Coordination with other key sectors including the Ministry of Finance, Planning and Economic Development, which coordinates funding and donor support, and the Ministry of Local Government, which supports decentralized government systems managing their own water facilities. Other agencies involved include the Ministry of Agriculture, Animal Industries and Fisheries, which oversees water use for irrigation; the Environmental Health Division under the Ministry of Health, which is in charge of an integrated sanitation strategy for the country; and the Ministry of Education and Sports, which has responsibility for health, sanitation, and hygiene in schools. All these stakeholders, together with the Ministry of Public Service, development partners, and civil society, form the Water and Sanitation Sector Working Group.

c. Increased funding in the sector. Funding for the water sector has been increasing steadily over the past 10 years, with most funds coming from government's priority Poverty Action Fund under the Poverty Eradication Action Programme.

d. Clear monitoring, evaluation and reporting framework. The water sector has specific verifiable indicators for monitoring progress in urban water supply and sanitation. The Department of Planning and Quality Assurance was established to monitor and evaluate all ministry activities,

including water supply and sanitation. The department issues periodic quality assurance reports highlighting performance against set targets and recommends corrective measures to be undertaken.

e.   In addition, the water sector has a Joint Government/Development Partners Sector Review forum held annually to carry out a comprehensive review of the sector's performance. As part of performance monitoring process, mid-term joint technical reviews are also held. The framework also provides for periodic service delivery surveys, and targeted independent surveys are often conducted by different stakeholders (Uganda National Water Development Report, 2005).

1.3 Status of corruption in the water sector

The progress has, however, not been without its challenges. The water sector has seen high levels of corruption that have hampered progress toward stated goals. A World Bank-sponsored baseline survey on integrity in Uganda's water supply and sanitation sector found that corruption costs the water sector billions of shillings every year and undermines water services, especially to the poor. Between US$5 million and US$10 million meant to improve access to safe water for drinking in Uganda is lost to corruption annually, while between 10 percent and 20 percent of the money given to contractors is spent on kickbacks, significantly reducing the extent to which the contractor can deliver on improving access to safe water and sanitation[8].

According to the WIN/WSP baseline survey, the major forms of corruption in the water sector include the following:

■   extra payment to speed up a new connection or to speed up a re-connection;

■   bribes to avoid a disconnection or to conceal illegal connection;

■   falsification of meter readings; and

■   payments to hinder reporting faulty meters.

1.4 Causes of corruption in the water sector

Generally, there is a belief that corruption in the water sector is caused by the following factors, ranked in order of importance (WIN/WSP baseline survey):

■   low pay to staff (25 percent)

■   society influence (22 percent)

■   greed (8 percent)

■   weak machinery to detect corruption (6 percent)

■   weak anti-corruption policies (3 percent)

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8   'Uganda: water sector loaded with corruption, US$32.5 million lost over last 5 years'. E-Source, 16 October 2009. Online: www.irc.nl/page/50329.

1.5 Anti-corruption efforts in the water sector

The Ministry of Water and Environment in partnership with the Secretariat of the Water Integrity Network (located in the Secretariat of Transparency International in Berlin, Germany), and the Water and Sanitation Program in Uganda (WSP-Uganda) have developed a Water Integrity System (WINS), also known as 'water scans' for the water and sanitary sector in Uganda. This initiative has prioritized a number of key activities such as a risk opportunity mapping study and a baseline survey (WIN/WSP et al 2009) on how water consumers and providers view integrity in the consumption and provision of water in Uganda. This work is ongoing and there are plans to review progress in the first quarter of 2011.

There have also been numerous community-based initiatives aimed at enhancing governance in the water sector. A report by the UNDP and the Uganda Ethics Network Outreach (UENO) on progress attained towards attainment of MDG 7 Target 10 highlights two case studies of enhancing governance through citizens' action and social accountability[9]. In Luwero, efforts have been made to increase governance through social accountability, communication and transparency. The project, supported by the World Bank Institute and the Luwero district government, employs citizens' report cards to solicit experiences and observations regarding the water supply and provide feedback to service providers on their strengths and weaknesses.

Another project in Kawempe seeks to bridge the governance and accountability gap between communities and water and sanitation service providers through citizen action. This initiative consists of empowering citizens to identify concerns and undertake community-based monitoring through which they collect data that is subsequently used in negotiations with the government.

1.6 Integrity framework at the National Water and Sewerage Corporation

A special statute establishing the National Water and Sewerage Corporation (NWSC) in 1995 gave it the mandate to operate and provide water and sewerage services on a sound commercial and viable basis. The statute requires the minister responsible for water affairs to enter into a performance contract with NWSC in relation to its operations in accordance with the provisions of the statute. The law empowers also NWSC to own assets in areas where it provides services without the need of compensation in respect of the transfer of such assets.

NWSC is responsible for provision of water and sewerage services in over 20 large towns in Uganda. It proposes water tariffs and submits them to the MWE for approval. A performance contract with the Government of Uganda regulates NWSC operations. This contract is regularly reviewed by a Performance Review Committee within the MWE. Private companies, which are licensed by the MWE, provide water and sanitation facilities in small towns. They work under the supervision of water boards that are appointed by water authorities. (WIN/WSP, 2009)

NWSC has been selected for this literature review as an appropriate target because it is one of the best performing government parastatals in Uganda and was cited as one of the most honest public

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9   UNDP and UENO, 'Sustaining good governance in water and sanitation sector in Uganda', towards attainment of MDG 7 Target 10' December 2008, p.21.

organizations in Uganda in the National Integrity Survey III (2008). NWSC has instituted an integrity framework with a zero tolerance to corruption policy. The recent years have seen the institution turning into a viable national water utility body whose success also is based on open and transparent management practice instituted across the board. The management at NWSC carried out a number of structural and institutional policy changes and reforms and established an integrity system for the organization through the measures highlighted below.

1.6.1 Internal reforms for institutional transparency

- Management commitment to fight corruption. NWSC has a strong management team and a committee to deal with corruption. The majority of staff at NWSC trust that the management is committed to fighting corruption, as confirmed by 86 percent of respondents to a recent survey (WIN/WSP, et al 2009). These reports also indicated that the human resources process at NWSC is transparent and motivational to staff, that the recruitment process is fair and non-discriminatory, and that staff promotions are always or in most cases based on performance and length of service.

- Ethical code of conduct. NWSC has codified standards against corruption and unethical conduct with clear procedures for dealing with reported violations. Its human resources manual of May 2005 explicitly prohibits staff from engaging in corrupt practices; during staff orientation and induction, NWSC draws employees' attention to these vital clauses.

- Planning, budgeting and financial management. According to the baseline survey on integrity in the Uganda water supply and sanitation sector (WSS, 2009), planning, budgeting and financial management at NWSC is participatory and the budget administration is transparent and based on a bottom-up approach and specific criteria. The process owners (respective sections/departments) originate the budgets and forward them to management for approval, integration and action. Ninety-one percent of staff interviewed for the 2009 WIN/WSP survey said they participate in the budgeting process. The involvement of NWSC staff in bottom-up planning, budgeting and financial management has been important in promoting institutional transparency.

- Auditing. NWSC has instituted good internal control practices including monthly internal audits that have enabled the institution to detect malpractices in time for correction.

- Procurement and contract management. NWSC strictly follows Government of Uganda procurement regulations and has instilled confidence in the transparency of procurement processes including pre-qualification and tendering among its suppliers, staff and the public. A majority of suppliers interviewed (73 percent) for 2009 WIN/WSP survey said that the process was transparent and corruption-free, with 79 percent saying that pre-qualified suppliers are usually invited to participate in bidding processes. NWSC has an annual procurement plan as well as an effective communication system using various media to inform suppliers, bidders and the public about opportunities and processes. Of those interviewed for the 2009 WIN/WSP survey, 87 percent said they were aware of the procurement and tendering procedures at NWSC. All the respondents also affirmed that NWSC procurement procedures were in conformity with Public Procurement and Disposal of Public Assets Authority regulations and guidelines, which they said they were aware of. Moreover, while political interference in procurement may be a common factor in public institutions in Uganda, at NWSC such interference was reported to be minimal by 90 percent of respondents.

- Conflict of interest management. There is no evidence of apparent conflict of interest at NWSC. According to the baseline survey on integrity in the Uganda water supply and sanitation sector main report, from August 2009, almost all staff said they were aware of the regulations requiring employees and directors to disclose any conflict of interest in handling affairs of NWSC. Only 3 percent of respondents reported that they were not aware of the existence of these regulations. NWSC always verifies service provider company directors' details with the registrar of companies before signing contracts with them for service provision. Most of the staff interviewed said that they did not know of any fellow staff of NWSC who had a private company that does business with NWSC.

1.6.2 Good practices in service delivery

NWSC has instituted stringent measures to ensure that the services rendered are up to the expectations of consumers and that the process chain in supplying water and sanitation services is shortened to minimize risk and impetus for corruption. Good practices have largely focused on increased interface and communication with consumers and the public and incentives to deter corrupt practices. Ninety-one percent of staff said that they were aware of the programme to create incentives for increased community/public involvement in relation to reducing illegal use, meter tampering, vandalism, and meter bypasses. The review looks at a number of areas in service delivery chain:

- Advance information on water supply services. NWSC routinely provides advance information regarding water services including connection, disconnection, and reconnection or supply interruptions. The procedure and/or instances for a water disconnection and/or reconnection are clearly laid down in the standard operating procedures of the service providers. The surveys reveal that majority of the respondents receive advance information regarding water supply services from their service providers and also on any impending water stoppage or disruptions through SMS and/or public media announcements.

- Acquiring the service. Securing a new connection has been eased. The procedure for acquiring a new water connection, reconnection and/or repair and maintenance of water lines including timelines is well stated in NWSC's standard operating procedures . Surveys revealed that 72 percent of clients interviewed had not experienced problems in securing a new connection.

- Customer care. NWSC has a customer care service programme in place, and recently introduced a toll-free telephone number that allows customers and any other interested parties to call any branch and raise concerns. However, it should be noted that whereas 52 percent of customers interviewed said they know where to take complaints, almost the same proportion (48 percent) said that they did not know the complaints procedure.

- Stipulated timeframe for response to complaints. It takes less than two weeks to acknowledge complaints, and then less than two additional weeks to respond to most complaints. Survey results indicate that of all those who lodged a complaint to NWSC, 50 percent were satisfied.

- Meter reading and billing. Meter reading has been regularized, with bills being issued instantly on site. The surveys show that 93 percent of consumers interviewed had had their meters read regularly. The majority (97 percent) of respondents said that they had received their water bills monthly in the last 12 months; a clear majority (70 percent) also said their water bills are accurate, as they are based on actual meter readings.

1.6.3. Efficiency vis-à-vis corruption

Although these reforms are still ongoing, NWSC has consistently emerged as a progressive institution with an open and transparent approach. A key issue that has been raised, however, is whether improved efficiency and management translates into reduced corruption in the water and sanitation sector. It should be noted that these reforms have been specific to NWSC and are yet to be replicated to other institutions in the water and sanitation sector in Uganda. Yet it nevertheless seems clear that these reforms have reduced the opportunities and risks for corrupt practices at NWSC by improving institutional transparency and enhancing the interface and dialogue with the consumers. The end result has been improved access to water and sanitation services for urban communities in Uganda. A key challenge remains to replicate these reforms to other institutions and parts of the country so as to enhance access to water and sanitation services especially to the poor and those in informal settlements and rural communities.

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World Bank Curt Carnemark

2. Kenya Case Study: Corruption and Vulnerability Assessments in the Water Sector Undertaken by Transparency International-Kenya

2.1 Access to water and sanitation facilities in Kenya

Access to water for most urban and rural poor groups remains low in Kenya. Findings of a study by Transparency International-Kenya (TI-Kenya)[10] indicate that 55 percent of households sampled use less than 100 litres a day, while about 40 percent use between 100 and 200 litres. More than 41 percent of water users surveyed were unhappy with the services offered by the providers, and more than 8 percent have actually lodged complaints. Those who had not officially complained said they lacked faith that their concerns would be addressed; many also believed that raising an issue was needless because so many others likely had the same problems.

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10   Transparency International-Kenya and Maji Na Ufanisi, Water governance study 2009.

The bulk of the complaints lodged refer to unreliable supply of water or unjustified disconnections of water metres. The majority of complaints from large-scale water users (industries) pertain to inflated water bills and irregular supply of water. Nearly two-thirds (32.8 percent) of respondents from large-scale water customers admit to having heard of or witnessed corruption in the water sector institutions. The form of corruption most cited is bribery of water officers.

2.2 Corruption in the water and sanitation sector

The water sector is rife with several risks that present a high potential for corruption. In Kenya, the sector is highly politicized and extremely complex. In a report by TI-Kenya titled 'Corruption trends analysis, tracing corruption trends in Kenya's public sector', the multiplicity of stakeholders is highlighted as a key issue that potentially drives corruption in the water sector. Stakeholders include international actors (donor representatives, private companies, and multinationals), national and local construction companies, consultancy firms and suppliers. Large and small operators, a range of middlemen, consumers, and civil society organizations at national and sub-national levels are also culpable, and corrupt activities involving these stakeholders often occur at the institutional level, with different stakeholders often involved in one or more types of corruption. Other challenges include interference by politicians in the management of the sector and a large flow of public money, often including uncoordinated donor funds[11].

In urban areas, non-regulation of water kiosks and vending in Kenya have exacerbated the problem. Service providers often set prices for water; however, because of limited follow up and non-adherence to the regulations, vendors hike up the prices and it is the poor families without secure water connections that pay the high cost. Often poor households end up using unsafe sources including streams and shallow wells, which increases the spread of disease. Women, girls and children in general often suffer the attendant costs of poor water access and inadequate sanitation[12].

The 2009 report released by TI-Kenya in partnership with Maji Na Ufanisi, an NGO, was based on a study conducted between March and May 2009 in Nairobi, Mombasa, Mwingi, Kitui and Budalangi among a sample size of 2,722 small-scale water users and 119 large-scale water users. It highlighted poor management and corruption within the water sector that has led to mismanagement and hence a big loss in revenue collection. Among the findings was that 57 percent of water consumed for domestic purposes was unaccounted for, and that tampering with meter readings and diversion of water from domestic users to industries was widespread.

Speaking during the release of the report's findings, TI-Kenya Director Job Ogonda said "Corruption in the water sector makes implementation of economic plans impossible resulting in poverty and diseases due to illegal connection of poor quality pipes in most of the slum areas."[13]

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11   Mosota, M., 'Why corruption runs deep in the water'. The Standard, 6 December 2010. Online: www.standardmedia.co.ke/archives/specialreports/InsidePage.php?id=2000024116&cid=259&.

12   Also see 'Why is corruption in the water sector a gender issue?', a paper presented by Caroline Toroitich, at the 5th World Water Forum in March 2009. Online: www.waterintegritynetwork.net/page/2658.

13   Water and Integrity Network, 'Corruption killing water sector, says TI'. Posted June 2009; online at http://washafrica.wordpress.com/2009/06/23/corruption-killing-water-sector-says-ti/.

In a related report by Transparency International, 'The anti-corruption catalyst: realizing the MDGs by 2015', it is stated that in Kenya, corruption in the water sector is characterized by bribery, unaccounted for fees and procurement processes that are not transparent[14]. The survey found that 87 percent of respondents in Nairobi had witnessed payment of bribes to connect to the city's water network. The report states that wide-scale corruption in the sector means achieving the MDG target of improved access to water will cost an estimated $48 billion more than earlier anticipated. These findings paint a grim picture when coupled with the revelations that high level officers are alleged to have violated procurement procedures by awarding crucial contracts to relatives, usually at inflated prices. The issue is subject of a parliamentary watchdog probe. According to Transparency International calculations, for every investment of US$1 million to connect households to piped water at an estimated cost of US$400 per connection, corruption hinders roughly 30 percent of families from gaining access. This projected cost does not include the incalculable spill-over effects that the lack of clean water creates for education, health, poverty and gender equality outcomes[15].

2.3. Curbing corruption in the water and sanitation sector

TI-Kenya and Maji Na Ufanisi have made several recommendations to various stakeholders; in particular, they urge the Ministry of Water to develop institutional linkages that will facilitate detection of loopholes that create opportunities for malpractices. They further recommend the strengthening of consumer participation and feedback systems to encourage water users to file complaints.

In October 2010, in response to the widespread public debate on these issues, Minister of Water Charity Ngilu openly admitted that corruption is widespread in her ministry. She explained that a range of factors are responsible, including violent water cartels, illegal water tapping, mismanagement and a weak Water Act of 2002. As a consequence she has put a notice on all of the officers in the Water Ministry and plans to launch four water boards, hoping to curb the problem[16].

With the support of Transparency and Integrity in Service Delivery in Africa (TISDA) in 2009, TI- Kenya initiated an in-depth assessment of governance challenges in the water sector that included a series of local case studies. The assessment in Mombasa found poor water infrastructure, inadequate sewerage and sanitation facilities, and regular water shortages[17]. The main water supply company, Mombasa Water Service Company (MOWASCO), supplies only a small segment of the population (ranging from 10 percent to 27 percent of households, depending on neighbourhood), and the remainder of area residents have to rely on informal supply systems including push carts and borehole operators.

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14   The report, released in 2010, is available online at www.transparency.org/news_room/in_focus/2010/realising_the_mdgs_by_2015.

15   Mosota, M., 'Why corruption runs deep in the water'. The Standard, 6 December 2010. Online: www.standardmedia.co.ke/archives/specialreports/InsidePage.php?id=2000024116&cid=259&.

16   'Admission of corruption in Kenyan Water Ministry by Ngilu', WASH news Africa, posted 1 October 2010. Online: http://washafrica.wordpress.com/2010/10/01/admission-of-corruption-in-kenyan-water-ministry-by-ngilu/.

17   See http://tisdakenya.wordpress.com/2011/05/23/the-mombasa-mou-pact-for-impact/.

TI–Kenya subsequently undertook additional assessments of the different stakeholders and water supply systems and mapped governance risks across them. Key governance risks identified included the following:

- Low awareness among the users of their rights and obligations

- Lack of clarity governing relations between the main actors—e.g., MOWASCO and other water resource management authorities such as municipal councils—and between service providers overall and users

- A highly informal and largely unregulated water supply system for both boreholes and push carts, thus leading to low levels of transparency and high costs for water provision. Relations between the main actors are largely governed by verbal rules. In addition, service is informal and based on a system of 'pay as you fetch' from the boreholes and 'pay on delivery' from the 'push carts' limiting access to water services for those without resources.

The absence of codes of conduct and sanctions mechanisms

- As a follow up to these assessments, TI-Kenya in collaboration with various partners devised strategies and interventions to respond to the governance risks identified. The implementation process is ongoing but key areas of engagement include[18]:

- facilitating community organizing on issues of water and sanitation (and in particular regarding the establishment of water resources users' associations);

- promoting association for unregulated service providers—e.g., the boreholes and push carts associations;

- engaging with and strengthening capacity of duty bearers including the Ministry of Water and water service providers both formal (e.g., water boards) and informal providers. Training is ongoing for service providers and duty bearers at all levels, and up to seven water Boards across the country are to be trained in governance issues;

- facilitating stakeholders to partner with users to set up standardized tariffs and codes of conduct; and

- promoting dialogue between communities and service providers.

Emerging results include increased awareness and empowerment of stakeholders, including both the rights holders (users) and the duty bearers/service providers; increased dialogue among all stakeholders; and an increase in complaints and illegal connections reported to the service providers. Stakeholders are also being facilitated to establish development pacts to highlight the rights and obligations of various actors, including users, as a means of enhancing transparency and minimizing governance risks.

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18   Information based on interview with Sareen Malik, a TI-Kenya programme officer, on 7 February 2011; and from TI-Kenya literature on the Mombasa assessments.

Lessons learned

The project implementation process is still ongoing, but TI-Kenya has already identified the following lessons as critical for ensuring successful implementation of water governance reforms:

- Involve government officials/ duty bearers from the outset of the project so as to enhance understanding and appreciation of the project objectives and ensure buy-in. This is key to ensuring follow up and implementation of recommendations, especially since government is the primary duty bearer charged with meeting the MDG targets on water. In Kisumu, the directors of the water board have been the champions of reform because they were engaged right from the start.

- Communities should be encouraged to develop home-grown solutions. This means that facilitating organizations should not impose their own solutions or those that have been developed elsewhere.

- Support must be rendered to both users as rights holders and to service providers as duty bearers. Training programmes can help ensure that the capacity of duty bearers is enhanced to respond to complaints in a timely and effective manner.

- A holistic approach should be taken to ensure that reforms are sustainable. For instance, the need to protect whistleblowers has arisen as a result of increased reporting of illegal connections; as a result, there is need to engage other stakeholders outside the water sector to ensure that these issues are taken into consideration.

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World Bank Edwin Huffman

3. Zambia Case Study: Increased Voice in the Water Supply and Sanitation Sector through 'Water Watch' Groups

3.1 Introduction

In Zambia, urban and rural access coverage for improved water supply and sanitation (WSS) has increased overall since 1990. The 2000 census reported that some 40 percent of the rural population had access to safe drinking water sources and less than 5 percent of the rural population had access to a ventilated improved pit (VIP) latrine (though about 65 percent were covered when all types of latrines were considered). Currently, water supply and sanitation in Zambia is characterized by wide discrepancies in access to an improved water source (90 percent) urban) and (40 percent rural), as well as limited service quality in urban areas (WHO/UNICEF Joint Monitoring Programme, 2004). Current estimates place access to improved water source in urban areas at approximate 58 percent, though rates were much lower among slum-dwellers and in poorer neighbourhoods.

3.2 Zambia water sector framework[19]

A national collaborative process between Zambia's WSS sector stakeholders in the early 1990s culminated in the adoption of a National Water Policy in 1994 and the Water Supply and Sanitation Act of 1997. Under the policy and the act, implementation strategies were prepared for improving services in both the urban and rural WSS sub-sectors. Considerable focus was placed on devolving the authority to provide WSS services from the central government to local authorities.

To ensure cost recovery, most local authorities in urban areas created commercial utilities to provide services. A total of 50 such utilities were formed by local authorities, some of which have subsequently merged. About 20 local authorities still provide water and sanitation services through their works departments; these authorities have a particularly bad service record, with coverage levels actually declining.

As part of efforts to achieve the MDGs, the Zambian government has implemented progressive policies and strategies such as the Water, Sanitation, and Health Education (WASHE) concept in rural areas to better incorporate affected populations into system planning and development and thus to improve the delivery of WSS services. However, these progressive strategies have been marginalized as government funding in the sector continues to be low despite the adoption of the 2005 National Rural Water Supply and Sanitation Program (NRWSSP) for the rural sub-sector. The reform process has been slow and has only partially achieved its objectives because investment levels (at US$42 billion FY 2009/10) remain at only a fraction of what is needed while escalating corruption continues to thwart efforts to achieve the MDGs. As a result, Zambia is still unlikely to meet its MDG targets in water and sanitation.

3.3 Status of corruption in the water sector

Zambia's water sector has been the target of corruption scandals in the recent past. Two examples[20] include the national rural and urban water supply programme, which funded the drilling of boreholes for rural communities. According to the Zambian Anti-Corruption Commission a big percentage of the boreholes were installed on government officials' private plots.

Another high profile case that has been cited is one involving irregularities in awarding contracts in a multi-million government tender to drill boreholes to supply water at two public universities, the University of Zambia and Copperbelt University. Weak legislation and procurement systems and unregulated public private-sector contracting are some of the reasons given for the current state of affairs.

Institutional weaknesses and inefficiencies, e.g., in the collection of water payments, have also created loopholes that have been exploited leading to high levels of non- payment and high costs of recovery (NWASCO 2008).

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19   http://waterwiki.net/images/3/38/USAIDZambiaWatSanProfile.pdf
20   Kaunda, D., 'Corruption in water sector makes clean water a piped dream'. Posted online at IPS, 20 February 2009: http://ipsnews.net/africa/nota.asp?idnews=45834.

3.3. Strategies to fight corruption in the water sector in Zambia

Robust commitments to sector policies, increased financing for water and sanitation infrastructure, better coordination among stakeholders and reducing corruption in the water sector are critical to surpassing current coverage rates. Civil society organizations have called for transparent budgeting and participatory policy making and access to contract terms and performance reports.

The National Water Supply and Sanitation Council (NWASCO), an independent regulator for water and sanitation established by the 1997 Water Act, provides some type of a model for WSS regulation in the region with the use of regulatory scorecards, 'water watch' groups of consumers and other regulatory tools. Because local authorities have a particularly bad service record, most governments in urban areas have created commercial utilities to provide services and ensure better cost recovery in collaboration with water watch groups (WWGs) formed by communities to act as "eyes of the regulator and the voice of the voiceless".[21]

3.4. Water watch groups: community monitoring as a tool to improve services

3.4.1. Background

Consumer representation and protection in a commercialized monopolistic environment is a critical requirement, particularly in a situation where the services involved are basic human needs like water and sanitation. Following the reorganization of the water supply and sanitation sector in Zambia, where service provision had been decentralized to the local level and commercialized, it became imperative to keep a watchful eye on the service providers. WWGs—voluntary consumers groups— were established and supported by NWASCO to give water consumers a voice. Currently, a total of 12 WWGs have been established[22].

The creation of WWGs stemmed from NWASCO's need to have its presence on the ground felt without incurring substantial additional costs. Guidelines for service providers on how to meet service delivery standards were developed and NWASCO receives regular reports from service providers and verifies them during inspections. Through WWGs, NWASCO also receives reports on customers' perception as to the quality of service they are getting and how their complaints are being attended to[23].

According to NAWSCO[24], the main objective of WWGs is to represent consumer interests in the water and sanitation sector through:

- improved communication between consumers and providers;

- creating awareness among consumers of their rights and responsibilities as well as the role and functions of NWASCO;

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21   NWASCO, (2008), 'Water watch groups: involving consumers in monitoring water supply and sanitation in Zambia' (online: www. nwasco.org.zm/media/water_watch_groups.pdf), and USAID Zambia: Water and Sanitation Profile (online: http://waterwiki.net/images/3/38/USAIDZambiaWatSanProfile.pdf).

22   As cited on the NWASCO website at www.nwasco.org.zm/involving_consumers.php (accessed 16 October 2011).

23   NWASCO Annual Report, 2008.

24   NWASCO (2008), 'Water watch groups: involving consumers in monitoring water supply and sanitation in Zambia', Online: www. nwasco.org.zm/media/water_watch_groups.pdf..

- giving sufficient feedback on public opinion to NWASCO; and

- supporting improved quality of service, particularly by speeding up the resolution of consumer complaints.

WWGs are expected to gather adequate information to enable NWASCO to adjust regulation and procedures according to the requirements of the sector and situation on the ground.

3.4.2. Setting up and operationalizing WWGs

The process of setting up and operationalizing WWGs is critical to their success. To date, this process has largely been participatory and seeks to ensure transparency, objectivity and wide representation. WWG members are appointed in their personal capacity based on skill, experience, background and not as representatives of any particular interest group, especially political parties. Volunteers are recruited through advertisements in the print and electronic media. Interested candidates apply for membership and are interviewed; a total of between six and nine are eventually selected. Membership is drawn from all sections of the water-consuming public, but NWASCO takes into account salient factors such as knowledge of water supply and sanitation matters and professional mix of a group. WWG members are recruited for a period of one year and sign a memorandum of understanding with NWASCO, which issues identity cards and formally introduces members to the management of the commercial utility in the applicable service area. The service provider in turn is required to name a senior employee as a contact person who is authorized to deal with all issues brought forward by a respective WWG and has to be available whenever necessary[25].

The WWG and the provider jointly devise a schedule of meetings to handle complaints. WWGs often invite area managers from providers to public awareness meetings to respond to questions related to the water providers from the consumers. The service provider has to display contact details of WWGs in all pay stations and offices to which customers have access.

WWGs are supported through professional training so as to enable them undertake their tasks. Training is provided in understanding the legal framework, the performance requirements expected of providers and other basic administrative matters such as complaints record keeping, reporting, understanding a water bill; etc. Where members of WWGs are not performing well, there are clear documented mechanisms for their removal from service.

3.4.3. Functions of WWGs

WWGs seek to represent the interests of the consumers in the water and sanitation sector and also provide a link to service providers. They provide an oversight role and have also been used to create public awareness and sensitize the communities on their rights and obligations. The risk of corruption is reduced where transparency is increased and communities are sensitized and empowered to demand for their rights. In this regard, WWGs have played a key role in educating the consumers and collecting information on the performance of providers for onward transmission to NWASCO. This enables NWASCO to take informed decisions and respond to the needs of the communities.

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25   Ibid.

Table 1. Main functions of WWGs

- Represent the interests of consumers in the WSS sector
- Follow up unresolved consumer complaints
- Improve communication between consumers and providers
- Arbitrate in conflicts between consumers and service providers
- Sensitise consumers (especially the poor) on their rights and obligations
- Educate consumers on the role and functions of NWASCO
- Collect information on performance of providers
- Inform NWASCO on effectiveness of the regulations and propose possible adjustments
- Create public awareness of WWGs, including through public meetings, seminars, exhibitions, etc.

Source: NWASCO (2008), 'Water watch groups: involving consumers in monitoring water supply and sanitation in Zambia'. Online: www.nwasco.org.zm/media/water_watch_groups.pdf.

In undertaking their roles, WWGs engage in outreach and publicity programmes via sensitization meetings, TV and radio broadcasts, and media forums; hold public meetings with consumers to review/validate complaints; train and orient new WWGs; and submit periodic reports to NWASCO, including feedback from consumers.

NWASCO has developed formats and criteria to support WWGs in their work including the use of a service level guarantee document to measure the performance of providers. Some of the aspects of service provision that are measured include the billing for services, unjustified disconnections and the quality of water.

3.4.4 Risks and challenges

WWGs have not been without challenges. While numerous people are willing to serve as volunteers, their motivation to volunteer in large numbers sometimes stems from the perception that they will receive big allowances. The major challenge therefore has been to correct the impression that serving on a WWG is done on a voluntary basis, and is for the good of all water users.

Also, the cost of setting up and operating a single WWG is high. Although members serve on a voluntary basis, it costs about US$4,500 to establish a single WWG and about US$750 to run it for three months without counting materials used in office work and publicity which NWASCO provides[26].

In addition, at first service providers viewed WWGs with apprehension and suspicion, believing them to be opponents and watchdogs whose aim was to frustrate providers' efforts. However, such

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26   NWASCO (2008), 'Water watch groups: involving consumers in monitoring water supply and sanitation in Zambia'. Online: www.nwasco.org.zm/media/water_watch_groups.pdf.

suspicions have dwindled due to increased interaction and communication, including regarding the fact that WWGs should be seen instead as partners and arbitrators with consumers.

3.4.5 Achievements of WWGs

Some of the key challenges and corrupt practices in the water sector in Zambia stem from institutional weaknesses and inefficiencies—e.g., in the collection of water payments—that have been often exploited, thereby leading to high levels of non-payment and high costs of recovery. From the NWASCO reports regarding the impact of WWGs, it is clear that the level of complaints has declined and those that come in are resolved expeditiously. Consumer knowledge of WSS issues has improved through education and empowerment on rights and obligations, and consumers are increasingly willing to pay their bills. In summary, enhancing consumer voice and oversight through the WWGs has resulted in some of the tangible benefits below:

- In FY 2004/2005 WWGs received and handled more than 50,000 complaints, a number reduced to 298 during FY 2007/08 as a result of increased public awareness. Of the 298 complaints, 193 were resolved through the WWG mechanism while the rest required significant resources from the water utilities.

- Providers have started resolving customer complaints expeditiously.

- There is a clear change of attitude by commercial utilities towards customers.

- Consumer knowledge of WSS issues has improved through education and empowerment on rights and obligations.

- Consumers have exhibited improved behavioural change—e.g., willingness to pay and fewer incidences of vandalism.

- The Lusaka WWG facilitated the setting up of a Lusaka Water and Sewerage Company Office.

- The Kasama WWG quelled planned protests in Kasama over lack of public consultations before implementing a new tariff.

- WWGs are increasingly being recognized both locally and internationally, hence their participation in local and international fora.

3.4.6 Lessons identified

A positive step taken in fighting corruption in the water sector is in having users represented on the boards of service providers or having increased voice in management and decision making in water

issues. WWGs must be able to operate freely so as to access and share quality information among stakeholders, and they must be accountable to users.

In Zambia, WWGs have been accepted by both consumers and providers as vital entities that seek to ensure standards of service are adhered to and consumers enjoy quality service. In addition, service providers now look at WWGs as an important interface between consumers and regulators that help utilities understand consumer needs better.

People in towns where there are no WWGs are requesting their formation. However, NWASCO has been cautious regarding expansion due to the time and resource demands of monitoring them as well as the cost involved.

Because of the success of the WWG concept and the effectiveness of the groups' work, two local utility regulators want to replicate the concept. The Energy Regulation Board (ERB) and the Communication Authority of Zambia (CAZ), respective regulators of the energy and telecommunications sectors, are collaborating with NWASCO to share best practices[27].

Some of the key lessons learned include the following:

- Consumer involvement is key to the success of water sector reforms. However members of WWGs must be committed, focused, and operate under clear objectives. They also must be given a platform to air their views and share their findings.

- The volunteer concept has proved to be an excellent tool for reinforcing consumer protection. However, WWG activities have to be adequately funded to ensure sustainability.

- WWGs have to be accountable to both the users and the service provider and there must be clear mechanisms for their appointment, and removal from service

- It is important to integrate health messages into WSS programmes in order to have a holistic approach.

- It is essential to pay specific attention to low income urban areas and informal settlements where the quality of service provision usually lags behind.

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