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# DETERRING CORRUPTION AND IMPROVING GOVERNANCE IN THE URBAN WATER SUPPLY & SANITATION SECTOR

## A SOURCEBOOK

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## PREFACE

In 1996, then World Bank President James Wolfensohn appealed to the international development community to fight the “cancer of corruption”, bringing corruption to the fore of the World Bank’s agenda. A year later, in 1997, the Executive Board endorsed the paper *Helping Countries Combat Corruption: the Role of the World Bank*, which “fundamentally reformed the way the World Bank thinks about and acts against corruption”, and set policies for how the World Bank would tackle corruption.

In March 2007, the Executive Board unanimously endorsed a new strategy and set of policies to improve governance and fight corruption: *Strengthening World Bank Group Engagement on Governance and Corruption*. The strategy essentially confirmed the 1997 commitment to fight corruption, but with an important difference in emphasis: “reducing corruption by strengthening governance” rather than simply “stopping corruption”.

Six months later, in September 2007, the World Bank finalized the *Implementation Plan* for the strategy. A key element of the *Implementation Plan* is to develop sector-level diagnostics and interventions, specifically signaling the need to “mainstream governance and anticorruption [activities] in sectors ... where opportunities for interventions are often more immediate”.

This Sourcebook is part of a broader program of work on governance and corruption in the water supply and sanitation sector. The Sourcebook is meant as a resource to assist water and sanitation sector practitioners to assess the extent and risks of corruption in the sector and to improve governance in ways that reduce corruption. As this is an emerging field, the sourcebook is not intended to be a manual, nor a set of directives but rather to organize and illustrate approaches and tools which sector practitioners may find useful.

The work program on governance and corruption of which these sourcebooks are a part includes an extensive database of academic and operational literature on governance and anti-corruption, a review of global knowledge and of World Bank practice that was presented and reviewed by sector and governance specialists.

## ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
APC	Aguas de Puerto Cortés
BEEPS	Business Environment and Enterprise Performance Survey
CAS	Country Assistance Strategy
CoST	Construction Sector Transparency Initiative
CPI	Corruption Perception Index
CPIA	Country Policy and Institutional Assessment
CRC	Citizen Report Card
DFID	Department for International Development
DIR	Detailed Implementation Review
EBRD	European Bank for Reconstruction and Development
IBNET	International Benchmarking Network for Water and Sanitation Utilities
IDA	International Development Association
IDB	Inter-American Development Bank
INT	Department of Institutional Integrity
IT	Information Technology
KDP	Kecamatan Development Project
MDB	Multilateral Development Bank
NGO	Non-governmental organization
NRW	Non-revenue water
NWC	National Water Commission
PACS	Project Anti-Corruption System
PIP	Performance Improvement Plan
PMU	Project Management Unit
PSP	Private sector participation
QSDS	Quantitative Service Delivery Survey
SABESP	Companhia de Saneamento Básico do Estado de São Paulo
Water sector	Combined water and sanitation sector
WSP	Water and Sanitation Program

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# 1 INTRODUCTION

*The city is parched. In the slums and squatter settlements, women schedule their lives around the two hours a day that water trickles from the low taps near their one-room dwellings. Others less fortunate buy water from men with tanks on handcarts. The men fill their tanks at a broken main a mile away. No matter where the water comes from, all is contaminated by the sewage that percolates through the ground into the broken water pipes. The septic tanks of the middle classes contaminate the groundwater, while in the squatter settlements on the edge of town, a private place to defecate is almost impossible to find. Flies swarm the exposed faeces, then land on food in the makeshift kitchens of the shacks nearby.*

*In the better parts of town, residents have constructed elaborate systems of underground tanks to store water, overhead tanks for pressure, suction pumps to draw the scarce water from the utility's pipes, boreholes, tankers, and second, illegal connections in the struggle to get enough water. Five star hotels have water trucked in. The tanker drivers charge a hefty price for their valuable product, yet fill their tankers from the utility's systems for free. The Government has borrowed hundreds of millions of dollars from the World Bank and others over the years, which it lent to the utility to build massive treatment works and transmission lines to bring water to the thirsty city. The utility never serviced any of these loans, so now they burden the taxpayers of the country. Still the city thirsts.*

*Why? Could it be because the utility staff, paid a pittance and ill equipped for their formal job, supplement their income by providing water for free through illegal connections, fix meters, and omit billing data? Is it because the city councilors take a 10 percent cut of all the construction contracts awarded, and the contractors make their money back by using shoddy materials and workmanship that leaks and decays quickly? Perhaps the men who own the tanker fleets finance the campaigns of leading politicians, who quietly sabotage attempts to make the utility work properly, since this would take away the tanker drivers' business?*

Water and sanitation providers fail to serve citizens for many reasons. The ultimate cause is poor governance at the utility, sector, and government levels. Corruption is among the serious symptoms of poor governance—corrosive in its effects, causing more harm in waste and bad decisions than even the money that changes hands as bribes and kickbacks would suggest. This Sourcebook aims to help sector practitioners to:

- Assess the extent and risk of corruption in sectors in which they work
- Improve governance in ways that will reduce corruption.

## 1.1 What's in the Sourcebook

This Sourcebook is in four parts:

- Section 2 is about **understanding** corruption. What is it, what sustains it, how does it relate to governance, and how might it be reduced?
- Part I is about **assessing the risks**, extent, and locales of corruption in a particular country
- Part II turns to ways to **reduce corruption by improving governance**
- Part III is about **monitoring and evaluating** measures implemented to improve governance, to allow learning from experience.

In each section, corruption and governance are considered at three levels:

- **The sector** – who does what, how are decisions made, and how can citizens hold government and providers accountable?
- **The provider** – how is the service operated and maintained, and how are bills issued and collected?
- **Capital projects** – these are the largest expenditure item in the sector, and a traditional focus for governance and corruption concerns.

This Sourcebook is about urban water and sanitation services. In most cities, water would be most efficiently provided through a piped system, and piped systems are the focus of the Sourcebook. Informal providers, tankers, and the like are considered primarily as an indicator of failure of the formal utility and sometimes are a channel for profit by corrupt officials (this is not because small and informal providers are inherently bad, but just because they generally only become a venue for corruption where they interact with government or the formal utility).

### **1.1.1 What's not in this sourcebook**

This sourcebook focuses exclusively on network providers in the urban water and sanitation sector—the “water sector” for short. Of course, this doesn’t mean that small-scale, informal providers working in urban areas or providers in rural areas are not important, or do not face corruption problems. Over time, and as knowledge and experience increases, the World Bank will also develop guidance for dealing with corruption and governance for these kinds of providers.

## **1.2 How to Use the Sourcebook**

Table 1.1 below gives some examples of how best to use it in various circumstances.

This Sourcebook is as a set of modules within a coherent framework. Part II on assessing corruption risk, and Part III on reducing corruption, are divided into modules on particular topics of interest to practitioners engaged in program design and implementation. Section 2 provides the framework that shows how component parts interrelate, and will be most useful to those with a remit or influence that extends to overall sector development.

## **1.3 A Sourcebook, not a Toolkit**

This is a Sourcebook. It is not a Toolkit setting out how to approach everything, it is not a Cookbook with a collection of recipes for every occasion, and it is not a Best Practice Manual. The state of knowledge in this area is not well enough developed yet to prescribe best practices—and in any case, good practice is always context dependent, rarely universal.

As a Sourcebook, it aims to explain and illustrate approaches and instruments and how they can fit together, and refers the reader to more in-depth material that may be helpful. More than an annotated reading guide, it is nevertheless a starting point, not the end point, for a practitioner to understand how to reduce corruption and improve governance in the urban water supply and sanitation sector.

It would be a mistake for anyone to imagine that “I must do what it says in here”. The specific approaches and instruments in the sourcebook are suggestions. Practitioners need to develop their own, context-specific strategies for improving governance and reducing corruption.

The only firm guidance this Sourcebook would give is that such a process should follow the three basic steps of:

1. Assessing the extent of corruption problems in the sectors and providers they are working with
2. Analyzing the likely causes of those problems, including the incentive structures and political economy that sustains them
3. Developing a strategy to ensure that their engagement contributes to increased probity in the sector, and is not itself easily susceptible to corruption.

**Table 1.1 How to Use the Sourcebook**

<i>If you are ...</i>	<i>... then read</i>
Understanding what causes and sustains corruption	Section 2
Assessing the risk that corruption is undermining water sector performance	Part I
Advising on reforms in sector governance, provider management, and capital project selection and implementation	Part II
Preparing a Country Assistance Strategy	Section 2 and certain parts of Part I
Working on a project with a provider	Sections 5 and 9. Ideally, you would also read Sections 2 and 10
Advising on a capital works project	Sections 6 and 8. Bearing in mind that sustainable improvements may require changes in governance, ideally you would read Section 10 as well
Diagnosing strengths and weaknesses in sector governance, against the framework described in Section 2.	Section 4
Mapping corruption risks in the water and sanitation sector	Section 4.6
Concerned that the material and ideas presented will not be relevant to your situation because of the unusual sector structure, level of capacity, or provider ownerships arrangements	Sections 10 and 11
Advising on reducing corruption risks in capital works	Section 8
Advising on installing quality processes that increase the integrity of a provider's operation	Section 9
Advising on regulatory and accountability systems	Section 10
Addressing governance weaknesses identified in the sector strategy, by supporting the provision of information, public participation in decision making, strengthening performance agreements, creating effective and accountable monitoring units, and giving utility managers autonomy and incentives to perform	Sections 10.2 and 10.3
Advising on ways to strengthen provider autonomy and incentives, for instance through corporatization, cooperative ownership of utilities, or where feasible private participation	Section 10.3.2
Identifying improvements in governance, reductions in corruption, and indicators and methodologies for monitoring progress, committing to mechanisms for monitoring progress, evaluating what works and what doesn't, and acting on the lessons learned	Section 12.2 to 12.5

## 2 UNDERSTANDING CORRUPTION AND GOVERNANCE

Studies have found that corruption is pervasive in the water sector, and has significant costs. It has even been estimated that if water utilities were operating in corruption-free environments, costs could be reduced by 64 percent.<sup>1</sup> Clearly, developing effective strategies to reduce corruption is important.

An effective strategy for detecting and deterring corruption must be built on a solid understanding of what it involves, why it takes place, and how improvements in governance can reduce corruption. This section aims to help practitioners develop such an understanding by presenting a framework for thinking about corruption in the water and sanitation sector. It defines corruption and discusses the factors that influence its incidence and that perpetuate a corrupt equilibrium. Finally, the framework indicates how corruption can be reduced through targeted actions to improve governance.

### 2.1 Definition of Corruption

Corruption means different things to different people. Examples of definitions used by leading institutions and academics are summarized in Table 2.1.

This Sourcebook adopts the World Bank definition: “*Corruption is the abuse of public funds and/or of office for private or political gain*”.

In this definition, “abuse” of office can be taken as equivalent to breaking the written or unwritten rules of how the powers of public office should be exercised. This emphasis on “rule-breaking” is intended to provide a bright line that distinguishes corruption from other kinds of poor governance. For example, corruption (a form of poor governance which involves rule-breaking, and which country governments generally agree should not be tolerated) is clearly distinct from interest group and pork-barrel politics (forms of poor governance which do not generally involve rule-breaking, and may be tolerated in many countries).

The Sourcebook further distinguishes between two kinds of corruption: “personal” and “campaign finance”. **Personal corruption** is behavior on the part of officials in the public sector<sup>2</sup> in which they im-

**Table 2.1 Definitions of Corruption**

Asian Development Bank	Abuse of public or private office for personal gain.
Leys (1965)	Behavior that breaks some rule, written or unwritten, about the proper purpose to which a public office/institution has been put.
Transparency International	Corruption involves behavior on the part of officials in the public sector, whether politician or civil servants, in which they improperly and unlawfully enrich themselves, or those close to them, by the misuse of the public power entrusted to them.
World Bank	Corruption is the abuse of public funds and/or office for private or political gain.

<sup>1</sup> Estache, A., and Kouassi E., (2002). Sector Organization, Governance, and the Inefficiency of African Water Utilities. Policy Research Working Paper 2890 World Bank.

<sup>2</sup> The abuse of funds in the private sector is not corruption, unless it also involves rule-breaking by a public official. Employees of private corporations may also steal company funds or abuse their position—this is wrong, but not corruption by our definition.

properly and unlawfully enrich themselves or those close to them (or both), or induce others to do so, by misusing the position in which they are placed. **Campaign finance corruption** is the abuse of public funds or public office (or both) for political party financial gain.

### **Related concepts: probity and good governance**

When thinking about corruption, it helps to focus not just on the “negative” behavior that needs to be deterred and reduced, but also on the positive behavior that needs to be encouraged and increased. This means it is important to define the “opposite” of corruption.

Useful antonyms for corruption are **probity** and **integrity**—in other words, honest, proper, fair, and ethical conduct. As Box 2.1 explains, once practitioners have identified that corruption exists and needs to be addressed, there are important “marketing” benefits to using a strategy that focuses on probity improvements. Accordingly, Sections 8 to 10 of this Sourcebook focus on improving probity and integrity.

A similar, but broader concept to probity is good governance. Good governance can be defined as the presence of:

- General adherence to rule of law
- Transparency, predictability, and accountability in government decision making
- Decision-making that consistently achieves effective and efficient outcomes for society
- Decision-making processes that consistently allow for public participation, responsiveness, consensus orientation, equity, and inclusiveness.

Box 2.2 lists some definitions of governance from the literature. Obviously, achieving good governance will solve more problems than just corruption. However, it is still a central concept for any anti-corruption effort, as improvements in governance will usually promote probity.

### **Box 2.1 Focusing on Probity**

Using the term “pro-probity” in place of the term “anti-corruption” has two important benefits:

**It highlights a positive attribute to aspire to**, rather than an unsavory act to avoid. Government officials may feel more confident in supporting “pro-probity” measures than “anti-corruption” activities, as the latter implies the existence of corruption. For example, many government and international institutions have chosen to institute a “probity unit” or “integrity division”; fewer have an “anti-corruption team”.

Similarly, Vittal (2002) explains that the use of the term “probity perception index” was important in his work in India, because:

*...there was a feeling of hesitation that openly branding and listing government organisations, banks and public sector undertakings under the corruption perception index would have a counterproductive effect. It may demoralise public servants...It was therefore decided not to use the word ‘corruption’ but look at the positive side and call the index as the probity perception index.<sup>3</sup>*

Although corruption is—and should be—widely recognized as a problem, it is still a politically sensitive topic

**It helps shift the focus from an absolute elimination of corruption to a gradual improvement of probity.** This is important from a political economy perspective. Taking a strong anti-corruption stance is often interpreted as zero-tolerance for corruption (that is, success will be attained when the system is no longer corrupt); this is admirable, but not practical in the context of deeply institutionalized corruption. Taking a pro-probity stance provides a more reasonable yard-stick for measuring progress—success will be attained if continuous and incremental improvements in probity are made.

<sup>3</sup> Extract from speech delivered at Probity Perception Index Seminar by N. Vittal, Kolkata, 2002.

## Box 2.2 Governance in the Literature

Governance has been defined as:

*"The people, policies and processes that provide the framework within which managers make decisions and take actions to optimize outcomes related to their spheres of responsibility"* (Australia Government Department of Finance and Administration-website)

*"The exercise of political, economic and administrative authority in the management of a country's affairs at all levels...a neutral concept comprising the complex mechanisms, processes, relationships and institutions through which citizens and groups articulate their interests, exercise their rights and obligations and mediate their differences"* (World Health Organization, based on UNDP definition)

*"The process by which stakeholders articulate their interests, their input is absorbed, decisions are taken and implemented, and decision-makers are held accountable"* (Bakker, 2003)

*"The extent to which governments are responsive to citizens and provide them with certain core services, such as secure property rights and, more generally, the rule of law; and the extent to which the institutions and processes of government give government decision makers an incentive to be responsive to citizens."* (Keefer, 2004)

## 2.2 Dynamics of Corruption

The conclusion that "corruption is bad" has led many governments, advocacy groups, and international agencies to dedicate substantial resources to identifying, and deterring, corruption. However, a focus on addressing the causes of corruption has often been lacking.

Understanding the factors that perpetuate corruption is critical for formulating an approach to reducing it. Infrastructure sectors, including urban water supply and sanitation, have natural monopoly characteristics. These monopolistic characteristics, together with government willingness to provide tax-payer funding and government powers to essential services, create a "supply of value" available for appropriation. This supply of value leads to corruption when it interacts with a social "demand" to wrongfully extract that value for private or political purposes. This interaction between supply and demand is illustrated in Figure 2.1.

### **Supply of value**

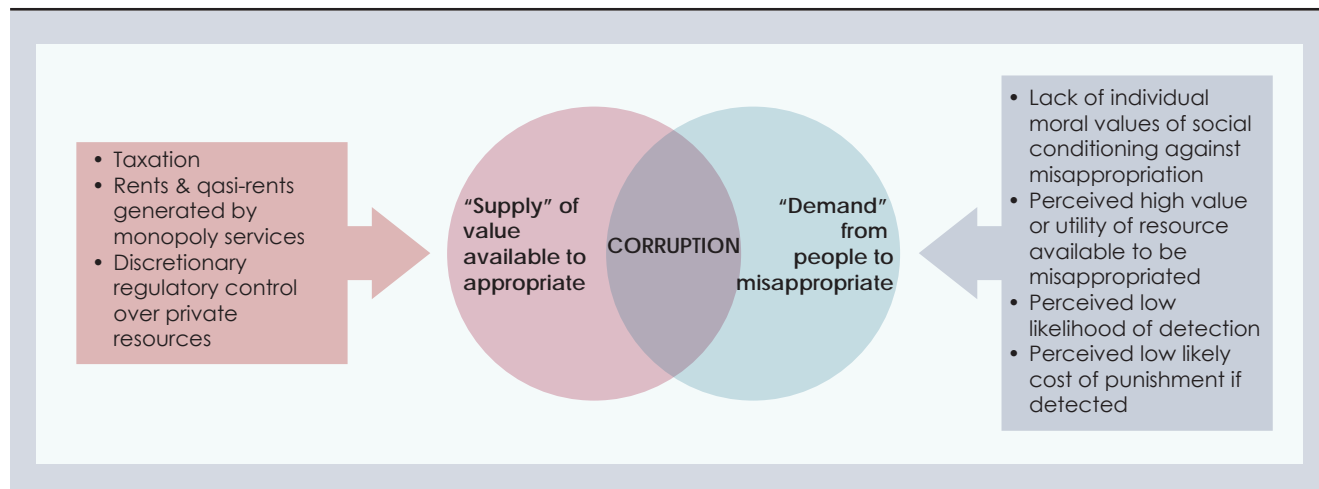
As Figure 2.1 indicates, valuable resources can flow into public sector control through taxation, the rents and quasi-rents that monopoly services such as water utilities can generate, and discretionary regulatory control over private resources. This creates a supply of appropriable value.

The water sector has a significant supply of such value—and is more prone to corruption—because:

- **People value water services highly.** This means that people are willing to pay often quite significant amounts for these services, so there is a large consumer surplus that water officials can potentially transfer to themselves (especially if there is little competition to supply these services—see discussion of natural monopoly below). For instance, a water tariff might be US\$0.50 per cubic meter, but people will value water at US\$1.20 per cubic meter. This leads to a consumer surplus of US\$0.70. Officials can corruptly extract the net present value of this consumer surplus by, say, requiring a bribe before supplying a water connection. Similarly, consumer demand will remain relatively constant even if providers allow the quality of service to deteriorate markedly while tariffs remain fixed
- **Piped water supply is a natural monopoly.** Because they are monopolies, urban piped water providers are not forced by competition to lower their costs or prices. In more developed



Figure 2.1 Understanding Causes of Corruption



countries, providers may use their position of natural monopoly to extract rent from consumers, earning above-normal levels of profits. In less developed countries, however, providers seldom operate with high levels of profits. Instead, such providers may be extracting rents through their inefficiently high costs, including inefficiently high prices paid to contractors or high levels of inventory loss and unaccounted for water. In other words, inflated contract prices provide kickbacks to staff, and the costs are passed on to customers and taxpayers. The cost of theft or non-delivery of services are passed on likewise. Lack of competition means customers have no choice but to pay the costs that are inflated by corruption, either directly, or as taxpayers funding the losses corrupt utilities incur

- **Water is a politically sensitive sector.** This means that politicians may often hold down prices for these services to “affordable” levels (it can be politically dangerous to allow tariffs for essential services to rise). Often, the utility is only able to recover its operating costs. However, when the utility requires new investments to allow it to continue operating, the government has little choice but to provide funding. As a result, the supply of value available to appropriate expands from money paid by customers to include money collected in taxes to fund the budget—an even larger pool of expropriable resources.

Thus the water sector has a considerable supply of value available for appropriation.

**Demand for value**

Having a supply of value to misappropriate is not enough to prompt corrupt behavior—there must also be people who want to misappropriate this value. People are more likely to try to wrongly appropriate this value if:

- They believe that the benefits of corruption outweigh the costs. This entails that:
  - They highly value the resource available to be stolen
  - They believe they are unlikely to be detected
  - They believe that the likely cost of punishment if detected is low.
- There are few individual moral values (or little social conditioning) against such appropriation.

Corruption often involves a “moral slippery slope”—if a person breaks a rule once, she or he finds it less morally difficult to break the rule again. The initial rule-breaking may be stimulated by a sense of need (such as particularly low salaries, which make the benefits of corruption particularly high), or greed (desire to accumulate more and more wealth and power), while later rule-breaking may be reinforced by the development of cultural norms—if others are corrupt, then the potential costs of corruption are low for an individual, whereas the cost of honesty may be high).

Obviously, these conditions of “demand” are likely to vary significantly from country to country, even where the conditions of “supply” within each country water sector are similar.

### **2.3 Persistence of Corruption**

The simple “supply meets demand” explanation of corruption’s causes, presented above, seems to suggest equally simple solutions. These simple solutions could include:

- Reducing the supply of value available to be misappropriated by reducing the resources and powers of the public sector to a necessary minimum
- Reducing the demand to misappropriate value by
  - Developing stronger social mores against corruption
  - Increasing the likelihood that misappropriation of resources will be detected
  - Increasing the severity of punishment when such misappropriation is detected.

Although each of these approaches can be effective in certain contexts, stopping corruption is seldom easy. There are at least three factors that make corruption difficult to stop, namely:

1. The benefits of corruption are typically concentrated on relatively few, while the costs of corruption are spread across many. This means that those who benefit from corruption have a powerful interest in perpetuating it, while each individual who suffers from corruption will rationally (because their individual suffering is small) invest little in fighting corruption
2. Corruption flows from the powers of public office. It follows that those who benefit from corruption are often among the most powerful, while those who suffer from it are typically less powerful
3. Corruption can take many forms, most of them difficult to detect. So any move to reduce corruption can often be circumvented by those who benefit, and this circumvention may go unnoticed by the reformers fighting corruption.

Thus, practitioners need to understand the practical difficulties of applying theoretically-sound “solutions” to corruption. Countries with high levels of corruption are often at a stable (corrupt) equilibrium that has evolved over time. Such equilibrium will be supported by power relations and social context as well as economic incentives. To move from this corrupt equilibrium to an equilibrium in which less corrupt behavior is the norm, practitioners and country governments need to identify points in the system where it is possible to make sustainable changes.

### **2.4 To Reduce Corruption, Improve Governance**

A review of the history of anti-corruption efforts shows that many externally imposed solutions are not sustainable. For example, donor-imposed rules on procurement, accounting, and auditing may be effective in increasing probity and integrity during the period that the donor is monitoring compliance, but often fall into abeyance once donor-leverage and scrutiny is removed. Similarly, such rules may be applied to donor resources in a specific project; but because these donor resources constitute only a small share of total sector resources, the project-specific rules do little to ensure good financial management at the sector level (that is, throughout the sector and beyond the project boundaries).

While a temporary increase in integrity may be better than nothing, the goal is to establish systems that sustain integrity and probity. This means that reformers must consider the forces that make a governance system stable or shift it from one state to another.

The fact that water is a service with monopolistic characteristics and great social importance is at the heart of governance problems in the sector. In markets for normal goods and services, competition makes providers directly accountable to customers. If a baker offers poor quality bread, most people will switch to another baker. If a vegetable supplier over charges, customers will seek out another, more reasonably priced supplier. Customers choose between competing suppliers, and in this way ensure that all suppliers either provide good service at efficient cost, or go out of business.

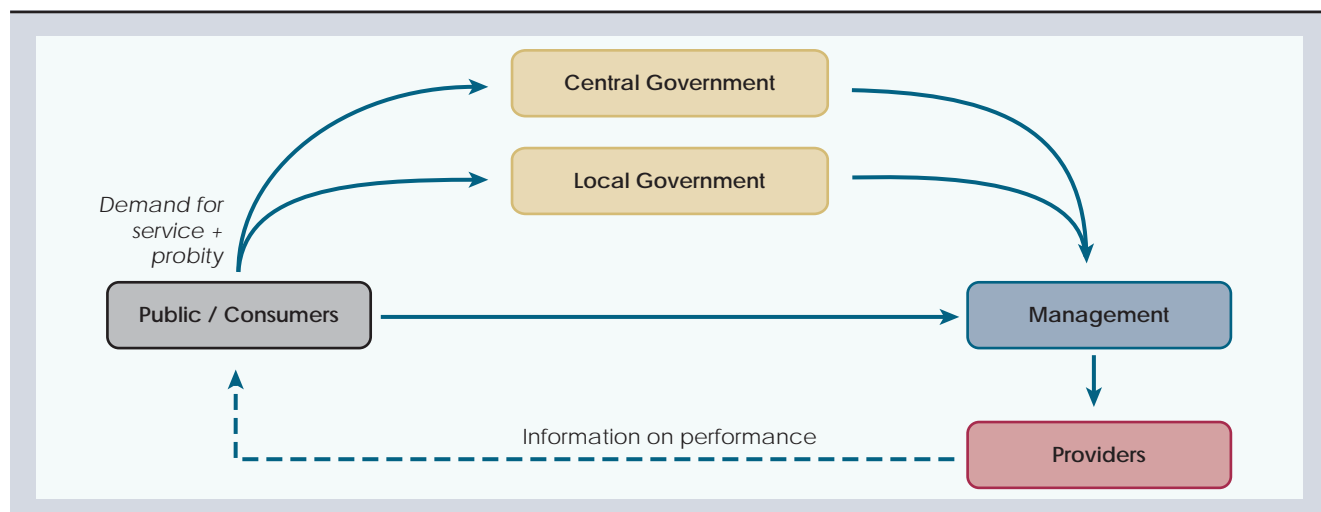
This direct route of accountability works less well in the urban water and sanitation sector. In many cities, a single company is the sole water supplier, so customers cannot hold one provider accountable by threatening to switch to another.

As Figure 2.2 indicates, where direct accountability through competition fails, customers must rely on the “long route” of accountability through government to try to get the services they desire, at reasonable prices.

For this “long route” of accountability to work well, at least the following four elements are needed:

1. A public that demands accountability, probity, and good infrastructure services from their leaders and utility operators
2. Political actors or utility operators who are motivated to respond to this demand
3. Sufficient information for the public to gauge the levels of service and probity being delivered by political actors and utility operators
4. Functional “feedback” systems through which the public can reward (or punish) political actors and utility operators according to their behavior. Good governance will inevitably break down without “effective mechanisms and institutional arrangements in the country to hold administrators accountable for their actions.”<sup>4</sup>

**Figure 2.2 The Long Route of Accountability in the Electricity Sector**



Source: Adapted from the World Development Report 2004. *Making Service Work for Poor People*. World Bank.

<sup>4</sup> Myint, U. (2000). “Corruption: Causes, Consequences, and Cures”, *Asia-Pacific Development Journal*. Vol. 7(2)40.

When these conditions hold, a virtuous cycle of probity can develop: people increasingly demand probity, can see whether or not it is delivered, and can reward the political actors that deliver probity. Without these conditions, apparent “solutions” such as externally mandated procurement rules, will simply be circumvented or allowed to lapse. Section 10 returns to this question, showing how project and provider level rules need to be embedded in a governance system that rewards senior decision-makers for delivering probity.

This understanding of corruption, and its essential link to governance, suggests a good practice approach for practitioners to follow when intervening in country water sectors. This approach is fleshed out in Parts II and III of this Sourcebook, which focus on first identifying corruption risks, and then on reducing these risks through well-designed approaches to improve probity and governance.

## 2.5 Four Levels of Governance Analysis

Accountability arrangements at the sector level are crucial for good governance, but governance issues range all the way from how individual projects are procured, to national level decisions on how citizens hold their government accountable. How to make this analysis tractable, given these interlocking and complex issues? Table 2.2 illustrates one approach used in this Sourcebook to make this analysis tractable, given the complex issues. The four rows of the matrix represent four different levels of analysis:

- **Country level** – analysis and recommendations across multiple sectors
- **Sector level** – analysis and recommendations targeted to a specific sector, and applying broadly across that sector<sup>5</sup>
- **Provider level** – analysis and recommendations targeted to a specific service provider, applying to the provider’s structure and the full range of that provider’s activities and interactions
- **Project level** – analysis and recommendations specific to a particular project and to specific project activities (regardless of whether the project is acting at the provider, sector or country level).

The four columns of the matrix represent four different aspects or stages for assessing and addressing weak governance and corruption:

- **Assessing risk** – assessing the likelihood and severity of corruption risk, what types of corruption occur, and who suffers from corruption (and how much)
- **Understanding the problem** – analyzing how corruption happens (for example, who pays whom, for what, and when), how it is sustained, and why it is difficult to stop
- **Promoting probity** – specific interventions supported or mandated by the World Bank to increase probity
- **Reviewing progress** – clearly identifying how the impacts of governance interventions are to be assessed, and the strengths and weaknesses of past interventions (“lessons learned”).

The cells offer examples of how practitioners can look for and reduce corruption. For instance, at the sector level, looking for corruption will focus on sector level indicators such as coverage, or the ways in which senior sector officials are appointed. At the provider level, the focus would be on utility indicators, such as non-revenue water, or the relations between customers and utility staff. Similarly, for

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<sup>5</sup> Sector level means the level where the ministry responsible for water, the water sector regulator, the planning agency, and so on, play a role.

**Table 2.2 A Sectoral Focus and Process**

	<i>Assessing risk</i>	<i>Understanding the Problem</i>	<i>Promoting Probity</i>	<i>Reviewing Progress</i>
<b>Country level</b>	<ul style="list-style-type: none"> <li>Review Governance Indicators</li> <li>Identify at risk sectors</li> <li>Complete surveys</li> <li>Estimate costs</li> </ul>	<ul style="list-style-type: none"> <li>Discuss underlying causes of poor governance and corruption at this level</li> </ul>	<ul style="list-style-type: none"> <li>Improve public expenditure and accounting</li> <li>Improve public procurement rules</li> <li>Introduce anti-graft rules and commission</li> <li>Increase disclosure requirements</li> <li>Align decision-making and accountability</li> </ul>	<ul style="list-style-type: none"> <li>Assess impact of activities on general governance</li> </ul>
<b>Sector level</b>	<ul style="list-style-type: none"> <li>Review indicators relevant to this level</li> <li>Review indicators relevant to this level</li> </ul>	<ul style="list-style-type: none"> <li>Map “hotspots”</li> <li>Discuss underlying causes of poor governance and corruption at this level</li> </ul>	<ul style="list-style-type: none"> <li>Align decision-making and accountability</li> <li>Reduce multiple layers of approval</li> <li>Create accountability for service standards</li> <li>Promote more customer information</li> <li>Separate roles and define roles clearly</li> <li>Competition/regulation (for efficient costs)</li> </ul>	<ul style="list-style-type: none"> <li>Assess success of sector reforms in increasing probity</li> </ul>
<b>Provider level</b>	<ul style="list-style-type: none"> <li>Review indicators relevant to this level</li> </ul>	<ul style="list-style-type: none"> <li>Discuss underlying causes of poor governance and corruption at this level</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen utility procurement procedures</li> <li>Improve financial management and require thorough, clean audit</li> <li>Improve commercial management and planning</li> <li>Improve human resources management</li> </ul>	<ul style="list-style-type: none"> <li>Assess success of utility reforms in improving governance and performance</li> </ul>
<b>Project level</b>		<ul style="list-style-type: none"> <li>Discuss underlying causes of poor governance and corruption at this level</li> </ul>	<ul style="list-style-type: none"> <li>Project supervision and capacity building</li> <li>Procurement and financial controls</li> </ul>	<ul style="list-style-type: none"> <li>Assess success of specific project interventions</li> </ul>

reducing corruption, sectoral level recommendations would focus on topics such as how the government holds providers accountable, while provider level recommendations might focus on improved commercial systems, or better procurement procedures.

Each of the four “levels” of action is important. However, in general, anti-corruption work at the country level and the project level has been more developed. This has, up to now, resulted in a “missing middle”, with inadequate attention paid to reducing corruption through sector and provider-level arrangements to improve governance.

A review of World Bank operations carried out as background for this Sourcebook found, for example, that in 100 percent of the cases reviewed the country-level strategy developed by the World Bank contained measures intended to promote probity and good governance, and similarly 100 percent of projects had measures intended to ensure probity in project implementation. However, 30 percent of the cases reviewed had no measures intended to improve probity at the sector level, while 63 percent had no measures intended to increase probity at the provider level.

This suggests that sector practitioners should work within an overall country framework, applying the tactics and insights developed at the country level, and adapting these to the water sector. Figure 2.3 provides an example of how infrastructure sector governance targets were embedded within a comprehensive, governance-focused Country Assistance Strategy (CAS) developed by the World Bank and the Government of Bangladesh. Further sources on country-level governance and anti-corruption strategies are provided in Source List 2.1 on page 14.

## 2.6 Dealing with Second (and Third) Best Solutions

The foregoing sections may appear to offer a counsel of perfection—as though to say “*Reform the water sector to improve the accountability of governments to people, and make providers more accountable to government, all within an overall country strategy for improving governance, that joins up seamlessly from the level of national politics down to village level projects.*”

In the real world, such perfection is seldom attainable. Opportunities for comprehensive sector reform are rare. More often, practitioners must strive to make incremental improvements within their limited sphere of influence.

The comprehensive framework for thinking about corruption and governance presented earlier is not meant to suggest that all initiatives to increase probity must be equally comprehensive. Rather, it aims to help practitioners to judge which of the changes they are able to effect would be most likely to contribute to better governance over time. In making this assessment, practitioners need to consider:

- Their sphere of influence
- The capacity of sectoral institutions to implement reforms, and
- The political economy that may support or nullify any given reform initiatives (as shown in Figure 12.2 on page 149).

This means considering second best solutions:

- In a country where much of the political power is held by a small number of interest groups, who between them control many of the nation’s resources, attempts to create and empower civil society organizations may be doomed to fail (at least in the short term). Yet governance can be improved, and corruption reduced, if the leading families or business organizations can come to see that they all benefit from better water services, and can be given the monitoring role that (in a first-best solution) might be held by a broader consumer organization
- Many water utilities have powerful unions dedicated to protecting utility employees. Anti-corruption reforms that target utility workers engaged in petty corruption, without tackling corruption at managerial or political levels, may be resisted as an attack on workers. An approach that involves unions and workers through consultation, and even-handed treatment of corruption at all levels, may be more likely to succeed. Reforms may even give workers and unions an interest in the success of the utility—for example, through performance based bonuses for staff, contracting out services to labor-owned businesses, or granting shares in the utility to employees. Such changes can enlist workers and unions efforts to reduce or resist corruption and so improve utility performance
- A donor working with a single local utility may lack the influence or standing at a national level to improve governance structures. Yet, by supporting reform of information systems, and the provision of more information locally, the donor may have put in place a key building block for a better accountability system. The provision of such information locally may indeed help to

Table 2.3 Embedding Sector Governance Targets within a Country Strategy: Example from Bangladesh

<i>Longer term development agenda for Bangladesh-PRSP</i>		<i>Outcomes influenced by the CAS Program during the 4-year period</i>		<i>World Bank and Development Partners' Assistance</i>
Development Outcomes (PRSP)	Issues and Challenges	CAS Outcomes	Milestones/Intermediate Indicators	World Bank Group, ADB, DFID, Japan
<b>1. B Remove Trade Restrictions and Reduce Administrative Barriers</b>				
<p>Improve access to and infrastructure services, by strengthening sector governance and encouraging greater private sector participation</p>	<ul style="list-style-type: none"> <li>Large unmet demand for critical infrastructure services- power, transport, water supply, and telecom</li> <li>Infrastructure provision dominated by state monopolies with low quality service and weak financial positions</li> <li>Weak regulatory and distorted price environment that deters private investment</li> <li>Urban congestion and over-concentration in Dhaka, leading to high transaction costs and negative productivity</li> </ul>	<ul style="list-style-type: none"> <li>A regulatory and pricing framework more conducive to greater private sector participation established</li> <li>Progress toward corporatization and commercialization of public utility agencies, and publicized service delivery standards and performance targets in power, telecom, and water sectors</li> <li>Private sector participation in infrastructure provision increased</li> <li>Dhaka-Chittagong Transport Corridor improved</li> <li>Urban planning and management improved</li> </ul>	<ul style="list-style-type: none"> <li>Progressive alignment of domestic energy prices and power prices adjusted to reflect changes in underlying costs</li> <li>Bangladesh Power Development Board restructured and successors corporatized</li> <li>Conclude at least two deals for new privately financed base-load power plants following competitive and transparent procurement and applying the generation financing strategy</li> <li>New Mooring Container Terminal in Chittagong Port completed and concessioned for the private sector</li> <li>Increased quality and number of urban municipal investments implemented</li> </ul>	<p><b>WORLD BANK GROUP:</b></p> <p><b>Ongoing IDA Lending</b> Private Sector Infrastructure Development (closes in FY07); Rural Electrification Renewable Energy Development (closes in FY08); Bangladesh Telecommunications TA (closes in FY08); Rural Transport Improvement (closes in FY09); Power Sector Development TA (closes in FY09)</p> <p><b>Proposed IDA Lending:</b> Road Sector Reform (Reserve); "Crash Power Rehab" (incl. Siddhirganj (FY07); South Zone Power (FY08); Bangladesh Railways (Reserve); Dhaka Chittagong Sewerage &amp; Drainage (FY07); Export Infrastructure Development (FY08); Inland Water Transport (FY09); Rural Electrification and Renewal Energy II (Reserve); Padma Bridge (FY09)</p> <p><b>IFC:</b> Loans/equity investments and advisory services as opportunities arise</p> <p><b>Proposed AAA:</b> Urban Strategy (FY07); Inland Water Transport ((FY07); Legal &amp; Judicial Review (incl. Land Policy and Admin. (FY07); Urban Transport Financing and Management Study (FY08)</p> <p><b>ADB:</b> Dhaka Clean Fuel; Gas Sector Dev't Project I; Gas Sector Development Project II; Dhaka Power System Upgrade; West Zone Power Development Project II; Dhaka Power System Upgrade; West Zone Power Development; West Zone Power Development; Power Sector Development Program II; Power Sector Development Program III; Southwest Road Network Development; Road Network</p>

Source: World Bank (2006). "Bangladesh Country Assistance Strategy".

spur increased local demand for accountability, which in time may achieve what the donor, with its limited influence, was not able to.

The Sourcebook returns to the notion of second-best solutions—workable and incremental responses given the constraints of limited influence, capacity, and political will—in Section 11.2. Source List 2.1 sets out further readings on the concept of second best in policy reform generally, and water sector governance in particular.



## Source List 2.1 Framework for Thinking about Corruption

Source	Description
Schliefer, A. and Vishny, R. (1993). "Corruption". <i>Quarterly Journal of Economics</i> 108 (3) 599–617	This seminal article places corruption in an economic framework, explaining corruption as a product of individual incentives. It shows how different ways of organizing government may lead to different types and levels of corruption. It also provides a framework for thinking about which kinds of corruption are most damaging. It provides an explanation for why in corrupt environments officials may prefer unnecessarily advanced technologies. It also suggests increasing competition in government services as a fruitful avenue to explore in reducing corruption.
Transparency International (2008). "Global Corruption Report 2008: Corruption in the Water Sector". Cambridge University Press	Transparency International's Global Corruption Report 2008 focuses on corruption in the water sector. The report is on corruption in water in a broader sense, and deals with water resources management, water and sanitation, water for food, and water for energy. In Part Two, country reports provide some interesting case studies. Finally, Part Three includes chapters on measuring corruption and benchmarking progress, and on investigating the dynamics of corruption.
<b>Placing the Sector within a Country Governance Strategy</b>	
Castalia (2007). "Survey and Assessment of World Bank Practice".	Placing the Sector within a Country Governance Strategy A review of World Bank practice in helping its client country governments reduce corruption and poor governance in the water, electricity, and transport sectors. It points staff towards existing good practices and advises on adopting new strategies and approaches. Reviews country reports, cross-sector reports, and project-specific documents for eight countries. <sup>a</sup>
Country-level Anti-Corruption Strategies	Many countries have national anti-corruption strategies. These typically describe the problem of corruption in a given country, and the rules, regulations, and policies in place to promote probity. Some examples include: <ul style="list-style-type: none"> <li>• Estonia<sup>b</sup></li> <li>• Ghana<sup>c</sup></li> <li>• Pakistan<sup>d</sup></li> <li>• Sierra Leone<sup>e</sup></li> <li>• Tanzania<sup>f</sup></li> </ul>
Doig, A. and Riley, S. (1998). "Corruption and Anti-Corruption Strategies: Issues and Cases from Developing Countries". Corruption and Integrity Improvement Initiatives in Developing Countries, UNDP	Using case studies from Botswana, Ecuador, Hong Kong, Tanzania, Mali, and Senegal, this section of the UNDP guide illustrates the ways in which universal approaches can fail, and the improved results that can be obtained by using individually-tailored strategies. <sup>g</sup>
Pope, J. (2000). "Confronting Corruption: The Elements of a National Integrity System". Transparency International	This paper describes the need for national anti-corruption strategies, and the elements necessary for this strategy to be effective. It begins with an analytical framework (Part I), followed by the needed institutional pillars of a national integrity system (Part II). Part III lists the rules and practices for the institutional pillars, and Part IV, the lessons learned. Part V describes emerging best practice in combating corruption. <sup>h</sup>

<sup>a</sup> Azerbaijan, Bangladesh, Chile, Colombia, Indonesia, Lesotho, Philippines, Romania, Tanzania, and Vietnam

<sup>b</sup> <http://www.korrupsioon.ee/orb.aw/class=file/action=preview/id=13373/AN+HONES>

<sup>c</sup> <http://siteresources.worldbank.org/INTWBIGOVANTCOR/Resources/A1-durban-ghana.pdf>

<sup>d</sup> <http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN019121.pdf>

<sup>e</sup> <http://www.anticorruption.sl/pdf/accstrategy.pdf>

<sup>f</sup> [http://www.ipocafrika.org/pdfuploads/THE%20UNITED%20REPUBLIC%20ANTI-CORRUPTION%20OF%20TANZANIA%20THE%20NATI\\_003.pdf](http://www.ipocafrika.org/pdfuploads/THE%20UNITED%20REPUBLIC%20ANTI-CORRUPTION%20OF%20TANZANIA%20THE%20NATI_003.pdf)

<sup>g</sup> [http://www.undp.org/governance/contactcdrom-contents/CONTACT\\_doc/Corruption\\_report/Chapter03.pdf](http://www.undp.org/governance/contactcdrom-contents/CONTACT_doc/Corruption_report/Chapter03.pdf)

<sup>h</sup> <http://www.transparency.org/publications/sourcebook>

(continued on next page)

## Source List 2.1 Framework for Thinking about Corruption (continued)

Source	Description
World Bank (various dates) Country Assistance Strategies with specific anti-corruption plans	These three CASs incorporate comprehensive anti-corruption plans: <ul style="list-style-type: none"> <li>• Bangladesh CAS, 2006–2009</li> <li>• Indonesia CAS, 2003–2007</li> <li>• Philippines CAS, 2006–2008.</li> </ul>
World Bank Institute (not dated). "Country-Specific Technical Assistance to Develop Anticorruption Strategies". World Bank	A guide for assisting countries to develop national anti-corruption action plans. Describes the different stages of developing and implementing these strategies. <sup>1</sup>
<b>Second Best and Political Economy Strategy</b>	
Levy, B. (2007). "Governance Reform: Bridging Monitoring and Action". World Bank	Lays out a broad framework for analyzing and monitoring governance in developing countries. Lists 14 core indicators for governance monitoring (both broad measures of overall patterns and specific "actionable" measures that can be used to guide reforms and track progress). Highlights improvements in transparency as a relatively low-cost method for deepening government accountability to civil society.
Rodrik, D. (2007). "One Economics, Many Recipes: Globalization, Institutions and Economic Growth". Princeton University Press	For a good background on second best policies in development generally, see Chapter 1, which sets out how the "Washington Consensus" of a comprehensive set of reforms often considered to be "first best" could be adapted to develop reform paths that were both more politically sustainable and effective, in countries as varied as China and Mauritius. As in Levy (2007), the focus is on identifying binding constraints and fixing those, rather than reforming everything in line with preconceptions of best practice. Chapters 5 and 6 consider institutions of economic governance generally, again demonstrating the merits of developing tailored institutional solutions that are responsive to local conditions and political economy constraints, in particular the need to ensure that reforms do not create a set of powerful losers who will unite to undermine reforms that would otherwise increase welfare overall.
Rose-Ackerman, S. (2001). "Political Economy of Corruption". Institute for International Economics	A good overview of the political economy of corruption, including a discussion of the economic opportunities of corruption, and some "solutions" for preventing corruption. Rose-Ackerman concludes that second best solutions may be the only realistic option: <p><i>Corruption can never be entirely eliminated. Under many realistic conditions, it will simply be too expensive to reduce corruption to zero. Furthermore, a single-minded focus on corruption prevention can have a negative effect on personal freedoms and human rights. Such a focus could produce a government that is rigid and unresponsive. Thus, the aim is not to achieve complete rectitude but rather a fundamental increase in honesty—and the efficiency, fairness, and political legitimacy—of government.</i></p>
World Development Report (1997). Summary, "The State in a Changing World". World Bank	This summary of 1997's World Development Report focuses on the evolving role of the state. Chapters that are particularly relevant to the information in this sourcebook include building institutions for a capable public sector, restraining arbitrary state action and corruption, bringing the state closer to the people (particularly through elections), and the challenge of initiating and sustaining reforms. <sup>k</sup>

<sup>1</sup> [http://www.worldbank.org/wbi/governance/capacitybuild/pdf/guide\\_coalitions.pdf](http://www.worldbank.org/wbi/governance/capacitybuild/pdf/guide_coalitions.pdf)

<sup>1</sup> [http://www.petersoninstitute.org/publications/chapters\\_preview/12/2lie2334.pdf](http://www.petersoninstitute.org/publications/chapters_preview/12/2lie2334.pdf)

<sup>k</sup> <http://www.worldbank.org/html/extpb/wdr97/english/wdr97con.htm>

## PART I ASSESSING CORRUPTION RISKS

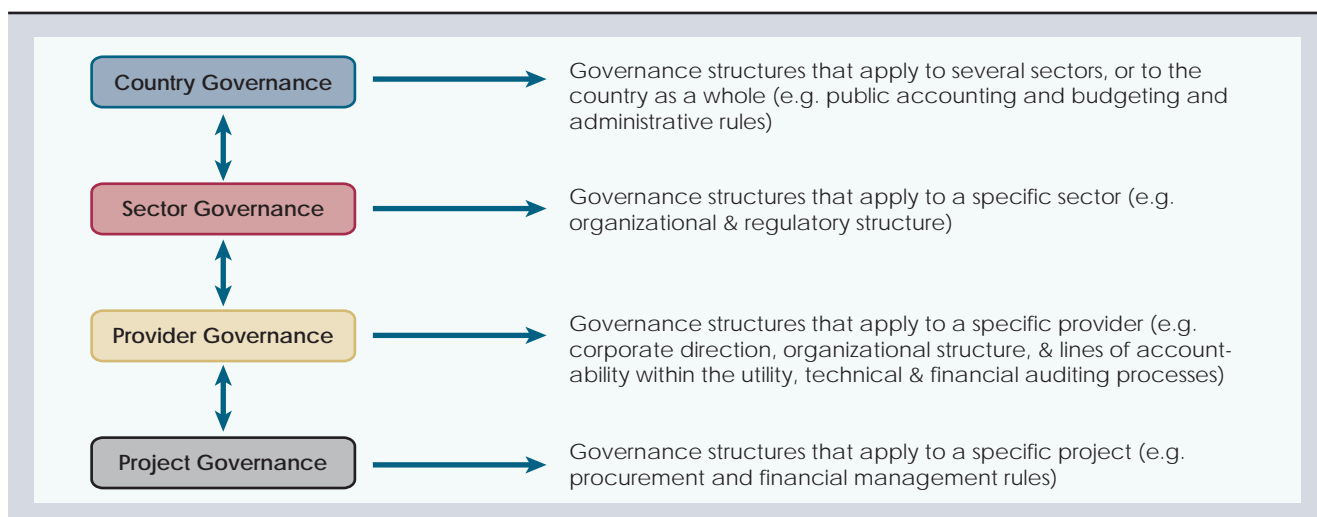
Practitioners want to put their effort into fixing the serious problems, while supporting what works well. One needs to know how serious corruption may be, and where it occurs. Figure 2.4 illustrates the four levels at which practitioners may review governance arrangements and the associated risks of corruption.

This section outlines methods and indicators that can be used to assess governance and the risk of corruption. These methods and indicators cascade down the levels of:

- **Country** – A country level scan looks at governance and corruption risk across multiple sectors, or across the country as a whole. **Section 3** identifies indicators that can assist in assessing risk at the country level
- **Sector** – A sector level scan considers these issues across the water sector as a whole (where this Sourcebook refers to the “water sector”, it means the water supply and sanitation sector). Governance and corruption risks in this sector may differ from those in other sectors, or from the level and severity of risk identified for the country as a whole. **Section 4** identifies sources and indicators practitioners can use to see where in the sector corruption may be occurring. These include:
  - Sector performance indicators such as non-revenue water (NRW) (Section 4.1)
  - Observations of the assets of people working in the sector (Section 4.2)
  - The extent of informal service provision (Section 4.3)
  - Complaints from, and dialogue with, stakeholders (Section 4.4), and
  - Sector surveys (Section 4.5).

Section 4.6 outlines how practitioners can use information gathered from the sector scan to map out “corruption hotspots”

Figure 2.4 Levels of Corruption Risk Assessments



- **Provider** – **Section 5** discusses assessments targeted to a specific service provider. Such assessments can include the provider’s structure, and the full range of the provider’s activities and interactions, including:
  - Relationships with suppliers and contractors (Section 5.1)
  - Customer connections and commercial operations (Section 5.2)
  - Human resources (Section 5.3), and
  - Management of company property and money (Section 5.4).
- **Project** – Capital projects can offer particular opportunities for corruption, and so merit special attention. **Section 6** suggests ways of detecting corruption risk in capital projects, and identifies factors that can influence the level of risk in relation to capital projects.

Most of the discussion in this Part of the Sourcebook assumes a “typical” water utility. This “typical” utility is publicly owned, and operates under a corporatized model. The extent of corruption risks—and where these risks lie—will differ under different sector structures, for example where:

- The water utility is run by a private operator, through some form of private participation arrangement
- Water services are provided by a government department or other non-incorporated entity
- The water sector comprises numerous municipal utilities, rather than a single national utility.

**Section 7** discusses the implications of different sector structures for corruption risk. This section also highlights some of the issues that arise in countries with reduced administrative capability or systems, and post-conflict countries, and discusses the implications for assessing corruption risk.

### 3 COUNTRY LEVEL SCAN FOR CORRUPTION RISK

In assessing corruption risk in the water sector, it is useful to start by looking at the country as a whole. A picture of the quality of governance and likely extent of corruption at a national level can give some indication of whether corruption is likely to be a serious problem in the water sector. In other words, perceptions of corruption at the country level will often set initial assumptions—or “priors”—for sector level corruption risks.

Various development banks and non-governmental organizations (NGOs) have developed tools to assess corruption risks and how to tackle corruption (Box 3.1).

Development institutions and NGOs have also developed country-level governance and corruption indicators that are easily accessible (see Source List 3.1 beginning on page 21). The “priors” given by these indicators offer a starting point to form a view of corruption risk in the water sector, that can then be updated with sector level information as it becomes available.

#### Box 3.1 Country Assistance Strategies and Corruption Risks

World Bank CASs increasingly include information on corruption risks at a country level. For instance, the latest CAS for Indonesia includes sections dedicated to “The Special Problem of Corruption” and “Managing Risks”. Because of Indonesia’s high country-wide corruption risk, the CAS translates these risks into a requirement for specific anti-corruption strategies for each project.

CASs can draw attention to high levels of corruption risk in a given country, and even to specific risk areas. If the relevant CAS indicates high country-level corruption risks, it would be sensible to assume that the water sector is also at risk of corruption.

World Bank CASs are available from the World Bank web site (go to <http://worldbank.org/>, select the “Countries” section, and click on the particular country of interest).

Other agencies—such as the Asian Development Bank (ADB) or Inter-American Development Bank (IDB)—may also have “country strategy” documents that cover these issues.

#### Box 3.2 Changing Political Economy and Changing Perceptions in Indonesia

Corruption perceptions (as recorded by the Political Risk Services Corruption Assessment) rose in Indonesia with the advent of democratic elections on 7 June 1999, and the demise of the Suharto government. The paradox here is acute: the Suharto regime was widely regarded as among the most corrupt in the world, and no observer doubts that the absolute value of bribes going to the government has fallen precipitously, despite worsening corruption perceptions.

One explanation for this paradox is that corrupt transactions became less credible after Suharto’s departure, suggesting that voice and accountability (at least as generated by new and imperfect democracies) may also diverge from government credibility. Under Suharto, businesses believed that if they paid a \$1,000,000 bribe they would get a high return on their investment because the underlying agreement was credible (in another governance indicator term, political stability was high). They could be confident that they would, in fact, receive the rents conferred by the monopoly or regulatory privilege provided in exchange for the bribe. The political uncertainty of the post-Suharto era lowered the credibility of these transactions. Consequently, even if the bribe-price of entry or regulatory privileges fell since the end of the Suharto regime, the effective value of the privileges may have fallen by even more. Although total corrupt payments may have fallen, the perceived damage of corruption might have risen.

Source: Keefer, P. (2004). “A review of the political economy of governance: from property rights to voice”. Policy Research Working Paper 3315. World Bank.

That said, the interpretation of national indicators needs to be treated with care. Many country-level indicators and surveys are based on perceptions, rather than more objective measures. Transparency International's Corruption Perception Index (CPI)—the best known of the country level surveys—is often criticized because it is perception based, and is not based on objective or observable data.

The link between national corruption perceptions, sector-specific corruption perceptions, and sector-specific corruption realities is also somewhat obscure. The evidence we have suggests a weak relationship between national level perception measures and survey evidence recording either petty corruption in utility provision or grand corruption in construction. In turn, evidence on petty corruption appears to be weakly related to sector structure and other elements we would expect to influence the extent of corruption.<sup>6</sup>

Measures of accountability and the quality of governance are often subjective, and there is always a risk that the formal structures that can be observed by outsiders do not reflect real practice.

Source List 3.1 summarizes some of the useful country indicators, as well as articles that discuss their limitations.

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<sup>6</sup> Kenny, C. (2008). "Is There an Anticorruption Agenda in Utilities?", *Utilities Policy*.

### Source List 3.1 Country Level Governance Indicators and their Limitations

Source	Description
<b>Useful country-level indicators</b>	
<b>Cavill, S. and Sohail, M. (2007). "A note on Research Methodology for Combating Corruption". Water, Engineering and Development Centre</b>	This document describes a research methodology that can be used for custom surveys of corruption in infrastructure. It outlines the research process, and describes research techniques for detecting and assessing corruption including interviews, informal discussion, and focus groups. The note provides examples of the following research instruments: corruption diary; observation checklist, guide for focus group discussions, semi-structured interviews for service providers, and a household questionnaire.
<b>Kalnins, V. (2005). "Assessing Trends in Corruption and Impact of Anti-Corruption Measures". The Anti-Corruption Network for Transition Economies, OECD</b>	This paper discusses various methods for detecting and measuring corruption, and both a national and provider level. These include "direct" measures of corruption (for instance, perception, experience, beliefs and values, service and sector assessments, and governance indicators) as well as "indirect" measures of corruption (such as risk assessment, checklists, statistics and formal reporting, analysis of governments' implementation of anticorruption measures). The document includes a number of useful real world examples. <sup>a</sup>
<b>Political Risk Services Group, International Country Risk Guide</b>	The guide includes a corruption index that focuses on political-level corruption, for over 100 countries, with a long time series. <sup>b</sup>
<b>Transparency International's "Corruption Perception Index"</b>	<p>The most well-known of the various corruption surveys and indicators is Transparency International's CPI. The CPI ranks 180 countries by their perceived levels of corruption, as determined by opinion surveys. The CPI combines multiple surveys from different institutional sources, allowing it to draw on a larger pool of respondents.</p> <p>Like other perception surveys, the CPI cannot precisely identify corruption with any degree of precision, but rather serves as a useful "red flag" that corruption may be occurring.<sup>c</sup></p>
<b>United Nations Development Programme (not dated). "Sources for Democratic Governance Indicators"</b>	This document was prepared for governance practitioners in the United Nations Development Programme's Country offices, and can be used by anyone working on governance and development issues. It provides a user-friendly overview of internet-accessible governance indicators and what each of these means. This is very useful resource for practitioners carrying out a country level scan of corruption risks. <sup>d</sup>
<b>World Bank Country Policy and Institutional Assessment Indicators</b>	<p>The (CPIA) exercise rates countries that are eligible for International Development Association (IDA)-funds against 16 criteria under four headings. The fourth heading, "public sector management and institutions", includes the criterion of "transparency, accountability, and corruption in the public sector". This assesses "the extent to which the executive can be held accountable for its use of funds and the results of its actions by the electorate and by legislature and judiciary, and the extent to which public employees within the executive are required to account for the use of resources, administrative decisions, and results obtained."<sup>e</sup></p> <p>A low accountability score might indicate a higher susceptibility to corruption, and certainly suggests poor governance generally.</p>

<sup>a</sup> <http://www.u4.no/pdf/?file=/document/literature/kalnins-2005-assessing-trends-corruption-impact-measures.pdf>

<sup>b</sup> <http://www.prsgroup.com/ICRG.aspx>

<sup>c</sup> [http://www.transparency.org/policy\\_research/surveys\\_indices/cpi](http://www.transparency.org/policy_research/surveys_indices/cpi)

<sup>d</sup> <http://www.undp.org/governance/docs/Policy-Pub-Indicator%20Sources.pdf>

<sup>e</sup> World Bank (2006). Country Policy and Institutional Assessments: 2006 Assessment Questionnaire, Operation Policy and Country Services (available from: <http://siteresources.worldbank.org/IDA/Resources/CPIA2006Questionnaire.pdf>)

(continued on next page)

### Source List 3.1 Country Level Governance Indicators and their Limitations (continued)

Source	Description
<b>World Bank Institute (2008). "Worldwide Governance Indicators". World Bank</b>	The World Bank Institute's Worldwide Governance Indicators report aggregate and individual governance indicators for 112 countries, based on six dimensions of governance: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption. These are based on the perceptions or views of enterprises and citizen and expert survey respondents in both developed and developing countries, and can be useful red flags that corruption may be occurring. <sup>f</sup>
<b>World Bank and European Bank for Reconstruction and Development, "Business Environment and Enterprise Performance Survey"</b>	The Business Environment and Enterprise Performance Survey (BEEPS), developed jointly by the World Bank and the European Bank for Reconstruction and Development (EBRD), is a survey of over 4000 firms in 22 transition countries conducted since 1999–2000 that examines a wide range of interactions between firms and the state. Based on face-to-face interviews with firm managers and owners, BEEPS is designed to generate comparative measurements in such areas as corruption, state capture, lobbying, and the quality of the business environment, which can then be related to specific firm characteristics and firm performance. <sup>g</sup>
<b>World Bank and International Finance Corporation, "Doing Business" &amp; "Enterprise Survey"</b>	<p>The "Doing Business" surveys provide objective measures of business regulations and their enforcement across 178 countries and selected cities at the sub-national level. The economies are then ranked on the ease of doing business (from 1 to 178, with 1 being the best). In 2009, both "infrastructure" and "transparency" are expected to be added as topics. The "Doing Business" results are useful for thinking about corruption risks, since the red-tape and bureaucratic discretion that make doing business difficult are often breeding grounds for corruption.<sup>h</sup></p> <p>The World Bank's "Enterprise Survey" is a similar exercise that analyzes key investment climate data in emerging markets and provides indicators on the quality of the business environment. This includes a number of specific indicators of corruption, such as the percentage of firms expected to offer a payment to get things done, or to secure a government contract; and percentage of firms who see corruption as a major obstacle for their business. Fifty-five country profiles are available on the "Enterprise Surveys" website.<sup>i</sup></p>

#### Limitations of country-level indicators

<b>Arndt, C. and Oman, C. (2006). "Uses and Abuses of Governance Indicators". OECD Development Centre</b>	<p>Chapter 4 analyses the World Bank Institute's World Governance Indicators. It outlines four core problems with these indicators:</p> <ul style="list-style-type: none"> <li>Likelihood of correlation of errors among the 37 sources from which the WGI is constructed limits its statistical legitimacy</li> <li>Unable to compare over time</li> <li>Biased sample</li> <li>Insufficient transparency.</li> </ul> <p>This paper is available online.<sup>j</sup></p>
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<sup>f</sup> Country indicators can be found here: [http://info.worldbank.org/governance/wgi/sc\\_country.asp](http://info.worldbank.org/governance/wgi/sc_country.asp)

<sup>g</sup> You can access the dataset from the BEEPS survey <http://info.worldbank.org/governance/beeps>

<sup>h</sup> Results and rankings are available on the "Doing Business" website: <http://www.doingbusiness.org/>

<sup>i</sup> <http://www.enterprisesurveys.org/CountryProfiles/>

<sup>j</sup> [http://www.oecd.org/document/25/0,3343,en\\_2649\\_33935\\_37081881\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/25/0,3343,en_2649_33935_37081881_1_1_1_1,00.html)

(continued on next page)



Source List 3.1 Country Level Governance Indicators and their Limitations (*continued*)

Source	Description
Galtung, F. (2005). <i>"Measuring the Immeasurable: Boundaries and Function of (Macro) Corruption Indices"</i> . Law Ethics and Governance Series. Ashgate.	Galtung reviews and critiques Transparency International's Corruption Perception Index. He argues that the failings of the CPI can be grouped under six general headings: <sup>k</sup> <ul style="list-style-type: none"> <li>• Only punishing the takers, not the givers or abettors</li> <li>• Irregular and uncontrolled country coverage</li> <li>• Biased sample: more than 90 percent of the world is missing</li> <li>• Imprecise and sometimes ignorant sources</li> <li>• Far too narrow and imprecise a definition of corruption</li> <li>• Does not measure trends and so cannot reward genuine reformers.</li> </ul>
Kenny, C. (2007). <i>"Construction, Corruption, and Developing Countries"</i> Policy Research Working Paper 4271. World Bank	Kenny uses country-level indicators (like Transparency International's CPI and the BEEPS) to examine corruption in the construction industry. Kenny describes variations in measures of corruption at the country and sector level, concluding that "general country level corruption indicators may be poor tools to uncover particularly corrupt construction industries, but also that corruption within the industry may differ markedly by sub-sector or location within a country". <sup>l</sup>
Kenny, C. (2006). <i>"Measuring and reducing the Impact of Corruption in Infrastructure"</i> , Policy Research Working Paper 4099. World Bank	This paper investigates the different tools or approaches that are used to identify and measure corruption. Kenny argues that perception measures are not good indicators of corruption in the infrastructure sector, mainly because these perception surveys mostly measure petty, not grand, corruption. Kenny argues that survey evidence is more reliable than perception measures, but still not reliable enough to guide policy recommendations and the like. The paper then recommends some priorities for infrastructure corruption research, in particular regarding disaggregated and actionable indicators of weak governance and corruption. <sup>m</sup>
Soreide, T. (2006). <i>"Is it Wrong to Rank? A Critical Assessment of Corruption Indices"</i> , CMI Working Paper	Provides a useful discussion of information about corruption, and of the limitations of measures such as the CPI (for instance, the expectation that perceptions are reliable). <sup>n</sup>
United Nations Development Programme (2007). <i>"Governance Indicators: A User's Guide"</i>	Guide to understanding assumptions behind indicators, how data is collected, and how to best use data for various purposes. On how to use the data, the guide recommends three "golden rules": use a range of indicators, use an indicator as a first question—not a last, and understand and indicator before you use it. <sup>o</sup>

<sup>k</sup> <http://www.integridadepublica.org.mz/tools/Criticando%20o%20CPI.pdf>

<sup>l</sup> <http://go.worldbank.org/9Y8J86OL30>

<sup>m</sup> [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=952071](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=952071)

<sup>n</sup> <http://www.cmi.no/publications/file/?2120=is-it-wrong-to-rank>

<sup>o</sup> [http://www.undp.org/oslocentre/docs07/undp\\_users\\_guide\\_online\\_version.pdf](http://www.undp.org/oslocentre/docs07/undp_users_guide_online_version.pdf)

## 4 SECTOR ASSESSMENT

This section introduces ways of assessing the risk of corruption across the water sector of a country. Since corruption involves specific individuals and organizations, a “sector level” assessment is an attempt to sum or average the level of corruption across organizations in a sector. As such, sector level indicators can be misleading since the differences between the organizations involved are too great to make averages useful. For example, in a sector where, say, the regulator and one provider are very corrupt while the Ministry and another provider are not at all corrupt, a statement that the sector as a whole is moderately corrupt would not be useful.

Therefore the objective of this section is simply to help the sector practitioner understand risks of corruption across the whole sector, identifying risk levels in specific key agencies, as well as general patterns. Using this information, this section outlines a “mapping” approach sector practitioners can use to understand where corruption is occurring in the water sector.

### 4.1 Sector Performance and Efficiency Indicators

Four key sector performance indicators can provide first order signals on the possible level of corruption in the sector:

- Coverage
- Non-revenue water
- Collections ratio
- Cost recovery.

Table 4.1 describes these indicators and their possible relationship to poor governance and corruption. Data on each of these indicators may be found in the sources shown in Source List 4.1 on page 34.

### 4.2 Asset Observation

Evidence that individuals working in the sector are enjoying living standards beyond what their wages could support is another indicator of corruption. If wages from an individual’s job are insufficient to pay for apparent extravagancies, then where is the money coming from?

“Red flags” could include observations of:

- Obvious displays of wealth (such as gold watches)
- Frequent overseas trips by counterparts or sector officials
- Asset declarations from senior officials and politicians that reveal assets well beyond what those individuals’ official salaries would support.

Sector practitioners won’t be able to definitively determine if such observations are indeed a sign of corruption. However, such observations can serve as useful indicators that corruption may be occurring within the water sector. Further dialogue with sector staff and stakeholders can help to determine whether observed assets are indeed a sign that corruption is occurring, or whether there is a legitimate explanation.

Box 4.1 describes an example where observations of individuals living beyond their means helped to detect corruption, and the steps a community took to put a stop to it. Source List 4.1 on page 34 provides useful sources for further information on detecting corruption through asset observation.

**Table 4.1 Corruption and Sector Performance Indicators**

<i>Indicator</i>	<i>Description</i>	<i>Possible relationship to poor governance or corruption (or both)</i>
<b>Water and sanitation coverage</b>	Water coverage refers to the percentage of the population with access to an improved water source.  Sanitation coverage refers to the percentage of the population with access to private or shared (but not public) excreta disposal facilities.	Good coverage indicates that the sector is putting resources to good use. However, water coverage must be understood in the country context. For instance, developed countries will tend to have better coverage than less-developed countries, and countries that are low cost to serve will tend to have higher coverage than countries that are high cost to serve. In this sense, as an indicator or “red flag” of corruption, water coverage should be assessed in terms of how far coverage is from where it might be expected to be, given income and geography.
<b>Non-revenue water</b>	Water that has been produced and is “lost” before it reaches the customer. Losses can be “physical” losses (for instance, through leaks) or “commercial” losses (for instance, through theft or metering inaccuracies).	High physical losses may indicate a corruption risk. For instance, under-investment in pipes may be the result of: <ul style="list-style-type: none"> <li>• A tendency to misuse resources generally</li> <li>• Poor quality of construction and repair work</li> <li>• A bias toward large capital projects.</li> </ul> High commercial losses show a chaotic commercial system, which often allows corruption to thrive.
<b>Collection ratio</b>	Percentage of bills collected.	A low collection ratio indicates lack of discipline in commercial and financial systems in the sector. This lack of discipline will allow corruption to thrive.
<b>Cost recovery</b>	The capture—through fees, subsidies, or other explicit transfers of funds—of the cost of providing water and sanitation services.	Sectors which recover some margin above operating and maintenance (O&M) costs tend to be less corrupt than ones where tariff revenue is less than or equal to O&M costs. This may be because sectors or providers which are recovering their costs are more likely to have effective processes for financial management and accountability in place. Alternatively, if a utility isn’t recovering costs, employees are less likely to feel pressure for any kind of commercial discipline—that will allow corruption to thrive. Finally, research suggests that utilities that recover a majority of costs from their customers are more likely to be accountable to their customers. <sup>a</sup>

<sup>a</sup> Schwartz, K. (2006). “An assessment of bureaucratic and New Public Management models in the water supply and sanitation sectors in low- and middle-income countries”. UNESCO-IHE Institute for Water Education

### **Box 4.1 Displays of Wealth in a South Asian Community**

In South Asia, a donor-funded poverty reduction project included the construction of septic tanks in locations selected by communities. Following a competitive tender, the municipality noted that the bids received were all three times the standard unit rate. To get around what was perceived as collusion amongst the tenderers, and high prices, the chief municipal engineer proposed to the community that they take on the construction of the project—it would also provide work for community members. This was agreed and two community leaders, the most educated, were given the task of managing the finances. Initially, there were some concerns that the accounts were not open to the rest of the community, but when one leader started smoking imported cigarettes rather than the local ones, the community lost faith and in a public meeting involving donor representatives, demanded that the accounts be made public. The costs of materials and payment for labor were posted at the entry to the slum at the end of each week for the remainder of the work.

Source: Plummer, J. (2007). “Making Anti-Corruption Approaches Work for the Poor: Issues for Consideration in the Development of Pro-Poor Anti-corruption Strategies in Water Services and Irrigation”. *Swedish Water House Policy Brief No 4*, page 6

### 4.3 Informal Service Provision

In most developing countries, formal service providers do not serve the whole population, even within urban areas. Where this is the case, the remainder of the population—those who are “unserved” by the utility—must get their water elsewhere. The alternatives are either self-provision (for example through collecting rainwater or water from streams), or private, informal water vendors. Informal providers can include water tankers, water carriers, or privately provided standpipes. These alternatives are, in some cases, also used by connected customers to complement unsatisfactory service by the formal utility.

The cost of informal provision is, in general, higher than well organized formal provision through a piped network (at least in densely populated areas). A high level of informal supply therefore indicates, at best, failure on the part of the formal service provision system. This failure may have its roots in poor governance.

High levels of informal provision may also indicate something much more pernicious—a deliberate sabotage of the formal system by government officials who can profit from involvement in the informal system. In some cases, those with power over the formal utility engineer its failure, in order to create scarcity that informal service providers can fill.

These informal service providers often use public resources. For instance, private water tankers may get free or low cost water from the public network. Public officials may cooperate with gangs to cartelize the informal service provision. This creates a supply of rents, part of which is passed back to the public officials who sabotaged the public water supply, encouraging a continuation of this arrangement.

Plummer (2007) summarizes the relationship between informal service provision and corruption in a case study from an urban slum in Latin America:

*In a steep hillside squatter settlement in Latin America, poor households have waited for utility water for decades. With little confidence that the local council would extend the network, most communities opted for water provided by informal service providers, who stole or bought the utility water and delivered it in tankers. The price varies substantially as the providers were susceptible to the demands of the municipal water officials, paying them for the water they used and periodic silence payments. When one of these officials came to the squatter settlement and saw a huge new market, he decided to begin delivering water to the settlement himself—moonlighting at night using a utility tanker. He sold water at the same price as the local private provider, and in developing such a lucrative personal business, he made no further recommendations that the network be extended.<sup>7</sup>*

Where informal providers supply a substantial part of the market, and where this situation appears to be entrenched, sector practitioners need to be mindful that corruption may be part of the cause. Indicators of corruption based on informal provision include:

- High levels of informal service provision. Indirect evidence of this is provided by measures of the utility’s water and sanitation coverage (see Table 4.1). If coverage is low, it is probable that informal providers are filling this gap
- Cartelization of informal service provision. For example the following factors may indicate cartelization:

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<sup>7</sup> Plummer, J. (2007). “Making Anti-Corruption Approaches Work for the Poor: Issues for Consideration in the Development of Pro-poor Anti-corruption Strategies in Water Services and Irrigation”. *Swedish Water House Report No. 22*

- Prices well in excess of the estimated cost of supply
- Involvement of individuals who are associated with organized crime, in the informal water business
- Sporadic violence between water providers, indicative of “turf wars”.
- Informal providers accessing public resources at prices below cost. For instance, water tankers may be getting water at low rates, or at no charge, or even stealing it from the piped system (see Box 6.2 on page 53)
- Septic tank emptiers dumping septage at public wastewater treatment plants at low rates, or even at no charge, when the policy is to require payment
- Failure by public authorities to stop practices by informal providers that cause clear environmental damage, or raise health risks. Such practices might include unauthorized abstraction of water resources, or dumping of untreated septage in the environment.

Informal provision is common in many parts of the developing world. Informal provision can play a valid and important role in filling the gaps where the formal utility is unable to provide water and sanitation services. However, informal provision can create opportunities for corruption, and may be an indicator of serious governance problems in the formal system.

Source List 4.1 on page 34 identifies references with more information on how to ascertain the extent of informal service provision, and how to determine whether this is due to corruption or other factors.

## **4.4 Stakeholder Complaints and Dialogue**

Stakeholder complaints, dialogue, and media reports can help to identify corruption and poor governance.

### ***Customer complaints***

The utility itself may have a complaints service, which may be a useful source of information. In addition, the sector regulator, a government department responsible for the water and sanitation sector, or a consumer affairs bureau may also run a complaints service. In evaluating the reliability of information from these complaints services, sector practitioners may consider factors such as:

- How independent the complaints office is, for example from the utility’s management or other staff members
- Whether the complaints service is widely known to the public, and whether it is well publicized
- Whether the service is respected, and considered to be effective by other stakeholders
- What arrangements are in place to protect “whistle-blowers” against retaliation, and whether complaints be made anonymously.

National anti-corruption agencies also often have complaints registers where stakeholders can expose corruption, or draw attention to practices they believe are corrupt. These are valuable resources for identifying corruption (see Source List 2.1 on page 14 for some examples of national anti-corruption strategies).

### ***Media reports***

Some media services scan for corruption related stories in water sector. For instance, Transparency International’s “corruption in the news” service scans international news services for corruption related stories, and publishes links to these stories on the Internet.

Media coverage of corruption can serve as a tentative “red flag”, by alerting sector practitioners to areas where corruption is allegedly occurring. Some care needs to be taken in interpreting media coverage of corruption. On the one hand the media may have an interest in scandalizing the problem, and so overstate the actual extent or frequency of corruption. Alternatively the media may be influenced or controlled by the state, or by powerful interest groups, and so may have an interest in understating or covering up problems.<sup>8</sup>

### **Stakeholder dialogue**

Water sector stakeholders outside the government have differing perspectives on problems within the sector. They may also have less to lose, and more to gain, in exposing corrupt practices. It is therefore useful to talk to leading non-government stakeholders to learn their views on sector problems, and specifically on corruption.

There is considerable literature on the topic of consulting with sector stakeholders. A useful resource for ideas on how to engage sector stakeholders is the World Bank’s toolkit *Approaches to Private Participation in Water Services*.<sup>9</sup> Section 3 of this toolkit focuses on strategies for identifying and interacting with people who have an interest in the water sector.

The first step in opening a stakeholder dialogue is generally to identify which groups of individuals to approach. Groups that may be able to provide valuable information include:

- Consumer organizations
- Neighborhood associations
- Chambers of Commerce and other industry associations
- Professional associations whose members work in the sector (for example consulting engineers, lawyers)
- Non-governmental organizations working in the water and sanitation sector
- Unions operating in the sector.

Care is sometimes required in identifying those individuals or groups that are useful to talk to—they may not always be obvious, and may not come forward to assert an interest in the sector.

## **4.5 Surveys of Corruption in Infrastructure Sectors**

Finally, surveys can provide information on the strength of governance arrangements, and extent of corruption in the water and sanitation sector. Practitioners can:

- Review existing surveys that deal with governance and corruption
- Commission special surveys, to gather information on service delivery or perceptions of corruption (or both) in a particular country or region.

### **4.5.1 Existing surveys of infrastructure sectors**

Existing surveys, that already collect some limited information on corruption in the water and sanitation sector, can be a useful starting point (see Box 4.2). For example, the Business and Environment and Enterprise Performance Survey (BEEPS) include information relating specifically to the water and sanitation sector. Source List 4.1 on page 34 provides further detail on these.

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<sup>8</sup> See Soreide, T. (2006). *Business Corruption: Incidence, Mechanisms, and Consequences*. Chr. Michelsen Institute.

<sup>9</sup> This and other resources are listed at the end of this section.

If warranted, sector practitioners may commission special surveys. There are broadly two options for commissioned surveys:

- **Quantitative surveys**, to collect data on key measures of service delivery. The objective of a tailored quantitative survey would be to highlight any areas of the utility's business where poor service delivery indicates that there may be, at best, a problem with governance and accountability arrangements or, at worst, corruption
- **Perception surveys**, to canvas the views of stakeholders both within and outside the water and sanitation sector. Stakeholders surveyed could include government officials, utility staff, customers, and non-government organizations. As well as directly gathering views on the extent of any corruption, and where corruption might be taking place, perception surveys can gather information on other aspects of the business, which may highlight problem areas (for example, quality of service, staff integrity, the appropriateness and effectiveness of business procedures).

## 4.6 Mapping Corruption Risk across the Water Supply and Sanitation Sector

The above sections describe sources of information that can indicate whether and where corruption may be occurring in the water sector. If these indicate that a problem may exist, the next question is where in the sector to look to confirm whether there is a corruption problem.

### Box 4.2 An Example of a Commissioned Survey of Corruption in the Water Sector

Davis (2003) reports on the results of a survey of corruption among several public water and sanitation bureaucracies in South Asia. The survey provides a useful illustration of what sector practitioners can achieve from commissioned surveys of corruption.

The survey utilized interviews and focus group discussions: more than 350 staff and 730 customers were interviewed, and more than 320 elected officials, researchers, activist, journalists, and development professionals participated in discussions. The table below illustrates the type of information obtained from a survey of this sort. (Davis notes that these results should be viewed as the estimates of corruption derived from this survey as likely to be conservative, as respondents may have understated the incidence of corruption. Also, in most cases respondents were not randomly selected. Thus, findings should be viewed as illustrative.)

	Frequency of behavior as reported by ...		Median reported payment per transaction
	Customers (n = 411)	W&S agency staff (n = 176)	
Falsifying meter readings for lower bills	41% had made ≥1 such payment in past 6 months	73% "about half the time", "very common", or "virtually every time"	US\$0.45
Expediting attention to repair work	30% had made ≥1 such payment in past 6 months	10% "about half the time", "very common", or "virtually every time"; 27% "happens occasionally"	US\$1.90
Expediting new connection applications	12% had ever made such payment	3% "about half the time", "very common", or "virtually every time"; 14% "happens occasionally"	US\$22

Source: Davis, J. (2004). "Corruption in Public Service Delivery: Experience from South Asia's Water and Sanitation Sector". *World Development*, Vol 32(1), pp 53–71.

Opportunities for corruption arise where there is a supply of value without a strong owner. Lack of a clear owner means that value becomes available for appropriation. It makes sense to look for corrupt activity in the places where such value is being shifted between agents—for example between the government and the utility, or between the utility and its suppliers or contractors. These places can be thought of as corruption “hotspots”—points in sector processes where money or contracts change hands, or discretionary decisions are made.

In the water sector, there are a number of corruption “hotspots”. They occur where control over this value is concentrated in particular individuals, or where key decisions affecting value are made. To understand where in the water sector corruption may be occurring, it is useful to map out:

- The major flows of value in the water sector
- Which organizations control that value, at each point in the flow
- The mechanisms through which such value might be misappropriated.

This information can be represented in the form of a diagram. To illustrate, Figure 4.1 on page 31 maps out possible corruption hotspots for a typical utility. Clearly, each sector and country is different; practitioners can draw a similar picture reflecting the structure and characteristics of the sector in which they are working.

In doing the sector-level assessment, practitioners will already have gathered information that can be located on the map, to help identify those hotspots where corruption may actually be occurring. For instance, low collection rates typically indicate a problem with the water provider’s commercial systems. This problem may simply be a matter of poor governance or incompetence, or it may be an instance of corruption.

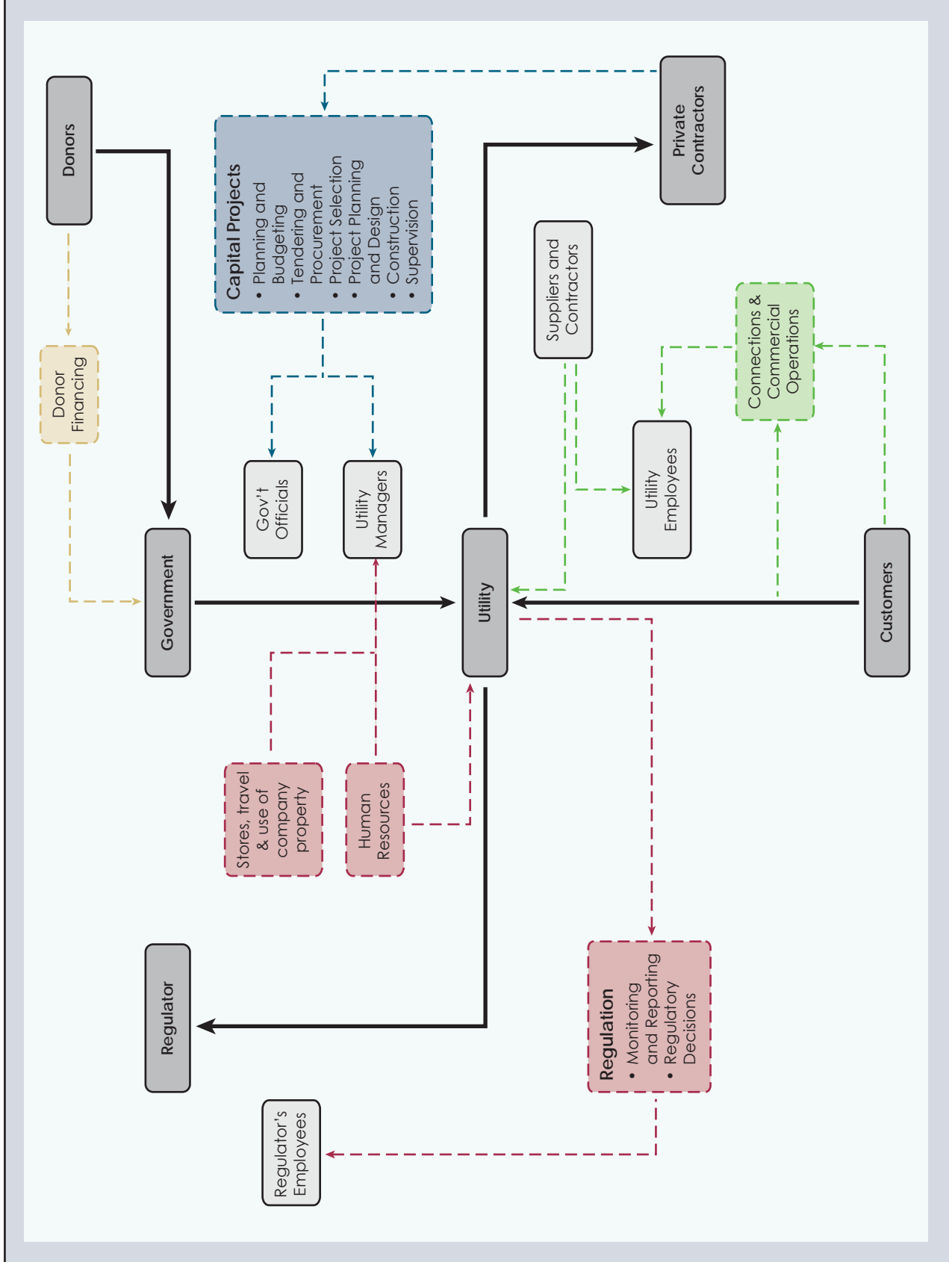
Table 4.2 on page 32 identifies and defines the most common corruption and poor governance “hotspots” for a typical utility. The table also indicates the modality of corruption in relation to each hotspot—that is, the mechanisms that may be used to misappropriate value.

Sections 5 and 6 discuss approaches for more detailed assessment of corruption in each hotspot: at the provider level and at the project level respectively (Table 4.2 indicates which specific sections to refer to for each hotspot). The discussion in these sections assumes a “typical” water utility (as illustrated in Figure 4.1). This “typical” utility is, publicly owned and managed, under a corporate model (as opposed to operating as a government department), and probably national or regional rather than municipal.

Clearly, this “typical” model will not reflect the actual situation in many countries and sectors. The “map” of financial flows for a particular sector, and the extent to which each of the hotspots is a problem, will vary depending on a range of factors, including the extent of private participation, the corporate form of the utility, and which level of government is responsible. Section 7 discusses the implications of different sector structures for assessing corruption risk.



Figure 4.1 Financial Flows that May Be Subject to Corruption



**Table 4.2 Some Corruption and Poor Governance “Hotspots”**

<i>Hotspot</i>	<i>Definition</i>	<i>Modality</i>	<i>Section Reference</i>
Planning and implementing capital projects	Forecasting, planning, tendering, contract and project management of major capital works commissioned by or for the water utility (e.g. new pipelines, additional water treatment capacity)	Corruption in capital projects generally operates by inflating the price or reducing the quality (or both) of the work, so that the public sector pays more to a private contractor than the work is worth. Officials who can influence award of construction and equipment contracts get a kickback of a percentage of the contract value.  May be associated with cartelization or bidding rings, in which the suppliers who nominally compete for the contract in fact collude to share contracts between them, at inflated prices. This allows the contractors to add the cost of the kickback to the contract price (and possibly increase its own profits as well).	Section 6
Suppliers and contractors	Water utility purchasing supplies (such as chemicals, fuel) and contracting for services (such as maintenance)	As with capital projects, officials who can influence award of supply contracts get a kickback of percentage of the contract value—prices are inflated to fund the kickback, or quality specs are not met, or lower volumes are supplied than were paid for. May be associated with cartelization or bidding rings. May also involve officials who work in the sector owning suppliers and contractors, and using their influence and relationship to direct contract award to their companies.	Section 5.1
Connections and commercial operations	Connections refers to the process by which would be customers apply for, and receive, a connection to the water system.  Commercial operations refers to metering, meter-reading, the issuing of bills, and collection of payment	Utility staff may demand bribes to install connections, or may be paid to turn a blind eye to illegal connections. Customers may pay meter readers to under-record their consumption, or may bribe someone in the commercial section to wipe their debts in the utility’s system. Staff sent to disconnect a customer may accept payment for leaving the customer connected, while reporting back to the utility that the disconnection has been done.	Section 5.2
Human resources	The way the utility deals with its staff, including hiring, firing, setting pay and conditions, assessments and incentives, work assignments, promotions and movement between positions	Typical techniques include officials collecting payment for fictitious employees, or requiring that workers pay a superior for recruitment, promotion or just to retain a job. In some cases workers may pay to be transferred to posts that offer greater opportunities for personal enrichment through corruption.	Section 5.3

(continued on next page)

**Table 4.2 Some Corruption and Poor Governance “Hotspots” (continued)**

<i>Hotspot</i>	<i>Definition</i>	<i>Modality</i>	<i>Section Reference</i>
Company property	Everything the utility owns, including the money in its bank accounts, its inventory and stores, vehicles and equipment	Typical ways of misappropriating company property include: check and bank fraud by officials; theft of stores such a fuel and chemicals; and use of company equipment for private business, such as a water trucking business or a construction business. Abuse of utility property can also include the utility providing vehicles for senior government officials and Ministers for their personal use, payment for travel for such people, or allowing utility staff and equipment to be used to maintain the houses and other property of senior managers and officials.	Section 5.4
Award of private participation contracts	The process of engaging a private firm to take on substantial responsibility for aspects of the utility’s management or operations	Private firms may pay a government official to influence award of a private participation contract. Contracts and licenses are valuable, but the appropriate price for the contract is difficult to specify—thus, private utilities have an opportunity to inflate their price, and kickback some of the value to the public official. Sometimes this is done by the private utility giving shares in the project-company to influential officials or politicians, or through consulting contracts or other forms of payment.	Section 7.1
Relationship with regulator or contract monitoring authority	The way in which the utility deals with the government entities which set, monitor, and enforce tariffs and service standards, or other parameters and that have an important influence on the utility’s financial performance.	Regulatory decisions, in particular on resetting tariffs, can have large financial consequences for a utility. Therefore, private firms may bribe regulators to give them favorable awards. Since the regulatory decision often involves considerable judgment, detecting that the decision has been influenced in this way can be difficult.  Something similar may happen in private participation contracts such as management contracts and leases, where the private firm may pay the public official responsible for managing the contract in order to get more favorable treatment.	Section 10

## Source List 4.1 Sector Assessment

Source	Description
<b>Sector Performance and Efficiency Indicators</b>	
<b>Asian Development Bank (2004). "Water for Asian Cities"</b>	This ADB publication is about the performance of water supply and sanitation utilities in 18 Asian Cities. It includes essential benchmarking indicators on service level, service quality, operational efficiency, and financial management. <sup>a</sup>
<b>The International Benchmarking Network for Water and Sanitation Utilities</b>	The International Benchmarking Network for Water and Sanitation Utilities (IBNET) provides a set of tools for water and sanitation utilities to develop national or regional groupings to carry out regular benchmarking activities. The IBNET makes international data available—with easy search and query features—for local benchmarking initiative to carry out international comparisons. For more information, please see IBNET's website. <sup>b</sup>
<b>Schwartz, K. (2006). "Managing Public Water Utilities". UNESCO-IHE Institute for Water Education</b>	Section 3 of this paper provides a good summary of approaches to measuring sector performance, as well as a description of some of the difficulties. It caveats recommendations in Tynan and Kingdom (see below). <sup>c</sup>
<b>Sohail, M. and Cavill, S. (2007). "Combating Corruption in Infrastructure Services: A Toolkit". WEDC Institute</b>	This document is intended to provide tools for combating corruption in infrastructure services for policy makers, professional staff of utilities, regulators of infrastructure services, and consumers of these services. It is separated into three sections with tools for users, operators, and regulators. Many of the "tools" provide examples of where it could be used pointing to red flags for identifying corruption that a certain tool can help combat. It also provides case studies of different types of corruption practitioners can look out for. This toolkit includes tools to assist practitioners in working with communities, NGOs, media, and other outside stakeholders, and a discussion on anti-corruption agencies.
<b>Tynan, N. and Kingdom, W. (2002 Draft). "Effective Water Service Provision". World Bank</b>	This Note is a summary of current performance levels for a sample of 246 utilities in 51 countries (using data from the World Bank's Benchmarking Water and Sanitation Utilities project and the ADB). The second draft of this Note is available online. <sup>d</sup>
<b>Utility Financial and Operational Statements</b>	Looking directly at a utility's financial and operational statements, assuming they are available, is an essential first step at analyzing performance and efficiency indicators.
<b>World Bank, WB-Easy Calc</b>	A very useful tool for organizing data on NRW, with assistance in diagnosing likely problems. This program can be downloaded free. <sup>e</sup>
<b>World Development Indicators</b>	World Development Indicators provide country-wide information on the percentage of the population with access to improved water and sanitation facilities. <sup>f</sup> This information is reported for the population as a whole, and broken down by total and urban populations.

<sup>a</sup> [http://www.adb.org/Documents/Books/Water\\_for\\_All\\_Series/Water\\_Asian\\_Cities/default.asp](http://www.adb.org/Documents/Books/Water_for_All_Series/Water_Asian_Cities/default.asp)

<sup>b</sup> <http://www.ib-net.org/index.php>

<sup>c</sup> <http://publishing.eur.nl/ir/repub/asset/8052/PhD%20Klaas%20Schwartz.pdf>

<sup>d</sup> <http://rru.worldbank.org/Documents/PapersLinks/effectivewater.doc>

<sup>e</sup> <http://www.liemberger.cc/>

<sup>f</sup> <http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20398986-menuPK:64133163-pagePK:64133150-piPK:64133175-theSitePK:239419,00.html>

(continued on next page)

## Source List 4.1 Sector Assessment (continued)

Source	Description
<b>Asset Observation</b>	
<b>Assets disclosure by public officials</b>	Some countries have laws and rules that require public officials to declare their assets, thereby reducing the chance of corruption. Most laws prescribe: the coverage of the requirements (that is, which public officials must make asset declarations)   what officials must include in the declaration; frequency and method for declaration; and punishments for breaches. The full text of asset disclosure laws from 18 countries is available on the Internet, on the World Bank's website. <sup>g</sup>
<b>Philippine Center for Investigative Journalism's "Investigating Corruption"</b>	This paper provides an example checklist of what to look for, and the types of questions to ask, when investigating corruption. <sup>h</sup>
<b>Determining the Extent of Informal Service Provision</b>	
<b>Kariuki, M. and Schwartz, J. (2005). "Small Scale Private Service Providers of Water Supply and Electricity: A Review of Incidence, Structure, Pricing, and Operating Characteristics". Policy Research Working Paper No. 3727. World Bank</b>	Useful for a general empirical overview of how small scale service provision works in water and electricity. Points out that small scale providers are most prevalent in post-conflict countries and weak or failed states. <sup>i</sup>
<b>Plummer, J. and Cross, P. (2006). "Tackling Corruption in the Water and Sanitation Sector in Africa", in Campos, J and Pradhan, S. (eds.) The Many Faces of Corruption: Tracking Vulnerabilities at the Sector Level (in italics). World Bank</b>	For a schematic of the complexity of water services in Africa (and other developing countries), how water can be corruptly diverted from a public utility, and how corruption can occur in a number of unanticipated hotspots, see Section 2.2 <sup>j</sup>
<b>Sources on Stakeholder Complaints and Dialogue</b>	
<b>National anti-corruption agencies complaints registers</b>	Many countries are now developing anti-corruption action plans (see Source List 2.1 on page 20) and anti-corruption agencies. Most agencies have complaint registers where stakeholder grievances are recorded.
<b>Pezzullo, D. (1998). "Journalist training to curb corruption", Economic Perspectives, Vol 3(9) 30-34</b>	Makes a strong case for training journalists to better enable them to investigate and report on corruption, rather than publish unfounded rumors. <sup>k</sup>

<sup>g</sup> <http://go.worldbank.org/Z0NS1VXOS0>

<sup>h</sup> <http://www.pcij.org/training/Investigating%20Corruption.rtf>

<sup>i</sup> <http://go.worldbank.org/17KUZ3HEC1>

<sup>j</sup> [http://www.waterintegritynetwork.net/content/download/174/1434/file/Plummer\\_Cross2007.pdf](http://www.waterintegritynetwork.net/content/download/174/1434/file/Plummer_Cross2007.pdf)

<sup>k</sup> <http://www.u4.no/pdf/?file=/document/literature/pezzullo-1998-journalist-training-curb-to-corruption.pdf>

(continued on next page)

## Source List 4.1 Sector Assessment (continued)

Source	Description
Soreide, T. (2006). <i>"Business Corruption: Incidence, Mechanisms, and Consequences"</i> . Chr. Michelsen Institute	Limitations in relying on media reports. For instance, on page 26, it points out that "Whereas regular media coverage of corruption might inform on freedom of speech, the media can be biased and interested in scandalizing the problem, or it may be controlled by the state". It also points to the influence the media will have on individual's perceptions, particularly when these perceptions are used in corruption perception indices. <sup>l</sup>
Transparency International's <i>"Corruption in the News"</i>	Scans international news services for corruption related stories, and publishes links to these stories on the Internet. <sup>m</sup>
Utility or regulator complaints register	Typically, utilities and regulators will have a channel for consumers to record official complaints. This is a useful place to start looking for stakeholder complaints.
World Bank (2006). <i>"Approaches to Private Participation in Water Services: A Toolkit"</i> . World Bank	Section 3 of the Toolkit focuses specifically on involving stakeholders in the design of reforms. This section provides advice on identifying stakeholders, developing strategies for engaging stakeholders, and different approaches to interacting with various interested groups. The recommendations are useful for all kinds of stakeholder engagement, not just those related to private participation. <sup>n</sup>
<b>Surveys of Corruption in the Water and Related Sectors</b>	
Chêne, M. (2007). <i>"Designing a Taxpayer Baseline Survey in Uganda"</i> . Anti-Corruption Resource Centre	This paper explores how the Uganda Revenue Authority could design and conduct a taxpayer survey to gather taxpayers' perception of the integrity of URA officials, and information on the incidence of corruption. It describes the major "causes" of corruption, a list of indicators that could suggest corruption may be taking place, and examples of tax revenue corruption assessment tools. <sup>o</sup>
Davis, J. (2004). <i>"Corruption in Public Service Delivery: Experience from South Asia's Water and Sanitation Sector"</i> <i>World Development</i> 32 (1), pp 53–71	Pages 54 and 55 of this articles focus on a description of the methodology used to survey corruption among several public water and sanitation bureaucracies in South Asia. The survey provides a useful illustration of what sector practitioners can achieve from commissioned surveys of corruption.  The survey utilized interviews and focus group discussions: more than 350 staff and 730 customers were interviewed, and more than 320 elected officials, researchers, activist, journalists, and development professionals participated in discussions. <sup>p</sup>
Dehn, J. (2001). <i>"Basic Service Delivery: A Quantitative Survey Approach"</i> . World Bank	This paper discusses the main features, strength, limitations, and potential uses of QSDS, and is available online. <sup>q</sup>

<sup>l</sup> <http://bora.nhh.no/bitstream/2330/1400/1/soreide%20tina%202006.pdf>

<sup>m</sup> [http://www.transparency.org/news\\_room/corruption\\_news](http://www.transparency.org/news_room/corruption_news)

<sup>n</sup> [http://rru.worldbank.org/Documents/Toolkits/Water/Water\\_Full.pdf](http://rru.worldbank.org/Documents/Toolkits/Water/Water_Full.pdf)

<sup>o</sup> <http://www.u4.no/pdf/?file=/helpdesk/helpdesk/queries/query147.pdf>

<sup>p</sup> [http://www.sciencedirect.com/science?\\_ob=ArticleURL&\\_udi=B6VC6-4B0WFW2-1&\\_user=1916569&\\_rdoc=1&\\_fmt=&\\_orig=search&\\_sort=d&view=c&\\_acct=C000055300&\\_version=1&\\_urlVersion=0&\\_userid=1916569&md5=ac91d07ab4006987d0f316bdcb7b1387](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VC6-4B0WFW2-1&_user=1916569&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000055300&_version=1&_urlVersion=0&_userid=1916569&md5=ac91d07ab4006987d0f316bdcb7b1387)

<sup>q</sup> <http://citeseer.ist.psu.edu/524117.html>

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## Source List 4.1 Sector Assessment (continued)

Source	Description
<b>Enterprise Surveys</b>	<p>The Enterprise Surveys have some infrastructure-specific questions on WSS delivery. For instance, the “services” questionnaire asks businesses questions like:</p> <ul style="list-style-type: none"> <li>• Over the last two years, did this establishment submit an application to obtain a water connection</li> <li>• Approximately what was the wait, in days, experience to obtain that connection from the day this establishment applied for it to the day it received the service</li> <li>• Was an informal gift or payment expected or requested?</li> </ul> <p>These surveys will be useful to review for a better idea of the degree of corruption in the WSS sector.<sup>†</sup></p>
<b>Quantitative Service Delivery Survey</b>	<p>The Quantitative Service Delivery Survey (QSDS) determines the efficiency of service provision, and gathers information on public expenditure management reforms, service delivery reforms, reforms to improve efficiency of public expenditures, and cross-cutting sector reforms.</p> <p>This is a useful tool for examining the efficiency of public spending and incentives, and various dimensions of service delivery in provider organizations. It is also useful for quantifying the factors affecting quality of service such as incentives, accountability mechanisms, and the relationships between agents and principals. These surveys provide a much clearer picture of the governance weaknesses and corruption risks.<sup>§</sup></p>
<b>Reinikka, R. and Svensson, J. (2001). “Explaining Leakage of Public Funds” Policy Research Working Paper 2709. World Bank</b>	<p>This article describes using Public Expenditure Tracking Surveys (PETS) as a tool for assessing the leakage of public funds in education in Uganda. Whilst it doesn’t deal with infrastructure services, it is a detailed example of PETS, and how evidence of public funds leakage had a direct impact on policy.<sup>†</sup></p>
<b>UN Habitat, “The Urban Corruption Survey”</b>	<p>The Urban Corruption Survey is a tool designed to help stakeholders understand the existing reality of corruption, transparency, and quality of governance in a given city. With a better understanding of the current state of corruption in a city, stakeholders will be better equipped to develop systems that encourage probity in the future. This survey is not strictly about water, but does provide relevant advice on preparing corruption surveys.<sup>‡</sup></p>
<b>World Bank Institute. Country Diagnostic Surveys</b>	<p>The WBI’s Country Diagnostic Surveys allow countries to map and measure critical public sector governance issues. Using this information, countries can plan participatory and targeted reform. Countries with diagnostic surveys are: Benin, Bolivia, Brazil, Burundi, Colombia, Ecuador, Ghana, Guatemala, Guinea, Haiti, Honduras, Kenya, Madagascar, Malawi, Mozambique, Paraguay, Peru, Sierra Leone, and Zambia.<sup>‡</sup></p>
Mapping Corruption Risks	
<b>Kalnins, V. (2005). “Assessing Trends in Corruption and Impact of Anti-Corruption Measures”. Anticorruption Network for Transition Economies</b>	<p>See Source List 3.1 on page 21. This paper provides a useful analysis of different types of governance indicators, including methods for identifying corruption risks.<sup>¶</sup></p>

<sup>†</sup> <http://www.enterprisesurveys.org/CountryProfiles/>

<sup>§</sup> [http://poverty2.forumone.com/files/14546\\_30\\_QSDS.pdf](http://poverty2.forumone.com/files/14546_30_QSDS.pdf)

<sup>‡</sup> <http://go.worldbank.org/DEL8FZJO30>

<sup>‡</sup> [http://ww2.unhabitat.org/cdrom/TRANSPARENCY/html/2\\_2.html](http://ww2.unhabitat.org/cdrom/TRANSPARENCY/html/2_2.html)

<sup>‡</sup> <http://go.worldbank.org/QVTXB026W0>

<sup>¶</sup> <http://www.u4.no/pdf/?file=/document/literature/kalnins-2005-assessing-trends-corruption-impact-measures.pdf>

(continued on next page)

#### Source List 4.1 Sector Assessment (continued)

Source	Description
<p>Plummer, J. and Cross, P. (2006). <i>"Tackling Corruption in the Water and Sanitation Sector in Africa"</i>, in Campos, J and Pradhan, S. (eds.) <i>The Many Faces of Corruption: Tracking Vulnerabilities at the Sector Level</i> (in italics). World Bank</p>	<p>For a value-chain approach to identifying points at which corruption may take place, and the stakeholders involved, see Section 2.3. For a useful schematic of public sector actions that encourage corruption, early warning signs of these actions, and possible responses, see Tables 3, 4, and 5.<sup>x</sup></p>
<p>Transparency International (2008) <i>Global Corruption Report 2008: Corruption in the Water Sector</i>. Cambridge University Press</p>	<p>Transparency International's Global Corruption Report 2008 focuses on corruption in the water sector. The report is on corruption in water in a broader sense, and deals with water resources management, water and sanitation, water for food, and water for energy. In Part Two, country reports provide some interesting case studies. Finally, Part Three includes chapters on measuring corruption and benchmarking progress, and on investigating the dynamics of corruption.</p>
<p>World Bank (2007). <i>"Detailed Implementation Review: India Health Sector"</i>. World Bank</p>	<p>The World Bank's Department of Institutional Integrity (INT) carried out a Detailed Implementation Review (DIR) of projects in India's health sector. This review searched for "red flags", or indicators, of corruption in project implementation units, procurement agencies, suppliers, contractors and other who could divert or misuse project funds. The DIR found "significant" indicators of corruption in all five projects it investigated.<sup>y</sup></p>

<sup>x</sup> [http://www.waterintegritynetwork.net/content/download/174/1434/file/Plummer\\_Cross2007.pdf](http://www.waterintegritynetwork.net/content/download/174/1434/file/Plummer_Cross2007.pdf)

<sup>y</sup> [http://siteresources.worldbank.org/EXTDOI/Resouces/WB250\\_Web\\_Vol1\\_012408.pdf](http://siteresources.worldbank.org/EXTDOI/Resouces/WB250_Web_Vol1_012408.pdf)



## 5 DETECTING CORRUPTION AT THE PROVIDER LEVEL

Corruption at the provider level can take a number of forms. The most obvious is public utility staff taking company property or other things of value. This form of corruption does occur, but is also generally more obvious, and so perhaps easier to detect and deter, particularly where substantial value is misappropriated. Thus it is generally easy to capture the utility's resources at the point where they have been transferred into private hands outside the utility than it is to steal them from the utility directly. Sector practitioners therefore need to look for various forms of provider level corruption other than direct theft.

With the exception of direct theft, provider level corruption tends to occur at points where value is transferred outside the utility for some reason. The transfer of value is generally combined with some element of discretion for utility managers or staff (for example discretion to negotiate the price for goods or services, or to influence the timing of a new connection). This combination creates "hot spots" for corruption, as illustrated in Figure 4.1 above. This section of the Sourcebook discusses corruption risk in the following provider level "hot spots":

- **Suppliers and contractors:** where the utility pays outside parties for goods or services (see Section 5.1)
- **Connections and commercial operations:** where the utility provides connections and services to its customers in return for payment (see Section 5.2)
- **Human resources:** where the utility hires staff and pays them to carry out their assigned jobs (see Section 5.3)
- **Company property and money:** where public utility staff take the utility's property or other things of value, for their own personal gain (see Section 5.4).

### 5.1 Suppliers and Contractors

Corruption in dealing with suppliers and contractors generally takes the following form. Officials or managers who can influence award of contracts obtain a kickback of the percentage of the contract value (see Box 5.1 for a definition of "kickback") in exchange for awarding the contract. To fund the kickback, supplier or contractor provides goods or services that are worth less than the price it charges the utility. The supplier may:

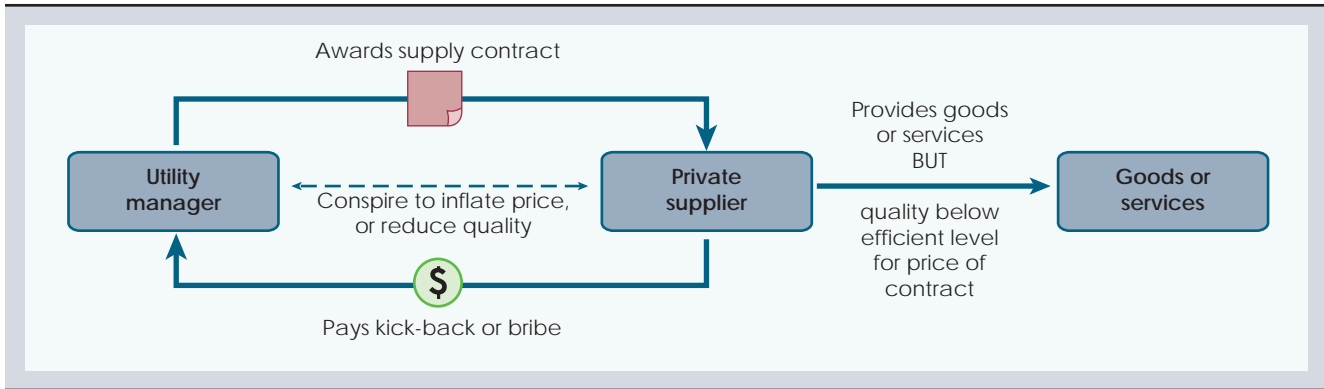
- Inflate the price of the goods or services
- Provides goods or services that do not meet quality specifications, or
- Supply a lower volume than the utility paid for.

Figure 5.1 illustrates this form of corruption.

Alternatively, officials who work in the sector may have a financial stake in suppliers and contractors, and use their influence and relationship to ensure the utility awards the contract to their company. The supplier then uses the above strategies to misappropriate value from the utility, which the official who owns the supplier pockets. (Under this scenario, the supplier may still need to pay a bribe or kickback to other officials or utility staff, to keep them from reporting the corruption.)

This form of corruption is similar to corruption in capital projects (see Section 6). Public officials are able to capture public resources by cycling them through a third party, in transactions that are required for apparently legitimate purposes. The public official may capture the resources for personal gain, or may divert the resources to benefit his political party or family.

Figure 5.1 Corruption in Procuring Suppliers and Contractors



Indicators of corruption in contracting can include:

- Lack of competitive bidding on supply contracts, or poor processes
- Numerous suppliers to a utility
- Problems with quality of supplies and works
- Unit prices that are high compared to similar purchases in the region or in other sectors.

Box 6.3 on page 56 describes a range of practices that can indicate corruption in procurement processes. While the focus of those examples is on procuring capital works, similar problems can arise in procurement more generally.

### 5.1.1 Lack of competitive bidding and poor process

A lack of competitive bidding could indicate preferential treatment to particular suppliers. Warning signs include multiple sole sourced contracts, or multiple contracts let just below thresholds for competitive procurement. Another sign may be a few suppliers receiving most of the contracts, especially if awards appear to be “rotated” among suppliers, or if other, reputable firms are being excluded.

Poor processes could be due to incompetence, or could be due to corrupt officials influencing the bidding process to favor a particular set of bidders. Examples of poor process include:

#### Box 5.1 Defining Bribes, Kickbacks, and Bid Rigging

For the purpose of the discussion in this section, the following definitions are used:

- **Bribes** are payments to an official or utility staff member, paid in advance in return for a promise to act in a certain way. (For example, award a supply contract to a particular firm, or install a connection within a particular time-frame)
- **Kickbacks** are similar to bribes, but are paid after the fact, for example once the supply contract has been awarded to a particular firm
- **Bid rigging** occurs where officials or managers rig or interfere with the contract award to favor a particular bidder, or bidders (usually in return for a bribe or kickback payment).

- Unexplained delays in the procurement process
- Unreasonable prequalification requirements
- Unjustifiable disqualification of the bidder offering the most responsive proposal
- Selection of the lowest bidder followed by changed orders increasing the price, or changing the specs, or reducing the quality or volume of goods and services.

A useful tool for detecting corruption in the utility's procurement of goods and services is to conduct regular bid reviews, to look for corrupt patterns in supply contract awards (see Section 6.2.1 on page 54 for more detail on this approach).

### **5.1.2 Numerous suppliers**

Large numbers of suppliers also can indicate corruption in procurement. For example, many of the suppliers may not be legitimate, but may be "fronts" that provide an avenue for utility staff to transfer utility funds to themselves or others, or they may actually be controlled by a single firm.

A Caribbean National Water Commission (NWC) example described in Box 5.2 illustrates how very high supplier numbers can be a symptom of widespread corruption.

#### **Box 5.2 Corruption in Contracting: Numerous Suppliers**

In 1998, a National Water Commission (NWC) in the Caribbean became concerned about the effectiveness of its procurement process. A new management team wanted to crack down on corruption. A determined effort was set in motion to analyze the sources, causes, and effects of corruption in the procurement process, and to find practical solutions.

The NWC hired a firm of professional fraud investigators to carry out a review of the procurement process, and determine weaknesses, areas of risk, potential perpetrators and methods of corruption, and the efficacy of the existing controls.

The first phase of this review involved an electronic review of the NWC's master files for the previous two years—using a program called Fraud Filter™—and interviews with selected employees and suppliers. This included a cross check of employee telephone addresses and phone numbers against a database of supplier telephone number and addresses to identify potentially fraudulent transactions. The second phase then physically investigated discrepancies discovered in the first phase.

The review discovered that the NWC had more than 34,000 suppliers—an unnecessarily large number. The review revealed transactions, breaches of procedure and relationships which required further investigation and highlighted several serious weaknesses in the information system and other purchasing sub-systems which provided opportunities to defraud the commission. Although many of the transactions were for low-value invoices, the review showed up possibilities where more substantial amounts could have been involved, discovering instances of:

- Abuse of financial controls such as bypassing authority limits by invoice splitting
- Payments of duplicate invoices
- Early payments to suppliers which were indicative of employees giving preferential treatment to those suppliers
- Probable collusion between suppliers and employees where bribes and kickbacks could have been paid

The review recommended that in order for NWC to minimize its exposure to purchasing fraud, it should limit the number of its suppliers to a maximum of about 1,000, excluding plumbing and small works contractors. It would provide for NWC to limit itself to no more than three potential suppliers for any one type of item that it purchases, except in the case of large contract tendering. The NWC also developed a list of approved contractors and suppliers by prequalifying them to ensure business with reputable firms.

It also recommended the implementation of new structures and control mechanisms which would increase the likelihood of early fraud detection, and thereby reduce its incidence.

Source: Former CEO of the NWC.

### **5.1.3 Problems with quality**

As discussed at the beginning of this section, corruption in supply can take the form of a reduction in the quality of the work. The supplier may contract to provide goods, say concrete, to meet agreed quality specifications and then actually supply concrete of a lower grade (and lower value). The supplier would pay a kickback to relevant utility staff. Suppliers or utility staff (or both) may also attempt to falsify quality tests to prevent detection of any disparity between the contract specifications and quality of the goods supplied.

Poor quality can also be symptomatic of fraud in the award process. If a service contractor (for example a maintenance contractor) misrepresented the qualifications of the firm or its staff in bidding for the work, it may seek to prevent proper inspections, or may pay relevant officials to ensure inadequate supervision.

### **5.1.4 High unit prices**

If the cost of inputs, such as fuel or chemicals, is unreasonably high this may be due to corruption. The supplier may inflate unit costs and kick some or all of the extra profit back to the officials awarding the supply contract.

The best way to assess whether unit costs are high is compare them against unit costs in bids for the same products:

- From other (private) firms in the same country
- In other countries in the same region.

## **5.2 Connections and Commercial Operations**

This section deals with corruption risk in connections and commercial operations. For this purpose:

- Connections refers to the process by which customers apply for, and receive, a connection to the water or sewerage system
- Commercial operations refers to metering, meter-reading, the issuing of bills, and collection of payment from the utility's customers.

Corruption in connections and commercial operations involves employees and officers of the utility extracting money from utility customers for their private benefit. Sector practitioners need to distinguish this form of corruption from commercial losses caused by customer action **without** involvement by utility staff. For example, if a customer makes an illegal connection to the system, or tampers with the meter to make it under-register, this is theft by the customer but not corruption. It only becomes corruption if the utility's staff is knowingly involved and benefitting from the activity.

Different types of corruption in connections and commercial operations are discussed in the next section.

### **5.2.1 Side payments for connection**

Utility staff may extract side payments for providing connections in a number of ways, including:

- Demanding bribes to install connections (or to install connections within a reasonable time-frame)
- Turning a blind eye to illegal connections in return for payment.

In some cases, organized groups may provide illegal connections to users in return for payment, with collaboration from utility staff. In return, the organized group would provide a kickback of some sort to the utility staff or officers involved. Box 5.3 provides an example of this type of corruption.

### **Box 5.3 Payments for Illegal Connections—India's Licensed Plumbers**

In one Indian metropolis, water services are provided by the Water Department. However, connections may be made by "licensed plumbers", who are independent contractors, not Department staff. The licensed plumbers are authorized to make legal connections for slum-dwellers and other citizens. However, the "licensed plumbers" systematically delay making legal connections, instead being paid directly by slum-dwellers to make illegal connections. This is further exacerbated because—since the licensed plumbers must pay the Water Department for their licenses—Water Department employees have an incentive to be slow in approving legal connections to the slum dwellers, in order to sustain the illicit business of the licensed plumbers (and hence the license "fee" payments to themselves).

Source: Personal communication during supervision of water sector project.

#### **5.2.2 Side-payments for under-billing**

Users may pay utility staff or officers to understate their consumption for billing purposes. This can include understating actual consumption, or tampering with the metering or billing system, for example:

- Paying a meter-reader to under-report metered consumption
- Paying a utility employee or contractor to tamper with the meter, or in some other way cause under-registration of actual consumption
- Paying a utility employee to drop a customer from the billing system
- Where an illegal connection has been discovered, bribing a utility employee to fail to regularize that connection (so the user can continue to steal water from the utility).

#### **5.2.3 Side payments for tampering with the accounting system**

Customers may bribe utility employees to amend a customer's record in the utility's financial system by:

- Wiping any debts recorded against the customer's account
- Entering false payments.

#### **5.2.4 Side payments for not enforcing collection**

Staff sent to disconnect a customer may accept payment for leaving the customer connected, while reporting back to the utility that the disconnection has been done. Similarly staff sent to collect debts may falsely report back to the utility that the debt has been paid.

#### **5.2.5 Detecting corruption in connections and commercial operations**

Indicators of corruption risk here include:

- Long waiting lists for connections: If utility staff demand bribes in order to provide connections, those potential customers unable or unwilling to pay the bribe will remain on the waiting list. A long waiting list increase the values to customers of by-passing the waiting list, and hence the willingness of the public to pay bribes
- High levels of non revenue water: This may indicate that utility staff are allowing high numbers of illegal connections to persist, or may be due to persistent under-recording of users' consumption
- Billing and collection systems that are disorganized: Poorly organized billing and collection systems may be simply due to incompetence. However, disorganization could mask tampering with the billing system or under billing

- Utility unable to link billing system to accounting system: Outputs from the billing system (such as figures for volume of water sold, revenue, and accounts receivable) should equal the corresponding numbers in the accounting system. Ideally, a utility's billing and accounting systems should exchange information to check that this is the case. If numbers in these two systems consistently do not match, or if the utility appears reluctant or unable to link these two critical systems, this could be an indication that corruption is taking place (see Box 5.4 for an example of this)
- Qualifications in audit reports as to revenue and receivables figures, for example to reflect unexplained discrepancies between the financial statements and the utility's billing system. This is very common. For example the Guyana water utility cited in Box 5.4 frequently had qualifications of this type in its audit report, as did a Caribbean NWC (see Box 5.2)
- High levels of receivables: High levels of receivables may indicate that utility staff are failing to enforce collection, possibly in return for bribes
- Low collection ratios: Collection ratios are the ratio of actual revenue collected to total sales billed. If this ratio is low, this indicates a significant failure by the utility staff to collect bills. This could be due to corrupt activity, such as writing off debts in the billing system, recording false payments, or failure to enforce collection, in exchange for payment from customers.

### 5.3 Human Resources

"Human resources" encapsulates the way the utility deals with its staff. This includes processes for hiring, firing, setting and amending pay and conditions, undertaking performance assessments, providing incentives for staff, assigning work, deciding on promotions and movement between different positions within the utility. Essentially this comes down to processes for setting the level of effort or value employees are to provide to the utility, and the salary and other benefits the employees receive in return. (Other benefits can include the level of seniority, or level of managerial discretion individual employees have, which in turn can offer them opportunities to benefit from corrupt activity).

Staff salaries are a source of value within a utility, and can be diverted for personal financial gain, or for financial gain of family members or political supporters. This form of corruption is difficult to detect as:

- Utility management tends to treat salaries as a bulk expense item
- Management often has high discretion over recruitment.

#### **Box 5.4 Failure to Link the Billing and Accounting Systems in Guyana**

A water utility in Guyana had separate systems for billing and financial management. For technical reasons the utility was unable to link these two systems or electronically transfer data from one system to the other. The billing and accounting systems consistently generated different numbers for the same items, with no clear explanation.

The management contractor responsible for the utility was asked to rectify the situation, but failed to replace the billing system over the four year period of its management contract. The Contractor argued that it was stymied and undermined by the Board as it tried to install new systems. It is not clear that this was due to corruption. However there is little doubt that corruption was taking place within the utility at that time. (During this period, the United Kingdom's Department for International Development (DfID) prepared an audit report, in response to allegations of corruption in the utility, which found evidence to show that corruption was taking place.)

A reasonable inference may be that some people in the utility benefitted from the disorganization of the billing system, and the fact that it could not be audited, and so attempted to prolong that situation.

Source: Personal communication during Castalia fieldwork.

These two factors make it difficult for outside observers to review recruitment methods, or to see whether at the individual level the value of salary payments is appropriate given visible outputs. That is, is the amount and value of work an individual does for the utility worth what that person is paid?

Typical avenues for corruption in human resources include:

- **Ghost workers:** These are people—real or fictitious—who are on the payroll and receive a salary, but do not actually do any work for the utility. Utility or union officials collect the salary notionally paid to the “ghost”
- **Stand-ins:** Using a stand-in is similar to the ghost worker method. In this case, someone who is on the utility’s payroll does actually not do any work for the utility, but pays someone else to work in their stead. The “owner” of the job makes a margin on the difference between what he is paid and what he pays the stand-in
- **Job-selling:** This is similar to a stand-in—someone who is on the utility’s payroll sells their job to someone else. The “purchaser” of the job does the actual work and receives a salary, but pays some of that salary back to the “seller” of the job. Davis (2003) describes a “market for transfers” in South Asian countries, where staff pay to secure a transfer to a desirable post (see Box 5.5)
- **Payment for hiring or promotion:** Managers in the utility with the right to hire, promote, or fire people (or with influence over these decisions) demand payments from staff in return for using this influence. The payment could be in return for recruitment, for a promotion, or simply for keeping the staff member on. This may be a one-off payment, but is commonly arranged as a continuing tribute of a percentage of that staff member’s weekly or monthly pay check. A variant of this form of corruption is a staff member paying relevant managers to be transferred to a post that offers that individual greater opportunities to engage in corruption themselves
- **Staff used for non-utility business:** Senior utility officials may use utility staff to work on that official’s own personal or business projects, rather than on utility business. This is equivalent to diverting other company resources such as inventory or money for that official’s personal benefit.

### Box 5.5 The Market for Transfers

Davis (2003) found a sophisticated market for transfers in a number of South Asian water sector utilities, which has developed from a common policy of transferring professional staff every two to three years. Staff pay to secure a transfer to a desirable post. In most cases the payment was made to politicians or unelected local leaders, who would use their influence with senior officials (and possibly share part of the fee) to secure the transfer. Very few staff in Davis’s study reported paying their superiors within the utility for a transfer.

Davis found that staff had sophisticated methods for estimating the value of a particular post (its extra-salary revenue generating potential), and therefore the maximum amount they were prepared to secure the transfer. She found that “In state-level agencies where the range of possible transfers is comparatively larger, a “plum” post (e.g., to a construction division within a desirable geographic location) costs the equivalent of four months’ salary. The price of a position in construction or procurement located in a less desirable part of the state was 2.5 months’ salary.”

As well as cash payments, staff provide favors for in exchange for influence. Davis reports that “One mid-level engineer described his authorizing water supply connections to a group of households on unregistered land (where public services are prohibited by law) in exchange for an assembly member’s assistance with a transfer request. Another said that he provided several tankers of water without charge to a wedding celebration for a local leader, who in turn helped the staff member keep his post for a period beyond the typical three-year transfer threshold. Interviews with staff suggest that this form of exchange is more common than direct payments to influential individuals for their assistance with transfers.”

Source: Davis, J. (2004). “Corruption in Public Service Delivery: Experience from South Asia’s Water and Sanitation Sector”. *World Development* 32(1)53–71.

### 5.3.1 *Detecting corruption in human resources*

Sector practitioners can use several methods to assess corruption risk in the area of human resources. These include:

- Benchmarking against other similar utilities
- Reviewing available utility specific information
- Externally auditing or reviewing of staff positions.

#### *Benchmarking*

Available international benchmarking data generally includes indicators of the efficiency with which utilities utilize expenditure on staffing, such as:

- Number of staff per connection
- Proportion of utility costs spent on salaries.

A useful source of benchmarking data for sector practitioners is IBNET, see Box 5.6.

If the utility performs poorly on either of these measures relative to other similar utilities (that is if both measures are relatively high), this can simply be due to inefficiency. However, it may be an indication of human resources corruption.<sup>10</sup> For example, widespread use of ghost workers would increase the number of positions on the payroll for a given level of output, thus inflating both of the above measures. Similarly, if senior officials regularly divert staff time away from utility business to their own personal or business projects, this will reduce the utility's output for a given number of staff/salary spend.

#### *Utility specific information*

Sector practitioners can review actual or anecdotal information on the utility's human resources function, to look for any evidence of corrupt activity.

#### **Box 5.6 Benchmarking Utility Efficiency as an Indicator of Possible Corruption**

If a water utility performs significantly worse than other similar utilities on key indicators of efficiency, this **may** be an indicator that corruption is pushing up costs or reducing the utility's output.

A useful source of data on relative utility performance is IBNET. IBNET is a collaboration between the UK's DfID, the World Bank, and the Water and Sanitation Program (WSP). It was developed from a World Bank initiative in 1996 to reduce barriers to international benchmarking in the water and sanitation sector world, and enable sector professionals to compare data on utility performance. IBNET provides a standardized set of indicators of utility performance, and a toolkit for data collection. Local "dataset owners" collect and compile data annually. IBNET's central coordinator conducts quality checks on the data, before updating the central dataset. Partners are encouraged to share their data with peers on IBNET, including by providing benchmarking data to the WSP, ([www.wsp.org](http://www.wsp.org)).

IBNET indicators include:

- Staff per thousand connections
- Staff per thousand population served
- Total annual labor costs as a percentage of total annual operational costs
- Billing and collection ratios.

See the IBNET website, at [www.ib-net.org](http://www.ib-net.org) for further information on the IBNET benchmarking initiative.

<sup>10</sup> Similar utilities would be other water utilities of a similar size, in similar countries or municipalities. The comparison would need to adjust for any significant differences in population density, topography, and so on.



A good starting place is to review the utility's records of current personnel. If these records appear to contain irregularities, or appear to be out of date or poorly maintained then this is a "red flag" that corruption may be occurring. Poor record keeping may be a deliberate ploy to hide human resources corruption (or may reflect incompetence).

Complaints from staff or union leaders can be another useful source of information. For example, if utility managers regularly demand payments from staff to retain their job or progress within the organization, staff may seek to alert outside observers to this practice. Staff complaints could be gathered through surveys, or from some other complaints system (see also Section 9.4). Any system for reporting staff complaints must include protections from retribution by utility officers who are accused of corrupt activity. This may include procedures for maintaining staff anonymity. In using this information, practitioners must also be alert to the possibility of false complaints.

#### *Independent audits or reviews*

If warranted, sector practitioners can take proactive steps to detect human resources corruption, with cooperation from the utility. Options include:

- A survey of staff at work in all sites of the utility, to confirm whether:
  - All the jobs on the payroll are filled by actual people
  - All the jobs on the payroll are being done by the individual recorded on the payroll, and not by somebody else, and
  - Jobs are actually being done in line with specification.
- Introducing a requirement that all staff pick up their pay checks in person, and that staff must present identification before receiving their pay.

## **5.4 Company Property and Money**

Corruption in the use of company property and money differs from the other types of provider level corruption. In contrast to the various schemes described in Sections 5.1 to 5.3, here the individual simply steals property or other things of value directly from the utility. Under the definition of corruption this Sourcebook uses (see Section 2.1), misappropriation of property and money from a public utility for private gain is a form of corruption. The same action in a private utility would not fall within the definition of corruption, as no public funds are involved, although it would still clearly be theft and therefore illegal.<sup>11</sup>

For the purposes of this discussion, corruption involving company property and money covers misappropriation of any asset owned by the utility, including the money in the utility's bank accounts, the utility's inventory and stores (including bulk water), or its vehicles and equipment. Misappropriation might include any of the following:

- Fraud or embezzlement that takes money out of the utility's bank accounts
- Direct theft of property, for example theft of company stores that are then resold, diesel taken out of trucks and used for personal benefit, water, equipment, and so on
- Use of utility vehicles for personal travel
- Provision of utility vehicles to Ministers or other senior officials outside the utility for, their personal or business use

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<sup>11</sup> See Section 7 for further discussion of the differences in assessing corruption risk in private utilities.

- Travel by utility staff at the expense of the utility, to stay in expensive resorts, or for private purposes
- Travel by Ministers or other senior officials, at the utility's expense, where the travel is not necessary to the business of the utility.

Utility resources are valuable, and staff managers often have discretion over how these resources are used. It may be difficult for management to distinguish between legitimate and illegitimate resource use. It is also difficult for outsiders to detect whether the level of resources used by the utility is appropriate for the utility's level of output.

In some countries, utilities or state-owned enterprises have a tradition of supporting Ministers and senior government officials. This would include some of the items listed above, such as the utility providing a car for the Minister's use, or paying for travel for the Minister that is not related to the business of the utility. This may also extend to other areas, such as the utility providing stores and personnel to maintain the houses and other property of the Minister or other senior officials. Sector practitioners need to be sensitive to this type of tradition. In countries where this type of practice is (or has been) common, control of utility property and expenditure will warrant extra attention in assessing corruption risk.

#### **5.4.1 Detecting corruption in stores, travel, and use of company property**

A well managed utility will have internal controls in place to prevent misappropriation of company property. The absence of such procedures is a "red flag" for corruption in that it may reflect management's desire to cover up misappropriation of company property. Even where this is not the case, poor procedures for tracking the use of company assets reduces the likelihood that corruption will be detected, and so presents an opportunity for corruption of this kind. Indicators of corruption in the use of company property and money include:

- Lack of a proper inventory control system
- Stores records are not reconciled with accounts, and not audited
- Lack of a proper asset register
- Company vehicles not accounted for
- Unexplained shortages of supplies.

If the utility is running a proper accounting system, that system should include an inventory module that records inventory by location, by unit, and by value. The system should provide a record of the number units of each item that should be in stores at any point in time (the number of meters of pipe, the volume of fuel, and so on). Good practice would involve regular audits to compare the numbers in the inventory system against a physical stock-take of the utility's stores.

## Source List 5.1 Detecting Corruption at the Provider Level

Source	Description
Davis, J. (2003). <i>"Corruption in Public Service Delivery: Experience from South Asia's Water and Sanitation Sector"</i> . <i>World Development</i> , 32(1), pp. 53–71	This paper presents empirical evidence on the types and magnitude of corruption in water supply and sanitation service provision in several localities of India and Pakistan. The paper draws on interviews and focus groups discussions with staff, customers, and other key stakeholders. The paper presents data on the incidence and type of corruption within water operators in these regions, including bribes and kickback, job selling, and corruption in supply and contracting relationships. <sup>a</sup>
Kalnins, V. (2005). <i>"Assessing Trends in Corruption and Impact of Anti-Corruption Measures"</i> , the Anti-Corruption Network for Transition Economies, OECD	See Source List 3.1 on page 27. This paper provides a useful analysis of different types of governance indicators, including methods for identifying corruption risks. <sup>b</sup>
Kenny, C. (2008). <i>"Is There an Anticorruption Agenda in Utilities?"</i>	Emphasizes the difficulty in measuring not just corruption, but the extent of damage done by corruption, petty or grand. It is not clear that, at the sector or company level, there is a significant anticorruption agenda not encompassed by a broader agenda of improved governance. To that extent, the "new" anticorruption agenda provides renewed justification for the "old" focus on institutions at the level of utilities management. <sup>c</sup>
Sohail, M. and Cavill, S. (2007). <i>"Partnering to Combat Corruption in Infrastructure Services: A Toolkit"</i> , WEDC Institute	See Source List 3.1 on page 27. This document provides "tools" to find red flags that corruption may be taking place.
Transparency International (2008). <i>"Global Corruption Report 2008: Corruption in the Water Sector"</i> . Cambridge University Press	Transparency International's Global Corruption Report 2008 focuses on corruption in the water sector. The report is on corruption in water in a broader sense, and deals with water resources management, water and sanitation, water for food, and water for energy. Country reports provide case studies. Part Three includes chapters on measuring corruption and benchmarking progress, and on investigating the dynamics of corruption.

<sup>a</sup> <http://linkinghub.elsevier.com/retrieve/pii/S0305750X03001979>

<sup>b</sup> <http://www.u4.no/pdf/?file=/document/literature/kalnins-2005-assessing-trends-corruption-impact-measures.pdf>

<sup>c</sup> <http://charleskenny.blogs.com/weblog/files/up.pdf>

## 6 PLANNING AND IMPLEMENTING CAPITAL PROJECTS

Section 4 identified a number of “hotspots” where corruption may occur in the process of planning and implementing capital projects. This section provides information on how to assess whether corruption is taking place in planning, procuring, and implementing capital projects. Following a brief overview of corruption in capital projects, the remainder of the section discusses:

- How to detect corruption risk in capital projects
- Specific corruptions risk in planning capital investment.

Where this Sourcebook refers to capital projects, it means major capital works commissioned by or for the water utility. Capital works provide substantial opportunities for corruption, due largely to the significant amounts of value involved. Indeed, the construction sector is consistently ranked as one of the most corrupt sectors internationally.<sup>12</sup> (Box 6.1 on page 51 discusses the Construction Sector Transparency Initiative (CoST), which aims to address this problem.)

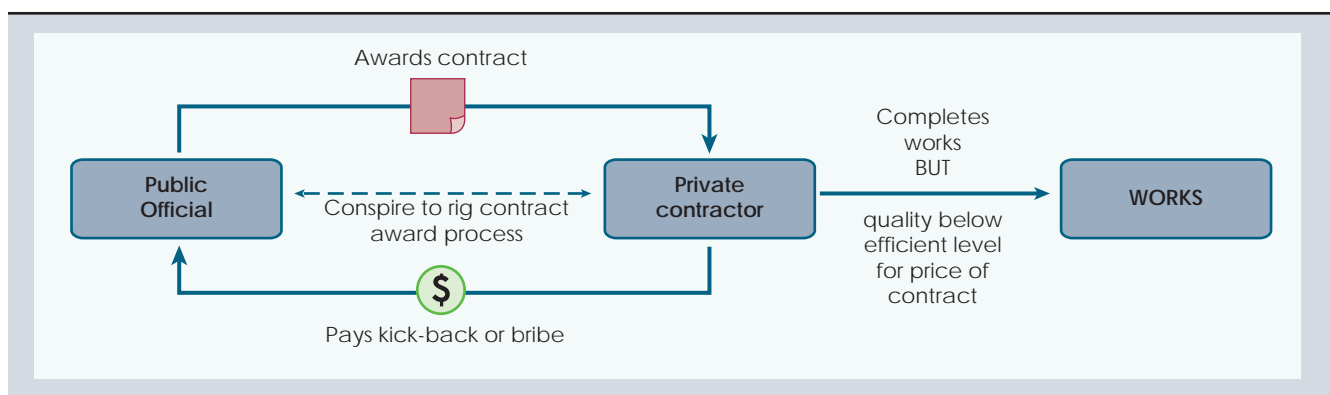
Corruption in capital projects generally operates by **inflating the price** or **reducing the quality** (or both) of the work, so that the public sector pays more to a private contractor than the work is worth. Thus, value is transferred from the public to the private contractor. The private contractor then may kick back some or all of that value to the public officials who control the contract award (see Figure 6.1).

It is not the capital project itself that generates the corruption. Rather, the capital project offers the opportunity to **capture resources** from taxpayers, donors, or customers (who ultimately pay for the works). By passing those resources out of the public domain—in a situation where true value is hard to assess—the captured resources can then be diverted to sector decision-makers.

Broadly, corruption or governance problems in relation to capital projects can be grouped into:

- Deficiencies in **planning** capital projects
- Deficiencies in **implementing** capital projects (for example problems in procurement, contract negotiation, and supervision of equipment and works).

Figure 6.1 Corruption in Capital Projects



<sup>12</sup> See Kenny, C. (2007). “Construction, Corruption, and Developing Countries”, Policy Research Working Paper 4271, World Bank.

## Box 6.1 Construction Sector Transparency Initiative (CoST)

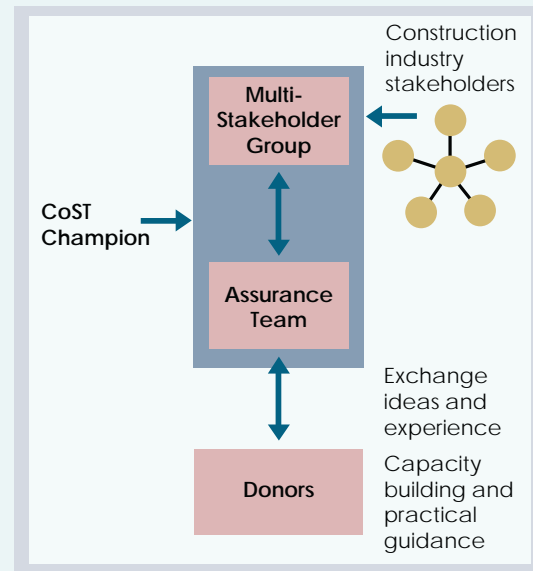
DFID and the World Bank are supporting a pilot initiative to support and promote transparency and probity in the construction sector. CoST is a two year pilot program in at least four countries (four already selected are Tanzania, Zambia, the Philippines, and the UK). The CoST initiative aims to increase transparency in the construction sector through three main channels:

Regular disclosure and publication of selected project information related to all projects above a certain threshold (determined in each country)

Quality assurance and analysis/interpretation of the disclosed technical information to ensure comparability and clarity to a non-technical audience, and

Multi-stakeholder consultations, led by government, to scrutinize disclosed information

While CoST acknowledges the importance of transparency through all stages of construction project cycle, its initial focus will be the period between contract award and completion. At the end of the two year pilot phase, the CoST forum will evaluate the pilots and the lessons learned in each to further develop methods for increasing transparency in the construction sector.



Source: World Bank (2008). Construction Survey Transparency Initiative. World Bank.

## 6.1 Corruption Risk in Planning

The opportunity for corruption created by capital projects may lead sector decision-makers to bias the number, size, locations, and type of capital projects they choose, to facilitate such corruption. This bias often takes the form of:

- Doing too many projects
- Choosing inappropriate projects.

### 6.1.1 Bias in favor of large capital projects

Ongoing maintenance and rehabilitation of existing assets tends to involve multiple small contracts, and be administered by utility managers or lower level staff. In contrast, large construction contracts involve larger sums of money, and so increase the resources available for misappropriation, and are decided on or supervised by (or both) senior officials, giving those people the opportunity to benefit from corruption (which they would not get from smaller value contracts). As a result, senior decision makers have incentives to encourage larger contracts, such as new builds, which provide lucrative opportunities for corruption. However, even where

Box 8.2 on page 73 gives an example where based on a straight financial assessment, the utility should clearly be investing in rehabilitation of the existing distribution network. However, to improve service levels, the utility is focusing on identifying and implementing projects to bring new bulk water sources on-stream. This type of scenario may be due to incompetence or poor decision making processes, or could be symptomatic of corruption.

### 6.1.2 Inappropriate project choice

Inappropriate project choice can involve selecting excessively expensive projects, for reasons similar to those outlined in Section 6.1.1 above. That is, more expensive projects maximize the resources

transferred from the government or the utility to the private contractor, and so maximize the opportunity for misappropriation. Larger projects may also enable more senior members of the sector to get involved.

Alternatively, decision makers may favor inappropriate project designs in order to favor a particular supplier. For example, a firm specializing in a particular technology may bribe sector officials, or agree to pay a kickback, in return for a construction contract. As a result decision makers may favor that technology over the alternatives, even where the alternatives would cost less or better serve the population.

### **6.1.3 Corruption in policy formulation**

Similar issues may occur at the sector policy level. A normal policy and planning process is to have a sector policy setting out policy objectives, and then a plan that implements those objectives. Thus if corruption influences the policy, the resulting plan may be inefficient or corrupt. In this way, preferences and corruption opportunities may be seeded through the sector policy. Inexplicable elements of policy therefore become a warning signal for corruption.

For example, the government's policy for the water sector might state that desalination capacity is required for security reasons. Planners may then feel obliged to include desalination projects in the Master Plan, even if they believe that security of supply can be achieved at lower cost with other technologies. Likewise, with wastewater treatment, often high levels of technology are chosen over simpler solutions (for instance, pre-treatment lagoons). Such policy mandates may favor certain suppliers.

### **6.1.4 Corruption in planning capital projects**

Sound sectoral investment planning should identify projects that are implemented. Therefore, sector planning is a good place to look "upstream" to help assess the likely level and source of corruption in planning, designing, and selecting capital projects.

Good practice in water sector investment planning involves development of a formal Master Plan for the sector. This plan should set out how expected demand for service can be met at least cost. Thus, the following set of questions can be a useful starting point for sector practitioners.

#### ***Is there a Master Plan for the water sector?***

If a Master Plan does exist, this is a good sign but does not necessarily mean that there is no corruption in the planning process.

Not having a plan may be simply incompetence. However, it may be a result of officials' preferences for flexibility, or for crisis responses. Crises tend to justify exceptions to normal rules intended to ensure probity in capital projects. Box 6.2 below gives an example how poor planning and a water supply crisis can provide opportunities for corruption to become entrenched.

#### ***Was the Master Plan developed by appropriately qualified people?***

The people involved should know about Master Plans, and the planning team should have appropriate engineering, financial, and economic expertise. (This does not necessarily mean that the Master Planning process must be outsourced, but if done in-house the staff involved must be suitably qualified).

#### ***Was the Master Planning process appropriate?***

Generally, development of a water sector Master Plan involves the following steps:

- Develop a demand forecast to assess the volume of services likely to be required (and where), over a long term period, say the next 20 to 30 years

## Box 6.2 Crisis Response Creates a Military Water Mafia in a Pakistani City

In 1999 a dam serving one of Pakistan's largest cities went dry. The Government did not have contingencies in place to deal with this situation, which developed into a serious water shortage. Many localities were left without a water supply.

This crisis prompted the Government to request an elite military unit (one of the most efficient local organizations), to distribute water via tankers in affected areas. The unit took on the responsibility for filling the tankers from nine hydrants supplied by the local Water and Sewerage Board (the Board), and distributing this water to all urban areas unable to receive service through the Board's piped network.

Since 1999, tanker operations have expanded rapidly, despite the fact that the Government was able to restore the piped water supply. The military unit concerned has contracted private operators to run the tankers, and the number of total tanker trips has steadily increased from approximately 1,300–1,400 trips per day to over 13,000.

The unit does not pay for the water it distributes. It justifies this by claiming that the tankers are supplying water to poor people. However, there is no monitoring in place to confirm these claims—anecdotal evidence suggests most of the water in fact goes to wealthy users, who in turn pay high prices. The tanker operators and the military unit (or its members) are returning a healthy profit.

Given this difference in costs, most people would prefer to have a piped connection from the Board. However, the Board has been unable to make the investments needed to extend its network. The tankers take water from the Board at no charge, with the result that the Board has insufficient revenue to fund service extensions. Thus the need for the tankers continues.

A new mayor of the city realized that the members of the military unit were being enriched through the tanker system, at the expense of both the Board and the people the utility should be serving. Accordingly, he proposed that control of the tankers be transferred to the councils of each of the "towns" comprising the municipality. Under the new arrangement, the number of hydrants would be limited, and tankers would be better regulated and would have to pay for water taken from the piped system. However, this new plan has yet to be implemented—evidently, there are strong incentives for the current arrangements to stay in place, despite ongoing water supply problems for city's inhabitants.

Source: Castalia interviews and fieldwork during work on a water sector reform project.

- Identify feasible technical options for meeting that demand
- Undertake financial and economic evaluations of each option, to determine which combination of projects can meet projected demand at least cost.

### *Are capital projects being selected in line with the Master Plan?*

If a Master Plan exists, and was developed properly by people with appropriate expertise, then the projects identified in that plan should meet demand for water services at least cost and so should be implemented. If sector decision makers choose other projects, instead of those in the Master Plan, this warrants further scrutiny.

### *Are the selected projects least cost?*

Even if there is a Master Plan, it may not comprise the least cost combination of projects. As Sections 6.1.1 and 6.1.2 indicate, corruption in planning capital projects tends to lead to project selection that

- Favors new build projects over rehabilitation (see Box 8.2 on page 73)
- Favors a particular technology, site, or scale.

Typical indicators of project selection that is not least cost would include:

- High non revenue water figures, where sector decision makers give high priority to new build opportunities. This imbalance is likely to be due to inefficiency, but may also suggest corruption
- Asset rehabilitation cycles that are not in line with the economic lives of the assets. Failure to maintain assets suggests poor management or insufficient resources (or both). In some cases,

sector staff might schedule maintenance more often than strictly necessary, to create opportunities for misappropriation

- Tender documents that focus on inputs rather than outputs. If the tender for a new project focuses on inputs, or gives detailed technical specifications for the project, this may bias the process in favor of particular technologies and/or contractors. It may be appropriate to include restrictions that reflect the particular limitations of the network. These might include requirements to minimize electricity costs, or to avoid moving parts where possible (for instance, if the utility has a low maintenance capability). However, unwarranted specification of inputs rather than the desired output from the project, the greater the opportunity for decision makers to bias the process in favor of a particular contractor.

## 6.2 Corruption Risk in Implementing Capital Projects

During implementation of capital projects, corruption tends to be focused on the procurement process, but can also flow through to affect the implementation and supervision of the resulting construction contract.

In assessing the risk of corruption in project implementation, sector practitioners can look at a number of indicators. These include:

- The procurement process
- Unit costs
- Supervision and quality of the works
- Frequency of contract variations.

### 6.2.1 Procurement

For the purpose of this section procurement is defined as the process of:

- Selecting the contractor (or contractors) who will undertake the capital project in question
- Negotiating the contract, including the price, quality standards and technical specifications for the works, and deadlines for completion
- Paying for the capital equipment.

The procurement process is where the most money changes hands, and gives discretion to officials at various stages. This combination creates considerable opportunity for corruption. Corruption in procurement falls into three broad categories:

- **Bribes and kickbacks:** Key decision makers seek to manipulate the procurement process to award the work a particular contractor, in return for a payment from that contractor (see Figure 6.1 above). Bribes are payments received in advance, in return for a promise from the decision maker to decide in a certain way. Kickbacks are payments made to the decision maker after the fact, for example once the construction contract has been awarded to a particular firm
- **Bid rigging:** Tender processes are rigged or interfered with to favor a particular bidder, or bidders (usually in return for a bribe or kickback payment)
- **Fraud:** Bidders misrepresent the qualifications of the firm or individual staff, in a way that materially affects their ability to undertake the project to the required standard. Such fraud may involve collaboration of decision makers or utility staff (for example agreement not to carry out proper site inspections).



Box 6.3 below identifies various indicators that, if present, would raise a “red flag” that corruption may be taking place in the procurement of capital projects. (Sector practitioners may already have identified some of these “red flags” in the sector scan for corruption, see Section 4). The three categories of procurement corruption identified above are not exclusive, and indeed are often combined. As a result there is some overlap in “red flags” in the table.

As Box 6.3 shows, unusual patterns in bids for capital projects can be an indicator of corruption in the procurement process. Patterns that are “red flags” for corruption include repeated packages just below certain procurement thresholds, similar bids submitted by losing bidders, and bid awards being “revolved” among a small number of bidders.

### **Box 6.3 Red flags in Procurement of Capital Projects**

#### **Red flags for bribes and kickback**

- Multiple sole source awards
- Project officials insisting on the use of specific local subcontractors or suppliers
- Unusual and/or unexplained delays in the procurement process. This may be to allow secret late bids, or so the decision makers can canvas bidders in an attempt to extract bribes
- Project officials accept or excuse poor quality work, and then want to re-hire the same provider
- Project employees living beyond their means
- Reports of close association or socializing between contractors and project officials and/or reports of gifts and gratuities to project officials
- Disqualification of bidders for dubious reasons and/or selection of high priced bidders without sufficient justification
- Bid specifications that favor a particular contractor and/or unreasonable pre-qualification requirements
- Unreasonably short time frame for bid proposals to be submitted
- Clusters of contract awards just below thresholds for competitive procurement
- Contract awards to firms or consultants that appear unqualified
- Procurement competitions with few bidders, with losing bidders then becoming subcontractors on the project

#### **Red flags for bid rigging**

- Bid specifications that are too narrow or too vague
- Unreasonable pre-qualification requirements, that appear to exclude legitimate firms
- Unreasonably short time frame for bid proposal preparation and submission (it may be that a preferred bidder was given advance notice of the tender)
- Unjustifiable disqualification of winning bidder
- Recommendation for award to firm other than the lowest qualified bidder without adequate justification
- Selection of low bidder followed by a change order increasing price or decreasing scope
- Repeated requests to extend expired contracts rather than re-bidding
- Multiple contract awards just under the bidding threshold
- The same few bidders are the only participants, bidders are active in local trade or contractor associations
- A pattern of rotating bid winners, with losing bidders often becoming subcontractors for the winner
- Bid documentation showing possible collusion among bidders, such as the same fax numbers on bidding documents, and so on
- Use of unwarranted bid protects or other means to exclude new bidders
- Bid prices drop when new bidders begin to participate in tenders

Source: World Bank Water Sector Anti-Corruption Workshop, 8 January 2008.

Practitioners can detect corruption in procurement by reviewing bids and looking for unusual patterns that may indicate corrupt behavior. Once a number of bids have been run, and the government has collected information on the offers and winning bid, practitioners can review this information, looking for unusual patterns such as those identified above. If practitioners are untrained in spotting such unusual patterns, they can use a procurement specialist or forensic accountant to assist in bid analysis, or assign this job to a probity auditor. Such analysis should be repeated on a regular basis, and used to feed-back in to future procurement design.

### **6.2.2 High unit costs**

If the cost of project inputs, such as concrete, meters of pipe, or valves, are high compared to other similar countries, this may be due to corruption. For example the contractor may inflate the costs of inputs as a way of pushing up the total project value, and kick some or all of the extra profit back to the officials awarding the contract. One way to assess whether unit costs are inordinately high is to compare them against unit costs in bids for similar works:

- From other firms in the same country
- In tender processes in other similar countries.

Box 6.4 provides an example of this type of analysis.

### **6.2.3 Inadequate supervision, poor quality of works**

As discussed at the beginning of this section, corruption in capital works can take the form of a reduction in the quality of the work, for the same contract price. Indications that this type of corruption is occurring can include:

- Delays or refusals by the contractor (or project officials) in allowing site inspections
- The contractor or project officials insisting on choosing the sites for inspections, or only allowing inspections at specific sites.

Poor supervision or quality can also be symptomatic of fraud in the bidding process. If the contractor won the tender on the basis of a fraudulent bid, it may seek to prevent proper site inspections, or may pay relevant officials to ensure inadequate supervision.

Post-procurement fraud may also arise, for example:

- Falsification of inspection certificates
- Falsification of quality tests.

The combination of fraud in the bidding process, and inadequate project supervision, is likely to result in works that are not up to standard, such as water that does not meet quality standards, non performing pumps and pumping stations, or high levels of leakage in newly constructed feeders and tertiary distribution networks.

Good practice requires multiple inspections of multiple sites (where the work involves more than one site). The utility or government should not sign off on completion of any project without (preferably independent) inspection of all project sites, to confirm that the works meet project specifications.

### **6.2.4 Unjustified contract variations**

The initial process of procurement and contract negotiation is usually considerably more transparent than post award contract adjustments and includes more checks on accountability than subsequent contract variations. As a result, contract variations provide an opportunity for those managing the project (utility managers or officials, and contractor staff) to either:

## Box 6.4 Explaining High Basic Input Costs in Caribbean Infrastructure

An unpublished World Bank study compared infrastructure basic input costs between Organization of East Caribbean States (OECs) and Argentina, and among OECs countries. This comparison is presented in the charts below.

A senior infrastructure practitioner from the region gave the following opinions on the reasons for these cost differences, in an interview with Castalia. The information below is the opinion of the interviewee.

A lot of corruption, where it exists, appears to be motivated by the need to properly fund political parties. Wealthy political parties can campaign for election of their leaders in future elections. Contractors are sometimes awarded public works contracts for sums that are significantly above the estimated costs. The excess profits are then transferred by the contractor to the political party as a 'donation'. Evaluation processes for competitive bidding are often not as transparent as they appear to be, and in some countries, not only politicians are to blame, also senior public servants are sometimes complicit in the process. Senior officials, most of which are political appointments, are often involved in manipulating the bid evaluation process to make an award to the contractor predefined by their political leader. Of course, it would be very difficult, if not impossible, to prove this statement to the standard required in a court of law.

In cases where funding is sought from Official Development Assistance (ODA), there is a distinct tendency among OECs government agencies to have contracts awarded to local contractors. To this end, large contracts, which are commonly beyond the capacity of the largest local contractors to finance, are often broken up into smaller contracts. Smaller contracts however, lead to several problems:

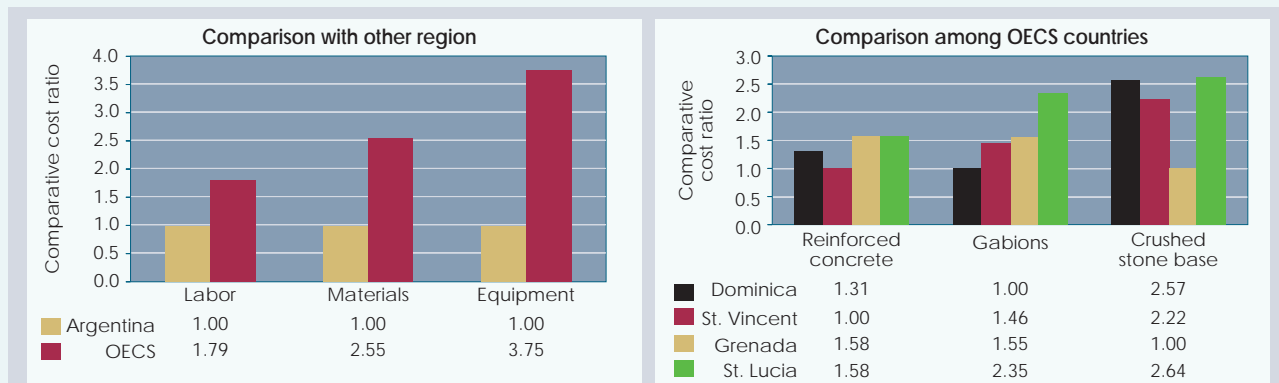
- Smaller contracts tend to be prepared using weaker and less formal contracts than those used by ODAs for larger contracts. As a result, these contracts can lead to complex and difficult disputes
- Breaking up the contracts often results in severe coordination problems such as in the case of road works, when separate contracts are awarded for drainage works and for preparation, surfacing or sidewalk construction. Coordinating three or four contractors in the planning and execution of the works can be a daunting task for the limited staff with limited experience. Delays and claims for extension of time usually result in significant cost overruns
- Breaking up contracts also gives rise to increased costs resulting from the loss of economies of scale in the contractor's preliminaries.

Generally, there is reluctance among officials to accept the procurement rules mandated by ODAs as governments often see this as a restriction on their ability to defend their interests, as described above. Hence, the recent trend among regional governments to approach private financial institutions which have virtually no procurement rules. Private financial institutions charge significantly higher interest rates and additional commission, and require sovereign guarantees.

Labor productivity in the OECs is very poor compared to say Jamaica. Relatively large wages and salaries (in US\$ terms) are paid out to employees for very little work compared to that produced by their Jamaican counterparts. This is true when comparing both public and private sector performance, and is probably due to relatively stronger trade union activity in the public sector in the OECs. This also sets the tone for low private sector labor productivity, which in the opinion of the interviewee, is not perceptibly better than public sector productivity.

Frequent shortages of critical materials which are imported into the OECs, such as cement, have also been known to delay the completion of public works and in turn increase costs.

The interviewee agrees with the World Bank that over-design is probably also a factor. For example, a new OECs utility appeared to be "significantly over-designed". This facility was designed by a U.K. firm of engineers. The interviewee was unsure as to how this problem could be resolved. One option might be to employ engineers to review the designs done by others to try to avoid this problem, particularly if fees paid to the designer are calculated as a percentage of cost.



- Increase the price of the contract, for the same output or level of quality
- Reduce the quality of the contracted works for the same price.

Either of these has the result that the government or public utility pays the contractor more than the work is worth. The contractor may kick back some or all of the value to the government officials or utility staff responsible for the change orders.

## Source List 6.1 Planning and Implementing Capital Projects

<i>Source</i>	<i>Description</i>
<b>Kenny, C. (2007). "Construction, Corruption, and Developing Countries", Policy Research Working Paper 4271. World Bank</b>	Construction is consistently ranked as one of the most corrupt sectors. Recommends that plans to combat corruption should begin at the level of planning and budgeting. Also recommends output based and community-driven approaches as tools for reducing corruption, in combination with a range of other interventions (like publishing procurement documents, oversight by the community, and physical audits). Further information on this working paper is available in Source List 3.1 on page 21. <sup>a</sup>
<b>Kramer, W. (2007). "Corruption and Fraud in International Aid Projects". U4 Brief. Chr. Michelsen Institute.</b>	Highlights the many similarities of how fraud is taking places, but cautions not to underestimate the ingenuity of those who skim or steal project funds to come up with new avenues for enrichment. Good description corruption and fraud schemes encountered during investigations and consulting engagements, primarily in Africa and Central, South and East Asia, on behalf of major international aid organizations over the last 10 years. <sup>b</sup>

<sup>a</sup> <http://go.worldbank.org/9Y8J86OL30>

<sup>b</sup> <http://www.cmi.no/publications/file/?2752=corruption-and-fraud-in-international-aid-projects>

## 7 IMPLICATIONS OF DIFFERENT SECTOR STRUCTURES

Sections 5 and 6 discussed corruption risk assessment at the provider level, and in the planning and implementation of capital projects. These two sections assumed a “typical” water utility, with the following characteristics:

- Publicly owned, without private sector involvement in management and operation of the utility
- Operating under a corporate model, as opposed to operating as a government department
- Operating at a national level.

The form and incidence of governance problems and corruption will vary between different sector structures. This section of the Sourcebook discusses how corruption risk differs from the “typical” model discussed in the previous sections, due to differences in:

- The level of **private sector participation** (PSP) in managing and operating the utility
- **Where key decisions are made**—whether by the utility under a corporatized model, or within government
- The **level of government** with which the utility interacts—a municipal level or national government
- The **level of administrative capacity** within the country (including whether the country has recently emerged from a conflict situation)
- The **governance culture** of the country in question.

### 7.1 Private Participation

Private sector participation cuts out many opportunities for corruption. But it introduces new venues in which corruption may flourish. This section:

- Provides a brief description of private participation, and the most common models of private participation
- Discusses how private sector involvement reduces many corruption risks in utilities
- Identifies and discusses two new “hot spots” for corruption created by private sector involvement:
  - Award of a contract or operating license allowing a private firm to supply water services
  - Regulation and supervision of the private provider or manager.

#### **7.1.1 Impact of private participation on corruption risk—provider level and capital projects**

The involvement of a private operator in managing and operating the utility reduces several corruption risks. The shareholders of the private firm have a strong interest in ensuring that they capture value within the utility, not utility staff or managers, or government officials. Accordingly, private firms tend to be quite effective at implementing systems to prevent such misappropriation. Moreover, if such misappropriation does occur in a private utility, so long as it private funds being misappropriated then it is, by definition, not corruption. This is more than a semantic distinction. Theft from a private corporation is still theft, and a serious issue, but it is not a public policy issue in the same way that theft from a public entity is.

In practice, the impact that private participation has on corruption risk will depend on the form of private participation, and in particular on:

- The risks and responsibilities assumed by the private operator under the arrangement
- Who makes key decisions—the private operator, or the government.

Broadly, five types of private participation arrangement are common in the water sector:

- **Management contract**, where the private operator simply supplies management services to the utility, but has no ownership stake
- **Affermage**, where the private operator is paid a fee to run the business, and is responsible for employing staff, and operating and maintaining the utility's assets
- **Lease**, where the private operator pays a lease fee for the right to run the business, operate and maintain the utility's assets, and collect revenue from customers. New capital investment is the responsibility of the government
- **Concession**, where the private operator pays a fee to for the right to run the business, operate and maintain the utility's assets, and collect revenue from customers. The private operator plans and finances new capital investment, but does not actually own the infrastructure assets
- **Investor-owned**, where the government sells the utility, including the infrastructure assets to a private operator, or where a utility and its assets have from the start been privately owned and operated.

Table 7.1 on the next page provides more detail on these different models of private participation. (For more information on private participation in the water sector, see the World Bank's publication *Approaches to Private Participation in Water Services: A Toolkit*.)

Table 7.2 on page 62 shows how the pattern of corruption risk in five areas varies across different forms of private participation arrangement. The areas are:

- Suppliers and contractors
- Connections and commercial operations
- Human resources
- Stores, travel, and company property
- Capital projects.

The table is followed by a brief explanation of the impact of private participation in each of the areas.

### ***Suppliers and contractors***

Corruption in dealing with suppliers and contractors tends to be less of a problem for private operators than for public utilities. The exception to this is management contracts. Depending on how the management fee is structured, the private operator may have little to lose from this form of corruption, and so may not give much attention to its prevention. Thus accountability and corruption problems may persist or even worsen under a management contract arrangement (for example see Box 7.1).

Where a private operator has greater span of control in managing a utility, it will bear the costs of corruption in relation to suppliers and contractors, and so is likely to take steps to reduce the risk of corruption. Thus the corruption risk in the area of suppliers and contracts is likely to be lower under other models of private participation.

Where a private operator is responsible for operating the utility, a greater concern is the potential for the operator to enter into related party contracts (see Box 6.2 for an example). Private operators may

Table 7.1 Five Variants of Private Participation

Type of Arrangement <sup>(1)</sup>	Definition in the Toolkit of Operator Duties	Selected Responsibilities of the Operator	Stylized Typical Profit Function for Operator	Risks Borne by Operator—and Share of Total Project Risk	Ownership of Operating Assets	Ownership of Infrastructure Assets
Management Contract	Supplies management services to the utility in return for a fee	Providing management services to utility	Fixed fee + bonus – managers' salaries and related expenses	Depends on the nature of the performance bonus—very small	Contracting authority	Contracting authority
Affermage	Runs the business, retains a fee (generally not equal to the customer tariff) based on the volume of water sold, but does not finance investments in infrastructure assets	Employing staff Operating and maintaining utility	(Affermage fee x volume of water sold) – operating and maintenance costs	Operating and commercial risks—significant <sup>(2)</sup>	Operator	Contracting authority
Lease	Runs the business, retains revenue from customer tariffs, pays a lease fee to the contracting authority, but does not finance investments in infrastructure assets	Employing staff Operating and maintaining utility	Revenue from customers – operating and maintenance costs – lease fee	Operating and commercial risks—significant <sup>(2)</sup>	Operator	Contracting authority
Concession	Runs the business and finances investment, but does not own the infrastructure assets	Employing staff Operating and maintaining utility Financing and managing investment	Revenue from customers – operating and maintenance costs – any concession fee	Operating, commercial, and investment-related risks—major	Operator	Contracting authority
Investor Owned	Runs the business, finances investment and owns the infrastructure assets	Employing staff Operating and maintaining utility Financing and managing investment	Revenue from customers – operating and maintenance costs – any license fee	Operating, commercial, and investment-related risks—major	Operator	Operator

Notes:

(1) The use of the terms such as "affermage," "lease", and "concession" varies, and arrangements that go by these names do not always have the features set out in the table

(2) Other things being equal, the operator bears more demand risk in an affermage because the government's payment is fixed in a lease, and variable in an affermage

Source: World Bank, Approaches to Private Participation in Water Services: A Toolkit, page 9.



**Table 7.2 How Corruption Risk Varies Across Private Participation Models**

	<i>Suppliers and contractors<sup>1</sup></i>	<i>Connections and commercial operations</i>	<i>Human resources</i>	<i>Stores, travel, and company property</i>	<i>Planning capital projects</i>	<i>Implementing capital projects</i>
<b>Management contract</b>	π	π	π	π	π	π
<b>Affermage</b>	x	x	x	x	π	π
<b>Lease</b>	x	x	x	x	π	π
<b>Concession</b>	x	x	x	x	x	x
<b>Investor Owned Utility<sup>2</sup></b>	x	x	x	x	x	x

Notes:

π indicates situations where the public sector retains responsibility for the business area concerned. Corruption risk in these areas is discussed in Sections 5 and 6.

x indicates where the private operator generally has the incentive and ability to reduce corruption risk.

<sup>1</sup> Where a private firm operates the utility, related party contracts may become a concern, depending on the regulatory regime.

<sup>2</sup> Under this model, the utility is fully owned by the private sector. Thus any misappropriation of value from the utility does not fall within the definition used in this Sourcebook (in any case under this model these corruption risks are likely to be low).

contract with related firms for the supply of key inputs, or for maintenance or construction work. Here “related firm” refers to a company that has the same shareholders as the private operator. The private operator could agree to an inflated contract price for the supplies or works, as a way of transferring profits to the private operator’s shareholders through the related firm.

This type of arrangement is not corruption according to the definition used in this Sourcebook (see Section 2.1). Related party contracting is fundamentally a *regulatory problem*. It is a means of siphoning funds out of the sector by inflating the utility’s costs, and so passing these costs to consumers in the form of high prices. Regulators can deter related party contracting problems by introducing rules requiring ring-fencing of supplier and contractor operations, and arm’s length contracting, or by setting and enforcing efficiency targets or price caps.

### **Box 7.1 Alleged Corruption in Management Contracts: the Case of Guyana**

Turning around the water sector in Guyana has proven to be a difficult job. The utility’s governance, financial management, technical operations, and overall performance have been weak since its formation from the merger of two separate water and sewerage companies.

In 2003, the utility signed a five-year management contract with a private company. The utility continued to perform poorly under the management contract and the Government claimed that the private company was only on track for five out of the seven objectives. The management contract was terminated by the Government in February 2007.

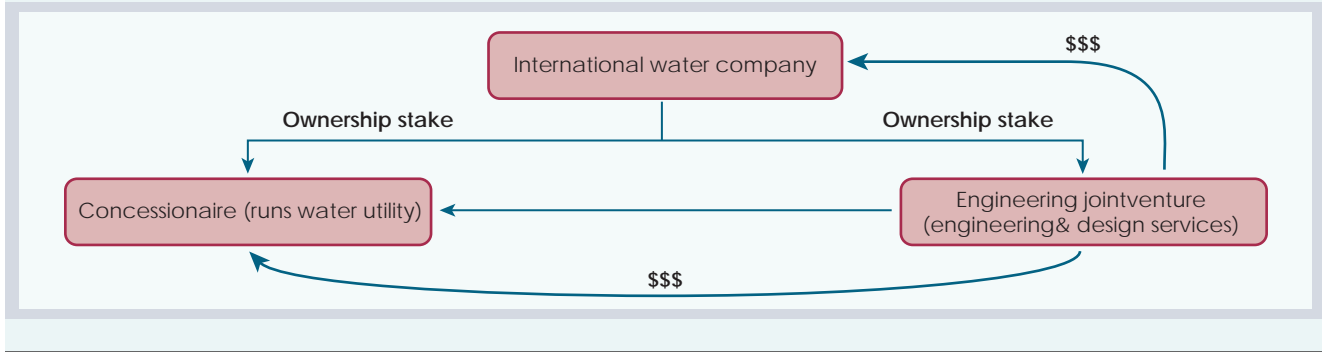
Following contract termination, the UK’s DFID—which had provided a grant to fully fund the management contract—investigated the water utility and found several accounting and management problems. The findings of DFID’s audit provided the basis for a “Turnaround Plan” that involves recommendations on improving corporate governance, finance, procurement, human resources, and operations. DFID is also following up on these recommendations to ensure that the utility is implementing the “Turnaround Plan”.

While many observers would agree that performance and probity were better under the management contract than they would have been under a purely public management, this example does illustrate that the limited control and incentives under a typical management contract mean that corruption continues to be a risk across much of the business.

Source: Castalia fieldwork

### Box 7.2 An Example of Related Party Contracting

In a major Asian concession, a prominent foreign water company had a significant stake in the concession company, and was also a partner in an engineering joint venture. The concession company outsourced all of its engineering and design work to the joint venture engineering business (see diagram).



#### *Connections and commercial operations*

Corruption in connections and commercial operations is most prevalent with public utilities. In general private utilities have the ability and incentive to put in systems to prevent most of these abuses.

Where the utility operates under a management contract, the private operator usually does not bear the loss from this form of corruption, and so has limited incentive to prevent it. In this case the corruption risk in relation to connections and commercial operations will be similar to that for a public utility. The extent to which this is true will depend on the structure of any performance payments under the management contract. For example, if the contract includes a bonus payment based on achieving reductions to NRW, this may encourage the private operator to put procedures in place to reduce corruption in the area of connections and commercial operations.

#### *Human resources*

Again, private firms have evolved control systems that reduce the scope for human resources corruption (discussed in Part II). Private utilities are generally effective at applying those systems, as failure to do so would mean profits being siphoned off to managers and employees. This form of corruption is more likely under a management contract than other forms of private participation.

#### *Stores, travel, and company property*

As Section 2.1 notes, misappropriation of property and money from a **private** utility does not fall within the definition of corruption used here, as no public funds are involved. Where the utility's property is owned by a private operator, that firm will have strong incentives to prevent and detect theft by staff.

However, under a management contract, as the private operator does not own the utility's stores, inventory, and funds, it will have limited incentives to protect these. Corruption risk will therefore be similar to risk for a public utility.

#### *Capital projects*

Under many common forms of private participation (that is, public-private partnerships), the private operator has little or no responsibility for planning or financing capital projects. In the case of management contracts, affermage contracts, and leases, the public sector retains responsibility for the utility's

capital assets. This means planning, financing, and sometimes implementing new capital projects is the responsibility of the government (although the private operator would usually have some input into this process, for example providing demand data and helping to identify priorities for capital investment). Thus, under these models, corruption risks in planning and implementing capital projects will be similar to those outlined in Section 6.

Under a concession model, the government transfers the utility's capital assets to the private concessionaire for the duration of the contract (usually 20 to 30 years). At the end of the concession, ownership of the utility's assets (including any new capital investment) reverts to the government. The concessionaire bears the responsibility for, and cost of, planning and implementing capital projects, and is therefore likely to take steps to reduce the potential for misappropriation of value.

In practice, however, even under a concession, senior public officials may retain an implicit or explicit role in relation to capital projects, in particular in relation to the planning stage. For example, if a Master Plan already exists, the government may let the concession on the condition that the concessionaire adopts that plan. The government may include a requirement in the concession contract that the Minister is consulted on proposed capital projects. Even where this is not the case, officials may seek to influence the concessionaire's process for planning capital investment for their own benefit.

Where the utility is fully owned by a private operator, that is under a full divestiture model, the operator will have strong incentives to minimize any loss of value through poor planning, or in the implementation of capital projects. (In any case, misappropriation of value under this model falls outside our definition of corruption.)

### **7.1.2 Corruption hotspots that arise under private participation**

Private participation in the water sector thus gives rise to new corruption "hot spots":

- The award of contracts and licenses, and
- Regulation and supervision of the private participation arrangements.

#### *Award of contracts and licenses*

Award of private participation contracts and licenses often involves large amounts of money (or future value) changing hands. This occurs in an environment where outsiders find it hard to judge if the public is getting value for money. The combination provides an arena for corruption to take place.

Private firms may pay key government officials to influence the award of a license or private participation contract in their favor. Because it is difficult for outsiders to accurately specify the appropriate price for the contract, the private firm can inflate its bid price, and kick some of the contract value back to the relevant public official once the contract is awarded.

The public official(s) involved may capture the resources for personal gain, or may divert the resources to benefit their political party. Where resources are diverted to benefit a political party's campaign finances, the number of people involved in the corrupt behavior (both directly and indirectly) is likely to be higher.<sup>13</sup>

Indicators of corruption risk in awarding private contracts are similar to indicators of corruption risk in procuring capital works (see Box 6.3), and include:

- Uncompetitive or non-transparent award processes for private participation contracts or licenses

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<sup>13</sup> Corruption almost always involves more than one individual, with payments being made up the line to keep the corrupt system in place. For instance, a meter reader that is taking bribes to under-report is likely to be passing some of this money on to his boss, who passes some on to his boss and so on.

- A reputation for corruption in awarding of similar contracts
- The existence of unnecessary middlemen—local “agents” that provide generic, ill-defined services
- Unexplained levels of wealth among senior officials or politicians who are able to influence the award.

Sector practitioners may obtain additional information on whether the award process was corrupt by talking to interested parties to gather information on the award process (or appointing a probity auditor to do this). Useful parties to approach might include:

- Managers or staff of the private operator
- Losing bidders—for example, did anyone attempt to extract bribe during the tender process?
- Utility staff and managers
- Professional associations (for instance, engineers)
- Government officials (those not directly involved in the award)
- Watchdog agencies (for instance, integrity commissions).

Once the initial contract award is completed, corruption risk persists. Sector practitioners should be alert to the possibility of corruption in:

- Contract renegotiation
- Contract extension or renewal.

### **Contract renegotiation**

Following initial award of a private participation contract, it is common for the private operator to seek to renegotiate the contract. Guasch (2004) defines renegotiation as follows:<sup>14</sup>

*Renegotiation occurs when the original contract and financial impact of a concession contract is significantly altered and such changes were not the result of contingencies spelled out in the contract. For example, stated and standard tariff adjustments resulting from inflation or other stated drivers do not count as renegotiation. Nor do periodic tariff reviews stipulated in a contract, or contingencies (such as significant devaluations) in a contract that induces tariff changes. Only when substantial departures from the original contract occurred and the contract is amended can one say that a renegotiation took place.*

Guasch (2004) has found that 75 percent of water sector concession contracts in Latin America and the Caribbean are renegotiated, on average within about 2 years of the contract award (this is despite original contract agreements of 20 to 30 years).<sup>15</sup>

As Guasch goes on to point out, renegotiation can be a good thing, as it offers a way of addressing the inherently incomplete nature of concession contracts. Thus, just because a private operator seeks to renegotiate its private participation contract, it does not mean the operator is corrupt. In many cases the reasons for renegotiating are quite legitimate. Operators frequently cite unanticipated changes to factors outside their control, that make the original terms of the contract unworkable. For example, sudden changes in the exchange rate may increase the cost of key inputs above anticipated levels, or significantly inflate the cost of debt servicing.

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<sup>14</sup> Ibid.

<sup>15</sup> Guasch, J.L. (2004). Granting and Renegotiating Infrastructure Concessions: Doing it Right. World Bank, page 34. The findings of this study are debatable because Guasch’s definition of a concession contract was broad, and which party initiated the renegotiation (that is, government or private operator) is not revealed.

However, the terms and process for renegotiation remain a concern. Contract renegotiation is generally less publicized and is subject to fewer controls than the original award. Because renegotiation takes place just between the government and the operator, it is not subject to competitive pressures and their associated discipline and the terms and conditions of the renegotiation are rarely made public. Thus this type of (undisclosed) renegotiation presents greater opportunities for corruption or opportunistic behavior.

If bidders believe they will be able to renegotiate the contract, they may initially bid competitive prices that they cannot sustain in the long term, and subsequently seek to renegotiate a higher price. The outcome is that the initial competitive process may not in fact give the contract to the most efficient provider. This in itself does not necessarily amount to corruption, under the definition used here. However, in principle a private operator might offer a bribe or kickback to relevant government officials in return for assurance that the contract will be renegotiated shortly after the award.

#### *Renewal and extension of private participation arrangements*

In some cases private operators or public officials may seek to extend or review an expired private participation contract rather than rebidding. For example, this may be based on arguments that the cost and potential disruption from transferring the operation of the utility to another private operator outweigh any additional efficiencies a new operator might bring.

While such arguments may be valid, there are often significant potential gains from retendering private participation opportunities when the initial contract expires. Public officials are usually not well placed to second guess what innovations or efficiencies additional market pressure may encourage. A competitive retender should draw out such efficiencies—and if the existing private operator is genuinely the most efficient provider, retendering the contract should confirm this.

Often the government officials making this decision have been working with the private operator's managers for a long period, and may have developed a "cozy" relationship with them. Even where there is no explicit corruption, public officials may be influenced by this degree of closeness to decide in the private operator's favor. Corruption could involve a bribe paid by the private operator to key government officials to secure a non-contested contract extension, or ongoing provision of favors (such as paying for travel those officials, or giving them the use of the utility's vehicles and other resources).

#### *Detecting corruption in renegotiation, renewal, and extension of private participation*

It is difficult for outside observers to determine whether the justification for any renegotiation or contract extension is legitimate, or reflects corrupt behavior.

In the case of renegotiation, where there is a pattern of frequent objectively unjustified renegotiation in private participation contracts, shortly after the initial award, this may indicate corruption either in the initial award or in the government's ongoing oversight of the contract. Sector practitioners should be particularly wary where:

- Initial bid prices appeared to be unsustainably low, even at the time of the initial award
- Private participation contracts are managed through a single government agency, and the same government officials are frequently involved in renegotiating public participation arrangements
- Government officials involved in overseeing and renegotiating the contract appear to enjoy a standard of living that their salaries would not support
- The country concerned has a reputation for poor governance and corruption risk.

Indicators of corruption risk in contract extensions or renewals are similar. In particular, where government officials support non-contested contract extension despite poor performance by the private operator, which would raise a corruption “red flag”. Additional indicators are similar to those listed above.

### *Regulation and supervision of private participation arrangements*

Where the utility is operated by a private firm, the government needs to establish clear rules to determine the quality of the service to be provided, and the maximum price customers will pay for that service. These rules are usually set out in the private participation contract (although they may be set by regulation), and administered by a government regulator.

The regulatory rules have a significant impact on the private operator’s profitability. On the one hand, rules relating to tariffs and tariff resets drive the utility’s revenue expectations. On the other side of the balance sheet, rules and targets for service quality and coverage have a major impact on the private operator’s costs. Thus government officials involved in making regulatory decisions, and monitoring the utility’s compliance with the regulatory framework can seriously affect the value of the utility. This puts regulatory officials in a position to demand a share of that value.

Corruption in this area involves payment to a government official with the intention and effect of getting a decision that saves the utility money. Government officials in a position to obtain such payments include regulators, contract enforcement officials, and others with the ability to influence a regulatory or contract enforcement decision. Such decisions may include:

- Awarding a higher tariff than the regulatory rules warrant
- Setting lower service standards than the regulatory rules warrant
- Not enforcing service standards or targets
- Not enforcing other contractual or regulatory rules, such as not requiring a management contractor to deliver all the outputs promised, or not enforcing penalties on a BOOT contractor who is late in delivery of the asset.

The above examples are all of an official giving an unduly favorable decision to a utility, in exchange for a payment from the utility.

There are also cases in which a regulator may demand a payment simply for giving the “right” decision from a regulatory perspective. This would tend to occur when the regulatory system is characterized by a high degree of discretion, does not provide clear guidance to the regulator, or lacks a credible appeal process. In such cases the regulator can hold the utility hostage unless a bribe is paid. The utility may have no redress against the unreasonably regulatory action, and therefore be forced to pay the bribe.

### *Detecting corruption in regulation and supervision of private participation*

This form of corruption risk is clearly only a problem where there is private participation. Corruption risk is located at those points where regulatory decisions affecting the value of the utility are made, including decisions on tariffs, service standards, coverage or other investment targets, or other obligations of the private operator.

Indicators of corruption risks in regulation include:

- Unclear regulatory rules
- High regulatory discretion
- Rules or contracts that are not enforced

- Regulatory decisions that seem inconsistent
- Unexplained wealth of regulatory officials
- Utilities paying for trips or other entertainment for regulatory officials.

## 7.2 Government or Provider Decision Making

The locale of corruption risk is influenced by **where** key decisions are made that affect the flow of value within the sector (illustrated by Figure 4.1 on page 31). The discussion of corruption risk in Sections 5 and 6 assumed a state-owned company—that is, a utility that is incorporated as a company but is owned by the government.

The state-owned company model is one of several forms of organizational control of public utilities. Other options include:

- A government Ministry or Department
- A statutory body (or “parastatal”)
- A mixed-ownership company, with some shares owned by the government, some by a private investor.

Where water services are provided by a government department, the day to day management of the water utility is the responsibility of officials within the government. The relevant Minister may be directly involved in key decisions, not just on matters of capital investment but possibly also on the ongoing operation and management of the utility.

Where the utility operates as part of the government, rather than as a corporatized unit, the location of corruption hot spots shifts accordingly. The provider level “hot spots” discussed in Section 5 are linked to government officials and the responsible Minister, rather than utility managers (and employees).

## 7.3 Level of Government

In many countries, water supply services are a municipal responsibility, rather than a national one. In general, whether the utility operates at a national level or a municipal level does not significantly affect the pattern of corruption hotspots as illustrated in Figure 4.1. The key difference is the level of government at which decisions affecting the utility are taken. Where a water utility operates at a municipal level then, in general:

- Where decisions for a national utility would be made by government officials, they are instead made by local government officials
- Where decisions for a national utility would be made by the relevant Minister, they are instead made by the mayor.

For example, for a national water utility planning and design of capital projects may be undertaken by central government officials, with final decisions taken by the Minister responsible for the water sector. For a municipal utility, local government officials and the mayor might perform these roles.

## 7.4 Level of Administrative Capacity

In many developing countries, the capacity of the government to manage is low or mediocre. As a result:

- Accountability structures may be inadequate
- Information on utility performance may be incomplete, or where information is collected it may be unreliable

- Management processes, for example processes for managing staff, and tracking company property may be non-existent, inadequate, or where they do exist such policies may not be utilized in practice.

Post-conflict countries are a special case of countries with low capacity. In countries that have recently emerged from a state of conflict, systems will often be in disarray, and information on the state of the utility may be non-existent.

Sector practitioners face particular challenges in detecting corruption in countries with low or middle administrative capacity, or post-conflict countries. The performance indicators cited in Sections 4 and 5 as “red flags” for corruption won’t be available for many of these countries. Even where such data is available, it may not be reliable. At the same time there is likely to be a high incidence of corruption in these countries, not least due to the lack of accountability and governance structures.

In assessing corruption risk in countries with low administrative capacity, and post-conflict countries, sector practitioners will need to rely on whatever information they can obtain on sector performance and service levels. In practice this will mean relying heavily on interviews and discussions with people within and outside the sector, to collect information on sector performance, customer responsiveness, and the incidence of corrupt activity. People to talk to include:

- Government officials
- Utility managers and staff
- Aid agencies
- Businesses and business organizations such as Chambers of Commerce
- Consumer organizations
- Residents’ associations
- NGOs working in the water and sanitation sector.

Where a number of individuals tell similar stories about alleged corruption, this will tend to indicate where there is a problem. (See Section 10 for suggestions on opening a stakeholder dialogue.) Customized surveys may also be a useful source of information on corruption in low capacity and post-conflict countries (see Section 4.5).



## Source List 7.1 Sources on Implications of Different Sector Structures

Source	Description
Estache, A., Goicoechea, A., and Trujillo, L. (2006). <i>"Utilities Reforms and Corruption in Developing Countries"</i> , Policy Research Working Paper 4081. World Bank	This paper applies econometrics to a cross-country and cross-sectoral dataset. It finds no statistically conclusive results on the impact of reforms to introduce private participation in infrastructure, or independent regulation, or both, on the effects of corruption (as measured by a national-level indicator) on performance of the water sector. However, the authors suggest that this simply reflects poor data quality. In the electricity sector, private participation and independent regulation appear to reduce the negative effect of corruption on access and quality. <sup>a</sup>
Guasch, J. L. (2004). <i>"Granting and Renegotiating Infrastructure Concessions: Doing it Right"</i> . World Bank	This book describes the various options for private participation in infrastructure, including their benefits and drawbacks (Chapter 2). Chapter 3 and 4 focus on renegotiating concessions, with examples of what drives renegotiation. Chapter 5 offers case studies of renegotiated contracts, with Chapters 6 and 7 commenting on the lessons learned and policy implications. <sup>b</sup>
Johnston, M. (2007). <i>"Understanding the Private Side of Corruption: New Kinds of Transparency, New Roles for Donors"</i> . U4 Brief	This paper discusses gaps in knowledge about corruption in the private sector, and how donors can facilitate a new kind of transparency to improve the outcomes of anti-corruption efforts. <sup>c</sup>
Rose-Ackerman, S. (2007). <i>"Measuring Private Sector Corruption"</i> . U4 Brief	This brief makes recommendations of how donor agencies can identify and control commercial bribery and new types of business-government corruption so as to not undermine the benefits of private sector development. <sup>d</sup>
Schwartz, J. and Halkyard, P. (2006). <i>"Postconflict Infrastructure"</i> , Public Policy for the Private Sector, Note 305. World Bank	Postconflict countries suffer from disproportionately low levels of private investment in infrastructure, with only small-scale service providers likely to emerge during and right after conflict. Larger investors are slow to enter, and when they do they focus almost exclusively on the easily secured and most profitable subsectors. Yet some countries have been able to couple aggressive reform and liberalized policies to attract infrastructure investments soon after conflict abates. This paper draws out lessons from these experiences. <sup>e</sup>
Shrestha, P (2007). <i>"Corruption in Infrastructure Provision and Service Delivery at the Municipal Level in Nepal"</i> , in Sohail (ed.) <i>"Partnering to Combat Corruption in Infrastructure Services: A Toolkit"</i> . Water and Engineering Development Centre	This document is a detailed case study of corruption in infrastructure service delivery at the municipal level in Nepal. It details the causes of corruption in infrastructure delivery, and the types of corruption that occur. This document provides comprehensive descriptions of the forms of corruption that occur at the municipal level. This can provide a useful indication to sector practitioners of what to look out for under similar circumstances. <sup>f</sup>
World Bank (2006). <i>"Approaches to Private Participation in Water Services: A Toolkit"</i> . World Bank	See Source List 4.1 on page 34. This toolkit describes many sector structures in water and sanitation, including examples. <sup>g</sup>

<sup>a</sup> <http://go.worldbank.org/PXJ02MBK60>

<sup>b</sup> <http://crpg.stanford.edu/events/presentations/gcr2/Guasch3.pdf>

<sup>c</sup> <http://www.cmi.no/publications/file/?2756=understanding-the-private-side-of-corruption>

<sup>d</sup> <http://www.cmi.no/publications/file/?2755=measuring-private-sector-corruption>

<sup>e</sup> <http://info.worldbank.org/etools/docs/library/240073/Post-conflict%20infrastructure%20-%20trends%20in%20aid%20and%20investment%20flows.pdf>

<sup>f</sup> [http://wedc.lboro.ac.uk/projects/proj\\_contents0/WEJES%20-%20Combat%20Corruption/www/outputs/Corruption%20in%20Infrastructure%20Provision%20and%20Service%20Delivery%20-%20Nepal.pdf](http://wedc.lboro.ac.uk/projects/proj_contents0/WEJES%20-%20Combat%20Corruption/www/outputs/Corruption%20in%20Infrastructure%20Provision%20and%20Service%20Delivery%20-%20Nepal.pdf)

<sup>g</sup> <http://go.worldbank.org/K1G2ZAAAB0>

## PART II INCREASING PROBITY AND IMPROVING GOVERNANCE

This part of the sourcebook presents information on approaches to reducing corruption by promoting probity and good governance. There are three sections, each of which corresponds to a different “level” of activity or governance: the project level (including both project planning and implementation), the provider level, and the sector level.

This part begins by reviewing ways to increase probity in **capital projects and planning**. Capital projects are where governments and practitioners have traditionally focused most on corruption, and where they have correspondingly centered their efforts to improve probity. Capital projects are also a particular focus for many development agencies. Section 8 of the Sourcebook covers measures that practitioners can feasibly implement in the context of a traditional “project”.

Section 9 covers **provider level** governance. The main corruption risks generally thought to occur in provider activities include: billing and collection, award of maintenance contracts, purchase of supplies and the like. Corruption-reducing reforms in providers typically involve well-understood improvements in management systems, and are within the professional domain of sector practitioners, making advice in this area more technical and less controversial than sector-wide governance reform attempts.

Section 10 addresses **sector governance**. Governance is defined as the system of relations, accountabilities, and decision-making rights that make the development of water service provision responsive to citizens’ needs (in the case of good governance) or that lead water sector development in a different direction (in the case of poor governance). Governance comes last in the discussion because it is the most difficult, and because reforms in this area generally require the longest gestation period, and the most sustained effort. Ultimately, however, governance is the most important element to get right. Without an effective local demand for probity, and a political system that responds to that demand, reforms at the project or provider level are at best likely to remain static, or at worst be circumvented or rolled back.

## 8 INCREASING PROBITY IN CAPITAL PROJECTS

Capital projects are major capital works commissioned by or for a water provider. As discussed in Section 6, most corruption in capital projects involves reduction in quality or inflation in price (or both), in part to cover the costs of bribes or kickbacks from a private contractor to a government official. In this way, capital projects create opportunities for contractors or officials to capture resources from taxpayers, donors, or customers (who ultimately pay for the works).

This section first discusses steps that can be taken to promote probity project planning, selection and evaluation (Section 8.1), procurement (Section 8.2) and project supervision (Section 8.3). Section 9 sets out more general approaches for providers planning and implementing projects. This section ends by looking at a special type of procurement: procuring sanitation contracts for private finance for operation of water and sanitation in infrastructure.

Increasing probity in a capital project often requires a multi-faceted, multi-stakeholder approach. Box 8.1 describes a comprehensive approach taken by a World Bank team working with the Government of Paraguay on a roads project.

### 8.1 Project Planning, Selection, and Evaluation

This section sets out how good planning and project evaluation can reduce opportunities for corruption, by reducing bias and discretion. It describes a good planning processes, as well as the challenges in implementing such a process. It then provides a list of sources on effective sector investment planning.

#### ***Sound planning and project evaluation helps to reduce opportunities for corruption***

Good practice in capital projects start with planning and project selection. This should involve:

- Developing a masterplan that is technically, economically, financially and environmentally sound
- Ensuring that projects that are part of the masterplan are implemented
- Ensuring that projects identified in master plan are given highest priority
- Evaluating projects to ensure that each project is cost-benefit justified in its own right (see Box 8.2).

Establishing and enforcing rules and processes to requiring good planning and project selection can reduce opportunities for public officials to steer projects to favored clientele and groups. For example, a project that involves supplying more water than demand requires (possibly in order to award a bigger contract to a favored party) will generally not be a least-cost project—especially if the system has high NRW. Such a project should be screened-out by least-cost-planning criteria. If the rule is set to be technology-neutral, it would also screen out a project that mandated particular technologies, rather than the outputs to be achieved. Similarly, expensive tertiary treatment of wastewater may not be cost-benefit justified compared to cheaper, primary treatment or to upgrade outstanding sewer networks. Applying the cost-benefit criterion consistently would help ensure the best value-for-money option is selected.

Although many practitioners do conduct some form of basic economic and financial analysis for each water sector project, often this analysis is downplayed. Instead of being a thorough, neutral review, the analysis becomes a simple “tick the box” exercise in which practitioners aim to use the

### Box 8.1 Improving Probity in Capital Projects in Paraguay

A World Bank team preparing the “Paraguay Road Maintenance Project” saw that corruption risk was high (the CAS signaled an “inherent risk” of corruption in Paraguay) and incorporated a good governance and anti-corruption approach into project development. This involved:

- Getting other teams’ insights and perspectives on the corruption problem (that is, not just road sector experts, but others working in different sectors or at the country level)
- Identifying government sector priorities through a process of both high-level government discussion and meetings with local communities, local government, and civil society representatives
- Supporting the Government of Paraguay in designing and entering into a “social contract” as a commitment to delivery on government promises
- Linking government sector budget to identified priorities.

The project also included performance-based contracts for maintenance work on roads (with indicators that are easily understood by the general public), and includes ongoing monitoring of actual against expected results, and of socio-economic impacts.

Source: Irigoyen, J. (2006). *The Paraguay Road Maintenance Project Improved Governance Framework: a case study*, Presentation to Anti-corruption and Governance Seminar, 12–13 December 2006.

analysis to justify a pre-determined project choice. Moving away from this tendency and towards a more thorough an independent analysis (where practitioners assess alternative for achieving similar outputs and goals) will help not only in better deployment of development resources, but in reducing corruption.

#### **A sound planning process generally involves three steps**

To ensure that the “best” projects—those that represent highest value for money, and provide customers with the services they desire—are consistently selected, the planning process used by providers needs to be sound. A good project planning process needs to address the following:

1. **Forecasting demand for services.** This should ideally involve a combination of realistic projections (based on valid assumptions about growth) and the periodic collection of data from the customer base (such as information on willingness to connect to services, willingness to pay for services, and preference for different service types)
2. **Benchmarking companies performance** to reveal areas of weakness that require investment
3. **Developing a least-cost expansion plan for satisfying demand.** An effective planning and implementation process selects least-cost solutions for meeting sector objectives. The clearer or less ambiguous the criteria for developing the least-cost plan, the more likely that the best projects will be consistently selected

### Box 8.2 Planning in Mumbai Traditionally Favors Large Bulk Supply Project Over Cheaper Distribution Improvements

The Municipal Corporation of Greater Mumbai was looking for ways to improve the efficiency of its operations. Mumbai is short of water, with supply rationed to around four to six hours a day in most parts of the city. Corporation planners were working on new schemes to transport water from hundreds of kilometers outside the city. Consultants engaged through the World Bank analyzed the cost of achieving a 24 hour water supply in one ward (K-East) entirely with new supply, and compared this with the cost of achieving 24 hour water supply through improving the distribution system to reduce leakage and theft. The consultants estimated that the cost of distribution improvements would be one sixth or less the cost of bulk supply increments, for the same level of service improvements.

Source: Castalia (2007). “Financial and Cost Benefit Analysis Report: K-East Ward Water Distribution Improvement Project”.

4. **Implementing that plan.** Ideally, every project identified in a sector plan would be correctly evaluated at the planning stage. However, in reality many plans will be rather broad brush. Therefore, each project should be individually evaluated to ensure that it is cost benefit justified, and least cost.

Where this basic process is not being adhered to, opportunities for corruption can arise (see Section 6). For example, corrupt public officials may influence project selection or project specifications in favor of particular parties (such as family members or bribe-paying private company).

### ***Developing and implementing an effective plan can be challenging***

Provider management and practitioners may understand the importance of a sound planning process in principle, but may have difficulty in moving from an existing, inefficient system (in which, for example, utility staff strategically develop plans including only those projects that they know senior management will favor or that will enable corrupt firms to participate) to a planning process which identify relevant and efficient solutions. The reasons such a shift may be difficult are diverse—the utility may lack capacity or support of senior management in a range of areas, or may be opposed by special interest groups with incentives to maintain the status quo. General strategies for increasing capacity and creating incentives for change include:

- Engaging external experts (as an initial measure, to help establish and train people in the use of thorough, least-cost planning techniques)
- Building up expertise and integrity in the planning function over time
- Involving stakeholders in the planning and project selection process (to increase transparency and create incentives for the utility to be more accountable to other stakeholders in project selection).

Sources of further information on project planning, evaluation and selection are listed in Source List 8.1 (beginning on page 83).

## **8.2 Procurement Procedures**

Procurement refers to the process through which suppliers of capital services are selected and contracted. In many countries, public procurement of works and services is among the most corrupt areas. Poor procurement processes create opportunities for bribery, kickbacks, collusion, and fraud. This section sets out a variety of approaches for improving probity in procurement.

### ***8.2.1 Standardized government and donor procurement rules***

Most Governments have developed rules or fiduciary requirements for procurement processes. Similarly, most donors have a standard set of safeguards that countries must use for donor-financed projects. Each donor and government agency has slightly different rules, but the basic concepts are similar: procurement processes must be transparent, ensure a level playing field for all participants, and lead to the award of contracts that represent the best value-for-money given the Government's requirements. Details of these procurement rules are available on donor and government websites. A reference to the World Bank's guidelines is included in Source List 8.1 (beginning on page 83).

Just having procurement rules, however, is not enough to ensure that procurement for a capital project is well-run. The rules may not be sufficiently detailed, may not be properly tailored to country circumstances, or may otherwise be inadequately designed to prevent fraud and corrupt practices. Even if the rules are well-designed, bidders and procurement agents may find ways around them, or may subvert standard procedures to carry out corrupt activity "behind the scenes".

Applying the rules effectively is critical. Three techniques that are generally useful include:

- **Strictly enforcing bid validity and contract negotiation periods.** Practitioners may be hesitant to declare mis-procurement when the process of selecting a winning bidder and awarding a contract takes too long, especially if a reasonable excuse is offered. However, long decision and negotiation periods can be indicative of poor and potentially corrupt practice, and should not be tolerated
- **Ensuring good record-keeping.** Good record keeping reflects the kind of discipline required to minimize the prospects of fraud and corruption. Project procurement files should include, at a minimum, the records of advertisements, a copy of all prequalification and bidding documents (including bidders excluded in the prequalification process the losing bids, not just the winning bid), a copy of the minutes of the bid opening meeting, the report from the bid evaluation committee—including a clear statement of the rationale for any bids that are disqualified, the contract award, and a copy of the signed contract
- **Reviewing bids for unusual patterns.** Once a number of bids have been run, and the government has collected information on the procurement packages and winning bids, practitioners should review this information for unusual patterns such as repeated packages just below certain procurement thresholds, similar bids submitted by losing bidders, and bid awards being “revolved” between a small number of bidders. If practitioners are untrained in spotting such unusual patterns, they can hire a fraud specialist or forensic accountant to assist in bid analysis. Such analysis should be repeated on a regular basis, and used to feed-back in to future procurement design.

Yet, in the context of a specific project, it is difficult to change (or improve) general procurement rules. Accordingly, practitioners may wish to target their efforts on tightening up procurement processes in the ways that are discussed in Sections 8.2.2 through 8.2.10 that follow. Many of these can be implemented within the existing rules and systems. Others, such as eProcurement, need changes to the system and possibly to procurement rules and processes also.

### **8.2.2 Regulatory scrutiny of major investments**

A regulatory agency, or other supervisory body (for instance, a line ministry, or contract oversight agency), may be able to provide a useful check that the utility or ministry proposing water and sanitation projects has planned and evaluated them properly. An economic regulator’s job is generally to ensure that the required electricity service is provided at least cost. Since the water and sanitation sector is capital intensive, regulators generally scrutinize utility investment to make sure that they are the least cost way of delivering the required service.

Regulators are most commonly used when the water and sanitation provider is private. Where the utility is private, over-spending on investment does not generally indicate corruption but either inefficiency or an attempt by the utility to extract additional profits.

Increasingly, regulators are being tasked with overseeing decisions made by publicly owned utilities. Where there is a regulator of a publicly-owned company, applying standard regulatory approaches to the utility’s investment plan can help to ensure it is least cost, and in doing so reduce the potential for corruption.

### **8.2.3 Public and community participation in project selection and procurement**

International evidence shows that public participation can sometimes provide effective scrutiny of large water and sanitation projects. When communities are involved in selecting projects and identifying appropriate project specifications, there is less opportunity for officials and bidders to benefit from

inappropriate project design. This scrutiny tends to work well when independent people with technical knowledge—such as academics, professional water experts in private practice, and retired utility and government officials—combine with citizen groups that are concerned about tariffs, services, and corruption, to question government and utility plans.

In Indonesia, the World Bank has trialed projects in which communities not only participate in but actually lead (community-level) project selection, and work together to develop project specifications.<sup>16</sup>

It seems likely that similar public participatory processes could be helpful in other countries. Even where there is no regulator, another government body—such as a planning ministry or municipal council—could sponsor a public consultation. To make such a consultation effective, it might be helpful to adopt rules of process for the consultation.

For smaller, more community-based projects, such as rural water schemes, local community involvement in designing the scheme and overseeing its implementation can be helpful. When communities are involved in selecting projects and identifying appropriate project specifications, there is less opportunity for officials and bidders to benefit from inappropriate project design. In Nigeria, communities have been involved in selecting water or other infrastructure projects based on community priorities, and in implementing and monitoring the success of these projects. The large degree of community participation is seen a key factor behind the successful delivery of improved community outcomes for reasonable levels of investment.<sup>17</sup>

#### **8.2.4 Strengthening bid evaluation teams**

The team evaluating the bids should have appropriate training and expertise, and should be cleared for conflicts of interest. Training provided to evaluation committee members should also be made available to third party observers, to increase their effectiveness.

#### **8.2.5 External review of bid specifications for large contracts**

This can help to minimize the risk of inappropriate specifications—either so narrowly defined as to exclude all but the designated winner or so vague as to allow for inappropriate latitude by the bid evaluation committee in rejecting bids or in the evaluation process itself. For most contracts, however, and especially for the hundreds of contracts that may be involved in highly decentralized projects, such oversight is not possible, and other techniques may be needed.

#### **8.2.6 Registering complaints**

Complaints from losing bidders and public observers can highlight faults in the procurement system. Even the threat of a complaint can help to increase the likelihood that processes are followed. Although a specific complaints “hotline” could potentially be established for a large project, it would be more feasible and effective for practitioners or the government to establish a sector-wide procurement hotline. Sector-wide data would also help practitioners to identify patterns of similar complaints across different projects.

#### **8.2.7 Using probity advisors and auditors**

A probity advisor is an expert advisor who can advise on and approve procurement plans at the outset and during the selection process. An auditor checks on how the plan is implemented. Probity advi-

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<sup>16</sup> World Bank (2006). *Project Appraisal Document on a Proposed Credit in the amount of SDR 94.1 million (US\$137.5 million equivalent) to the Republic of Indonesia for a Third Water Supply and Sanitation for Low Income Communities (PAMSIMAS) project*. World Bank.

<sup>17</sup> World Bank, *Nigeria Community Based Poverty Reduction Project*. World Bank.

sors and auditors can be appointed to oversee procurement processes in a sector, or across sectors. They have been used successfully in Australia in “Partnerships Victoria” and other state and federal government procurement approaches (see Box 8.3).

### **8.2.8 Using e-procurement**

E-procurement is the term used to describe the use of electronic methods in every stage of the procurement process, from identification of requirements through to payments, and potentially to contract management. For capital projects in the water and sanitation sector, e-procurement generally involves the advertising of bid opportunities, acceptance, and reward of bids via the internet.

The use of the internet for advertising helps to ensure that the bidding process is transparent—all parties have access to the same information, all of which must be posted on a publicly-accessible site. Many e-procurement systems enable bidders to ask questions (via the website, or by emailing the transaction management), and publish the answers to these questions on the site for public viewing. The use of the internet for accepting bids reduces opportunities for transactions, and establishes readily documented process for bid submission. Box 8.4 below illustrates how to take simple first steps towards transparency through the internet.

E-procurement can be successful if introduced as part of a government-wide initiative as in Chile (see Box 8.5).

### **8.2.9 Outsourcing procurement**

Instead of running every aspect of the procurement process, the government agency responsible for procurement can outsource some or all of the procurement functions (potentially including defining project specifications) to an outside entity with greater expertise or independence. For example, the Philippines Government outsources some of its procurement functions to the UNDP (see Box 8.6).

Water utilities could also outsource procurement to specialized procurement agents, or to engineering consultants charged with both planning and procuring capital works under long-term out-sourcing contracts. Where a utility is considering a management contract, outsourcing of procurement to the management contractor (and removing the utility from procurement decisions) may be effective in increasing probity in some cases.

#### **Box 8.3 Victoria, Australia: Rules for Project Procurement**

The Government of Victoria, Australia, has a clear “Probity Policy” that outlines procedures that must be followed by all Government departments involved in procuring goods and services. Along with outlining anti-corruption principles to be incorporated in internal departmental processes, the Probity Policy provides for two key types of probity surveillance:

- **Probity Advisors** – These Advisors can be departmental staff or external consultants. They are generally individuals with experience and expertise in tendering and contracting, and with good practical knowledge of probity issues. Probity Advisors can play a key role in developing probity plans (required under the Policy) and other procurement documents, and may provide training for staff on probity principles and guidelines
- **Probity Auditors** – These are independent consultants with extensive experience in probity evaluation. They are generally hired for high value transactions, or for procurement where the services involved are complex or contentious, or the nature of the market place makes bidder grievances more likely. The Probity Auditor can advise the Government on probity-related issues during a tendering process, and independently scrutinizes (and reports on) whether the tendering process adheres to the prescribed probity processes.

Source: *Best Practice Advice on Probity*, Department of Treasury and Finance, Government of Victoria.



### Box 8.4 Simple First Steps Towards Transparency through the Internet

The first priority should be the creation of a Web site where all information about the contracting principles and procedures of the utility, details of forthcoming contracts, and progress in the contracts already awarded are regularly shown and updated. Use of a Web site for such purposes has been found to be more transparent and more cost effective than other methods such as publicity through newspapers or notice board

For each contract, the Web site should put out clear and unambiguous information on the prequalification criteria for taking part in that contract; the quantities, specifications, and milestones for completion of different phases of the work; any other information about the worksite such as access to the site, survey maps, soil, and topographical details; and a complete set of contract documents that will eliminate the need to visit the office of the utility. It is important that tender documents are available online and that online documents be treated the same as the documents collected manually from the utility. Publication of all contract-related information on the Web site will provide a built-in safeguard against changing the rules of the game after the process has started.

Other steps that can bring additional transparency to contract procedures are:

- Adoption of the standards laid down by the relevant bureau of standards
- Third-party inspection of works and equipment before making payments
- Assistance from qualified consultants in the various stages of complex contracts
- The provision of funds to complete the work within schedule
- Timely payments to contractors
- Regular review of the works by senior management.

Source: Gulati, M. and Rao M.Y. "Corruption in the Electricity Sector: A Pervasive Scourge" in Campos, J. and Pradhan, S. (2007). *The Many Faces of Corruption: Tackling Vulnerabilities at the Sector*, World Bank, p. 141–142.

#### 8.2.10 Integrity pacts

Integrity pacts have been developed to create a common commitment to avoid corruption, along with agreement on processes and sanction. In Pakistan, a clean and open bidding process instigated by the Karachi Water and Sewerage Board and monitored by Transparency International showed how the application of a no-bribes integrity pact could be applied to contracts for consultancy services and all physical works and supplies and resulted in a net saving estimated at about 75 per cent of the cost of the contract.<sup>18</sup> In Latin America the integrity pact has been used successfully in the water sector in Colombia and Argentina and is being transferred to other countries in the region.

For more information on these approaches, refer to Source List 8.1 (beginning on page 83).

### Box 8.5 ChileCompra

To promote transparency and efficiency in its purchases, the Government of Chile launched ChileCompra for government procurement in 2000. All suppliers must register on the website, and anyone can participate, no matter the size of the business. In its first year of operation more than 60,000 companies registered, with about 250,000 currently registered. ChileCompra has increased the number of bids per business opportunity from 1.7 to 5.7 and more than 15,000 procurement officers have been trained. This public procurement system has been used as a reference point for good practice in Latin America and other countries around the world.

Source: [www.chilecompra.cl](http://www.chilecompra.cl)

<sup>18</sup> Transparency International Pakistan (2003). *Integrity Pact: A Pakistan Success Story*.

### Box 8.6 Procurement Outsourcing to the UNDP in the Philippines

The UNDP Philippine Country Office set up a Development Support Services Center (DSSC) to support national executed projects by ensuring project inputs are converted to project outputs. Executing agencies can turn to the DSSC for support in:

- Procurement of goods
- Comprehensive and high quality assistance to publicly-bid contracts
- Sub-contracting of services in various fields of expertise
- Recruitment of local professionals and other project personnel
- Other project-related and work plan-based activities.

Source: <http://www.undp.org.ph/?link=25>

## 8.3 Project Supervision

Once a contract has been awarded, weak supervision of physical implementation may also allow for corruption.

Effective project supervision includes monitoring, technical support, review and reporting. Most project executing agencies have rules on how projects should be supervised. However, as with procurement rules, the mere presence of guidelines on supervision is not enough—practitioners must apply the rules intelligently and consistently, and adapt their methods to suit the project context (see Box 8.7 on how project inspections of World Bank projects in Indonesia were rigged).

### 8.3.1 Third party and community oversight

Large water and sanitation projects require technical expertise to be able to assess whether the works are being completed in line with the specifications. When project supervision is done by the utility staff, the staff may accept below standard work in exchange for a share of the payments.

In most donor financed projects, and many utility and government-finance projects, the government or utility delegates the job of construction supervision to the Project Engineer—usually a private engineering consultancy. However, even these external supervision arrangements are not a guarantee

### Box 8.7 Rigged Project Inspections in Indonesia

The World Bank's INT department received information from an informant, Mr. "G", on fraud and corruption in water and irrigation projects in Indonesia. Mr. "G" had been widely regarded as one of the world's prominent water engineers. However, in 1998, after a quarter century of dealing with ever worsening corruption in Indonesia and East Asia, he refused to pay what he considered to be unreasonable bribe demands and ultimately, lost his business. INT investigations have confirmed the accuracy of the descriptions provided by Mr. "G".

Mr. "G" explained that the fraud and corruption schemes he observed in Indonesia had escaped detection from Bank task managers through several strategies. Work would always be "ramped up" with local temporary employees when supervision missions visited. Project officials would always arrange for Bank field visits to "model" project sites where efforts were concentrated, with the other out-of-sight project locations being "short-changed" by poor implementation. Project officials also knew there was little likelihood of surprise visits or unannounced inspections by Bank staff because of limited time and resources being devoted to supervision. Further, he believed that the typical limited skills in the local language by most Bank task managers further protected the corrupt scheme from discovery.

In response to these disclosures from Mr. "G", the World Bank has been developing guidance on improved supervision, including "surprise visits" with both international and local World Bank staff to project sites.

Source: "Case Study: Indonesia—Water and Irrigation Projects". World Bank EASUR Anti-Corruption Initiative.

against corruption. Bringing in a second line of supervision, for example, allowing scrutiny by a university engineering department or an NGO with the requisite expertise, might help. Another option would be to engage technical auditors that would check the work of both the contractor and the Project Engineer. These auditors could be engaged to work across a number of organizations and projects, in this way reducing the risk that they too would be captured.

Informing non-governmental organizations and media on the outputs that should be expected from a given contract can increase their ability to monitor project supervision, and to hold the utility to account if the planned outputs are not delivered.

For rural and slum upgrading projects, working with community groups has sometimes proved to be effective (see Box 8.8). In addition to technical oversight, community members can be given responsibility for financial supervision. For smaller projects with high community relevance, community members have strong incentives to ensure the money is well spent (see Box 8.8 and Box 4.1 on page 25).

### **8.3.2 Monitoring of project variations**

Frequent and uncontrolled project variations creates opportunities for forms of bid-rigging such as firms submitting low-ball bids at the procurement stage in order to win the project, and then increasing the contract value later, or officials running procurement under a certain threshold (for example, a threshold for sole-source or local bids) and then increasing the contract value subsequently through change orders. More simply, contract variations can increase the contractor's profit, and since the value scrutiny on bid variation is generally less than on the initial award, this can be an easy way for an official to get a kickback from a contractor.

If the rules regarding permissible reasons for, and types of, contract variations are clear from the outset, this may discourage such manipulation. The more stringently such rules are monitored and enforced, the harder it will be to use contract variations as an avenue for corruption.

In complex construction contracts, some bid variations are genuinely necessary. The challenge is to find a way to allow flexibility when needed, while limiting use of the resulting discretion for corrupt purposes. Options to consider include creating an independent board or external supervisor to vet contract variations, or auditing variations on a sample of all contracts, after the fact.

### **8.3.3 Provider scores and disqualification**

Increased supervision only deters corrupt activity if the penalties for such activity are certain, consistent, and significant (with the certainty and consistency of application being most important—see Box 8.9). Ef-

#### **Box 8.8 Slum Networks Supervise Construction in Ahmedabad**

In a study of the Slum Networking Project (SNP) in Ahmedabad, contractors interviewed reported that there were far fewer opportunities to “fudge” contracts under the SNP than other contracts with the Ahmedabad Municipal Corporation. NGO staff monitoring the project included engineers who could supervise the contractors' work, and NGOs trained community leaders to measure and weigh pipes and evaluate the quality of work.

One foreman explained:

*The community have been told to watch us. At first we ignored them. Then they would report to the [NGO] and they would tell [the SNP staff]. They have taught them how to test the materials ... [E]ven when there is a small mistake now, they are all coming to shout at us”.*

In this case, educating community members on what should be delivered by contractors reduced the contractors' opportunities for corrupt behavior.

Source: Davis (2004). “Corruption in Public Service Delivery: Experience from South Asia's Water and Sanitation Sector” *World Development*, 32(1) 53–71.

fective deterrents include debarring or disqualifying providers that perform poorly or fail to follow procurement and contract rules. As a less extreme measure, providers could also be awarded scores for their performance, on the basis of agreed technical parameters and public feedback. Providers that consistently score below a set threshold may be disqualified from bidding on future contracts for a period.

For more information on these approaches, refer to Source List 8.1 (beginning on page 83).

## 8.4 Performance Based Payments to Increase Probity in Projects

Incentives to deliver the contracted project outputs at reasonable cost will be higher if the contractor's payment is contingent on those outputs being delivered on time and at specified quality standards. This principle is captured in performance-based payments (such as "output-based aid" (OBA) schemes), which link contractor payment to measurable outputs.

Output-based aid is a performance based payment approach that uses explicit performance-based subsidies to support the delivery of basic services (where policy concerns justify public funding to complement or replace user-fees). The OBA approach delegates service delivery to a third party (usually a private company, but also NGOs, public utilities, and community based organizations), tying disbursement of the public funding to services or outputs delivered.<sup>19</sup>

Provided that adequate oversight is provided for output delivery and quality, performance based payments may help to improve probity in capital projects by:

- **Increasing accountability.** The transfer of performance risk to the service provider maintains incentives to deliver the pre-specified outputs
- **Improving transparency.** Explicit recognition and identification of subsidy flows reduces scope for corruption
- **Increasing value for money.** Competitive award of OBA subsidies, can increase the value for money.

An additional benefit of OBA is its appeal to many country government—some governments that have been sceptical about increasing the role of the private sector in infrastructure service provision have actually welcomed OBA as a way to target service to the poor, while holding private contractors accountable for agreed outputs.

For more information on OBA, refer to Source List 8.1 (beginning on page 83).

### Box 8.9 Penalties Applied to Districts and Sub-Districts, Indonesia

Under the World Bank Third Kecamatan Development (Phase 2) Project in Indonesia, an anti-corruption action plan aims to design controls and approaches for known points of "leakage". Implementing sanctions and remedies is one of the six elements recommended by the World Bank's Anti-Corruption Committee for Indonesia. As part of the plan for this project, sanctions are being applied at the next "level up". For instance, "districts that have been slow in resolving sub-district level problems have faced suspension of disbursement, or even cancellation". Sanctions are applied swiftly and with certainty, providing an effective deterrent. The focus of these sanctions is restorative rather than retributive justice—in other words, the aim of the sanctions is to ensure all communities get the outputs they have been promised.

Source: World Bank (2007). Project Paper: Indonesia 3rd Kecamatan Development (Phase 2) Project. World Bank, pp 27–32.

<sup>19</sup> For more information see GPOBA (2005). "Output-based aid: Supporting Infrastructure Delivery Through Explicit and Performance-Based Subsidies". Global Partnership for Output Based Aid.

## 8.5 Promoting Probity in Procuring Private Participation

A special case of procurement involves the procurement not just of particular project-related works or advisory services, but of operators or managers for entire water service systems—that is, the introduction of PSP in service provision. The number of possible PSP arrangements is large: different models may be used in different countries to address specific, local problems in public provision. Regardless of the type of private participation chosen, a general approach likely to promote probity would go as follows:

- **Be clear about the objectives for private participation.** This involves identifying what public sector problem the transaction is expected to solve, what services the private firm would be expected to provide, and what outcome these services should achieve. If these objectives are clear from the outset, it is easier for the government to be held accountable for ensuring that objectives are met, and in turn to design mechanisms for holding the private firm accountable for achieving them.
- **Design a transaction and regulatory arrangement that achieves those objectives.** An effective transaction design and regulatory arrangement is conceptually sound and sufficiently detailed in order to set the right incentives for the private contractor to meet the government’s objectives. Making well-informed decisions about contract type and risk allocation and enabling transparent and open feedback from the private sector to develop workable contract terms are techniques that help to ensure that a competitive number of well-qualified private firms are interested in the PSP opportunity, and are transparently involved in shaping its design.
- **Run a transparent and competitive process** to select the contracting partner. Many of the techniques described for general procurement (see Section 8.2) are relevant for this process, although the larger size of the contract means that more stringent rules and oversight may be required in order to reduce the opportunities for bid-rigging, bribery, fraud, and other forms of corrupt activity.

Once a private sector contract is awarded, regulation becomes a key sector governance concern. Good practice in regulation is discussed further in Section 10.3.

### Box 8.10 Output-Based Aid Water Project in Guanajuato, Mexico

The Guanajuato output-based disbursement scheme is an effective and practical way in which transfers—whether they be from the Federal government, the State, or a loan program (such as the IBRD loan for Guanajuato)—can be linked to explicit outputs. Under this scheme, specific payments are made against number of inhabitants connected to safe and reliable service, the utility’s improved financial standing and treatment of wastewater. Payments are linked to clearly defined outputs achieved: cubic meters of treated waste water, and number of household connections to a water network. The Government supervises output delivery by reviewing the output indicators on a pre-agreed, periodic basis.

The project has successfully increased the sustainability of services, improved water resources management, and improved access to services for the poor. In addition, the OBA approach led to the development of a clear results framework for capital projects, improving transparency and accountability.

Source: International Development Association (2006). “A Review of the Use of Output-Based Aid Approaches”. World Bank.

## Source List 8.1 Improving Project Planning, Selection, and Evaluation

Source	Description
<b>Improving Project Planning</b>	
<b>Business Planning for Water Utilities Website</b>	This website provides tools and support on business planning for water utility managers and consultants working in small and medium sized towns. The website offers a toolkit developed by the Water Research Centre as part of the World Bank's Town Water Supply and Sanitation Initiative. The toolkit is a user-friendly financial model that helps managers understand the consequences of planning decisions. The website also provides two training presentations: one two to three hour course for all utility stakeholders, the second a detailed three to four day training course for utility managers or staff involved in developing business plans. <sup>a</sup>
<b>Integrating Indigenous Knowledge in Project Planning and Implementation Website</b>	Integrating Indigenous Knowledge (IK) in project planning and implementation is important to better adapt global knowledge to local conditions, and plan projects to serve the communities actual (rather than perceived) needs. The World Bank created a database that provides access to a collection of indigenous practices and case studies sector practitioners can learn from, as well as the opportunity to contribute new cases. <sup>b</sup>
<b>Improving Project Selection and Evaluation</b>	
<b>Asian Development Bank (1999). "Handbook for the Economic Analysis of Water Supply Projects"</b>	This handbook is intended for non-economists (planners, engineers, financial analysts, and sociologists) involved in the planning, preparation, and management to help them carry out economic analysis of water supply and sanitation projects. <sup>c</sup>
<b>Castalia (2007). "Financial and Cost Benefit Analysis Report: K-East Ward Water Distribution Improvement Project"</b>	An analysis of the cost of achieving water a 24 hour water supply in one ward (K-East) entirely with new supply, and compared this with the cost of achieving 24 hours water supply through improving the distribution system to reduce leakage and theft.
<b>Transparency International's "Project Anti-corruption Systems"</b>	<p>Transparency International's Project Anti-corruption Systems (PACS) were designed to prevent corruption in construction projects. The PACS is made up of two parts:</p> <ul style="list-style-type: none"> <li>• The PACS Standards recommend anti-corruption measures which should be used on construction projects, and</li> <li>• The PACS Templates provide the tools by which the measures recommended in the PACS Standards can be implemented.</li> </ul> <p>The PACS can be used to assess existing anti-corruption measures (against the PACS Standards), modify existing measures (to meet PACS Standards), or it can simply use the PACS Templates—appropriately customized—as its anti-corruption measures.<sup>d</sup></p>
<b>UK Treasury Green Book</b>	The Green Book is intended to promote efficient policy development and resource allocation across government. It does this by informing decision-making, and by improving the alignment of departmental agency policies, programs, and project with government priorities and the expectations of the public. The guidance emphasizes the need to take account of the wider social costs and benefits of proposals, and the need to ensure the proper use of public resources. <sup>e</sup>

<sup>a</sup> <http://www.waterbusinessplanning.com/asp/training.asp>

<sup>b</sup> <http://www.worldbank.org/afr/ik/what.htm>

<sup>c</sup> [http://www.adb.org/documents/handbooks/water\\_supply\\_projects/](http://www.adb.org/documents/handbooks/water_supply_projects/)

<sup>d</sup> [http://www.transparency.org/tools/contracting/construction\\_projects](http://www.transparency.org/tools/contracting/construction_projects)

<sup>e</sup> [http://www.hm-treasury.gov.uk/data\\_greenbook\\_index.htm](http://www.hm-treasury.gov.uk/data_greenbook_index.htm)

(continued on next page)

## Source List 8.1 Improving Project Planning, Selection, and Evaluation (continued)

Source	Description
<b>World Bank (1998). "Handbook on Economic Analysis of Investment Operations". World Bank.</b>	The World Bank's <i>Handbook on Economic Analysis and of Investment Operations</i> provides tools for economic analysis from the point of view of the implementing agency, the fisc, the beneficiaries, and society. This is aimed at practitioners interested in different techniques for appraising their projects. A second part of the Handbook is a Technical Appendix to guide sector practitioners in determining the social opportunity costs or shadow prices. <sup>f</sup>
<b>Good Practice in Capital Project Procurement</b>	
<b>Gilroy, J. (2005). "Procurement Outsourcing". ICG Commerce</b>	Transferring specific procurement activities is one option for reducing overall costs and allowing a company to focus on its core competencies. This article, by the Vice President of Outsourcing for ICG Commerce, tries to answer the top 10 questions companies have about procurement outsourcing. <sup>g</sup>
<b>Kramer, W. (2002). "Combating Corruption and Fraud in International Projects"</b>	This website begins with a brief overview of the "problem" of corruption, followed by sections on findings from recent cases, a description on how common schemes operate, red flags for common schemes (including red flags in contracts and procurement), a description of countermeasures and controls, and a brief summary of legal remedies. <sup>h</sup>
<b>OECD (2007). "Bribery in Public Procurement: Methods, Actors and Counter-Measures"</b>	This report addresses the growing complexity of bribe schemes in today's globalized markets. It describes how bribery is done at various stages of government purchasing; how bribery in public procurement is related to other crimes, such as fraud and money laundering; and how to prevent such crimes. The typical motivations and conduct of the various corrupt actors highlighted. The report contains 10 case studies.
<b>OECD (2005). "Fighting Corruption and Promoting Integrity in Public Procurement"</b>	This document comprises papers that were presented at a Global Forum on Governance event intended to identify "weak links" in the public procurement process, explore ways to improve transparency and accountability, and identify actions to prevent, detect, and sanction corruption. It includes various case studies on mechanisms to improve transparency and accountability in procurement (14 studies), and case studies on preventing, detecting, and penalizing corruption (14 studies). The case studies are mostly from Europe, Asia, and Latin America.
<b>OECD (2007). "Integrity in public procurement: Good practice from A to Z"</b>	This publication offers practical insights into how the profession of procurement is evolving to cope with the growing demand for integrity, drawing on the experience of procurement practitioners as well as audit, competition, and anti-corruption specialists. The book provides a comparative overview of practices meant to enhance integrity throughout the whole procurement cycle, from needs assessment to contract management. It also includes numerous "elements of good practice" identified not only in OECD countries but also in Brazil, Chile, Dubai, India, Pakistan, Romania, Slovenia, and South Africa.
<b>Partnerships Victoria's Guidance Materials</b>	The Partnerships Victoria website has many useful resources on good practice in public procurement. The "Resources" section shows a list of training course that are available for practitioners on PPPs. The "Policies and Guidelines" section includes Partnerships Victoria's Policy, a Practitioner's Guide (setting out approaches to key commercial issues like bid evaluation, and public process issues, like probity and disclosure). There is also a guide for risk allocation, contract management, and standard commercial principles. These documents are available online: <a href="http://www.partnerships.vic.gov.au">www.partnerships.vic.gov.au</a>

<sup>f</sup> [http://wbln0018.worldbank.org/environment/EEL.nsf/3dc00e2e4624023585256713005a1d4a/97ae8f7d43d439a485256706005d5a78/\\$FILE/econanal.pdf](http://wbln0018.worldbank.org/environment/EEL.nsf/3dc00e2e4624023585256713005a1d4a/97ae8f7d43d439a485256706005d5a78/$FILE/econanal.pdf)

<sup>g</sup> [https://www.vtrenz.net/imaeds/ownerassets/749/ICGC\\_PO\\_Strategic\\_Imperative.pdf](https://www.vtrenz.net/imaeds/ownerassets/749/ICGC_PO_Strategic_Imperative.pdf)

<sup>h</sup> <http://www.wmkramer.com/info.html>

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Source List 8.1 Improving Project Planning, Selection, and Evaluation (*continued*)

Source	Description
Transparency International Pakistan (2003). "Integrity Pact: A Pakistan Success Story"	This document describes how an Integrity Pact was successful in the Greater Karachi Water Supply Scheme Project, and how the Karachi Water and Sewerage Board (KW&SB) can use this for future projects.
World Bank (2005). "E-Tendering Requirements for MDB Financed Procurement"	Increasingly, countries that borrow from multilateral development banks (MDBs) are using electronic procurement systems. Accordingly, the World Bank, the Inter-American Development Bank, and the ADB joined forces to create e-tendering requirements for MDB financed procurement. These requirements list the minimum features required for system access, advertising, correspondence, amendments, substitutions, and clarifications, bidding documents, submission of bids and proposals, bid securities, public bid openings, bid evaluation and contract award, information security management, authentication, and payment. <sup>l</sup>
World Bank Procurement Website	This website contains four main topics: <sup>j</sup> <ul style="list-style-type: none"> <li>• <b>Information for Borrowers</b>—A repository of information, documents, and guidance for government agencies responsible for implementing World Bank-financed projects</li> <li>• <b>Bidding/Consulting Opportunities</b>—A portal for the business community seeking to participate in business opportunities that are generated from World Bank-financed projects</li> <li>• <b>Public Procurement</b>—Knowledge and information on public procurement systems, including Country Procurement Assessment Reports</li> <li>• <b>Policies and Procedures</b>—A listing of World Bank procurement policies and procedures. The sections also provide short cuts that take you directly to the most frequently requested procurement documents and pages.</li> </ul>
World Bank (not dated). "Procurement Reform in the Philippines: Changing the Rules of the Game"	This presentation provides an overview of the procurement reform in the Philippines. In 2001, a survey found that government procurement was a major source of corruption, partially due to a chaotic legal framework (with over 100 laws and regulations governing procurement). A non-government organization called PWI was established in February 2001 to fight corruption in public procurement. PWI ensured it partnered with reform minded government officials to carry out training, networking, and advocacy in public procurement with the hope of reforming the system. In 2003, the procurement law proposed by PWI was passed into law. <sup>k</sup>
World Bank (2006). Project Appraisal Document for the "Third Water Supply and Sanitation For Low Income Communities Project (Indonesia)"	This Project Appraisal Document describes how the World Bank intends to trial project designs in which communities not only participate in but actually lead (community-level) project selection, and work together to develop project specifications (see page 32) Third Party observations is also being designed into this World Bank project, and is described in Annex 13 of the PAD. <sup>l</sup>
World Bank Institute (2008). "Fighting Corruption through Collective Action: A Practical Guide for Business". World Bank	This guide aims to strengthen the capacity of business leaders to reduce or eliminate corruption in large scale commercial projects through collective action by voluntarily joining together in various forms of coalitions to counter corruption in the areas of procurement, contracting, and supply chain management. As an integral part of this program, the WBI is developing a toolkit and accompanying Web portal offering tailored implementation resources on the design and practical execution of collective anti-corruption actions. This Web portal contains country- and industry-specific sections. <sup>m</sup>

<sup>l</sup> <http://go.worldbank.org/TI2UPFEJ10>

<sup>j</sup> <http://go.worldbank.org/9KQZWXNOI0>

<sup>k</sup> [http://www.worldbank.org/wbi/governance/pdf/11iacc\\_cam\\_pim\\_gav.pdf](http://www.worldbank.org/wbi/governance/pdf/11iacc_cam_pim_gav.pdf)

<sup>l</sup> <http://go.worldbank.org/3943CA79D0>

<sup>m</sup> <http://info.worldbank.org/etools/antic/Guide.asp>

(continued on next page)



## Source List 8.1 Improving Project Planning, Selection, and Evaluation (continued)

Source	Description
<b>Good Practice in Project Supervision</b>	
Calkins, D. (2007). <i>"Fighting Corruption: A Matrix of Sector and Project Options"</i> EASUR Anti-Corruption Initiative. World Bank	This document, prepared by the World Bank's East Asia and Pacific Department, presents a "menu of options" for fighting corruption. Included in this "menu of options" is procurement reform. The document presents a matrix of options for elements of an Anti-Corruption Action Plan for projects in East Asia and the Pacific. It divides these potential elements into three categories: prevention, detection, and deterrence, all of which contain elements of tightening up on procurement.
Calkins, D. (2007). <i>"Guidelines for Supervising 'High Corruption Risk' Projects"</i> . EASUR Anti-Corruption Initiative. World Bank	Normal World Bank Supervision practices do not necessarily reveal "red flags" for corruption. This document, prepared by the World Bank's East Asia and Pacific Department, offers guidance on supervising high corruption risk projects. One of the elements is a detailed review of selected contracts, using the Department of Institutional Integrity's "Detailed Implementation Review". It also suggests site visits corresponding to selected contracts (without advance notice).
World Bank (2005). <i>"Guidance Note for Project Management: Strengthening Institutional Capacity during Project Implementation"</i> . World Bank	While the World Bank does supervise the implementation of its projects (see above), helping countries achieve sustainability is also a core part of the Bank's mission. As such, integrating project management skills into existing government institutions is an important goal to move towards using country (rather than Bank) system in lending. This Note provides guidance on how practitioners can (and should) move away from the default stand-alone Project Implementation Units (PIUs) and instead build capacity within existing institutions to perform this role. <sup>n</sup>
World Bank (not dated). <i>"Procurement Reform in the Philippines: Changing the Rules of the Game"</i> . World Bank	See description under "Good Practice in Capital Project Procurement" above.
World Bank (2004). <i>OP 13.05 Project Supervision</i>	The World Bank's Article's of Agreement require the World Bank to ensure that any loans of grants are used for the purposes for which the loan or grant was intended. While implementing projects is the borrowing countries' responsibility, the World Bank does supervise implementation of projects it finances. This supervision includes monitoring, evaluative review, reporting, and technical assistance. <sup>o</sup>
<b>Performance Based Payments to Improve the Effectiveness of Project Supervision</b>	
Brook, P. and Smith, S. (2001). <i>"Contracting for Public Services: Output-Based Aid and its Applications"</i> . Public-Private Infrastructure Advisory Facility, World Bank	This book outlines an innovative approach to delivering development assistance for basic public services such as potable water, safe sanitation, modern energy, and primary education and health care. Called output-based aid, the approach delegates service delivery to the non-profit or for profit private sector under contracts that tie payments to the outputs or results actually delivered to target beneficiaries. Designed as a guide for aid practitioners and policymakers in developing countries, the book gathers cases of innovative, output-based approaches from across the infrastructure and social sectors, including construction of schools and IT learning facilities, energy, primary health care, roads, telecommunications, and water. These cases illustrate some of the key challenges in channeling tax and donor funds to target services and beneficiaries, and creating incentives for the efficient delivery of these services. The book concludes with a checklist for project implementation: including how to choose beneficiaries, how to choose service suppliers, how to define performance, how to link payments to performance and how to administer the schemes. <sup>p</sup>

<sup>n</sup> [http://siteresources.worldbank.org/INTCDRC/Resources/guidance\\_note\\_project\\_management\\_102005.pdf](http://siteresources.worldbank.org/INTCDRC/Resources/guidance_note_project_management_102005.pdf)

<sup>o</sup> <http://go.worldbank.org/UFL0PSUG20>

<sup>p</sup> <http://rru.worldbank.org/Features/OBABook.aspx>

(continued on next page)

## Source List 8.1 Improving Project Planning, Selection, and Evaluation (continued)

Source	Description
Drees-Gross, F., Schwartz, J., Sotomayor, M. and Bakalian, M. (2005). <i>“Output-Based Aid in Water: Lessons in Implementation from a Pilot in Paraguay”</i> , OBA Approaches. World Bank	This paper describes the success of implementing output-based aid (OBA) to attract “aguateros” (small private providers) and construction firms active in the water sector to serve un-served rural areas and small towns. It describes the early lessons from this pilot process. It concludes that, the “response from the communities that have received service has been overwhelmingly positive thanks to the rapid progress from concept to construction, all with up-front cash contribution from the communities”. <sup>9</sup>
Ehrhardt, D. and McKinlay, A. (2003). <i>“Designing OBA When There is an Incumbent”</i> . GPOBA Working Paper Series. World Bank	This paper’s aim is to provide practical guidance to Government officials and other who are asked to design Output Based Aid (OBA) projects in situations in which there is an existing supplier. Initially, OBA was in PSP transaction for a utility, or in situations where there was no existing provider. This note provides guidance on how to design OBA to modify or augment existing infrastructure PPP arrangements (for instance, to finance new connections in low-income areas, or for enhanced sanitation targets) even when there is an existing concessionaire. This paper analyses and discusses the regulatory, competition, negotiation, and implementation issues for designing OBA when there is an incumbent provider. <sup>†</sup>
Hartwig, T., et al (2005). <i>“Output Based Aid in Chad”</i> . OBA Approaches. World Bank	This notes describes how using performance based contracts to improve the roads has the effect of extending supervision and providing accountability for result in Chad. <sup>‡</sup> This could be adapted to rehabilitation and new build contracts in the water sector. <sup>†</sup>

### Limiting Corruption when Procuring Private Providers—General Material

Dumol, M. (2000). <i>“The Manila Water Concession”</i> . World Bank	Describes in detail how the Manila Water concessions were designed and implemented. Told from the perspective of the one of the senior officials in the process, the book covers what led to the government decision to bring in private operators, how the contract was designed, and the techniques used to ensure a clean and competitive award. <sup>9</sup>
Gausch, J. (2004). <i>“Granting and Renegotiating Infrastructure Concessions: Doing it Right”</i> . World Bank	See Source List 7.1 on page 70. This analyzes a large number of water and other concession contracts in practice, and finds that most are renegotiated within a few years of contract award. It also discusses ways to make PSP contracts and competitive selection effective in lights of this finding. <sup>9</sup>
World Bank (2006). <i>“Private Participation in the Water and Sanitation Sector: A Toolkit”</i> . World Bank	See Source List 4.1 on page 34. Chapters 8 and 9 on the design of the contract, selecting the preferred operator, and supervising the contract once the operators has been procured, are particularly relevant. <sup>9</sup>

<sup>9</sup> <http://www.gpoba.org/docs/OBApproachesParaguaywater.pdf>

<sup>†</sup> <http://www.gpoba.org/docs/Working%20Paper%20No%201%20Incumbents.pdf>

<sup>‡</sup> Hartwig, T., Mumssen, Y. and Schliessler, A (2005). “Output-based aid in Chad: Using performance-based contracts to improve roads”, *OBA Approaches*, April 2005, Note Number 06.

<sup>9</sup> <http://www.gpoba.org/docs/ChadRoadsOBApproaches.pdf>

<sup>9</sup> <http://go.worldbank.org/JKJWWNPOO0>

<sup>9</sup> <http://go.worldbank.org/X5RA2ULXL0>

<sup>9</sup> <http://go.worldbank.org/K1G2ZAAAB0>

(continued on next page)

## Source List 8.1 Improving Project Planning, Selection, and Evaluation (continued)

Source	Description
<b>Limiting Corruption when Procuring Private Providers—Contract Design</b>	
Castalia (2004). <i>“Good Practice in Concession Contract Design”</i> .	Documents 10 cases from around the world—including Bucharest (Romania), Guayaquil (Ecuador), Manila (Philippines), New Jersey (USA), Thames Valley (UK), and Vanuatu—to provide guidance on good practice for designing contracts in the future.
Castalia (2005). <i>“Sample Bidding Documents for Management Contracts”</i> . (DRAFT)	Guidance material on procurement of management contract services in infrastructure. Includes sample prequalification and bidding documents applicable to the water supply and sanitation sector.
UK Treasury, Private Finance Initiative, Standardised Contracts	Standardization of Private Finance Initiative Contracts (Version 4, March 2007) provides the standard wording and guidance used by public sector bodies in the UK when drafting private finance contracts. Supporting guidance and materials are also available online. <sup>x</sup>
<b>Limiting Corruption when Procuring Private Providers—Competitive Selection</b>	
Partnerships Victoria Guidance Material	The Partnerships Victoria website— <a href="http://www.partnerships.vic.gov.au">www.partnerships.vic.gov.au</a> —has numerous resources on competitive selection, including: the <i>Partnerships Victoria</i> policy, a Contract Management Policy, Risk Allocation Guide, Contract Management Guide, and so on. It also provides technical notes on such topics as public sector comparator, determining the inflation rate, and the interactive tender process.
UK Private Finance Initiative Guidance Material	See “Limiting Corruption when Procuring Private Providers—Contract Design” above.
Dumol, M. (2000). <i>“The Manila Water Concession”</i> . World Bank	See “Limiting Corruption when Procuring Private Providers—General Material” above.
<b>Limiting Corruption when Procuring Private Providers—Unsolicited Bids and Negotiated Selection</b>	
Hodges, J. and Del-lacha, G. (not dated) <i>“Unsolicited Infrastructure Proposals: How Some Countries Introduce Competition and Transparency”</i> . Working Paper No.1. Public Private Infrastructure Advisory Facility. Washington, DC: World Bank	The premise of this paper is that some unsolicited proposals, when subject to competition and transparency, may contribute to the overall infrastructure goals of countries, particularly where governments have low technical and financial capacity to develop projects themselves. Based on this premise, a few governments have developed effective systems to channel unsolicited proposals into public competitive processes, thus providing more transparency and political legitimacy to private infrastructure. In particular, this paper looks at the processes of Chile, the Republic of Korea, the Philippines, South Africa, and Taiwan (China) in detail, as these governments have created institutional mechanisms that encourage the private sector to come forward with potentially beneficial project concepts, while at the same time introducing competitive forces to secure the benefits associated with a public tender. Other countries, such as Argentina and Costa Rica, have also recently developed similar policies for managing unsolicited proposals; it is expected that more countries will follow these models. A four-page summary report is also available for download. <sup>y</sup>

<sup>x</sup> <http://www.hm-treasury.gov.uk/>

<sup>y</sup> <http://www.ppiaf.org/documents/gridlines/19Unsolicitedproposals.pdf>

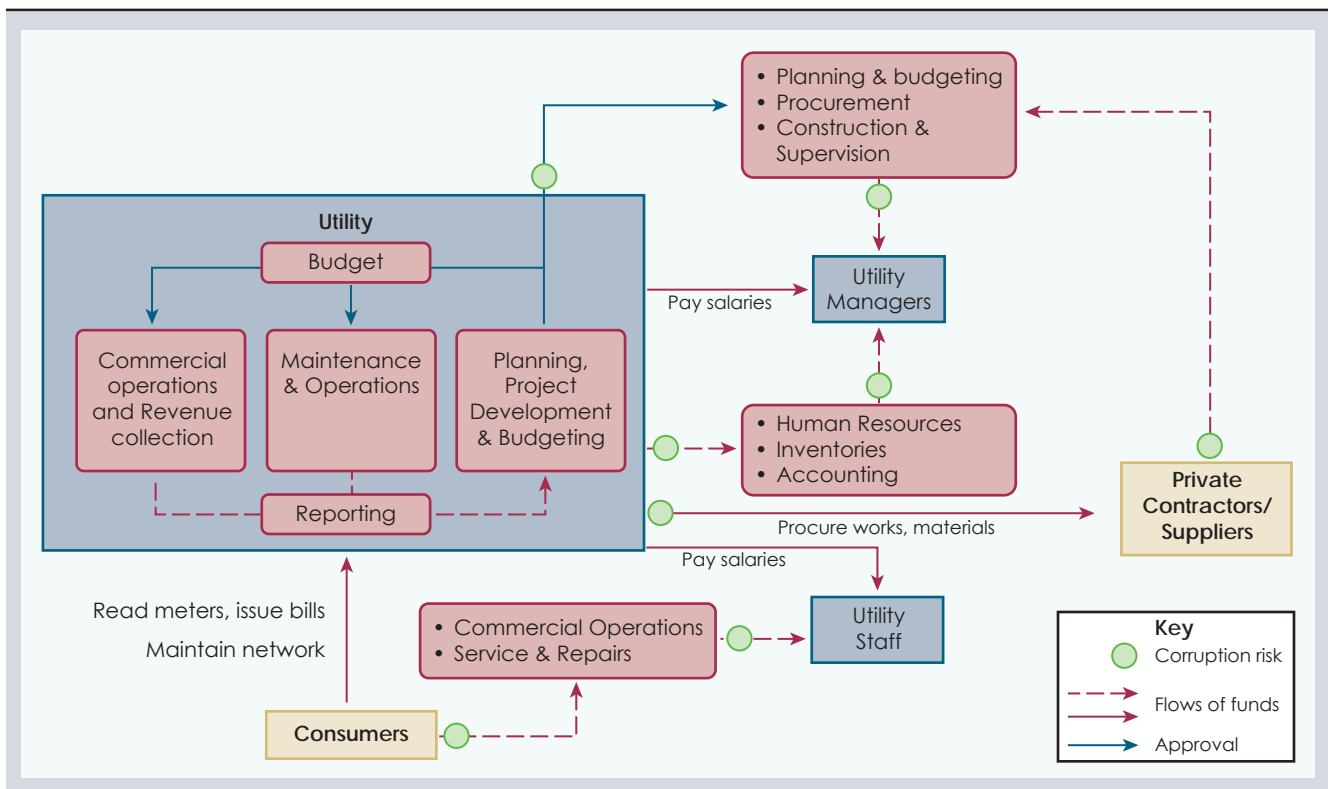
## 9 INCREASING PROBITY AT THE PROVIDER LEVEL

This section sets out ways to reduce corruption of water service providers. Providers are those organizations that provide water services to customers (for instance, a utility or municipal department). As outlined in Section 5, corruption can happen at numerous “locations” or hotspots within a provider’s organizational and operational structure. These hotspots include:

- **Commercial operations**, including revenue collection, services and repairs. These areas may be at risk of petty corruption (such as extracting bribes from consumers in return for providing services that should be free, or in return for decreasing bill amounts) by utility staff
- **Procurement** of works, services and supplies. Procurement may be at risk of corruption (such as bribery and kickbacks) by private suppliers and utility management
- **Human resources and inventories**. Such resources may be at risk of corruption (such as illicit use of utility resources, or collection of salaries for people who are no longer working) by utility managers
- **Planning**, Similar to sector level but in fact natural “plans” are often simply aggregations of municipal plans.

Figure 9.1 illustrates these and other hotspots of corruption risk in a provider’s operations, expenditure and decision-making. (Note, corruption in capital projects is discussed in Section 8).

Figure 9.1 Corruption Risk Areas Requiring Improved Management Controls



Section 5 explained how sector practitioners can assess whether corruption may be happening at the hotspots illustrated in Figure 9.1. Practitioners can use the information collected during the detection and mapping process as the basis for selecting effective management control systems that help providers to decrease corruption. As is explained below, such control systems are based on good corporate management principals, and comprise several interlocking elements that work together to address a range of corruption risks.

### ***Learning from the private sector—adopting effective management controls***

Many of the hotspots arise from basic principal-agent problems. Utility employees' incentives are not directly aligned with the incentives of the utility owners, so employees may be inclined to appropriate company money for their own benefit. To address such problems, effective utility managers put in place management controls that detect and penalize behavior that harms the utility's performance, and that reward behavior that furthers the utility's goals.

Unsurprisingly, many of these controls were first developed in private sector firms. Owners of private firms have always been highly motivated to stop misappropriation by staff, as every act of misappropriation reduces their own profit. In contrast, the owners of public firms are taxpayers, represented by the government. As a result, the profit-motivation in private firms has led to development of effective management controls to prevent misappropriation of company funds. These systems, together with other social developments, have been so successful in reducing misappropriation of company funds in developed countries that the original motivation for the systems is often forgotten. But in fact, putting in place standard corporate management controls will often be the key to exposing, and then reducing, corruption, enforceable enterprises

#### ***Box 9.1 "New Public Management" to Increase Probity in Water Utilities?***

The so-called "New Public Management" (NPM) approach may offer ways to improve the performance of water utilities. NPM is a reaction against traditional public-sector bureaucracy. NPM advocates that a public sector organization should:

- Be autonomous in managing their inputs and processes, with this autonomy matched by accountability for results to external organizations and the owner
- Have a strong market-orientation—that is, purchases services from private competitive suppliers, and outsource functions that are not core to the business (for example, security, transport, maintenance, and so on)
- Have a strong customer-orientation—that is, reinforce the culture of aligning its services with customers needs.
- Be decentralized.
- Give employees autonomy while holding them accountable for results.

While these approaches may work for some organizations, it is also true that the benefit of these approaches has not been empirically demonstrated in developing countries. It may be that NPM works better in high capacity countries with skilled staff who are used to self-managing, and which have traditions of contracting and accountability.

*Managing Public Water Utilities* summarises research across a number of water utilities that suggests:

- Well performing utilities are relatively autonomous, and have a customer orientation. Ensuring that the utility is able to cover most or all of its costs from customers can help to promote autonomy and customer-orientation
- NPM reforms are not generally applicable, though they may be helpful in cases where the problem to be solved is one of a rigid bureaucracy that is inadequately responsive to proper direction from elected representatives
- In cases where the organization problem is of excessive political interferences in operations and clientilistic approaches, a better solution may be to implement traditional civil-service procedures, with their emphasis on competitive selection of staff, following rules, and being politically neutral.

Source: Schwartz, K. (2006). "Managing Public Water Utilities: An Assessment of Bureaucratic and New Public Management Models in the Water Supply and Sanitation Sectors in Low- and Middle-Income Countries". UNESCO-IHE Institute for Water Education.

### ***Linking management controls to corruption risks***

Management control systems are integrated wholes intended to strengthen probity across the organization. Thus there is not a one-to-one relationship between corruption in a particular area and a control system for that area. Rather, reducing corruption in any one area may require several interlocking systems to be implemented, while any given management control system can contribute to reducing corruption across several hotspots. For example, an accounting system that works properly (and is externally audited) can reduce misappropriation of company funds, theft of inventory, and petty corruption in the commercial operations. Similarly, instituting identity tags and access controls can both reduce theft of stores and indirectly increase accountability to customers.

The remainder of this section looks at seven areas of management controls that can help decrease corruption risks:

- Accounting controls
- Financial management and budgeting
- Commercial functions
- Human resources
- Procurement of supplies and services
- Stores
- Employee use of company resources.

Good practice for provider probity largely amounts to implementing standard modern management systems. This is a reasonable ambition for many utilities in middle income countries. These providers will be able to call on consultants and experienced managers to help design reforms recommended.

For other utilities, implementing standard modern management controls may seem a daunting challenge—an injunction to remake themselves entirely, in a situation in which they did not have the resources to do so. This will be especially the case for small utilities, and many utilities in poor and post-conflict countries. Section 11 suggests ways in which provider level probity can be increased in even the most difficult circumstances, through intelligent adaptation of the basic ideas outlined in this section.

All of these reforms focus on the provider level, and so would need the support of the Board and Chief Executive of the provider. In that sense, this section can be thought of as a set of how-to materials for utility managers who want to reduce corruption risk in their utility.

## **9.1 Accounting Controls**

The financial and accounting systems are the “spine” to which many of the other control systems attach.

Poor accounting processes mean that detecting corruption is hard, creating opportunities for staff and managers to engage in corrupt behavior. Conversely, good accounting processes help to ensure that the utility managers keep track of finances and inventories, and so is able to detect and deter corruption and theft.

Specific “tools” aimed at promoting probity in providers include:

- Modern accounting (computerized, double-entry accrual accounting)
- Bank reconciliations
- Internal audits

- External audits
- Prompt production of unqualified annual financial statements
- Accurate information on stores, integrated with accounting system
- Accurate information on billing and collections, integrated with accounting system.

## 9.2 Financial Management and Budgeting

Financial management is more than accounting. It also includes budgeting, financial approval, and managerial accountability systems. These systems generally work to develop a well-functioning utility in which budgets are well-managed, managers are held accountable, and expenditure is controlled.

In well-managed utilities, “budget holders” are appointed for each key area of expenditure. These holders are informed of their budget and expected results for their area, are given discretion over spending their budget, and are held accountable against the performance targets. This process helps to ensure that all expenditure is linked to results, thus creating incentives for managers to reduce or eliminate unproductive, corruptly-influenced expenditure.

Another feature of well-run utilities is that the “person who pays” is separate from the budget holder who approves expenditure. This simple de-coupling of decision-making and access to funds helps to reduce opportunities for managers to embezzle or otherwise misuse utility resources.

## 9.3 Commercial Functions

Poorly run commercial operations allow utility staff and managers to extract value from consumers or divert the money that customers pay. Well-run commercial operations ensure that consumers receive the services they are entitled to, and make the appropriate payments for those services, enabling the utility to recover its costs of operation.

Improving the commercial functions involves a number of management initiatives, discussed below.

### 9.3.1 *Promoting probity in meter reading*

Promoting probity in meter reading can be achieved by simple changes that limit each meter reader’s ability to develop a corrupt “relationship” with households, in which the reader extracts personal payments from the household in return for reducing the amount of the bill (for example, by threatening to submit a higher meter reading in the future, or to arrange for a disconnection of services). Such reforms include:

- Changing meter readers’ routes on a regular basis, so that readers do not regularly visit the same households
- Removing past billing information from meter readers’ books, so that readers cannot repeatedly submit “average” bill readings
- Automating meter reading, to eliminate the need for personal household visits
- Installing pre-pay meters, to enable households to pay for only the water that they use (and to only use water that they pay for)
- Giving meter readers and bill collectors incentives to improve the accuracy of readings and collections (see Box 9.2 below).

### **Box 9.2 Performance Incentives for Bill Collectors in Haiphong**

In state-owned enterprises in Vietnam, employees received a “hard” salary—set by the Ministry of Labor and Social Affairs—and a “soft” salary, that varies from company to company. One utility linked the “soft” part of the salary to individual performances. For instance, a bill collector’s (the employee that may read meters and charge consumers accordingly) “soft” salary is connected to the amount of money collected by him or her. At this particular utility, the average bill collector’s salary is 1.2 million dong, compared to about 800,000 dong in other utility’s.

Source: Baietti, A., Kingdom, W., and van Ginneken, M. (2006). “*Characteristics of Well-Performing Public Water Utilities*”. Water Supply & Sanitation Working Note No 9. World Bank.

### **9.3.2 Promoting probity in billing**

Probity in billing may be achieved by simple reforms that improve the accuracy of the amount metered, the water consumed, and the bills issued. Such reforms include:

- Updating cadastre of customers and tariff categories to which they apply
- Incentive-based contracting-out of billing and collection functions, to isolate these activities from the provision of utility services and improve incentives for billing to be as accurate as possible (see Box 9.3)
- Expanding coverage of meters
- Expanding coverage of meters, installing meters, and ensuring all meters work and are accurate
- Computerizing the billing system, to reduce the opportunity for human error or manipulation of figures
- Creating an interface between the billing and accounting systems, to reduce the opportunity for human error or manipulation of figures, and improve the efficiency of data transfer and ease with which billing discrepancies can be detected.

### **9.3.3 Promoting probity in collections**

More effective collections can be achieved by contracting out the collections function to improve incentives, as described above, and by other methods that reduce opportunities and incentives for utility staff to misappropriate consumer payments. Such methods include:

- Providing many ways for consumers to pay bills, including through banks, cell phones, and kiosks
- Consistently issuing receipts for all consumer payments, and keeping corresponding records of payments received

### **Box 9.3 Performance Improvement Plan in Bangladesh**

Limited oversight of billing and collection creates opportunities for Dhaka Water and Sewerage Authority staff to personally gain at the expense of customers or the utility (or both). Revenue collectors may demand additional payments from customers or may not pass on the full amount of customer payments to the utility. The ADB noted that “delayed billing is quite common in some zones as it allows revenue inspectors to grant discretionary reduction over the accumulated bill in exchange for bribes”. Some zones have carried out Performance Improvement Programs (PIPs), in which billing and collection is contracted out. In zones that have carried out the PIP, collections have improved dramatically, indicating that not all revenue was being collected or passed on to the utility prior to carrying out the PIP.

Source: DWASA (2007). Performance Improvement Program.



- Establishing an accessible complaints system to enable problems to be quickly identified and empower consumers to hold the utility accountable
- Using information technology (IT) solutions to improve collection efficiency.

## 9.4 Human Resources

Poor human resource management creates opportunities for utility management to corruptly appoint unqualified staff, or to draw salary payments for “ghost” staff. This in turn creates an environment in which staff members have limited incentives to perform well, as rewards are not linked to performance. Good human resource management ensures that the utility has an efficient number of staff per connection, that staff members are appropriately qualified to perform their assigned roles, and that staff are given more rewards and incentives for integrity and good performance (and fewer incentives to engage in corrupt behavior).

Some “tools” aimed at promoting probity through human resource management include:

- Methods that help to ensure managers or staff are not collecting additional funding or salary payments for “ghost workers” (a potential problem with large providers). These methods include:
  - Holding roll calls and staff inspections
  - Issuing photo identification cards to all staff, and requiring these to be shown for inspection
  - Requiring that staff collect paychecks in person, and sign for receipt of their check.

Methods that increase the likelihood that staff are correctly skilled for their jobs. These include:

- Clear, well-specified job descriptions for each position that detail all the tasks that a staff member with such a position should be held accountable for completing competently, as well as clear, well-specified person specifications for each position that detail all the skills, experience and qualifications that a staff member with such a position should have
- Transparent recruitment processes with clear rules and processes for advertising positions, reviewing applications and selecting staff
- Appraising staff performance, and directly and transparently linking performance to salaries, bonuses and promotions
- Appeals processes that staff can use if they believe an appraisal or recruitment decision was unfair or was not made through an appropriate process.
- Clear policies against corruption and unethical behavior, tools for investigating and detecting whether these policies have been adhered to, and swift and certain punishments for “rule breakers”.

### Box 9.4 Solving the Problem of Ghost Workers

Engagement of ghost workers in large utilities is fairly common. Implementing ID Cards can help solve the problem of ghost workers, by using a clocking system, and human resource software to manage official working times.

However, ICT solutions must be applied wisely. An Indian Public Works’ Department used Information and Communications Technology (ICT) to reduce the problem of “ghost workers”. This appeared to work initially, until it was discovered that the ICT manager was taking bribes. In short, though ICT can certainly help with the problem of “ghost workers” a one-off intervention will not solve the problem.

Source: Bagga, R. et al (2005). “The State, IT and Development”. Sage Publications.

### Box 9.5 Performance Evaluation in a Mexican Water Utility

The water utility, SIMAPAG in the State of Guanajuato (Mexico) performs well compared to other utilities in the State. It introduced a balanced scorecard to measure utility performance (see Box 10.9 on page 143), and a system of performance-based bonuses for employees. The accountability system this created was a great improvement on the systems in other utilities. However, the extent to which the scorecard and performance assessments contributed to improved utility performance was not clear.

Like other utilities in the State, SIMAPAG had for some time had a system of bonuses for managers, but the tradition was that all managers always received the full 100% monthly bonus. From 2000–2003, however, the general manager decided not award the full bonus to everyone, but rather usually between 70–90 percent of the monthly bonus was awarded. However, the evaluation was largely dependent on the appreciation that the general manager had of the management employee and was not based on any objective criteria.

Non-managerial employees are also evaluated monthly, on the basis of two criteria: attendance and punctuality (30 percent of the bonus) and performance (70 percent of the bonus). The category of performance is subdivided into five sub-categories, which each represent 14 percent of the overall bonus. These five sub-categories are knowledge of work done, quality of work done, quantity of work done, initiative, and attitude and cooperation. Each employee is evaluated by his or her immediate boss. However, a lack of clear guidelines means that the evaluation may be rather subjective.

The system in SIMAPAG is however much better than that in other utilities in the State. For example, one utility established a 'best worker of the month'. However, there are no clear indicators and there is no set procedure for selecting the 'best worker'. As a result there are some who feel that selection of the award winners is based on personal feelings. In another utility, bonuses are paid for punctuality and attendance. In essence everyone who arrives at work before 8:00 a.m. can receive a bonus of 10 percent of salary. Moreover, in practice, every employee gets this bonus.

*Source:* Schwartz, K. (2006). "Managing Public Water Utilities: An Assessment of Bureaucratic and New Public Management Models in the Water Supply and Sanitation Sectors in Low- and Middle-Income Countries". UNESCO-IHE Institute for Water Education pp 100–102.

## 9.5 Procurement of Supplies and Services

Weak controls over the procurement of supplies and services can enable staff to engage in corrupt behaviors such as bid rigging and bribe-taking (as with procurement of capital works—see Section 8.2). In addition to introducing procurement controls, utilities can use management systems (in particular, budgeting and financial control systems) to reduce the likelihood of "leakage" through poor procurement. Systems that readily detect potentially corrupt behavior, by identifying and "flagging" unusual bid, price and supplier patterns, can act as a deterrent for corruption, and enable corrupt behavior to be punished (see Box 5.2 on page 41).

## 9.6 Stores

Poor monitoring of utility stores (effectively, all assets that are not fixed) creates opportunities for staff, management and the public to steal from the utility. In practice, many utilities do not have a proper inventory system. If stores are properly monitored and accounted for, such theft can be detected and deterred. Tools that assist in monitoring and accounting for stores, and preventing theft, include:

- **Appropriate security for store rooms.** This would involve locking store rooms, restricting access to staff member who need access to do their jobs, requiring identification before any staff member can take stores out, and inspections of vehicles leaving premises
- **Human Resource controls** such as identification cards, to ensure that members of the public are not able to freely frequent utility premises, and security cards with access controls to areas in which more sensitive information and higher value stores are kept

- **Record keeping systems.** For instance, requiring all staff to record any stores taken out, and comparing this record against the results of regular physical stocktakes will help detect misappropriation. The utility should also regularly reconcile these stores records with corresponding records held in the account systems
- **Accounting controls**, such as:
  - Including a stores module in the general ledger, so that all store movements are recorded
  - Running regular stock-takes to ensure physical levels of stores accurately match the accounting records
  - Regular external (financial) audits.
- **Budgeting and management responsibility systems**, which make qualified staff and management directly accountable for stores
- **Security and checks for the utility's sites**, to prevent staff from taking company property offsite.

## 9.7 Use of Company Property and Funds

Aside from directly removing stores from the utility, staff may effectively “steal” from the utility by inappropriately using company property and expense accounts. Such inappropriate use can be deterred through effective:

- **Budget and responsibility systems** in which qualified members of the management team are given responsibility for expenditure management in different departments, expenditures must be authorized through approved processes and systems, and expenditures must be verified through a bank reconciliation process
- **Company policies** that clearly define permissible uses for utility property and expense accounts, processes for obtaining permission, and penalties for misuse
- **Internal and external audits** of compliance with utility policies on property and expense account use.

## 9.8 Conclusions: Promoting Probity at the Provider Level

Promoting probity at the provider level means having a well-run utility, with good management systems in all areas, appropriately skilled and motivated staff, and a healthy corporate culture. The sections above have outlined some of the most important elements in creating such a well run provider. However, it is not the role of a Sourcebook on promoting good governance and reducing corruption to provide detailed guidance on all aspects of running a utility. Rather the Source List below aims only to provide places where practitioners can look to find additional material on improving provider performance and management, and references to case-studies of water utilities that have achieved significant improvements in service, efficiency or probity.

## Source List 9.1 Improving Provider Governance and Management

Source	Description
<b>Sources for Material on Managing Water Providers Well</b>	
<b>Business Planning for Water Utilities Website</b>	See Source List 8.1 on page 103 (“Improving Project Planning”). This website provides tools and support on business planning for water utility managers and consultants working in small and medium sized towns.
<b>International Water Association Website</b>	Contains numerous resources on all topics in water utility management. <sup>a</sup> Sections of particular interest include: <ul style="list-style-type: none"> <li>• Books on utility management topics</li> <li>• Books on water utility issues in developing countries</li> <li>• Periodicals, including Water Utility Management International</li> </ul>
<b>World Bank Website “Improving Operator Performance Resources”</b>	Contains collection of resources on ways to improve the performance of water utilities in developing countries. <sup>b</sup>
<b>Case Studies on Improving Water Provider Management</b>	
<b>Calagus, B. and Cann, V. (2006). “Reforming Public Utilities to Meet the Water and Sanitation MDGs”. Water Aid and World Development Movement.</b>	Case studies of public-utility turn-arounds in Uganda, Tamil Nadu, as well as references to other cases of successful reform in public utilities. <sup>c</sup>
<b>Mugabi, J., Kayaga, S., and Njiru, C. (2006). “Strategic planning for Water Utilities in Developing Countries”. Water, Engineering and Development Centre.</b>	Outlines an approach to realistic strategic planning for developing country water utilities, drawing on examples from African utilities. Discusses the development of Performance Improvement Plans.
<b>Schwartz, K. (2006). “Managing Public Water Utilities: An Assessment of Bureaucratic and New Public Management Models in the Water Supply and Sanitation Sectors in Low- and Middle-Income Countries”. UNESCO-IHE Institute for Water Education</b>	Contains case studies of four relatively well-performing public utilities: the National Water and Sewerage Corporation (NWSC), Uganda, the Sociedade de Abastecimento de Água e Saneamento S.A., Campinas, Brazil, the Hai Phong Water Supply Company, Hai Phong, Vietnam, and Servicios de Agua y Drenaje de Monterrey, Mexico. Also compares five water utilities in the State of Guanajuato, Mexico, contrasting the one that performs relatively well with the other four. Finds that in many cases reforms were precipitated by a crisis, but that sustaining good performance may require management continuity and some insulation from day-to-day politics. Reforms included new approaches to NRW reduction in Hai Phong (Vietnam), and contracts and bonuses that provided greater accountability and incentives for utility staff in a number of cases, including Hai Phong, SAMAPAG (Mexico) and NWSC (Uganda). Section 3 contains a good discussion of New Public Management (NPM). Which: <ul style="list-style-type: none"> <li>• Contrasts NPM with traditional bureaucratic management models</li> <li>• Describes some of the prerequisites for success with NPM (such as effective budgeting and accounting systems, and a contract-law tradition)</li> <li>• Lists some of the possible disadvantages with NPM (such as loss of public-service ethos and the difficulty of establishing output-based accountability mechanisms for some positions).</li> </ul> Overall the author concludes that NPM approaches may be helpful in some cases, but in other cases traditional ‘good civil service practice’ may be better.

<sup>a</sup> [www.iwapublishing.com](http://www.iwapublishing.com)

<sup>b</sup> <http://go.worldbank.org/GIEP4WVRK0>

<sup>c</sup> <http://www.wdm.org.uk/resources/reports/water/reformingpublicutilities01072006.pdf>

(continued on next page)

## Source List 9.1 Improving Provider Governance and Management (*continued*)

Source	Description
Sekhonyana, S. and Pholo, M. and Fisher, J. (2005). <i>“Improving Utility Management: Case Study From Lesotho”</i> . WEDC International Conference, Uganda	Documents the process of developing and implementing a Performance Improvement Plan (PIP) and an Unaccounted for Water (UfW) Action Plan by the Water and Sewerage Authority (WASA) in Lesotho. The paper concludes that the process has been helpful, while also frankly documenting some parts which were not yet working at the date of publication.
World Bank and Water Aid (2004). <i>“Modes of Engagement with the Public Sector Water Supply Providers in Developing Countries”</i> . WaterAid/World Bank.	The paper maps out the reform process for turning around poor performance and institutionalising good performance in a public utility. Thus the paper focuses on providing a framework, beginning with a taxonomy and structure of public utility reform. This paper was produced by the World Bank and Water Aid. <sup>d</sup>
<b>Improving employee accountability</b>	
Mugisha, S. et al (2004). <i>“Transforming Public Water Utilities through Private Sector-like Management Principles: The National Water and Sewerage Corporation, Uganda”</i> . World Bank	This paper summarizes Uganda’s experience in using performance contracts to increase accountability not only within the utility, but between the utility and the government. It illustrates that “private-sector-like” managerial approaches can be successfully adopted by public sector entities.
<b>Budgeting</b>	
<b>Objectives-Oriented Project Planning</b>	<p>Objectives Oriented Project Planning (ZOPP) is a method for planning and managing projects that encourages participatory planning through a series of stakeholder workshops. The ZOPP method is a powerful tool for combining joint analysis and planning throughout the project cycle. It can also help “save” projects that falter midway by reorganizing stakeholders resolve to see a project through. A main idea behind ZOPP is the “every plan is wrong, when we look at it in hindsight”. For more information, please see:</p> <ul style="list-style-type: none"> <li>• Gesellschaft fur Technische Zusammenarbeit (GTZ) (1991). <i>Methods and Instruments for Project Planning and Implementation</i>, Eschborn: Germany</li> <li>• GTZ (1998). <i>ZOPP: An Introduction to the Method</i> Eschborn: Germany</li> <li>• GTZ (1998). <i>ZOPP in Brief</i>, Eschborn: Germany.</li> </ul>

<sup>d</sup> [http://www.wateraid.org/documents/plugin\\_documents/publicsectorproviders.pdf](http://www.wateraid.org/documents/plugin_documents/publicsectorproviders.pdf)

## 10 STRENGTHENING WATER SECTOR GOVERNANCE TO PROMOTE PROBITY

*“Today there is a good understanding that past approaches to ... reform will not work. The record has been poor. Part of the reason for this failure is that efforts were inordinately focused on changing the utility by strengthening its management and its processes, but without making commensurate advances on the governance framework or the institutional environment within which the utility operates. In the end, utility managers respond according to the wishes of important external stakeholders, most notably national government, municipal officials, community leaders and lenders. Misdirected incentives on their part will have direct consequences for the internal incentive systems of utility managers and their staff.”<sup>20</sup>*

Ultimately, arrangements for water service provision are almost always under government control. Probity will only develop and grow when decision-makers within those control systems want to promote probity, rather than benefit from corruption. Unfortunately, in many developing countries today, the opposite is true. Public decision-makers have an interest in continuing corruption, while those who suffer from corruption lack the power or organization to change the system.

This section looks at how governance in the water sector works. It briefly explains how a healthy governance system should work to sustain a virtuous cycle of increasing probity, and considers the governance dysfunctions that allow corruption to flourish (Section 10.1). Having analyzed the ways in which governance fails, the section goes on to look at ways to make governance work better. These ways are divided into two categories: those aimed at empowering citizens (Section 10.2) and those aimed at helping government and citizens to hold providers accountable (Section 10.3).

Governance arrangements are highly situation specific. What works in one place will not necessarily work in another. Section 11 provides some insights into how to tailor the general recommendations to specific situations.

Finally, Section 11.3 emphasizes a systems-thinking approach to governance. Good governance is a complicated interlocking system. Multiple elements need to function together. Sadly, fixing one broken element will not necessarily make the system work if another element remains missing. To use a metaphor, if the water supply to a village stopped because the pump had burned out, and the pipe from the borehole to the village was broken, villagers should not expect that fixing the pump alone would make life any better. Fixing the pump alone would simply consume resources to pump water out on the ground. In the same way, putting in place one element of governance—such report cards to provide citizens with information—without the other supporting elements, may do no good at all. Fully understanding how to improve governance to promote probity requires deep analysis of complex and situation-specific human systems.

### 10.1 How Governance Works—or Doesn’t

Section 2 of this sourcebook presented a framework that highlights the ways in which poor governance creates opportunities for corruption, and good governance helps to reduce corruption. It highlighted the essential problems of governance in electricity as stemming from the economies of scale and natural monopoly characteristics of the sector.

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<sup>20</sup> Baietti, Kingdom, and van Ginneken (2006). “Characteristics of Well-Performing Public Water Utilities” Water Supply and Sanitation Working Note No.9 World Bank.

The fact that water is a service with monopolistic characteristics and great social importance is at the heart of governance problems in the sector. In markets for normal goods and services, competition makes providers accountable directly to customers. Customers choose between suppliers and, in this way, ensure that all suppliers either provide good service at efficient cost, or go out of business. The natural monopoly characteristics of water services mean that competition between water suppliers is limited or non-existent, and so consumers cannot rely on competition to keep providers accountable to them in the way that it does in other sectors such as food supply. For this reason, citizens turn to government to make water providers do what citizens want—the long route of accountability.

Summarizing that discussion, a generic governance system for the water and sanitation sector is illustrated in Figure 10.1. This models governance as a cycle of accountability, in which:

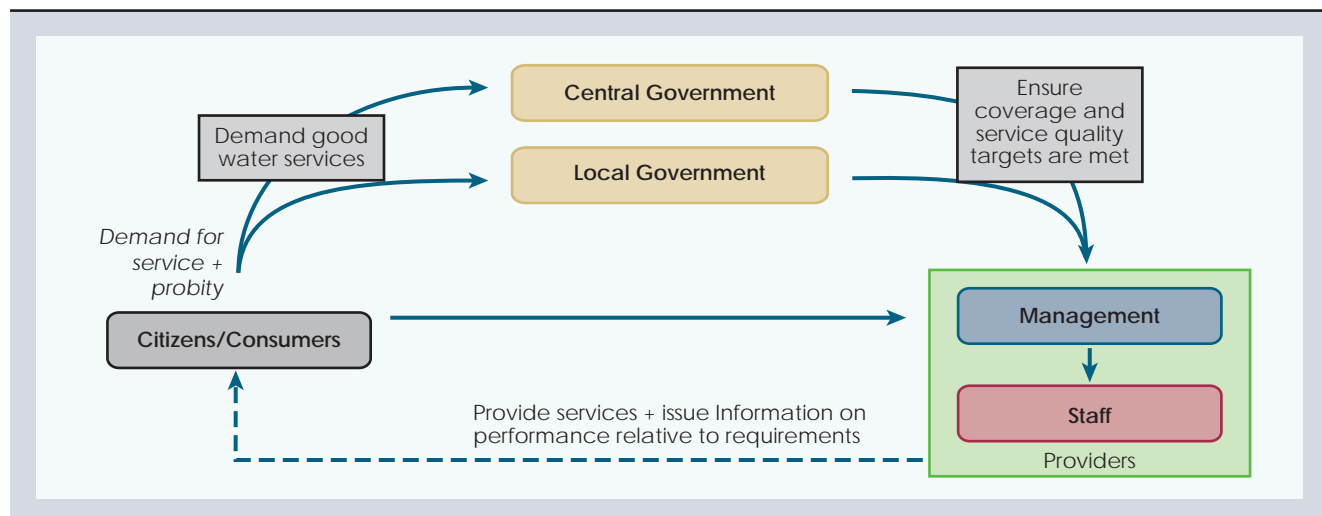
- **Citizens** (including consumers) demand good water services via their local and central governments
- **Local and central governments** try to make sure that all citizens receive services, and that water service providers—whether public or private—deliver a good service and are responsive to consumers
- **Providers** deliver services to consumers, who judge that service against their initial expectations and demands.

Below, we explain each aspect of the cycle in more details, explaining how it affects water sector probity, and where the aspect of the cycle is further addressed in this section.

### Citizen or consumer demand

Citizen or consumer demand is primarily for good service at reasonable cost. This translates to a demand for probity, since, in general corrupt systems are inefficient, and deliver inadequate service, or excessive cost, or both. In countries where citizens believe the water sector is corrupt, they may also demand probity directly, both because they have a preference for probity (they think corruption is inherently wrong) and because they understand this leads to a better quality and cost of service, by stopping sector resources being diverted to private ends. Ways to inform and empower citizens in their demands are discussed in Section 10.2.

**Figure 10.1 The Governance System: a Cycle of Accountability**



Source: Adapted from the World Development Report 2004, *Making Services Work for Poor People*

## Government responses to citizen demand

For citizens' demands to translate into changes by government, government decision makers need to be rewarded for delivering what citizens want, and punished for not doing so. The pay-off to decision makers for giving citizens what they want must be greater than the benefits from corruption. One system for doing this will be political competition, where those decision-makers that fail to serve the public interest lose their position (and in so doing also lose the corrupt benefits of office).

Once governments are motivated to deliver the water services citizens want, governments need to make the water service provider perform the way government wants it to. This is difficult. Many national and municipal governments own their water providers, and yet Presidents, Ministers, and Mayors find it difficult to get the provider to deliver a good service at reasonable price. Other governments have outsourced water services to private firms, to try to increase competence or accountability or both. Section 10.3 discusses the techniques governments can use to become increasingly successful in holding providers accountable for good performance.

## Provider responses to government (and consumer) demand

To deliver good performance at reasonable cost, providers cannot afford to be corrupt. Therefore, accountable provider managers will work to reduce corruption in their organization. They will use the techniques discussed in Section 9. The governance and accountability arrangements discussed in this section are thus the things that motivate provider managers to increase probity.

## 10.2 Empowering Citizens

Citizen demand for good service is an important factor in ensuring that providers deliver good water services. However, for citizens to make their demands effective, they need both information on which to base their demands, and an ability to influence the government and providers. Ways to increase citizens' information and influence are outlined below. These methods, and other complementary or alternative approaches, are described in more detail in the sources listed in Source List 10.1 (beginning on page 117).

### 10.2.1 Information

To demand good water services, citizens need information on what level of service they are actually getting, and what level of service they could reasonably expect. Methods for increasing information on current levels of service above and beyond information gained from individual household experience or casual neighborhood discussions include:

- **Requiring providers to issue regulatory-type reports** of performance against standards. To ensure this information is meaningful to consumers, and is issued regularly, regulators should ideally issue templates and guidance on standard avenues for information reporting (for example, via media that consumers can readily access), and enforce compliance with reporting requirements. Although this increases the regulatory burden for both regulators and providers, it is a relatively low-cost means for increasing information to consumers. Consumers can assist in monitoring provider compliance with reporting requirements, using complaint mechanisms to report non-compliance
- **Using report cards, surveys or consumer meetings** to gather a wide range of consumer feedback on performance (see Box 10.1)—these options are effective where providers are reluctant to issue information or where consumers need some guidance in interpreting performance data, or where sharing customer experiences can usefully supplement performance reporting by the utility



### Box 10.1 Citizen Report Cards in Kenya

**Report cards, surveys, or consumer meetings** can be used to gather a wide range of consumer feedback on performance. In Kenya, for instance, the Ministry of Water and Irrigation (the Ministry) wanted to reform the water sector and strengthen the quality of service delivery. The Ministry decided that, rather than focus exclusively on “supply” side reform (for instance, institutional strengthening of the provider), it should build the capacity of the “demand” side by ensuring that consumers understand policies and hold the government and providers accountable. With this in mind, the Ministry decided to provide Citizen Report Cards (CRCs) of urban water and sanitation services in Kenya. The Report Cards were provided in Kenya’s three largest cities—Nairobi, Mombasa, and Kisumu—and pointed out areas in which consumers felt providers were performing well, and where improvements were needed.

The Report Cards covered:

- Availability, access, and usage of water sources
- Scarcity
- Consumer perceptions on quality and reliability of service
- Transparency of service provision
- Interactions with the water company and responsiveness
- Costs incurred in accessing water
- Satisfaction with water provision.

The Report Cards revealed many areas where water companies could improve, especially in the area of communication between water companies and consumers. This is a new initiative in Kenya, so long-term effects are still being monitored.

Source: Water and Sanitation Program (2007). Citizen Report Card on Urban Water, Sanitation, and Solid Waste Services in Kenya: Summary of Results from Nairobi, Kisumu, and Mombasa. (2007). (Available online at [http://www.wsp.org/UserFiles/file/712200745708\\_Citizens\\_Report\\_Card\\_-\\_Summary\\_Kenya.pdf](http://www.wsp.org/UserFiles/file/712200745708_Citizens_Report_Card_-_Summary_Kenya.pdf))

- **Establishing rules** for providing consumers with information on request, ideally via a dedicated consumer services department. As with the regulatory reports described above, such rules would require regulators to issue clear guidelines on the type of information to be provided to consumers, and the timeliness with which it is to be provided. Issuing information on request is likely to be less effective in increasing consumer information than issuing reports in readily accessible media. However, this weakness could be addressed by ensuring that other groups that may report on the public’s behalf (such as journalists or NGOs) can access performance information.

Where the established rules and reporting requirements aren’t followed, the regulator (or alternative enforcement agency—in some cases, the Ombudsman, as described in Box 10.2 below) needs to intervene and impose penalties for non-compliance.

### Box 10.2 Possible Roles for Ombudsmen in Ensuring Consumer Rights

“Ombudsmen can ... be involved in the complaint resolution process. This is for example the case in several Latin American countries (Peru, Argentina and El Salvador) and in Macedonia, where the jurisdiction of Ombudsmen has started to extend to infrastructure industries. In Macedonia, the Ombudsman recently ruled against the practice of random customer disconnection from electricity supply in areas where the billing system does not enable service providers to detect delinquent customers. Ombudsmen have also been established in Australia with the specific remit of solving disputes between consumers and electricity businesses.”

Source: Muzzini, E. (2005). “Consumer Participation in Infrastructure Regulation: Evidence from the East Asia and Pacific Region”. World Bank Working Paper No. 66. World Bank.

Methods for increasing information on the level of service that citizens could expect include:

- **Issuing comparative information** on cost and quality of service providers in other towns and countries—this information could be regularly compiled and issued by a regulatory agency or government department, ideally based on a set of pre-agreed and consistent cross-country indicators
- **Enabling consumer participation in regulatory-style decision-making**, in which options for improving service and reducing costs are debated in an open meeting. Such meetings are generally held at the time of a tariff review or during a local service planning process. In addition, consumers may be regularly invited to provide feedback to the regulator on service levels and regulatory performance
- **Building capacity among journalists.** Journalists need to be free to report, able to understand the issues, and be given access to information. Although practitioners may have little power to influence the freedom of investigation and reporting, they can aim to provide training for journalists, NGOs and other interested parties on the prevailing service requirements and performance, standard service requirements and performance in comparator countries, and the reasons why providers may be failing to meet performance requirements.

### **10.2.2 How citizens can influence providers and government**

Accountability will be increased if citizens can form groups to discuss and express their views, and if they have channels to influence sector decision-making. In a well-functioning governance system, many of these channels may be direct to the provider—in good governance systems, provider managers are motivated to listen to citizens and try to do what they want.

Unfortunately in most developing countries, provider managers are not motivated to do what citizens want, or are unable to do what citizens want because of lack of funds, or other constraints imposed on them by government. In these cases, citizen participation must be directed at influencing government, so a critical link in making governance in the water sector work are the mechanisms that make government more responsive to citizens.

Overall, government-level accountability systems are beyond the scope of this Sourcebook, but regarding water sector-specific issues, measures that could increase the responsiveness of water sector decision-makers to citizens include:

- Provision of information (discussed in the previous section)
- Allowing competition—while water is generally considered a natural monopoly, where a government owned piped-provider is doing a poor job, there may be scope for other providers to fill the gaps
- Helping politicians to see that the projects and reforms proposed can be to their benefit (see further discussion of this in Section 11).

Other forms of participation include:

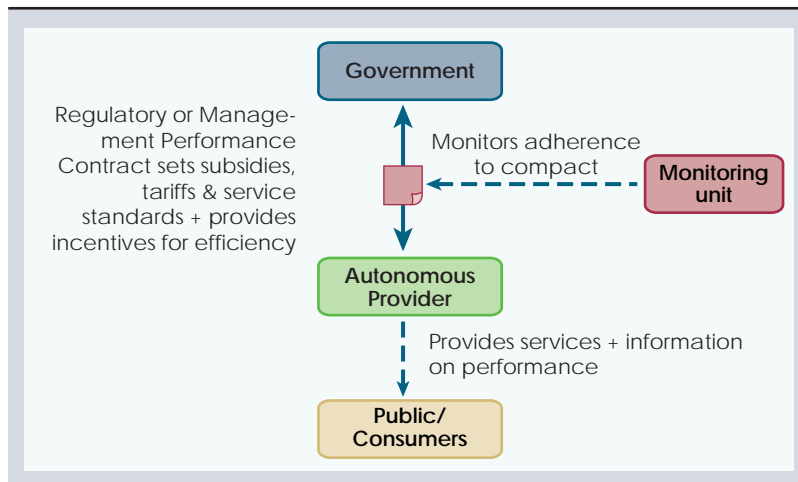
- Involvement through surveys and focus groups for planning investments and setting service standards
- Consultation over options
- Involvement in supervision (for community-level projects).

## 10.3 Holding Providers Accountable

The main elements of a system to hold monopoly providers accountable would generally include the following:

- A **“regulatory” or “management performance” compact**—that is, a clear written understanding as to what service the provider is expected to provide; and the resources the provider may reasonably use in providing those services (usually a mix of tariffs and subsidies)
- A **provider (or providers) with sufficient autonomy** to achieve the results for which it is being held accountable
- A **trustworthy monitoring unit** to monitor the provider’s performance against the compact
- Establishes a **merit-based system** that rewards the provider managers for performing well against the contract, and punishes them for performing badly
- A **means of providing information** on provider performance to both the government and consumers.

Generic Accountability Framework for Regulation



The basic regulatory structure that results from the elements set out above is illustrated in the figure to the right. However, various sector structures can display these features, if properly designed. For example, the “oversight body” may be an independent regulator, a semi-autonomous contract monitoring unit, or a government department.

The following sections discuss each of the elements of this accountability framework, identifying various structural options. Section 11 provides advice on how to implement recommended options in more challenging situations where government capacity may be limited.

### 10.3.1 A compact on service targets and allowed resources

This section sets out why setting service targets and the resources available to achieve them, in a written compact, helps in promoting accountability and reducing corruption. It reviews how this can be done in practice in a variety of situations.

#### *The benefits of a compact for both private and public providers*

Practitioners have long recognized the benefits of developing a (regulatory) compact that defines service standards and tariffs or other resources for private providers. With private providers, the need to specify required service standards and allowed tariffs and subsidies is clear—without such a compact, government and the citizenry have little control over the services provided, or the tariffs charged.

With publicly-owned providers the benefit of setting service standards and allowed resources is at first less clear—after all, the government, by virtue of its ownership and control rights over the provider,

can at any time direct that provider to provide certain services, or reduce tariffs. However, the importance of clear service standards and tariff or subsidy rules becomes clearer in the context of provider accountability—the government needs to be sure that the managers of its provider can be held accountable for meeting a clear set of targets.

In short, when the government owns the provider, it must address a management problem. This problem is equivalent to the regulatory problem that the government would need to address under private provision.

The solution to the public-provider management problem is very similar to the solution to the private-provider regulatory problem. As with regulation, management accountability demands that provider managers have clear results they are supposed to achieve, and clearly defined and adequate resources with which to achieve them.

The advantages of a regulatory or management performance compact with defined service standards and defined resources are that:

- The compact makes it clear what the provider is supposed to achieve in the way of services, and so allows the government to tell whether or not the provider is performing well
- By specifying a reasonable level of resources that can be used in delivering the required services, the compact becomes a key part in a system for promoting efficiency. Coupled with adequate management incentives, the drive to increase efficiency can lead the provider management to clamp down on the wastefulness of corruption
- The compact can be made public, and the terms of the contract can be debated. This allows citizens to assess whether the government is doing a good job in setting targets for the sectors, and also to judge whether the provider is performing as intended.

How then can governments move toward such compacts where they do not exist already?

### *Establishing a regulatory or management performance compact*

The general process for developing an effective regulatory or management performance compact involves three steps:

1. **Defining the problems and objectives in the sector.** If a government doesn't start with a clear idea of what problems it needs to solve in the water sector, it will struggle to develop an effective solution. This may seem obvious, but surprisingly often governments don't identify sector problems and associated objectives at all, or don't identify the objectives clearly (or in a way that enables them to assess how well government policies and regulation meets those objectives).

Generally, each sector objective would respond to a major sector problem. For example, if inadequate access to services is an important problem, a clear objective might be to increase access to services. If non-continuous or erratic supply is an important problem, an objective might be to improve service reliability. If ongoing government support to prop up a poorly performing public utility is an important (fiscal) problem, the objective could be to improve the utility's operating efficiency.

When identifying sector problems and setting sector objectives, the government may need to prioritise some objectives over others. This may involve policy trade-offs. For example, government may want to improve the quality of service provision, while keeping tariffs low. The government will need to decide whether to compromise one of these objectives in favour of the other, or to provide additional financial support (in the form of subsidies) to ensure that both its service and affordability objectives are achieved

2. **Defining the specific monitoring functions needed to achieve those objectives.** The monitoring functions should help to ensure that the provider is able to, and has incentives to, operate in a way that is conducive to meeting sector objectives. For public providers, the monitoring functions are similar to good provider management controls such as target-setting, budget allocation, and appraisal against the service standard and budget goals. For private providers, target setting and appraisal is also important, but the budget monitoring functions may focus more on budget control via controls on tariff levels that ensure the full recovery of efficient costs through consumer tariffs, or a combination of tariffs and government subsidies
3. **Deciding which legal instruments are best suited to embody the monitoring rules and which organizations are best suited to perform the monitoring functions.** The government could choose one of several instruments (such as a statute or executive prerogative) to appoint an monitoring unit (such as a ministry or a Public Utilities Commission), which would be empowered to issue subsidy, tariff, or service standard rules through a suitable instrument (such as an order or a contract). Contracts have the advantage that they cannot be changed without the provider's consent. As Besant-Jones notes:

*The rules that best answer the main concerns of the foreign investors may not require a complex regulatory framework in the host country. If the principal requirements of investors are clarity of rules and predictability of results with government commitment and assured payback, they may be satisfied with the establishment of clear contracts, rather than complex regulations.<sup>21</sup>*

For example, in Vanuatu water services are regulated through a contract between the government and the service provider. The contract sets the rules for service coverage, tariffs and services standards. The government uses executive prerogative to appoint a ministry to be in charge of water service regulation. In turn, the ministry negotiates a contract with the service provider, and monitors and enforces the provider's compliance with the contract. The Government is now creating a special regulatory agency that it hopes will be more effective than the Ministry in enforcing the contract—however, unlike a traditional regulator in the British or American model, this agency's powers will be largely limited to enforcing the contract.

In contrast, in Belize the government issued a statute creating a public utilities commission (PUC), which was empowered to issue regulatory orders setting allowable tariff levels and rules for tariff indexation, and to issue licences setting out required service standards, for the major, publicly-owned water provider.

Where the provider is public, the choice of instrument will depend in part on whether the government is taking a "regulatory" or a "managerial" approach to accountability. A "regulatory" approach would treat the provider as being quite independent from the government, and therefore regulate it much as if it were a private provider. In contract, a more managerial approach might see the compact embodied in a Memorandum of Understanding or an essentially non-enforceable agreement between government and the utility. Another approach with promise would be to put the agreement in the employment contract with the utility managers. This approach has been adopted with some success in Uganda (see Box 10.3 below).

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<sup>21</sup> Besant-Jones (2006). "Reforming Power Utilities in Developing Countries: What Have We Learned?". Energy and Mining Sector Board Discussion Paper No. 19, World Bank

### Box 10.3 Internally Delegated Management Contracts, Uganda

In January 2004, the National Water and Sewerage Company (NWSC) of Uganda launched Internally Delegated Area Management Contracts (IDAMCs) in seven pilot towns. The IDAMCs are similar to conventional management contracts, but internal since their arbitration ceiling is the NWSC's Board of Directors. The IDAMCs put performance targets in the contract (for instance, reducing unaccounted for water from 26 percent to 20 percent over a two year period) and real incentives to achieve them (the area teams receive a management fee made up of three components: a base fee, performance fee, and incentive fee). An example of an IDAMC (for the Entebbe Water Supply Service Area) is available online: <http://www.nwsc.co.ug/uploads/PDdownloads/Entebbe6.pdf>

Source: National Water and Sewerage Company website: <http://www.nwsc.co.ug/modules/pagewrap/>

#### 10.3.2 A provider with incentives and autonomy

This section considers why an adequate level of provider autonomy is important for improving governance and reducing corruption, and how such autonomy can be achieved in practice. It then considers the equally important point of the incentives the provider's management have to perform and deliver against the regulatory compact.

##### *Provider autonomy*

If the people managing the provider do not have reasonable freedom to manage, they cannot be held accountable for the provider's performance. Adequate autonomy the ability to decide on how the utility will achieve its objectives, to ensure that revenues are directed towards their intended use, to hire and fire staff, to set salaries and offer performance incentives, to disconnect both public and private non-payers, to reinvest revenues into system improvement and expansion, and so forth.

There are many possible constraints on provider autonomy. Often the provider's autonomy in practice is lower than its autonomy "on paper". Legislation that decrees the provider to be autonomous can help, but may not be sufficient for ensuring that provider management is truly empowered to make key decisions. Factors that may limit a provider's **effective** autonomy include reliance on government for financing, unclear regulatory rules that or policy settings that force the provider to turn to the regulator or government for decisions on many issues, and—perhaps most commonly—a culture of deference of the provider Board and management to their political masters.

### Box 10.4 Increasing Provider Autonomy: Three Utility Case Studies

If a utility is corporatized, it typically remains in the hands of a sole owner. This means that the utility remains ultimately dependent on one actor, which can bypass the corporate oversight board. For instance, a comparative study of five utilities in Mexico shows that only two out of five municipalities had boards constituted as prescribed in the statutes of the utility, while the other boards were directly appointed by the mayor despite rules to the contrary (Schwartz, 2006).

Diversifying ownership can reduce the risk of capture. This can be done through partial sale of the utility to private investors. For instance the São Paulo State Government holds just over half of the shares of SABESP, the Sao Paulo utility, with the remaining 49.7 percent in the hands of private stockholders. Alternatively, the municipality can sell or donate part of the shares of a utility to consumers. This is a far reaching effort that increases consumer orientation dramatically. Three examples, are provided below. The diamond shapes are quick indicators of the relative importance of key stakeholders in setting the direction of the provider.

#### **How multiples ownership through public listing balances accountabilities in SABESP (Sao Paulo, Brazil)**

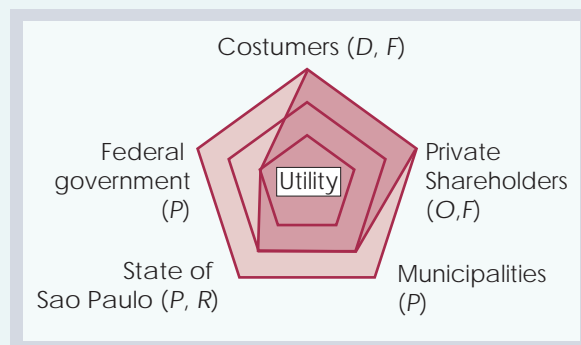
SABESP serves 25 million people in 368 municipalities in the State of São Paulo in Brazil. SABESP is a mixed economy, open capital company. The company operates WSS services under a concession. The São Paulo State Government holds 50.3 percent of its shares. The remaining 49.7 percent are in the hands of private stockholders. 22 percent of stocks are traded on the New York Stock Exchange and 27.7 percent of stocks are traded on the Brazilian stock exchange (Bovespa).

(continued on next page)

### Box 10.4 Increasing Provider Autonomy: Three Utility Case Studies (continued)

The accountability to multiple owners has reduced the interference by the public owner. It has forced the company to professionalize its management and improve its corporate governance. Transparency in the company has increased: Results are made public on a quarterly basis followed by a conference call, where investors, analyst and the general public have direct access to company management.

As a result, service has improved. In 2005, the company achieved 100 percent water coverage with very small intermittences (up from 96 percent with frequent intermittences in 1995). Sewerage coverage has increased from 70 percent to 78 percent, and treatment from below 30 percent to 63 percent in 10 years.

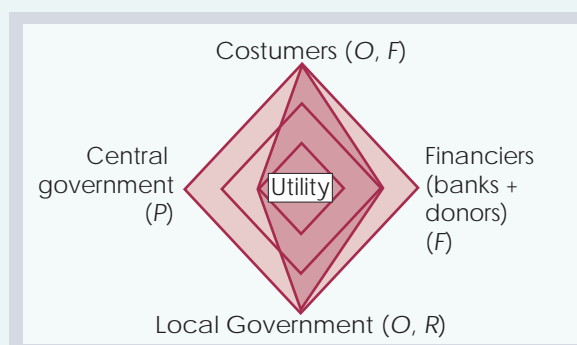


#### How consumer co-ownership balances accountabilities in APC (Puerto Cortes, Honduras)

Till the mid 1990s, water services in Puerto Cortes, a port city in Honduras, were managed by a national utility (SANAA). Performance was low and water supply coverage was 62%.

In 1994, the Municipality of Puerto Cortes acquired asset ownership of the WSS system and in 1995, operation and maintenance were decentralized. A municipal water department was made responsible for WSS service provision. In 1999, the municipal department was corporatized into a government owned company (Aguas de Puerto Cortés, APC). APC leased the infrastructure from the municipality, which retained asset ownership. APC improved metering and introduced community participation in tariff-setting. It improved collection, and reduced illegal connections and leaks. Infrastructure was improved and expanded with donor support.

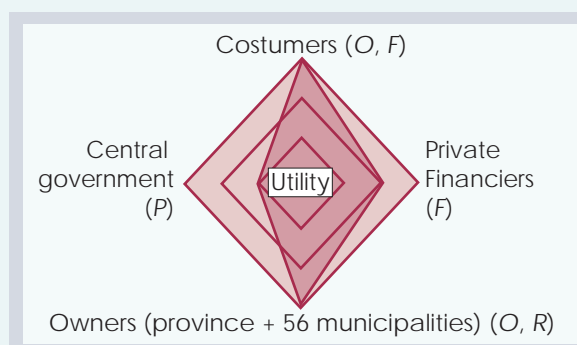
In the early 2000s, the City of Puerto Cortés sold part of its shares of APC to consumers. The City currently keeps less than 20 percent of the ownership of the company. The multiple ownership arrangement has improved the accountability of APC to its consumers. At present, APC has reached 92 percent water supply coverage. Service has increased from 12 hours to 24 hours a day. Unaccounted for water has decreased from 50 percent to 30 percent.



Alternatively, aggregation of utilities into larger geographical areas can introduce multiple minority owners. Aggregation is the grouping of several municipalities into a single administrative structure for the provision of services. Assets can either be divested to the aggregated utility or remain with the individual governments. An aggregated entity, by its nature, is either a statutory body or a government owned company. Its corporate oversight board comprises of representatives from multiple municipalities. The Board will balance the needs of the various member municipalities. The ability of any single municipality to unilaterally influence the activities of the utility is limited (Kingdom et al, 2005). An illustration is Water Company Limburg in the Netherlands

#### How aggregation helps to balance accountabilities in WML (the Netherlands)

The Water Company Limburg (WML) in the Netherlands is a government-owned company in which 57 government entities (the province and 56 municipalities) own the shares. The largest shareholder owns 23 percent of the shares. Decisions in Shareholders' Meeting are by common majority, and consensus amongst shareholders is essential for actions to be approved. As the multiple government owners represent different geographic areas, the shareholders represent consumers in various parts of the service area.



Source: van Ginneken, M. and Kingdom, W. (2008). *Key Topics in Public Utility Reform*. Water Working Notes N0.17. World Bank.

To overcome some of these constraints, and create a relationship in which the provider is both autonomous and accountable for the areas in which it has autonomy, governments can:

### Corporatize water services

Corporatization is commonly recommended as a way to increase autonomy and professionalism in water provider. Corporatization sometimes refers to creation of a water provider that is a corporate entity (whether a state-owned company or a statutory corporation) as opposed to a provider that is part of a government department or municipal government. Other times the word is used strictly to refer to the transformation of a public-provider into a company incorporated under normal company law, but in which all the shares are owned by the government (Table 10.1 describes different types of ownership and corporate form).

Although a corporation's board may have representation from senior government officials, it is a distinct legal entity that operates more like a private business. Its finances are isolated from the general government budget and may be externally audited. The benefits of this model are that it can introduce autonomy and commercial discipline to the utility, decreasing political interference and petty corruption and leading to considerably better performance in terms of coverage and quality (a result confirmed by an econometric analysis of water utilities from Africa, Asia and the Middle East by Braadbaart, Eybergen & Hoffer, 2007). A comparison of a corporatized electricity utility and a departmental water provider operating in the same city highlight some of the benefits.

In practice, corporatization is often imperfect—politicians may still intervene in utility affairs or act to restrict tariff revenues, such that the utility is unable to meet all service coverage goals. There may also be internal resistance to the institutional changes involved in adopting the corporate model, or a lack of capacity to properly implement the required changes. Practitioners need to be aware of such constraints.

**Table 10.1 Types of Ownership and Corporate Form**

	<i>Ministry or Department</i>	<i>Statutory Body (or Parastatal)</i>	<i>State-owned Company</i>	<i>Mixed-ownership Company</i>	<i>Investor-owned Company</i>
Legal Foundation	Normally an executive order	A statute	A memorandum and articles of association (registered under a Companies Act or the like)	A memorandum and articles of association (registered under a Companies Act or the like)	A memorandum and articles of association (registered under a Companies Act or the like)
Status as Legal Entry	Normally unincorporated (thus does not have a legal personality separate from that of the government)	Either incorporated or unincorporated	Incorporated (thus has own legal personality)	Incorporated (thus has own legal personality)	Incorporated (thus has own legal personality)
Basis of Ownership	Notionally, owned by the government as creator	Notionally, owned by the government as creator	Owned by the government as creator and shareholder	Some shares owned by government, other shares by private investor	All shares owned by private investor
Legal Framework	Operating under public law	Operating under public law	Operating under private (company) law	Operating under private (company) law	Operating under private (company) law

Source: Castalia



### Box 10.5 Successful Corporatization

The Phnom Penh Water Supply Authority (PPWSA) transformed itself from a dilapidated water supply system to a model public sector water utility through a successful corporatization program. This program included putting in a management team with performance-based incentives, installing water meters and automated billing and accounting, carrying out customer surveys, and increasing tariffs in three steps over seven years. The results of this reform program included are summarized in the table below.

Indicator	1993	2006
Staff per 1,000 connections	22	4
Production capacity (m <sup>3</sup> /day)	65,000	235,000
NRW	72%	8%
Coverage area	25%	90%
Total connections	26,881	147,000
Metered coverage	13%	100%
Supply duration	10 hours/day	24 hours/day
Collection ratio	48%	99.9%

Sources: ADB (2006). *Phnom Penh Water Supply Authority: An Exemplary Utility in Asia*.

World Bank (2006). *Rehabilitating the Urban Water Sector in Cambodia*. Water Feature Stories No. 6.

#### **Ensure multiple stakeholders are represented**

Ensure multiple stakeholders are represented on the provider Board (or perhaps better, in its ownership) This can help to ensure that the provider is not unduly influenced by political or special interest groups, and that it is held accountable to a range of stakeholders. The main advantage of this approach is that having competing forces in the governance of the provider may stop any one stakeholder—typically the government—from dominating it, and so create a more real autonomy for the management of the provider, which will not be simply an extension of the dominant stakeholder. On the other hand, this approach has its disadvantages. It may create a board which lacks cohesion, leading to a “gridlock” situation or to “log-rolling”, in which different stakeholders make trade-offs to gain each others’ support on decisions they are more personally interested in. These problems can potentially be mitigated through effective rules to govern board decision-making processes and give ultimate decision-making rights to a qualified director.

Many countries have a tradition of a Minister or Mayor appointing representatives from various stakeholders to the Board of a provider. This can still result in a Board that is essentially beholden to one stakeholder—the Minister or mayor. Moreover, this situation can persist despite laws to the contrary. For instance, a comparative study of five utilities in Mexico shows that only two out of five municipalities had boards constituted as prescribed in the statutes of the utility, while the other boards were directly appointed by the mayor despite rules to the contrary<sup>22</sup>.

A more powerful approach may be to give stakeholders the right to appoint Board representatives directly, rather than simply have their representative chosen by the Minister. This could be done through giving business and consumer groups the right to appoint directors to the Board. In Tunisia, the union is represented on the utility’s Board and this has proved helpful in creating some autonomy of the pro-

<sup>22</sup> Schwartz, K. (2006). *Managing Public Water Utilities: An Assessment of Bureaucratic and New Public Management Models in the Water Supply and Sanitation Sectors in Low- and Middle-Income Countries*. UNESCO-IHE Institute for Water Education.

vider from the political directorate.<sup>23</sup> Similarly, in the port city of Puerto Cortés, Honduras, the municipality sold part of its shares of APC to user-owned cooperatives, like the cooperative of port workers. Over the years, the municipality sold more shares; sixty-two percent of shares are owned by five cooperatives. The cooperatives collectively have 11,000 individual members—all customers of the APC. This arrangement have improved the APC's accountability to customers and its performance (tariffs increased, metering was extended, collection improved, and illegal connections and leaks reduced).<sup>24</sup> Shared ownership of the company has worked well in many other places, including cities in Colombia, Poland and the Czech Republic.

In Brazil, the São Paulo State Government holds just over half of the shares of SABESP, the Sao Paulo utility, with the remaining 49.7 percent in the hands of private stockholders. Despite being majority-government owned, the utility is listed on the New York Stock Exchange, providing a powerful set of corporate governance rules the utility and the government must respect.<sup>25</sup>

Alternatively, aggregation of utilities into larger geographical areas can introduce multiple minority owners. An aggregated entity, by its nature, is either a statutory body or a government owned company. Its corporate oversight board comprises of representatives from multiple municipalities. The Board will balance the needs of the various member municipalities. The ability of any single municipality to unilaterally influence the activities of the utility is limited.<sup>26</sup>

### *Develop co-operatives*

Giving citizens ownership of the utility, by turning it into cooperative can create a democratic local governance structure for the water sector, even when such structures do not exist generally. An effective cooperative governance structure means that the water provider management is answerable to representatives of customers, as the example of Santa Cruz in Bolivia shows (see Box 10.6).

Cooperatives have often worked best for simple systems and small service areas. In such areas, consumers can be more directly represented on the provider board, and the board does not need to be large or have a high degree of technical capacity to effectively operate the system. Co-operative performance may be improved through partnerships with more experienced or technically-skilled counterparts. An arrangement that has been successfully trialed in many low-income areas is to outsource a portion of the providers' operations to a community-run group, which manages services in a specific locality (see Box 10.7). For larger, more complex providers co-operative ownership models are at greater risk from lack of board competence or cohesion.

### *Introduce private participation*

Having the utility owned or operated by a private party is the surest way to ensure its autonomy. However, the very strength of the autonomy of a private operator necessitates equally strong regulatory or contractual arrangements to ensure the provider's accountability. A survey of over 1,200 water and electricity utilities found strong evidence that private participation is effective in improving utility per-

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<sup>23</sup> Ghariani, F. (2004). *"Public Modes of Engagement Project: SONEDE Case Study"*. UNESCO-IHE-Delft.

<sup>24</sup> Muller, M., Simpson, R. and van Ginneken, M. (2008). *Ways to Improve Water Services by Making Utilities More Accountable to their Users: A Review*. Water Sector Board Working Note 15. World Bank.

<sup>25</sup> Van Ginneken, M. and Kingdom, W. (2008). *Key Topics in Public Utility Reform*. Water Sector Board Working Notes No.17. World Bank.

<sup>26</sup> Baietti, A., Kingdom, W. and van Ginneken, M. (2006). *"Characteristics of Well Performing Water Utilities"*. Water Supply and Sanitation Working Notes No. 9. World Bank.

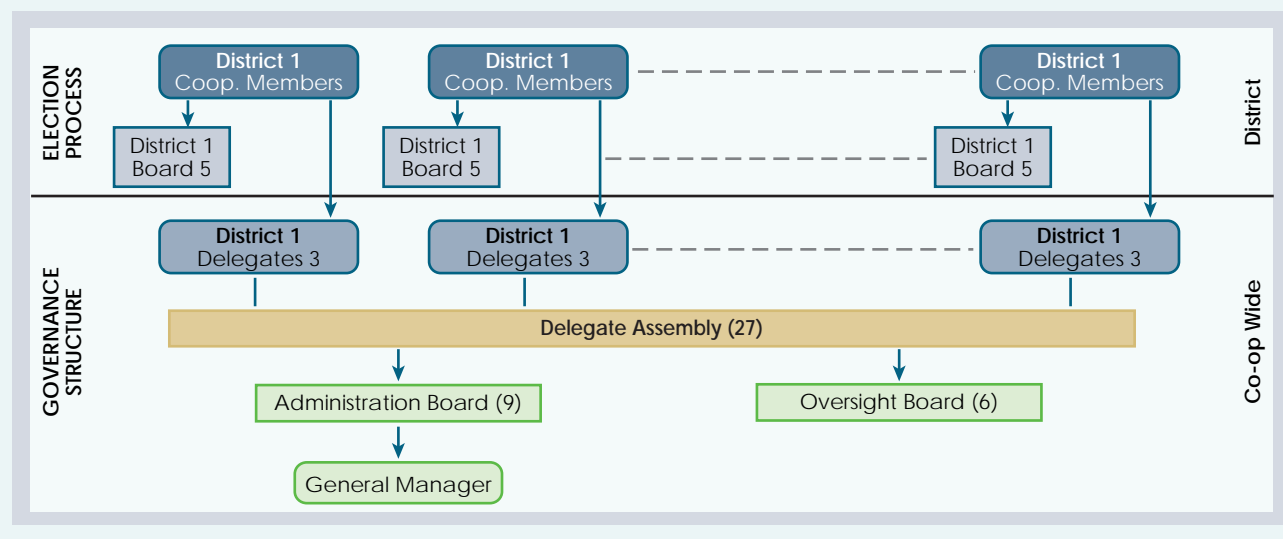
### Box 10.6 Co-operative Ownership to Promote Accountability

Cooperative ownership of the utility—that is ownership by its customers rather than the government—can increase the autonomy of the utility, freeing it from political capture, as well as providing better accountability to customers. Water cooperatives work well in a number of places. A good example is SAGUAPAC, the utility serving Santa Cruz in Bolivia.

Water services in Santa Cruz, Bolivia, are provided by SAGUAPAC—the largest urban water cooperative in the world, serving approximately three-quarters of a million people and billing close to US\$19 million per year. SAGUAPAC’s performance is well by international standards. It has operated in an efficient manner, provided continuous service with water of good quality from house connections to its members, and has maintained satisfactory financial performance. Water is available 99.92 percent of the time. Unaccounted for water is 17 percent. SAGUAPAC employs 3.1 staff per 1,000 connections. The working ratio is 0.55. Some 97 percent of connections are metered and collection efficiency is 95 percent. This success is attributed in large part to the utility’s carefully-designed cooperative ownership and governance structure, which is illustrated below.

The utility is owned by its customers, who vote for the board through a two-tier system of District Boards that choose an Administrative Board and an Oversight Board. Other governance rules include a ban on politicians serving on the Board.

At the same time, it must be noted that creating cooperatives is not a panacea. Many water cooperatives have not worked well. Poorly performing cooperatives often have governance structures that make them too political or populist, or too subject to government control.



Source: Ruiz-Mier, F. and van Ginneken, M. (2006). “Consumer Cooperatives: An Alternative Institutional Model for Delivery of Urban Water Supply and Sanitation Services”. Water Supply and Sanitation Working Notes No. 5. World Bank

formance.<sup>27</sup> However, private participation contracts can be costly and difficult to design and tender, and may not be supported by the government or public.

#### **Make the provider reliant on the public for funds**

Where a provider is largely dependent on government for its funding, a practical way to make the provider more accountable to customers, and more autonomous from government, may be to shift to a greater reliance on user-pays, as the example SIMAPAG in Mexico illustrates.

Source List 10.1 (beginning on page 115) provides links to resources that have information on these and other methods for improving provider autonomy and performance.

<sup>27</sup> Gassner, K. Popov, A. and Pushak, N. (2007). “An Empirical Assessment of Private Sector Participation in Electricity and Water Distribution in Developing and Transition Countries”. World Bank.

### **Box 10.7 Cooperative Management of Water Distribution in Kibera, Nairobi**

Kibera is one of the largest informal settlements in Africa, with a population of about 500,000 people and an estimated population density of 2,000 people per hectare. According to a survey conducted by the WSP in Nairobi in Laini Saba, one of the nine villages of Kibera, the residents consider sanitation and water supply to be the most crucial problems they face.

In response to the water supply problems in the area, Ushirika, a community-based organization in Laini saba, created a partnership with a local NGO, Maji Ufanisi, to extend piped water services to the area. Maji Ufanisi provided materials and technical expertise, while the local community arranged for labor to lay the pipeline and construct the water kiosks. In collaboration with Nairobi City Council (the water utility), a new distribution pipeline was extended to Laini Saba, which was commissioned in 1998.

A bulk flow meter was installed on the main distribution network where the Ushikira pipe connected, and the Ushikira Cooperative Water Society are issued water bills on the basis of the bulk meter readings. A management committee was set up to manage the water project on behalf of Ushirika. Consumers pay for the water by volume at the new water kiosks. The tariff is higher than the bulk cost price charged by Nairobi City Council but less than other local vendors' prices. Ushirika hire staff to sell the water at KSh2 per jerrican. The staff are paid a proportion of the money they collect according to the water meter at the kiosk. The surplus funds are then invested in other projects funded by Ushirika in Kibera.

Source: Sansom, K. (2006). "Supporting Non State Providers of Water Services". Paper for DFID Policy Division, *Resource Centre Network for Water, Sanitation, and Environmental Health*, page 4.

### **10.3.3 Checking provider performance and monitoring the provider**

This section outlines why it is important have a competent, trustworthy body check the provider's performance, and how this can be achieved in practice.

Accountability only works if performance against the agreed standards is regularly measured, and poor performance is penalized. In order to ensure that monitoring and enforcement are regular and consistent, the government will need to appoint a body to perform this function. Suitable bodies include:

- An existing regulatory body with responsibility for water sector regulation
- An outsourced agency with expertise in the water sector or in performance monitoring more generally. For example, a consulting firm could be used, as done successfully in Senegal to

### **Box 10.8 Financial Autonomy and Cost Recovery Promotes Good Governance in a Mexican Utility**

Utilities that are financially autonomous and that rely on revenue from their customers to cover all—or most—of their costs seem to have a stronger accountability to customers than those which rely on government for most of their funding.

A study of five water utilities in the State of Guanajuato, Mexico, found a strong relationship between service levels, tariffs, and accountability to customers. All five utilities had similar formal accountability systems. In practice, however, a sharp difference was observed between one utility—SIMAPAG—and the other four. This difference appeared to be related to the relatively high tariff levels that SIMAPAG was charging. SIMAPAG's customers were willing to pay these high tariffs; they remembered the water crisis in Guanajuato in the 1980s that left the city without potable water for almost two weeks. Between 1996 and 2001 the income received from users increased by 280 percent from approximately \$141,000 to over \$400,000.

Although the customers were willing to pay this relatively high tariff, they also started forcing the water utility to become accountable to them for the service they were providing, insisting upon higher service standards that SIMAPAG must meet.

Source: Schwartz, K. (2006). "Managing Public Water Utilities: An Assessment of Bureaucratic and New Public Management Models in the Water Supply and Sanitation Sectors in Low- And Middle-Income Countries". UNESCO-IHE Institute for Water Education, pp 94 to 97.

monitor the affermage contract, and in Tanzania to monitor provider compliance with the terms of a Memorandum of Understanding with the Ministry of Water

- A trusted government department. In many countries this could be the Ministry of Finance, which is suitably independent from the Ministries issuing policies for the water sector and likely to have the right incentives and competence to ensure that providers are representing “value for money” by meeting agreed targets.

Providers may also be required to submit audit reports, results of water quality tests, or feedback from consumer surveys as proof of performance targets and operational standards being met. As a further monitoring tool, providers can be required to publicize information on planned investments and targets for coming year, and to report against those targets. SIMAPAG in Mexico developed a “balanced scorecard” approach, as a way of increasing both internal and external accountability.

#### **Box 10.9 Balanced Scorecard in a Mexican Water Utility has Mixed Results**

SIMAPAG—a well performing utility in the State of Guanajuato, Mexico—introduced a balanced scorecard for setting targets and measuring the performance of the utility. The balanced scorecard incorporates a series of indicators, which provide four different ‘perspectives’ on the utility, which together are considered to provide a good picture of the overall functioning of the utility. These perspectives include a ‘client’s perspective’ (considered to be the most important), a ‘financial perspective’, a ‘process perspective’ (which includes a number of efficiency indicators) and a ‘learning perspective’ (which covers indicators such as absenteeism and rotation of personnel).

The indicators measuring the four perspectives of the scorecard are compiled on a monthly basis by the Department of Institutional Development and reported to the Council. The idea was that the balanced scorecard would serve as the performance measurement system in the utility and that in time, the evaluations of managerial employees would be linked to indicators in the balanced score card. This has, however, not occurred yet. As such, although the balanced scorecard distinguishes SIMAPAG from the other utilities, the question is how the use of this performance measurement system translates into accountability? At current, the most likely answer seems to be that it doesn’t. During recent management changes the managers most supportive of the balance scorecard have left the utility and as such, it is unlikely that it will be used for accountability in the near future.

Source: Schwartz, K. (2006). “Managing Public Water Utilities: An Assessment of Bureaucratic and New Public Management Models in the Water Supply and Sanitation Sectors in Low- And Middle-Income Countries”. UNESCO-IHE Institute for Water Education, pp 100 to 102.

## Source List 10.1 Reforming Water Sector Governance to Promote Probity

Source	Description
<b>Improving Governance and Increasing Probity Overall</b>	
Locussol, A. and van Ginneken, M. (2008). <i>“Development of a Template for Assessing the Governance of Public Water Supply and Sanitation Service Providers”</i> . World Bank	This paper describes some useful tools for assessing the governance of public water supply and sanitation service providers. In Part B, it describes the approach of the International benchmarking Network for Water and Sanitation Services (IBNET). Parts C and D present a framework for assessing a water sector (for instance, how to assess a policy environment, or how infrastructure is financed). Finally, Part E proposes a format to presenting the findings of an assessment (including a “snapshot” of the current situation and a diagnosis of the “gaps”). This template is to be tested in 20 water and sanitation service providers in select countries.
Mugisha, S. (2004). <i>“Transforming Public Water Utilities through Private Sector-like Management Principles: The National Water and Sewerage Corporation, Uganda Experience”</i> . World Bank	See Source List 9.1 on page 122. This paper illustrates how developing countries can adopt corporate-style oversight frameworks to improve sector performance, without a need for full privatization.
Plummer, J. and Cross, P. (2006). <i>“Tackling Corruption in the Water and Sanitation Sector in Africa: Starting the Dialogue”</i> , in Campos, J. and Pradhan, S., <i>The Many Faces of Corruption: Tackling Vulnerabilities at the Sector Level</i> . World Bank	<p>For an overview of generic strategies, see Section 3. The analysis in this paper focuses on changing incentives for corruption through four broad strategies:</p> <ul style="list-style-type: none"> <li>• Reducing the incidence of transactions—through reducing discretion, monopolies, and bureaucratic procedures, and clarifying functional responsibilities</li> <li>• Reducing the gain from each transaction—by scaling down large projects or making more transparent decision making processes</li> <li>• Increasing the probity of detection or penalty—by clarifying procedures, increasing accountability and transparency, and supporting whistleblowers, and</li> </ul> <p>Increasing the magnitude of the penalty—on the basis that the key to enforcement is meaningful penalties.</p>
Shah, A. (2006). <i>“Local Governance in Developing Countries”</i> . World Bank	Shah book on accountability in local government—Chapter 1 provides an excellent description of how decentralized democratic accountability mechanisms should work in municipal services, using a sophisticated governance and accountability framework similar to that developed in this Sourcebook.
van Ginneken, M. and Kingdom, B. (2008). <i>Key Topics in Public Water Utility Reform</i> . Water Working Notes No.17. World Bank	This paper describes and analyses attempts by public utilities to adopt new management tools, and the relative merits and demerits of these. It also includes a useful discussion of the emerging civil society and the pressure that this new consumer movement has to on government and utilities to deliver better services. Of particular use are the many boxes that provide case studies of public utility’s attempts at reform.
World Bank (2006). <i>“Approaches to Private Participation in Water Services: A Toolkit”</i> . World Bank	Chapters on setting upstream policy (chapter 4), finances and service standards (chapter 5) and contract design (chapter 8) provide useful insights for planning sector reforms.
World Development Report (2004). <i>“Making Services Work for Poor People”</i> . World Bank	Chapter 5 of this World Development Report—“Citizens and Politicians”—is a good overview of government accountability to citizens for providing public services. <sup>a</sup>

<sup>a</sup> <http://econ.worldbank.org/wdr/>

(continued on next page)

Source List 10.1 Reforming Water Sector Governance to Promote Probity (continued)

Source	Description
<b>Empowering Citizens</b>	
Cook, P. and Stevens, J. (2004). <i>“Consumer-Oriented Reporting of Service Performance”</i>	This report addresses the issues related to consumer-oriented service performance reporting, summarizes critical information available on each issue, analyzes cost-effectiveness of different approaches in different environments, and present guidelines based on these findings. Chapter 2 includes useful case studies on consumer-oriented performance reporting.
Davis, J. (2004). <i>“Corruption in Public Service delivery: Experience from South Asia’s Water and Sanitation Sector”</i> , <i>World Development</i> 32(1) 53–71	See Source List 4.1 on page 44. The paper concludes that, where corruption has been reduced, this is based on two drivers: a shift in the accountability networks of service providers and a change in the work environment (increasing the moral cost of misconduct).
Muzzini, E. (2005). <i>“Consumer Participation in Infrastructure Regulation: Evidence from the East Asia and Pacific Region”</i> . World Bank Working Paper No. 66. World Bank	Reviews infrastructure regulation in the East-Asia Pacific region to determine if the current institutional arrangements enable effective consumer participation, whether regulators are effective in engaging consumers, whether consumers and other stakeholders are regularly engaged in (and relied on) for the regulatory process, and whether the poor are given a voice. Uses data collected from a survey of regulators to conclude that consumer participation is well-established in the region, but mostly involves informing consumers, rather than actively involving them in decisions. Recommends further regulatory development to increase consumer participation.
World Bank (undated) <i>“Communication for Water Reform: A Guide for Task Managers”</i> . Development Communication Division. Washington, DC: World Bank	This document, produced by the World Bank’s Development Communication Division (DevComm), is intended to help Task Team Leaders in the water supply and sanitation sector to help government prepare communication programs. This paper describes the value of communication programs, how Task Team Leaders can assess the communications needs of a given project, the communication tools that are available, how to integrate communication activities into the project cycle, and what are the services available to Task Team Leaders. <sup>b</sup>
World Bank (2006). <i>Project Appraisal Document for “Third Water Supply and Sanitation For Low Income Communities Project (Indonesia)”</i>	This Project Appraisal Document describes how the World Bank intends to trial project designs in which communities not only participate in but actually lead (community-level) project selection, and work together to develop project specifications (see page 32) Third Party observations is also being designed into this World Bank project, and is described in Annex 13 of the PAD.
World Bank (2005). <i>“Social Accountability Sourcebook”</i> . World Bank	Increasing community awareness and political motivation can work to strengthen to governance system at both a system-wide and local level by increasing the demand for accountability and probity and a community’s responsiveness to information on whether or not these demands are being met. The Social Accountability Sourcebook provides a conceptual chapter about social accountability, describes the most frequently used social accountability tools approaches (such as participatory budgeting and citizens report cards), access to a series of case studies in different regions, and a list of materials for further learning. <sup>c</sup>
Irwin, T. (2006). <i>“Approaches to Private Participation in Water Services”</i> . (Chapter on Involving Stakeholders). World Bank	This Chapter provides a useful overview of ways to communicate with stakeholders that has more general relevance than just planning private participation arrangements. <sup>d</sup>

<sup>b</sup> <http://siteresources.worldbank.org/EXTDEVCOMMENG/Resources/commwaterreformfinal.pdf>

<sup>c</sup> <http://go.worldbank.org/Y0UDF953D0>

<sup>d</sup> <http://siteresources.worldbank.org/INTINFNETWORK/Resources/ApproachestoPrivateParticipationWaterServices.pdf>

(continued on next page)

Source List 10.1 Reforming Water Sector Governance to Promote Probity (continued)

Source	Description
<b>Ways of holding providers accountable</b>	
Bitran, G. and Arellano, P. (2005). <i>“Regulating Water Services: Sending the Right Signals to Utilities in Chile”</i> Viewpoint 286. World Bank	Chile carried out widespread reforms of its water supply and sanitation sector in the 1980s and 1990s in an attempt to attract the private capital necessary to expand and improve its services. This paper describes the new regulatory regime introduced in Chile, which was done through a phased approach, with an efficient pricing policy and methodology, and expert panels to deal with conflict resolution. Although the real tariff tripled between 1989 and 2002, the new prices provided incentives to private companies to invest in new infrastructure. The regulatory scheme also provided private companies with the incentive to be efficient and make wise investment decisions; initially, many of the companies experienced losses, but eventually began making good returns. <sup>e</sup>
<i>Body of Knowledge on Utility Regulation Website</i>	This website was created and is maintained by the Public Private Infrastructure Advisory Facility, the World Bank, and the University of Florida’s Public Utility Research Center. It contains comprehensive information on utility regulation, including the principles, best practices, and case studies. The website is divided into eight sections: introduction, overview, general concepts, market structure, financial analysis, incentive regulation, tariff design, social and environmental quality, information issues, and regulatory processes. Each section has a narrative, a list of references, and a self-testing option. <sup>f</sup>
Brown, A., Stern, J., Tenebaum, B., and Gencer, D. (2006). <i>“Handbook for Evaluating Infrastructure Regulatory Systems”</i> . World Bank	This book describes a framework for evaluating or “checking up on” the performance of infrastructure regulators. The results of such evaluation should feedback into regulatory design, identifying lessons learned and a path for further regulatory reform. Many regulatory regimes do not achieve their original objectives; but, once they are in place, governments may be resistant to changing them. The handbook sets out “quick”, “mid-level” and “in-depth” evaluation strategies for governments and sector practitioners to use when assessing the effectiveness of regulatory regimes. It describes how different regulatory regimes can be more effective in different circumstances, and the role that “transitional” models can play in moving regulation from the current practice towards a more ideal model.
Eberhard, A. (2007). <i>“Infrastructure Regulation in Developing Countries: An Exploration of Hybrid and Transitional Models”</i> . PPIAF Working Paper No. 4. World Bank	This paper explores the various types of regulatory models that can be used to, amongst other things, hold service providers accountable. First, it explores the challenges involved in making service providers accountable in developing countries. It then describes a wide range of regulatory models—for instance, regulation by government, independent regulation, outsourcing regulatory functions, advisory regulators and expert panels, and other hybrid and transitional models—and what can be expected to be achieved by these.
Eberhard, A. (2006). <i>“The Independence and Accountability of Africa’s Infrastructure Regulators: Reassessing Regulatory Design and Performance”</i> . University of Cape Town	This paper reviews how effective the African Forum for Utility Regulators (AFUR) has been in its first five years of existence. It examines how the (relatively) new regulators in Africa have evolved, and the different types of regulatory models that have been adopted. Whilst the focus of this paper is mostly on creating a balance between independence and accountability for independent regulators, it also paper provides anecdotal evidence of what has worked and what hasn’t, including the options—other than independent regulators—that have been successful in improving provider accountability in the region. <sup>g</sup>

<sup>e</sup> <http://rru.worldbank.org/PublicPolicyJournal>

<sup>f</sup> <http://www.regulationbodyofknowledge.org/>

<sup>g</sup> <http://www.gsb.uct.ac.za>

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Source List 10.1 Reforming Water Sector Governance to Promote Probity (continued)

Source	Description
Foster, V. (2005). <i>Ten Years of Water Service Reform in Latin America: Toward an Anglo-French Model</i> . Water Supply and Sanitation Sector Board Discussion Paper, No. 3. World Bank	This paper reviews and compares reforms of the water supply and sanitation sector in Latin American countries. All involved decentralization and regulatory reform, but were slightly different in each country. These reforms were largely a reaction to dissatisfaction with the traditional "clientelist" model of water service provision. This is a short paper that describes how Latin American countries redefined the role of the state in water service provision, and the different types of regulatory instruments which were developed to make this reform successful. <sup>h</sup>
Groom, E., Halpern, J., and Ehrhardt, D. (2006). <i>Explanatory Notes on Key Topics in the Regulation of Water and Sanitation Services</i> . Water Supply and Sanitation Sector Board Discussion Paper No.6 World Bank	These Notes are a good source for the sections above on increasing accountability. <sup>i</sup>
Muller, M., Simpson, R. and van Ginneken, M. (2008). <i>Ways to Improve Water Services by Making Utilities More Accountable to their Users: A Review</i> . Water Working Notes No.15. World Bank	This paper introduces the concepts of creating a balanced accountability system, and the different "routes to accountability". Chapter 3 presents 14 tools to increasing utility accountability, including: community outreach and ad hoc user meetings, publication of performance data, one-demand provision of information, forecast surveys, retrospective surveys of performance and perceptions, structures consultation processes, membership in advisory bodies, membership in decision-making bodies, involvement in the execution of specific utility activities, participatory budgeting, ownership of utility, utility complain mechanisms, third-party complaint mechanisms, and legal recourse and redress. Chapter 4 analyses the track record of effectiveness of these various tools, and Chapter 5 outlines how to select the right tools in different contexts. <sup>j</sup>
Palast, G., Oppenheim, J. and MacGregor, T. (2003). <i>Democracy and Regulation: How the Public can Govern Essential Services</i> . Pluto Press	This book provides a useful guide to how public services are regulated in the United States. It argues that since Americans pay surprisingly little for high quality services, the US system has something to offer other countries. It critiques the regulatory regimes instituted—often under donor guidance—over the last two decades in many developing countries for omitting essential elements of the US approach. In particular it argues that public participation and transparency are institutionalized in the US regulatory system, but have been deliberately omitted from regulatory reforms in the UK and many developing countries.
Shah, A. (ed.) (2007). <i>Performance Accountability and Combating Corruption</i> . World Bank	<p>Explanations of how to institutionalize performance-based accountability systems (especially where accountability systems are lacking). Topics covered include:</p> <ul style="list-style-type: none"> <li>• Designing and sequencing public management reforms</li> <li>• Introducing e-government</li> <li>• Setting goals linked to performance-based budgeting</li> <li>• Engaging citizens to create a system of good governance.</li> </ul> <p>This paper also analyzes different legal, policy and institutional frameworks for supporting accountability and combating corruption. Attention is focused on improved auditing as an important tool for detecting and deterring fraud. Throughout the book there are many boxes with useful case studies of rules or policies that have improved accountability and reduced corruption.</p>

<sup>h</sup> <http://siteresources.worldbank.org/INTWSS/Resources/WSSServiceReform.pdf>

<sup>i</sup> <http://siteresources.worldbank.org/INTWSS/Resources/WSS6-final.pdf>

<sup>j</sup> <http://go.worldbank.org/3WL8VRBIZ0>

(continued on next page)

Source List 10.1 Reforming Water Sector Governance to Promote Probity (continued)

Source	Description
<b>Ways of increasing provider autonomy</b>	
Asian Development Bank (2003). "Capacity Building for Managing Water Supply and Sanitation to Pacific Developing Member Countries"	<p>This evaluation of the ADB's utility capacity building program in four Pacific Islands between 1975 and 2002 finds that reforms focused on corporatization achieved much less than was hoped. The following lessons are identified:</p> <ul style="list-style-type: none"> <li>• Setting up a board of directors (BOD) in the utility companies was a good first step, but needs to be complemented with training for board members to fulfil requisite functions.</li> <li>• Performance-based principles were introduced to the utilities, generating the required data, but more needs to be done to ensure that data are used in decision making and that they are acted upon when performance falls short of targets.</li> <li>• Efforts to change operational procedures can be effective only if the utility-its management and staff-takes full ownership of necessary changes, which often did not happen</li> <li>• Stakeholders need to support corporatization plans to build politically acceptable solutions, increase transparency, and ensure sustained implementation of institutional changes—again, this was often lacking</li> <li>• Corporatization needs to be accompanied with commercialization, which instils a drive to minimize costs and generate revenue.</li> </ul> <p>The report found that in many cases a focus on form—incorporation, articles of association, revised accounting systems—has overshadowed the substance of accountability, incentives, and a drive for performance.<sup>k</sup></p>
Ruiz-Mier, F., van Ginneken, M. (2006). "Consumer Cooperatives: An Alternative Institutional Model for Delivery of Urban Water Supply and Sanitation Services" Water Supply & Sanitation Working Notes Note No. 5. World Bank	<p>Outlines what makes cooperatives distinctive, and provides a detailed case study of SAGUAPAC, the successful utility serving Santa Cruz in Bolivia. The paper draws lessons from this case for successful cooperative governance. Features of SAGUAPAC's governance structure include: special rules on voting, use of a number of supervising boards, and a ban on people who have recently held or sought political office being board members. These features have helped SAGUAPAC avoid the politicization of other cooperatives. Additional factors behind SAGUAPAC's cooperative success include a tradition of continuity in senior management, as well as the relative isolation of Santa Cruz from the national government. The paper also suggests how a public utility could be transformed into a cooperative.</p>
Sansom, K. (2006). "Supporting Non State Providers of Water Services". Paper for DFID Policy Division. Resource Centre Network for Water, Sanitation, and Environmental Health	<p>Describes how cooperatives have improved water services in a poor part of Nairobi, working in conjunction with a municipal provider.</p>
World Bank (2002). "Bureaucrats in Business: The Economics and Politics of Government Ownership". Policy Research Report. World Bank	<p>This report examines the economic problems that arise when governments own and operate enterprises that could be managed by the private sector. It draws on a rich database and detailed country case studies to provide the most comprehensive assessment yet of a decade of divestiture and reform of state-owned enterprises. It evaluates the experiences of 12 countries, some of which have reformed successfully, and some which did not.<sup>l</sup></p>

<sup>k</sup> <http://www.adb.org/Documents/SES/REG/sst-reg-2003-08/water-supply-sanitation.asp>

<sup>l</sup> <http://go.worldbank.org/9CVTM1EKLO>

(continued on next page)

Source List 10.1 Reforming Water Sector Governance to Promote Probity (continued)

Source	Description
<b>Private participation as a way of increasing autonomy and accountability</b>	
Gassner, K., Popov, A., and Pushak, N. (2007). <i>"An Empirical Assessment of Private Sector Participation in Electricity and Water Distribution in Developing and Transition Countries"</i> , World Bank	This paper analyzed 302 utilities with private participation and 928 utilities without private participation in 71 developing and transition countries. It found that private participation increased the efficiency of the utility and describes some of the increases in autonomy and accountability.
Kerf, M. (1998). <i>"Concessions for Infrastructure: A Guide to their Design and Award"</i> . World Bank	Typically, concession contracts are used to introduce PSP into infrastructure. This toolkit intends to help policymakers (and their advisors) better understand the many important and difficult issues relating to the design, award, implementation, monitoring, and financing of concessions. It explains the rationale behind concession contracts, compares different type of concession, and how these contracts can improve service provider accountability. <sup>m</sup>
Kingdom, B., Liemberger, R. and Marin, P. (2006). <i>"The Challenge of Reducing Non-Revenue Water in Developing Countries; How the Private Sector Can Help: a Look at Performance-based Service Contracting"</i> Water Supply and Sanitation Sector Board Discussion Paper No.8., Washington, DC: World Bank	High levels of NRW are a major constraint facing water supply and sanitation service providers in the developing world. This Water Supply and Sanitation Sector Board Discussion Paper explains how a high level of NRW is typically a sign of a "poorly run water utility that lacks the governance, the autonomy, the accountability, and the technical and managerial skills necessary to provide reliable service to their population". This paper explores how performance-based contracting can help service providers reduce NRW. Under a performance based contract a private firm is hired by the utility management to carry out a comprehensive "NRW Reduction Program". The private firm's payments are linked to the actual reductions in NRW, and so create strong incentives for the private firm to bring down NRW. This report describes a number of case studies that indicate performance-based service contracting can be a very efficient way to reduce NRW. <sup>n</sup>
Laffont, J. (2005). <i>"Regulation and Development"</i> . Cambridge University Press	This book focuses on the constraints involved in regulating in less-developed countries, analyzing different approaches for overcoming these constraints. The author demonstrates the positive effects that privatization can have on service delivery, but cautions that governments in less-developed countries often have limited power to enforce contracts with private providers. The author proposes a formula for calculating optimal expenditure on strengthening regulatory enforcement. The book also covers optimal pathways for sector liberalization and regulatory development.
Muller, M., Simpson, R. and van Ginneken, M (2008). <i>"Ways to Improve Water Services by Making Utilities More Accountable to their Users: A Review"</i> . Water Working Notes No.15. World Bank	Water and sanitation services in developing countries are mostly provided by poorly regulated municipally owned service providers. This paper reviews why users' priorities and preferences are not taken into account, and to help those who work in an with water utilities, as well as organized user, regulators, and policymakers to improve the quality of service by making service providers more accountable to the people they serve. It provides a number of useful "tools" for promoting accountability. <sup>o</sup>

<sup>m</sup> <http://rru.worldbank.org/Toolkits/InfrastructureConcessions/>

<sup>n</sup> <http://go.worldbank.org/3IL46Q2TF0>

<sup>o</sup> <http://go.worldbank.org/3WL8VRBIZ0>

(continued on next page)

Source List 10.1 Reforming Water Sector Governance to Promote Probity (continued)

Source	Description
<p>Ringskog, K., Hammond, E. and Locussol, A. (2006). <i>Using Management and Lease-Affermage Contracts for Water Supply</i>. PPIAF Gridlines No. 12. World Bank</p>	<p>This Gridline for the Public Private Infrastructure Advisory Facility presents a summary of a recent study of the performance of 11 management and lease-affermage contracts. This study found that, with well designed management contracts, access to water grew, water quality improved, there were gains in the efficiency of the service provider, and growing sustainability of the service.<sup>p</sup></p>
<p>Irwin, T. (2006). <i>Approaches to Private Participation in Water Services: A Toolkit</i>. World Bank</p>	<p>Section 5 of the Toolkit focuses on setting service standards, tariffs, subsidies and financial arrangements, Section 6 on allocating responsibilities and risks, and Section 7 on developing institutions to manage the relationship.<sup>q</sup></p>

<sup>p</sup> <http://www.ppiaf.org/documents/gridlines/12-Leaseaffermage.pdf>

<sup>q</sup> <http://siteresources.worldbank.org/INTSDNETWORK/Resources/ApproachestoPrivateParticipationWaterServices.pdf>

## 11 APPLICATION UNDER VARIED COUNTRY CIRCUMSTANCES

Every country and sector is unique, so there is no “best practice” or standard way to apply the ideas in the previous section in any particular case. Box 11.1, for example, provides a useful checklist for a generic, ideal approach to improving governance and increasing probity. Yet in reality, such lists can be overwhelming, resting as they do on assumption about political will and administrative capacity that may not hold. Clearly it would be good to “Launch a communication campaign with strong and visible involvement of senior politicians”—but what if senior politicians do not in fact support good governance in the water and sanitation sector? Obviously, it would be ideal to “Introduce modern

### Box 11.1 Five Key Elements of an Anticorruption Strategy

- 1. Move from denial to acceptance of the problem and build a broad agreement among policy makers and key stakeholders**
  - Undertake analytical and diagnostic work to identify the causes of the problem, its severity and effects, and the political cost of maintaining the status quo
  - Consult on the diagnosis to create an authorizing environment for implementation of the strategy
  - Disseminate diagnostic information without blaming the actors
  - Launch a communication campaign with strong and visible involvement of senior politicians.
- 2. Build a coalition**
  - Ensure buy-in by utility management and employees by addressing employee issues
  - Secure employee commitment to reforms
  - Improve customer service by establishing effective customer support centers
  - Reduce the political cost of reform through better-targeted, transparent, judicious, and equitable enforcement
  - Ensure that service improvements precede tariff adjustments
  - Engage in meaningful consultation with and participation of civil society.
- 3. Improve utility business processes**
  - Simplify and codify procedures
  - Introduce modern technology in selected areas
  - Foster efficiency and effectiveness of customer service and compliance with service standards
  - Make procurement transparent
- 4. Strengthen institutional mechanisms for accountability**
  - Separate commercial from regulatory functions
  - Strengthen audit and internal integrity units
  - Prosecute offenders in courts and confiscate their illegal gains.
- 5. Encourage public participation**
  - Sponsor open discussion on all important matters
  - Institutionalize user surveys
  - Put in place a mechanism to redress public grievances
  - Implement an effective “right to information” program
  - Persuade client government to adopt reforms suited to their countries.

Source: Gulati, M. and Rao M.Y. (2007). “Corruption in the Electricity Sector: A Pervasive Scourge” in Campos, J. and Pradhan, S. (eds) *The Many Faces of Corruption: Tackling Vulnerabilities at the Sector*. World Bank. p. 138.

technology in selected areas”, but what to do if very few staff in the utility, or indeed in the country as a whole, have any familiarity with modern technology?

This section illustrates how the approaches set out in the earlier section can be applied in various country circumstances. Section 11.1 discusses application in various sector structures. Section 11.2 discusses “second best” options, focusing on what to do when limited political will or administrative capacity constrain what is possible. Finally, Section 11.3 recognizes the difficulty of prioritizing reforms when resources are limited and the number of concurrent activities is necessarily constrained, and provides approaches for “packaging” governance interventions into manageable programs or phases.

This section attempts to illustrate how “best practice” advice can be modified to work in less than optimal situations. That is, it discusses “second best” options for use in contexts where administrative capacity or political will make first best options impractical.

This section then goes on to discuss “packaging” governance interventions into manageable programs or phases that tackle high-priority areas first, and aim to establish a “pro-probity” dynamic.

## **11.1 Adapting to Sector Structures**

The preceding sections often assume a centralized sector structure in which a publicly-owned, national water provider is controlled by a Ministry in the central Government. This section discusses how the basic ideas can be adapted in applied in more decentralized sectors, with a variety of forms of provider ownership and management. In many cases, the guidance in Sections 8 and 9 can be directly adopted for a decentralized sector, with merely a substitution of actors (for example, “mayor” substituted for “Minister”). However, in other cases, a different sector structure may lead practitioners to a different approach to improving governance.

### **11.1.1 Centralized and decentralized sector structures**

Water sector structures vary widely between countries. Many countries—for example Colombia, the Philippines, and France—have long established traditions of local government responsibility for water services. Other countries previously had a national water provider—generally a government department or statutory corporation—but moved to decentralized water provision during the 1990s, when government decentralization became popular. Some federal countries have state-level water providers, or a mix of state and municipal responsibilities, as in India and Brazil.

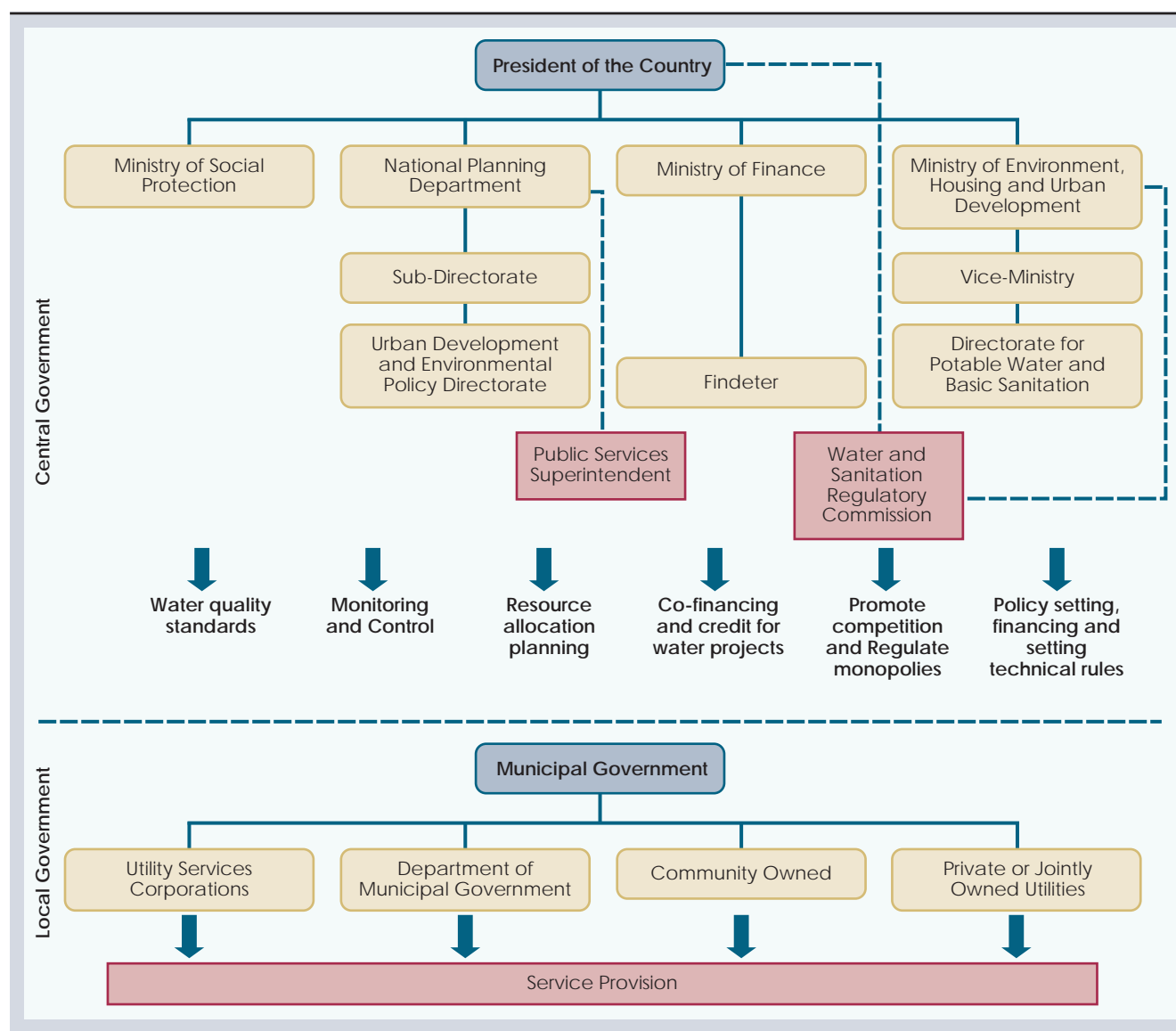
Varying allocations for government responsibility for water create varying governance challenges and opportunities. Some general points to consider include:

- **Local government responsibility for water services** can have the advantage of increased accountability of the government body responsible to the citizens served. The “route of accountability” from consumers to local government and local providers is more direct than that from consumers to central government. But an important disadvantage of local provision, from a governance point of view, is that local governments, and small local providers, often have lower capacity than higher levels of government and large providers. As a result they may be less well able to plan, to put in place proper systems
- **National government responsibility for water services**, conversely, may in many cases connote greater competence, and an ability to achieve coordination and economies of scale. A governance benefit of centralized provision may be the ability to conserve scarce human resources such as skilled technicians, managers, and planners, concentrating them in a single agency. However, this comes at the cost of diffused accountability. Water service provision, especially in secondary towns, will seldom be a national election issue, so one of the most

powerful levers through which citizens can make governments accountable for good water services may be diffused

- **Higher levels of government can play a useful oversight role over lower levels.** Where service provision is decentralized, for example to local governments, higher levels of government can play a useful oversight role, both boosting capacity and guarding against misconduct. For example, in France, the national government appoints a “Prefect” responsible for oversight of each “Department” (the local government unit, similar to a county). Among other things, the Prefect checks that proper procedures are followed, and his approval is needed for certain decisions, as a guard against poor governance and corruption. In Colombia, as Figure 11.1 illustrates, water services are a local government responsibility, but a national regulatory com-

Figure 11.1 Colombia’s Water and Sanitation Sector Structure



Source: Castalia (2005). *Case Study on Colombia’s Water and Sanitation Sector Economic Regulation*. Final Report to the World Bank.

mission (the CRA) sets out rules for tariff setting and reporting of services standards, while a national inspectorate (the Superintendencia de Servicios Públicos) is responsible for checking that local governments actually follow these rules. The national level bodies were introduced to prevent previously prevalent governance problems, such as tariffs being set consistently below cost, in a short-term political vote-buying exercise

- **Higher levels of government can use finance to promote good governance.** In many decentralized sectors, higher levels of government provide finance for lower levels to invest in the water sector. Governments have the option to use these fiscal transfers to reward good governance, and punish poor performance. Providing the transfers as Output Based Subsidies, so that they are only paid when services are provided, may be one option. Setting “governance criteria” that providers must meet to be eligible for transfers would be another.

When confronted with any one of the myriad of decentralized sector structures that exist for water and sanitation around the world, practitioners will often find it useful to consider three core questions:

- **Accountability.** What is the line of accountability between the provider and the citizens it is supposed to serve? In general, more direct lines of accountability will be better. For example, a match between the people in a service area of a provider, and the people entitled to vote for the leaders of the government body responsible for supervising that provider, will often be beneficial. Where this is not the case—as for example in some East African countries that have introduced regional water boards that are accountable upward to national government, not downward to local governments or citizens—it may be worth asking both whether there are any workable ways to shorten the accountability link, and whether the offsetting benefits of greater decentralization outweigh the loss in accountability
- **Capacity.** Where the sector includes numerous small providers, and numerous local governments with responsibility over them, do these bodies suffer from a lack of capacity, and if so what can be done to bolster their capacity in a systematic way? Options to bolster capacity may include: providing models of good practice (such as model planning processes and procurement rules), outsourcing certain difficult functions (for example, outsourcing billing and collections), and requiring that certain procedures be followed (for example on reporting and tariff setting)
- **Clear and complementary roles.** Are the tasks of the various bodies involved in the sector clear and complementary, or unclear and overlapping? Accountability requires “people who do, and people who check what has been done”. In this sense, a decentralized sector with multiple agencies offers the strength of having “checkers” who are independent of the “doers”. On the other hand, accountability also requires that each agency’s job is clear, and that it has the authority necessary to perform that job. Where roles overlap, both clarity and autonomy suffer.

Source List 11.1 on page 142 provides additional reading on accountability arrangements in different sector structures.

### **11.1.2 Forms of provider ownership and management**

Countries vary widely in their water provider ownership arrangements. While most utilities are government owned, some are cooperatively owned (like SAGUAPAC serving Santa Cruz in Bolivia), and others are privately owned (including numerous small private providers such as CanCara Environment in Jamaica). Government owned companies are commonly structured as statutory corporations, like the National Water Commission in Jamaica, or the National Water and Sewerage Corporation in Uganda. Others may be incorporated in private law with the government holding one hundred percent of the shares (like Guyana Water Incorporated), while still others may be departments of national or local



government, with no separate legal form—in Mumbai, India, for example, water services are the responsibility of departments within the Municipal Corporation.

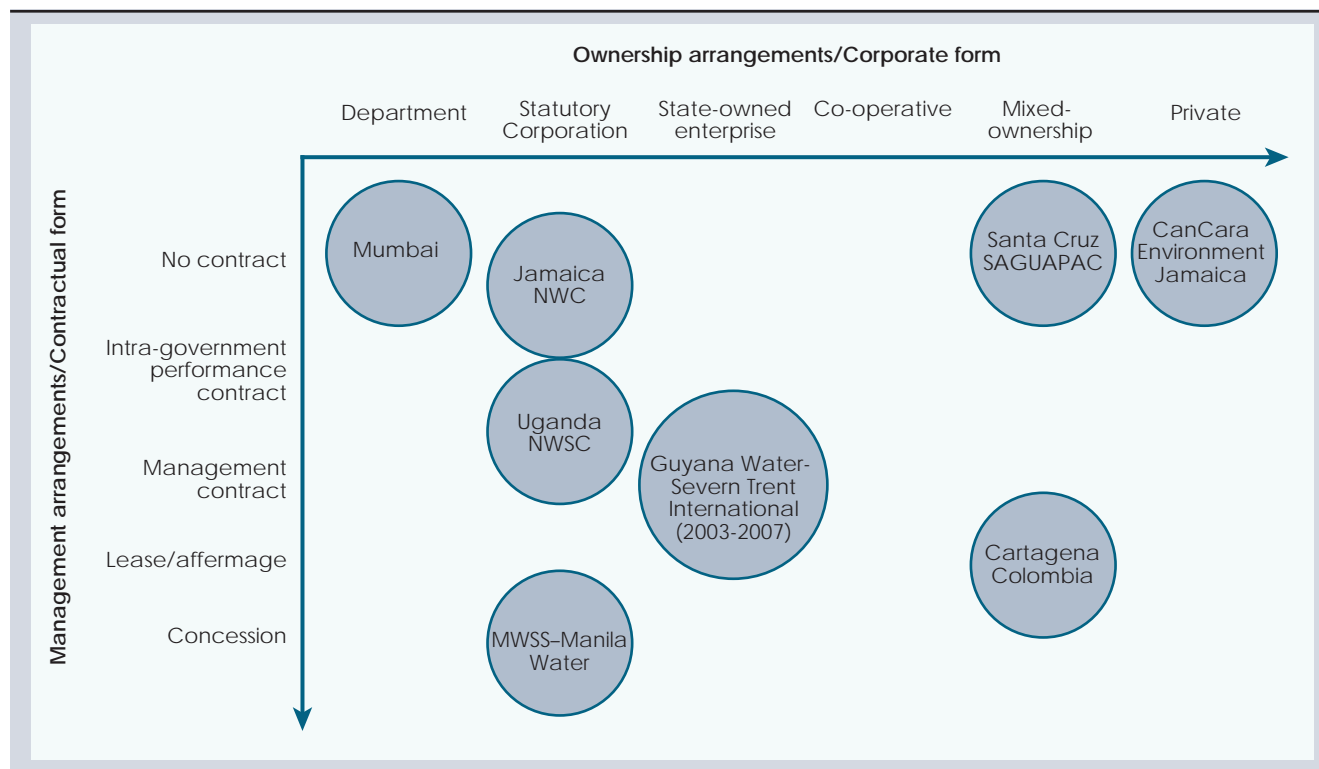
To further add to the variety, the entity which owns the water and sanitation assets may contract out parts or all of the management and operation of the service. Guyana Water Incorporated was managed for a time by the British firm Severn Trent Water International, under a management contract. Water services in the eastern part of Manila are provided by Manila Water, a private company operating under a concession contract with the Manila Water and Sewerage System, a state-owned corporation that owns the system assets. In Cartagena, an operating company partly owned by the municipality and partly by private shareholders (including AGBAR, a Spanish utility) operates under a lease-affermage contract with the municipality, which owns the assets. The variety of these arrangements is captured graphically in Figure 11.2.

Clearly, different ownership and contractual arrangements will affect the ways in which governance can go wrong, and the ways in which it can be improved. The governance implications of various ownership arrangements and corporate forms was discussed in some detail in Section 10.3 and so is not further discussed here. Some general principles practitioners may find helpful in thinking about governance with various contract types are set out below.

*Private responsibility*

In this model an investor-owned utility owns and operates water and sanitation assets. There is not usually a contract in the strict sense, but rather a “regulatory compact” that sets out, in a legally binding way, the services to be provided, and the tariffs that may be charged. Investor owned utilities may range from huge corporations like Thames Water, the utility that supplies London (England) and the

**Figure 11.2 Forms of Provider Ownership and Management**



surrounding area, to small schemes serving new housing development areas, like CanCara Environment in Jamaica.

Private ownership tends to reduce corruption in the areas for which the provider is responsible—the provider level—but may create new areas of corruption risk at the sector level.

Corruption at a provider level is not generally an issue when the provider is privately owned, simply because if company funds are misappropriated, this is a cost to the shareholders, not the public. If the funds are not public, their misappropriation is not corruption. This is not a semantic distinction. Theft and misuse of provider funds is a cost to the public when the provider is public. However, when the provider is private, theft and misuse of provider funds is a cost to the shareholders of the company. The shareholders own and collectively control the company, so they have the incentives and ability to ensure that the control systems outlined in Section 9 are applied, to stop leakage of company resources.

Private ownership usually needs to be complemented with a well designed regulatory system, if its potential to increase efficiency at the provider level is to be realized. If the provider is able to pass on all its costs to customers, the owner's incentives to reduce costs by curbing misuse of company funds will diminish.

A number of regulatory options are possible here. Unregulated provision—generally only used with small providers—may work, because the provider will generally set the tariff at the maximum consumers are willing and able to pay. In this situation, any cost saving or revenue increase translates directly into additional profits for the owners.<sup>28</sup> So in an unregulated situation, the owner will be highly motivated to ensure that its staff do not take kickbacks from suppliers, or illicitly reduce customers' bills.

A potential problem arises where the tariff is limited, but set equal to the provider's costs. In this case, an increase in costs as a result, say, of staff taking kickbacks in exchange for rigging supply contracts, will simply be passed on to the customers. The owners' profit remains unchanged, giving them little incentive to prevent such kickbacks. It follows that where tariffs are regulated, it will be desirable for the regulatory system to preserve incentives on the utility to reduce costs and increase revenues—as price caps do, for example. It will also be desirable to ensure that, where prices are set with reference to the cost of service, the price reflects a reasonable cost of service—which should exclude costs from staff misusing company resources—not simply the actual cost of service. Standard regulatory scrutiny, benchmarking and cost study techniques can be used to do this.

Remaining with regulatory issues, there may be issues with approval of capital projects, or contracts with related parties. Sometimes regulated private utilities transfer profits out of the business by paying above market rates to related companies for management services, equipment and other inputs (see discussion in Section 7). These issues are best dealt with as part of regulation. Good practice techniques include ensuring that contracts with related parties are done on an arms-length basis, and that only reasonable costs may be passed on in tariffs.

At the sector level, private ownership can have considerable advantages in increasing provider autonomy, and in making it easier to give the provider incentives to do well. Penalties for failure to provide service are often not effective when applied to a public company, since often the net effect is that the public suffers (from the increased losses in the utility the government owns) while the managers of the utility remain unperturbed. Penalties applied to a private company can be more effective, since it is the shareholders who suffer, not the general public. To avoid the reduction in profits that penalties entail, shareholders are motivated to make sure that managers deliver the required service.

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<sup>28</sup> Brook Cowen, P. and Cowen, T. (1998). "Deregulated Private Water Supply". *Cato Journal* 18 (1).

On the other hand, private ownership generally requires regulation, and this can be an avenue for poor governance. The importance of regulation to the public, together with its potentially substantial effects on provider profits, means that getting the regulation right is essential. This can be a challenging task for countries with limited administrative capacity.

Moreover, the central role of regulation creates a serious temptation for corruption. Regulators generally have discretion to changes tariffs and service levels. Since these decisions have significant financial implications for the regulated utility, regulators may be tempted to extract payment from the utility in exchange for making favorable decisions. (Note in this discussion “regulation” refers to the system that controls tariffs and service standards, and “regulator” to any government body that makes decisions on tariffs and service standards—not just independent regulatory agencies).<sup>29</sup>

As a consequence, governance design in sectors with regulated private utilities needs to pay serious attention to ensuring that regulatory bodies are competent, and that they are not corrupt. Commonly advanced elements of regulatory design, such as ensuring a regulator’s independence, are not enough. A regulator can be fully independent, and yet seek personal enrichment in exchange for biased decisions. Public hearings and scrutiny of the regulators decision may help guard against corruption, as may appeal mechanisms, and asset disclosure and codes of conduct for regulatory decision-makers.<sup>30</sup>

### *Concession contracts with private operators*

Concession contracts—like that in Manila—typically make a private firm fully responsible for all aspects of water services for twenty or thirty years. While there are legal and financial differences between a concession contract and private ownership, from a governance perspective, the similarities are more important than the differences. As with private ownership, concession contracts largely remove the problem of corruption at the provider level (see discussion above), and can strengthen governance by strengthening provider autonomy and incentives for good performance. However (as with private ownership) a well functioning regulatory regime—in this case the concession contract and the public body responsible for supervising it—is essential to realizing the good governance potential of the model.

An additional governance challenge for concession contracts is the award and later renewal of the contract. As with major construction contract awards, this can be an area for grand corruption. Section 8.2 discussed ways to increase probity in contract award, including describing good practice techniques used in the award of the Manila concessions, and options when contracts are negotiated with a single provider, rather than competitively bid.

### *Lease-affermage contracts with private operators*

A lease-affermage contract is much like a concession. The main differences are that the operator is only responsible for operations and maintenance, not for financing capital works, and as a consequence, the term of the contract is generally shorter—typically around ten years.

Governance issues for lease-affermage contracts are therefore similar to those for concessions, with two main differences:

- Since capital works are the responsibility of the public sector, the benefits of private participation in this area may not be felt. Accordingly, the techniques on improving probity in capital

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<sup>29</sup> See Groom, E., Halpern, J., and Ehrhardt, D. (2006). “*Explanatory Notes on Key Topics in the Regulation of Water and Sanitation Services*”. Water Supply and Sanitation Sector Board Discussion Paper No.6. World Bank.

<sup>30</sup> See Palast, G., Oppenheim, J. and MacGregor, T. (2003). “*Democracy and Regulation: How the Public can Govern Essential Services*”. London: Pluto Press.

works and planning in public agencies, set out in Sections 6 will still be applicable. Giving the operator responsibility for planning, procuring, and supervising capital works, even though it does not finance them, is well worth considering if there are doubts about the capacity and integrity of the public agencies that would otherwise perform this role. If the operator is given this responsibility, it may be desirable to also include an independent audit or supervision of the operator's performance in this regard, in the governance arrangements. The affermage contract in Senegal provides a possible model<sup>31</sup>

- In some affermage contracts, the operator's remuneration depends on the quantity of water produced, rather than the water billed and revenue collected. In these contracts, incentives to reduce corruption in the area of commercial losses and collections may be lacking, to the detriment of the public. Possible responses would be an audit requirement on probity and performance in this area, or altering the contract to give the operator incentives to reduce commercial losses and increase collections.

### *Management contracts with private management companies*

While management contracts are often considered a type of private participation, and so in principal similar to lease and affermage contracts, this can be misleading. Under a management contract, the contractor does not take operating risk, and so does not generally have such strong incentives to prevent misappropriation of funds. The contractor is typically paid a fixed fee, plus bonuses for achieving certain service or performance targets. In many cases, the operator's remuneration would not change much in response to changes in corruption-driven costs in the company, such as increases in bad debts or in the cost of supplies.

Unlike other types of private participation, misappropriation of provider funds is still corruption under a management contract, since the cost comes out of tariffs or the public purse, not out of the contractor's profit. Given this, and the weaker incentives on the management contractor to fight corruption, the government will continue to have an interest in promoting integrity at the provider level. An option worth considering is for the management contracts to require the contractor to install and maintain in the utility the control systems set out in Section 9. Installing these systems is expensive and time-consuming, so the budget for this needs to be included in the funding of the management contract.

As with other private participation contracts, corruption in award or extension of the contract is a risk. This can be mitigated using the techniques in Section 8.2.

### *Intra-government performance contracts*

Where services are fully provided by a government-owned utility, performance contracts between the government and the government-owned corporation can create improved incentives for efficient, responsive operation, as suggested in Section 10.3.1. However, these intra-government contracts do not typically confer the benefits of autonomy and incentives that contracting with private companies can.

#### **11.1.3 Informal service provision**

Although the focus of this Sourcebook is on probity in urban, piped network water provision, most countries have a range of informal and formal water providers providing a range of water services.

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<sup>31</sup> For more information, please see Tremolet, S. (2005). "Case Study on Senegal's Water and Sanitation Sector Economic Regulation". Report to the World Bank.

Even in cities with a large urban water utility, small-scale, informal water providers may serve a significant proportion of population, especially those in poor communities. Informal service providers are relevant to probity in urban, piped network water provision for four reasons:

1. A large degree of informal service provision may be a **symptom** of poor governance and red flag for corruption. Utilities that lack probity are unlikely to be serving citizens well, creating opportunities for entrepreneurs to “fill the gap”
2. Informal service providers may be **participants** in corrupt activity involving urban utilities. For example, public utility officials may have ownership stakes in an informal provider, and thus benefit from restricting formal service in an area where the informal provider can operate (see Section 4.3)
3. Conversely, informal providers may be **victims** of corrupt activity, forced out of areas or services in which they could be competitive by utility officials that give preference to providers that pay bribes (see Box 11.2)
4. Finally, informal providers may be **assistants** in helping to reduce corrupt activity, by providing competitive pressure for the utility. Effective competition would give the utility incentives to improve its operating efficiency, in part by reducing costly and corrupt transactions.

To ensure that informal service providers are better able to assist in reducing corruption, rather than serve as instruments of corruption, governments can take steps to:

- Legalize informal service provision and facilitate entry by other informal service providers. This can help to legitimize the contribution of small scale private water providers in providing water services to poor and underserved communities
- Make bulk water and sanitation services or facilities available to all informal service providers at a reasonable cost-reflective price
- Sever cross-ownership and contracting links (other than for bulk supply) between the formal system and informal system.

The ADB, amongst other organizations, has developed a set of toolkits for effective engagement of small-scale water providers—Source List 11.1 on page 142.

### **Box 11.2 Utility officials extort bribes from small water providers in Nairobi**

The sprawling squatter settlement of Kibera in Nairobi is not served by the city water utility. This lack of water provision has resulted in a market of water kiosks—tanks with taps, providing a neighborhood source of water to half a million residents. Householders queue for water during the times the utility allows the water through the bulk supply points established by the providers, and they pay 3–20 Shillings per 20l vessel. The price is fixed and competitive within the squatter settlement, although it is many times the price of utility water, and varies according to the season and availability of water. The small scale private providers are increasingly organized, have formed an association and developed a code of ethics to ensure they all follow a set of agreed rules, and to create a platform with the capacity and leverage to interact effectively with the utility. They see this platform as being critical to counter the regular petty corruption of Nairobi Water Utility officials in meter reading, billing, and collection. Bills are erratic and inconsistent. There appears little the providers can do to bring the bills back in line and so they tip the officials to revise the bills. The irregularity of the bulk water supply to the provider kiosks provides the utility with leverage over the providers and incentive for the providers to grin and bear the extortive demands. The losers are the poor who pay a higher price for their water each time this “surcharge” is levied.

Source: WSP-Africa (2005). “Rogues No More? Water Kiosk Operators Achieve Credibility in Kibera”. Field Note.

## 11.2 Second Best Options for Improving Governance in the Face of Constraints

Weak governance in developing countries is often accompanied by low levels of administrative capacity, and in some cases limited political commitment to improving governance. This can seem to create a Catch-22; how can practitioners help to improve governance, when the techniques they would like to use rely on sound administrative capacity, political commitment, or both?

Table 11.1 provides examples of options that can be used when political commitment to governance strengthening is low, or administrative capacity lacking. Each of these constraints, and how to respond to them, is then discussed below. These ‘second best’ approaches are not meant to be a cookbook for solving sector problems—rather, they illustrate ways in which the ideas and techniques in the Sourcebook can be modified and applied in a range of country contexts.

**Table 11.1 Summary of “Second-Best” Approaches**

	<i>Second-best options if limited political support</i>	<i>Second-best options if limited capacity</i>
<b>Capital Projects</b>	<p><b>Problem:</b> Capital procurement is poorly managed, with high corruption risk. Utility managers and senior politicians pay lip service to improvements, but find arguments to prevent substantive change.</p> <p><b>Options:</b></p> <ul style="list-style-type: none"> <li>• Benchmark unit rates for construction in the water and sanitation sector with rates in similar sector in the country, and rates in comparable countries, and develop a construction quality audit. Results of these audits may reveal symptoms of corruption. Involving stakeholders such as university engineering departments or professional associations in the work, and publishing the results, can help to create pressure for improvements, once the financial and quality costs of corruption become clear.</li> <li>• Get the government to agree to provide information to the public on contract costs and performance (as done in Construction Sector Transparency Initiative).</li> <li>• Promote community supervision of contract award, and of construction.</li> <li>• Reach out to major water users with information on the costs and quality implications of corruption, in order to create a corporate constituency for change. Promote or (in the case of donors) require the use of improved systems (such as e-procurement).</li> <li>• Attempt to build political will by clearly identifying electoral benefits of having effective projects.</li> </ul>	<p><b>Problem:</b> Capital procurement is poorly managed, with high corruption risk and low competence. Senior politicians want improvements, but the provider, and the country as a whole, lack competent engineers and procurement professionals.</p> <p><b>Options:</b></p> <ul style="list-style-type: none"> <li>• Recruit skilled professionals from higher capacity countries nearby, or attract members of the diaspora to return.</li> <li>• Outsource capital planning, supervision and procurement to a program management contractor. Allow the contractor considerable autonomy and discretion, while imposing audit requirements, to be carried out by a private auditing firm reporting to government.</li> <li>• Privatize the utility, thereby giving strong incentives for the owners to attract the necessary level of capacity, and improve processes for capital works. While it is often thought that private investment is most challenging in low capacity countries, the success of small private water and electricity operators in countries like Yemen, Cambodia and Paraguay indicate that private firms can provide services successfully in a wide range of environments, so long as government intervention is limited.</li> <li>• Capacity building of local staff through a long term program of technical assistance, training and twinning.</li> </ul>

*(continued on next page)*

Table 11.1 Summary of “Second-Best” Approaches (continued)

	<i>Second-best options if limited political support</i>	<i>Second-best options if limited capacity</i>
<b>Provider Operations</b>	<p><b>Problem:</b> Provider systems are in disarray, with high corruption risk in hotspots such as commercial operations, stores, and human resources. Utility managers and senior politicians seem uninterested in making serious changes, citing problems with unions and the difficulty in changing long-established rules and processes.</p> <p><b>Options:</b></p> <ul style="list-style-type: none"> <li>• In a decentralized sector, only engage with providers interested in strengthening managements systems and capacity. One way to do this may be to create a challenge fund, in which financial and technical assistance is provided as part of a package that also requires improvements in the ‘hotspots’ of the providers’ operations.</li> <li>• Provide the public with more information on provider operations, including through public disclosure of cost data and contracts, and clear identification of provider equipment and staff to allow the public to detect and report moon-lighting and other improper actions).</li> <li>• Educate journalists, NGOs and professional associations on operating rules, service requirements and actual performance.</li> <li>• Enlist the support of powerful groups—such as business associations or leading families—with an interest in a well-performing utility.</li> <li>• Offer board membership to nominees of business groups and professional associations.</li> </ul>	<p><b>Problem:</b> Provider systems are in disarray, with high corruption risk in hotspots such as commercial operations, stores, and human resources. Senior politicians want improvement, but all government bodies in the country perform poorly, with inadequately trained resources and no culture of administrative discipline or delivery.</p> <p><b>Options:</b></p> <ul style="list-style-type: none"> <li>• Employ staff from other countries in region or from further afield to work with locals directly.</li> <li>• Engage a specialized management firm under a management contract, with a brief to not only manage the provider, but also to instill better management systems and processes, and train its successors.</li> <li>• Privatize the company, or engage a private operator under a concession or lease contract.</li> <li>• Create cooperative ownership structure</li> <li>• Build capacity over time, starting with high priority and simple interventions such as improved accounting systems and staff training.</li> </ul>
<b>Sector Governance</b>	<p><b>Problem:</b> Governance arrangements in the sector do not provide for effective accountability of the provider to government or citizens. Government bodies do not seem generally responsive to citizens’ needs. Political decision-makers in the sector reject suggestions such as development of performance contracts, strengthening of provider autonomy, or increased democratic accountability of monitoring units to citizens. Instead the decision-makers emphasis the urgent need for capital investment, characterizing governance reforms as ‘insubstantial, theoretical, and not addressing the real needs of the people’.</p> <p><b>Options:</b></p> <ul style="list-style-type: none"> <li>• In a decentralized sector, only engage with local governments in governance reform.</li> </ul>	<p><b>Problem:</b> Governance arrangements in the sector do not provide for effective accountability of the provider to government or citizens. Government bodies are generally unresponsive and incompetent. Senior decision makers are keen to improve the system, but the few component decision-makers and officials are stretched far too thinly to devote significant time to structure reforms in water and sanitation.</p> <p><b>Options and principles:</b></p> <ul style="list-style-type: none"> <li>• First, do no harm. Make minimal change to any functioning systems, resist the temptation to create new bodies to fulfill roles that existing bodies are failing to fulfill.</li> <li>• Allow and encourage spontaneous decentralized solutions, for example liberalize entry</li> </ul>

(continued on next page)

**Table 11.1 Summary of “Second-Best” Approaches** (*continued*)

<i>Second-best options if limited political support</i>	<i>Second-best options if limited capacity</i>
<p>One way to do this may be to create a fund, that will finance investments in the areas of those local governments that commit to better governance, and demonstrate results.</p> <ul style="list-style-type: none"> <li>• Attempt to build political will by clearly identifying electoral benefits of governance improvements. This may involve surveys that show that voting behavior is influenced by the quality of water service delivery and administration, so that politicians agree to better governance since they understand this will win them votes.</li> <li>• Publishing information on service performance and costs in comparator cities or countries, with the objective that media, civil society and opposition parties make water sector performance a political issue.</li> <li>• Working with NGOs, academics, business groups and professional associations to start a dialogue on models for good governance in the water sector, with the objective that this will lay the groundwork for later reforms.</li> </ul>	<p>to the sector, minimize regulation, and allow communities and private entrepreneurs to develop their own solutions, thereby economizing on scarce government capacity.</p> <ul style="list-style-type: none"> <li>• Opt for simplicity, including through minimizing the number of organization (limit use of independent regulatory organizations, favor vertical integration), and simple rules.</li> <li>• Centralize provision, regulation and policy in a single organization, to minimize complex interactions and make best use of scarce skills in the sector, while engaging an international firm or organization to issue annual report cards on the sector, to preserve a degree of monitoring and independent public information.</li> <li>• Introduce private participation, bearing in mind that forms that are conventionally seen as more ‘challenging’ such as privatization, may in fact place fewer demands on the government’s limited administrative resources than “easier” options such as management contracts.</li> <li>• Remove the sector from government control by creating a customer cooperative to run the provider.</li> </ul>

### *Dealing with a lack of political will*

Lack of political will to change the status quo is common. Such a resistance to change is only to be expected, especially if senior decision-makers are currently benefiting from the existing corrupt arrangements. A thorough corruption mapping exercise undertaken at the planning stage can help to identify if this is likely to be the case. Box 11.3 provides an example of how systems can evolve in which senior decision-makers have a significant stake in the existing corrupt equilibrium.

Political resistance can present a considerable obstacle for sector practitioners—in general, for significant and sustainable governance improvements it is best to work with reform champions, not those who are ambivalent about, or resistant to, change.

For instance, it may be possible to challenge politicians’ existing attitude to change by clearly highlighting the ways in which they will personally benefit (through electoral and reputation awards) from improved sector financing. Showing politicians, for instance, how they can make their electorate happy by improving water services and thereby increase his chances of reelection, may incentivize a politician to put more effort into improving sector performance.<sup>32</sup>

<sup>32</sup> The World Bank’s Development Communication Division, for instance, creates mechanisms to broaden public access to information on reforms, strengthen clients’ ability to listen to their constituencies and negotiate with stakeholders, empower grassroots organizations to achieve a more participatory process, and undertake communications activities that are grounded in public opinion research.



### Box 11.3 Regulatory Power and Rent-seeking in the Water Sector in an Indian City

A metropolis in India is governed by a Municipal Corporation. The Corporation oversees many of the city's essential services, including water supply. At the head of the Corporation is a Committee of senior and influential Corporators, who must approve all of the city's transactions. In contrast, most staff within the Corporation have very limited decision-making powers—technical staff running sections of the water distribution system only have authority to approve up to US\$4 of expenditure.

One of the problems with the Corporation's hierarchical organizational structure is the entrenched system of *baksheesh* (kickbacks, often for giving regulatory approvals) within the Corporation. Although the original intent of this low-discretion system—in which almost all decisions must be signed-off by the officials in key positions—was to limit the opportunity for corruption, it actually helps to further entrench corruption. The fact that most decisions must be made by a small elite heightens the value of any *baksheesh* this elite could receive, and creates perverse incentives to move to positions of power by any means possible.

For example, many engineers within the water department aspire to be transferred to the permitting and building approval department, where "facilitative payments" are especially frequent and rewarding. As a result, staff turn-over in the hydraulic engineering department within the water services division is high and skill retention accordingly low.

Source: Anecdotal evidence gathered during Castalia fieldwork.

It may be helpful to carry out a detailed distributional analysis, highlighting winners and losers from improved governance and sector performance, and showing how these translate into voting blocks.<sup>33</sup> Box 11.4 provides an example of how initially resistant politicians were eventually successfully engaged in the reform process.

Alternatively—if key politicians are unable to be persuaded—it may be possible for practitioners to identify other reform champions, such as non-government stakeholders who have an interest in good utility performance, or "pockets" in government and provider enthusiasm for reform. Over time, improving the flows of useful information to the public, provider management, and interested stakeholders will likely help to build pressure for pro-probity changes, even in the face of political resistance.

In decentralized sectors, there may well be some local governments or utilities that want to improve governance, even if the majority does not. Selecting and working with those who are willing can be a

### Box 11.4 Engaging Elected Officials

A rural water supply initiative in South Asia made efforts to shield its staff from the influence of politicians. A Project Management Unit (PMU) was established within the state water and sanitation agency, and staff were given serious warning about the distance they need to maintain from elected officials. Politicians in different villages campaigned to prevent their villages from enrolling in the project. In villages that enrolled, project staff were accosted in the field.

Senior officers eventually began calling politicians directly, with informational pamphlets, trying to convince politicians to encourage their village to apply, thereby maintaining a visible presence during project implementation. Reaching out to politicians will only work if the system of accountability provides some sort of incentive for these public officials to participate. However, it seems likely that establishing a PMU insulated from political influence inside the "core agency" was a necessary first step for negotiating politicians involvement in rural water supply and sanitation.

Source: Davis, J. (2004). "Corruption in Public Service Delivery: Experience from South Asia's Water and Sanitation Sector". *World Development* 32(1) p. 53–71.

<sup>33</sup> Poverty and Social Impact Assessments, for example, includes a variety of "tools" and techniques, drawn from both economic and social approaches, which are used in combination to analyze a reform.

good strategy. One way to identify the willing local governments may be to encourage them to self-select, for example by applying to a challenge fund. Such a fund would offer financial assistance as part of a package of improvements to governance arrangements and provider systems.

More generally, in multi-layered and decentralized sectors, financial assistance from higher levels of government can be effective in motivating and supporting governance improvements at the lower level. Financial support such as matching funds for sector investment, or credit-enhancement, can be made conditional on recipients committing to and implementing governance improvement programs, with continued assistance dependent on recipients demonstrating that the expected performance improvements have been achieved.

Finally, in the face of consistent unwillingness to reform, disengaging may be the best solution. At a national level, "disengaging" may involve only working with those sectors and stakeholders that are willing to take steps to reform. This may mean avoiding water sector interventions in favor of projects in other, more reform-focused sectors. Over time, successful reform in other sectors may build pressure for change in the water sector.

### *Dealing with a lack of capacity*

The capacity to undertake pro-probity reforms will vary greatly between countries. Practitioners need to evaluate country capacity at the planning stage, and develop their governance approach accordingly.

The use of in-country planning, procurement, and monitoring systems is an important area that would best be decided on the basis of country capacity. In countries with greater capacity, it may be reasonable to insist on the consistent use of country systems (supported as necessary by external assistance), rather than imposing a separate, donor-controlled system for procurement, project supervision, and sector financial management.<sup>34</sup> In contrast, in countries with limited capacity, an externally controlled or monitored system may initially be the best approach for ensuring project objectives are achieved and funds are well-managed in the short-term, with a view to slowly mainstreaming elements of the separate system to build in-country capacity. For countries that are transitioning between separate systems and mainstreamed systems, the adoption of the approaches set out in Sections 9 and 10 (such as community participation and transparency, procurement outsourcing, e-bidding, and probity advisors or auditors) may help to improve in-country systems and accelerate the mainstreaming process.

In a similar vein, low-capacity countries would likely benefit from externally-managed service provision (that is, the use of PSP) until an improved institutional and policy structure is developed. In low capacity countries there are unlikely to be a local cadre of professional managers, or the "eco-system" of accountants, auditors, consultants, and IT firms needed to support the professional corporate management approaches recommended in Sections 9 and 10. Alternatives could include "importing" those skills from neighboring, higher-capacity countries. This is feasible, and has been attempted with some success, in countries that are reasonable close geographically, linguistically, and, culturally (for instance, Malawi from South Africa, or Guyana from Trinidad).

Another approach is to centralize control of the sector to economize on scarce management skills. The central government can set simple, low-discretion rules for providers (whether private or public), mandating them to provide the greatest coverage possible for a set budget, or for a set, market-level tariff. In the case of private provision, this may involve a second-best approach to designing the regulatory compact. For example, in post-conflict countries with limited service provision, it may be better

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<sup>34</sup> World Bank (2005). "Increasing the Use of Country Systems in Procurement, Operations Policy and Country Services". World Bank.

to rely on competition from informal providers to ensure the market is at least partially competitive, and focus initially on service expansion. Over time, as capacity develops, tighter regulations may be transparently introduced.

Finally, it is important for practitioners to remember that the types of interventions that will successfully strengthen accountability mechanisms and control systems will vary from country to country—there is no one size fits all solution to promoting probity. Rather, the practitioner’s aim should be to strengthen those elements in the existing institutional arrangements and political economy that already work to support probity and good governance (or that could work, with a little additional support). Only in this way can interventions lead to a self-sustaining cycle of improvement in probity and governance.

### **11.3 Combining and Sequencing Governance Interventions**

Regardless of the sector structure or country characteristics, practitioners are likely to face a further challenge in prioritizing reforms. Since resources are limited and the number of concurrent activities constrained, it’s impossible to change everything at once.

This section offers ideas on “packaging” governance interventions into manageable programs or phases. Such packaging should be based on two principles: first, groups of interventions should work together to strengthen the overall governance system, and second, that groups of interventions should first target areas where change is simple and easily made, and build in complexity over time.

Simply put, it’s impossible to change everything at once. This section provides guidance on “packaging” governance interventions into manageable programs or phases. Such packaging should be based on two principles: first, groups of interventions should work together to strengthen the overall governance system; and second, that groups of interventions should first target areas where change is simple and high-impact, and build in complexity over time.

#### *11.3.1 Selecting groups of interventions that strengthen the system using a “systems-thinking approach”*

As discussed in Section 2, corruption is sustained by complex systems of incentives, governance, and political economy. In consequence, reducing corruption is a bit like trying to fix a decayed water system—repairing one leak may simply lead to another leak springing up at the next weakest point.

Each individual element of accountability is necessary but not sufficient for ensuring overall sector accountability. For example, consumers could fill out report cards to provide feedback on provider performance and exercise their demand for accountability from the provider management and from the government. However, if the provider lacks the incentives to respond to this demand, or is not held accountable by the government, then the report cards will do little to increase overall sector accountability (or to reduce provider corruption).

To avoid simplistic approaches, sector practitioners need to start with a comprehensive understanding of where corruption occurs, what political economy arrangements sustain it, and which stakeholders and institutions can be strengthened to create an effective, systemic movement toward increased probity. Ideally this understanding will be developed through analytic and advisory work, embodied in country and sector strategies, and then reinforced through water sector projects.

This means that practitioners need to take a system-thinking approach to improving governance and reducing corruption. One-off, simple interventions may be effective only in the short term, at best achieving just a change in where corruption is taking place, not an improvement in overall probity. A better approach may be to package together interventions that work together to create systemic change. Often, an effective approach may involve intervening in places that are initially quite obscure, as the following example illustrates.

### *Example of a simple, narrow approach versus a broad, systems-based approach*

A sector practitioner might identify that utility managers are accepting kickbacks from certain suppliers in return for sole-sourcing contracts to them (at inflated prices). The practitioner could intervene by establishing procurement rules that decrease the threshold for sole-sourcing, and require more competitive bidding processes. This would provide a control to stop corruption from happening in the same way as it had been previously, but would not change the utility manager or supplier's incentives. The utility could get around the contracting requirement by awarding multiple contracts just below the threshold, or by rigging "competitive" bidding processes. As long as the probability of detection, multiplied by the costs of detection, are lower than the benefits of continuing the corrupt behavior, the utility and supplier will continue to find ways around the procurement rules.

Of course, this does not mean that the sector practitioner should abandon procurement controls as a means of deterring corruption. Rather, the practitioner should think about the other weaknesses in the sector accountability system that create incentives for corrupt behaviour. These weaknesses might include a lack of monitoring and detection of corrupt activity, minimal and uncertain punishment when corruption is detected, and few incentives for utility managers to run the utility efficiently. These weaknesses suggest that the practitioner should not take a "narrow" strategy of establishing strict procurement rules, but rather should stake a "broad" strategy of enhancing procurement controls, increasing penalties when bribery and kickbacks are detected, improving channels for the public to report corruption, and undertaking management reforms to give utility managers an incentive to reduce the costs of their contracts and operate the utility more efficiently.

Figure 11.3 below illustrates this contrast between a narrow problem definition, which leads to a narrow pro-probity approach, and a broad or systems-based problem definition, which leads to a broad (and ultimately more effective) pro-probity approach.

As Figure 11.3 illustrates, simplistic interventions at the project or provider level (such as establishing stricter procurement rules) are unlikely to significantly change incentives and governance. To achieve a change in governance, a range of complementary interventions that act to change incentives and encourage greater probity are required. Thus, it is important that practitioners package together interventions that create such systemic change, rather than just addressing a narrow, localized problem. In Indonesia, the World Bank has identified six areas in which all in World Bank programs should aim to improve governance (see Box 11.5)

#### **Box 11.5 Six Key Areas of Intervention Recommended for Indonesia**

The six areas of intervention for all World Bank programs recommended by the Anti Corruption Committee for Indonesia are:

- Enhanced information disclosure
- Civil Society oversight
- Mitigation of collusion
- Mitigation of forgery and fraud
- Complaint handling systems
- Sanctions and remedies.

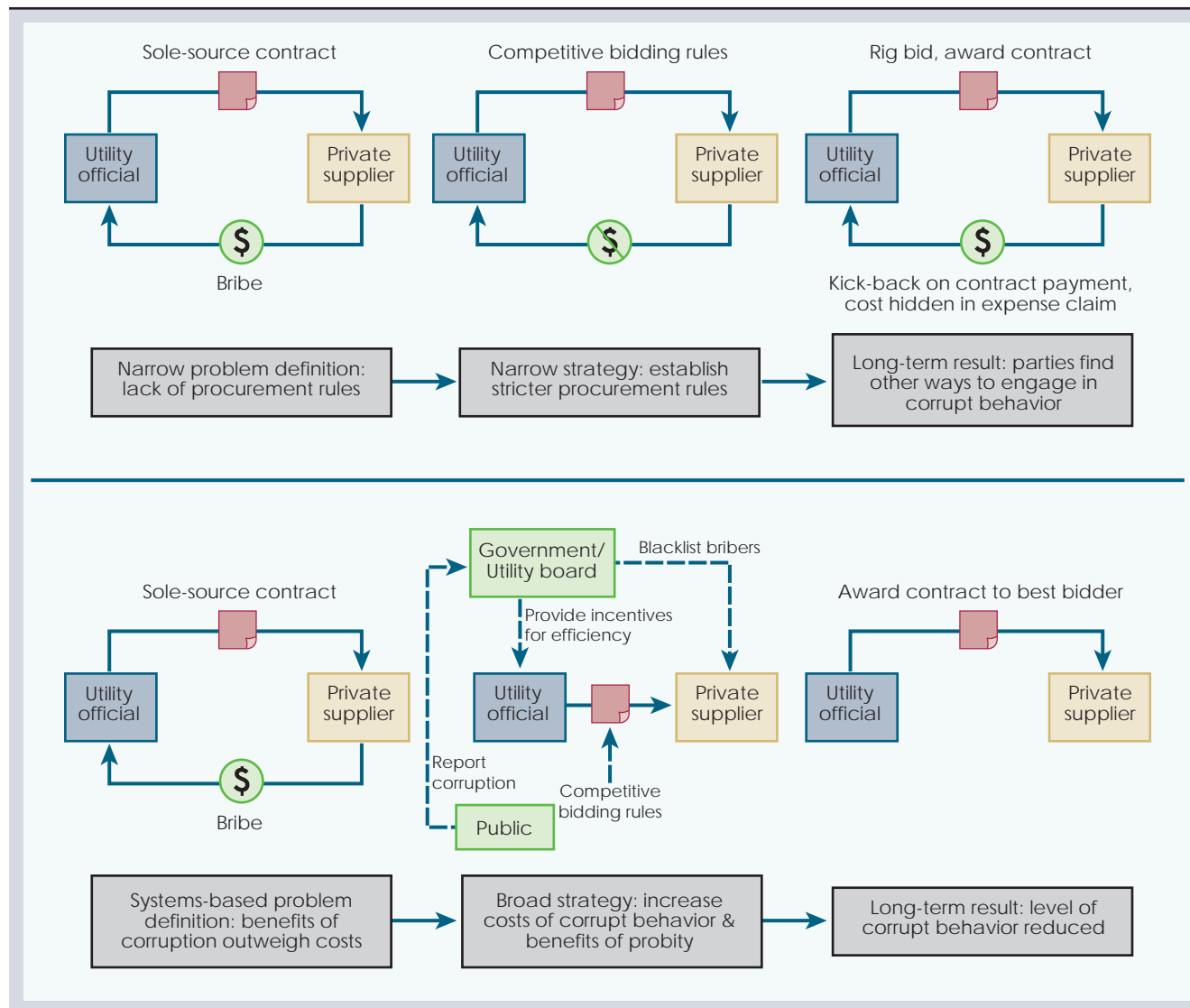
The Committee believes that interventions that cover all six of these areas will help to strengthen systemic good governance, by causing appropriate shifts in incentives at different levels in the sector.

Source: World Bank. (2007). Project Paper: Indonesia 3rd Kecamatan Development (Phase 2) Project. 4 April 2007. pp.27–32.

### **11.3.2 Starting with simple foundations, building over time**

As Section 11.2 acknowledged, reforming governance structures can be difficult in the face of political resistance and low capacity. This highlights the need to begin with simple changes and small gains, focusing on areas where there is support for reform (for instance, where officials or stakeholders are willing to be reform "champions").

Figure 11.3 Narrow (Top) versus Broad, Systems-based (Bottom) Approaches



Just as existing governance structures and willingness to reform differ from country to country, so too does the appropriate starting point for pro-probity interventions. One potential entry point would be the “weakest links” in the accountability chain—those that stop an effective flow of accountability from taking place. For example, a lack of transparency or information disclosure may be preventing the public from being able to exercise demand for better services. By working on improving these links, practitioners may be able to ensure that at least a weak pro-probity signal starts to be transmitted through the entire system. If all the links in the accountability chain are functioning, but all need to be improved, an alternative approach is to start with basic improvements across a spectrum of accountability links, and to use success in initial stages to build momentum for further reform.

Figure 11.4 provides an example of strengthening an entire governance system, starting with a simple “foundation intervention” that creates a self-sustaining drive for progressive improvements. In the il-

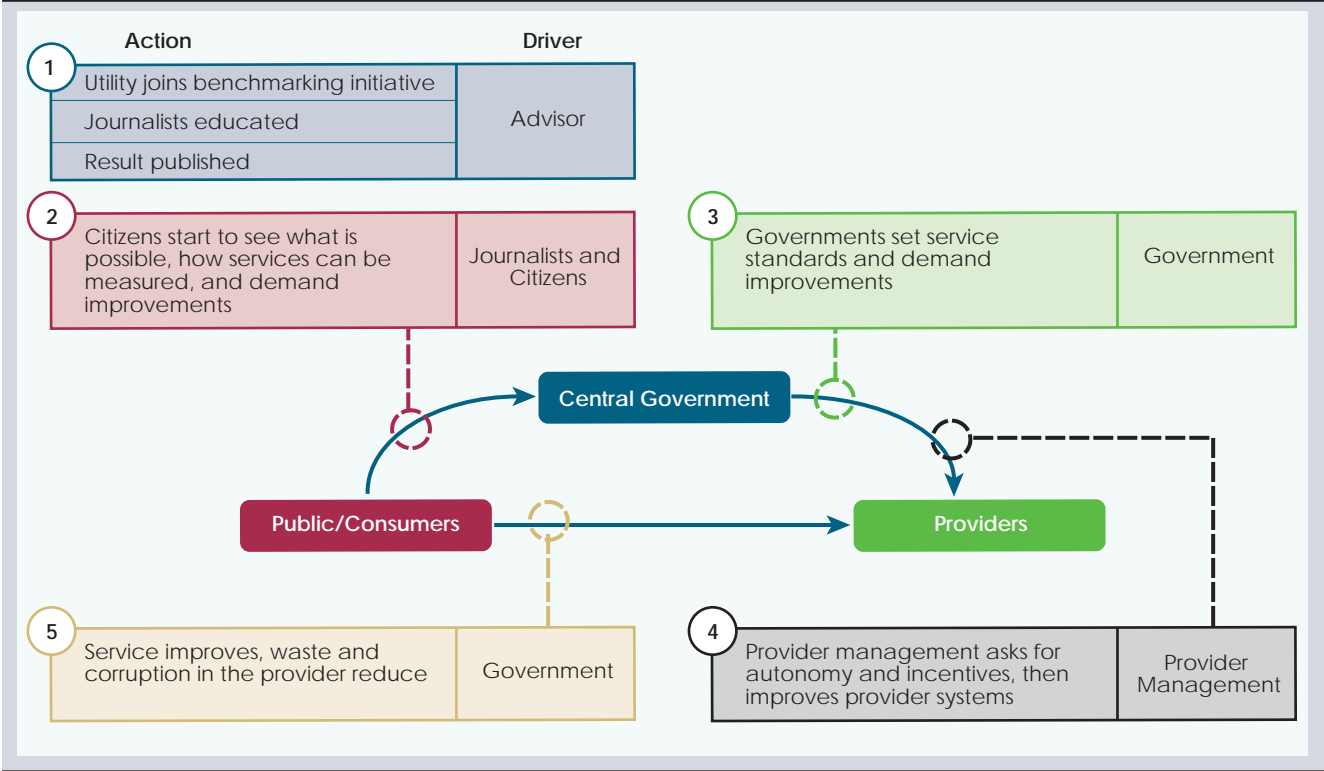
lustration, a practitioner with some external mandate—for example, a development agency—initiates actions to increase the quality and availability of information on sector performance<sup>1</sup>. This includes getting a utility in the country to join a benchmarking initiative such as IBNET.<sup>35</sup> The results of the benchmarking exercise are published, and the practitioner works with journalists to help them understand the results of the benchmarking, and convey them to their audience.

As journalists report on the results, citizens for the first time to have an objective measure of the performance of their water provider, and a set of benchmarks against which to assess that performance.<sup>2</sup> Citizens may come to see that the poor service they receive is not the natural order of things. For example, citizens in major Indian cities who are used to getting contaminated water for only a few hours a day may start to wonder why their service cannot be at the level of Chinese or South East Asian citizens, where service approaches 24 hour supply, and in some cases even extends to providing water that is safe to drink without further treatment.

As journalists and citizen’s groups start to question poor service performance, the government will feel under pressure to respond<sup>3</sup> (especially if opposition politicians make it an issue). Government will also, for the first time, have an objective system for measuring and assessing provider performance. With appropriate assistance from sector practitioners, government may set out clear performance targets, and demand that the provider meet, and report against, the targets.

In response to this pressure to perform, the management of the provider is likely to point out that additional resources will be required to meet the service goals, as well as changes to the way the provider

Figure 11.4 Strengthening Governance from a Simple Foundation.



<sup>35</sup> For more information on IBNET, please see <http://www.ib-net.org/>

is managed, to allow for greater managerial initiative and freedom <sup>4</sup>. Here sector practitioners with a reputation for competence and neutrality have a role to play in helping government and provider management to settle on a consistent, coherent, and achievable combination of service targets, tariffs, and subsidy levels. At the same time, provider management may suggest that it would be appropriate if they got bonuses for meeting the new and more demanding targets. The sector practitioner would advise in favor of this, and if agreed, managers could then be expected to move vigorously to reform the systems and processes in the provider to reduce costs and increase quality, including by cutting out corruption.

The final result of this change of actions would be more efficient and responsive services, delivered with less waste and corruption <sup>5</sup>.

### Source List 11.1 Improving Probity in Real-world Contexts

Source	Description
<b>Decentralized versus centralized</b>	
<b>Foster, V. (2005). "Ten Years of Water Service Reform in Latin America: Toward an Anglo-French Model". Water Supply and Sanitation Sector Board Discussion Paper No.3. World Bank</b>	This paper reviews and compares reforms of the water supply and sanitation sector in Latin American countries. All involved decentralization and regulatory reform, but were slightly different in each country. These reforms were largely a reaction to dissatisfaction with the traditional "clientelist" model of water service provision. This is a short paper that describes how Latin American countries redefined the role of the state in water service provision, and the different types of regulatory instruments which were developed to make this reform successful.
<b>Tynan, N. and Kingdom, B. (2005). "Optimal Size for Utilities?" ViewPoint 283. World Bank.</b>	Many countries are now going through a process of decentralization (or have done so recently) in an attempt to transfer the responsibility for providing basic services to the municipal level. Part of the reason this is occurring is the assumption that by making utilities more local (and thereby smaller), they will be more responsive to their customers' needs. This note used data from 270 water and sanitation utilities to learn more about the relationships between a utility's size and its operating costs. It found that utilities in smaller municipalities often face higher costs, and that the utilities could lower these costs—and thereby the prices they charge consumers—by merging together to form utilities that serve larger areas. <sup>a</sup>
<b>van Oostrom, B. (2006). "Decentralization and the role of NGOs in Combating Corruption in the WASH Sector". Water, Engineering and Development Centre</b>	Decentralisation can lead to an increase in efficiency and, under the right conditions (democratic local elections, a strong legal framework and a real delegation of power to local governments), to improved governance by enhancing accountability and the monitoring of government officials and decision makers.  However, decentralization has not automatically improved transparency in India and Uganda, illustrating that decentralization is not a panacea for accountability concerns. Improved community monitoring can help to overcome some of the shortcomings in decentralized systems. <sup>b</sup>
<b>Irwin, T. (2006). "Approaches to Private Participation in Water Services: A Toolkit". World Bank</b>	Section 2 of the toolkit refers to planning the process of introducing private participation, including in decentralized systems. <sup>c</sup>

<sup>a</sup> <http://rru.worldbank.org/PublicPolicyJournal>

<sup>b</sup> <http://wedc.lboro.ac.uk/conferences/pdfs/32/vanOostrom.pdf>

<sup>c</sup> <http://siteresources.worldbank.org/INTSDNETWORK/Resources/ApproachestoPrivateParticipationWaterServices.pdf>

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Source List 11.1 Improving Probity in Real-world Contexts (*continued*)

Source	Description
<b>Small-scale providers</b>	
<p><b>Asian Development Bank (2006). "Mainstreaming Small Scale Private Water Piped Network Providers: A Model Terms of Reference".</b></p>	<p>Many water utilities fail to provide adequate water services to the poor. As a consequence, many of the poor are forced to rely on alternative service providers, paying up to as much as 15 percent of their household income for water. Small scale private water providers (SSPWPs) serve a significant proportion of the poor in many urban areas, even up to 40 percent of poor households in some cities.</p> <p>The ADB recommends that small scale piped water providers should be mainstreamed or integrated into the design of public and private sector loans to:</p> <ul style="list-style-type: none"> <li>• legitimize their contribution in providing water services, and focus financial support on delivery of piped water supplies to the poorest members of society</li> <li>• undertake a rapid diagnostic survey and stakeholder consultation to assess the potential market and capacity of existing SSPWPs</li> <li>• develop appropriate registration procedures, licenses, and agreements with municipalities and formal utilities under which the SSPWP can operate</li> <li>• identify suitable financing mechanisms</li> <li>• identify and agree on the appropriate materials and construction standards</li> <li>• draft suitable bidding documents and templates to encourage transparent competition and awarding of contract licenses</li> <li>• develop an appropriate technical/financial performance monitoring system.</li> </ul>
<p><b>Ehrhardt, D. (2002). "Impact of Market Structure on Service Options for the Poor". Presented at Infrastructure for Development: Private Solutions and the Poor, London.</b></p>	<p>The report first describes different structural options—unbundling a monopoly provider, altering the ownership structure of an existing provider, and extending market access to new providers—and then features specific reforms within those options that benefit the poor.</p> <p>Most of the reform options are related to regulation of the sector, for example, establishing basic needs provisions and options for payment methods. A section specific to the relationship of market structure and regulatory design argues that, in the case in which a service area is served by both a large utility and a number of small-scale providers, it is difficult to impose similar regulation on both types of providers (for example, price cap regulation of a small provider may not be feasible, whereas similar regulation for a large utility is feasible). However, as long as the dominant provider or large utility is regulated, customers will always have the option of deferring to the utility if the service from the small-scale providers (which is unregulated) is not acceptable. Examples of this principle are given from the telecommunications market in New Zealand and the water supply market in Colombia.<sup>d</sup></p>
<p><b>Sansom, K. (2006). "Supporting Non State Providers of Water Services". Paper for DFID Policy Division. Resource Centre Network for Water, Sanitation, and Environmental Health</b></p>	<p>In response to the water supply problems in the area, Ushirika, a community-based organization in Laini saba, created a partnership with a local NGO, Maji Ufanisi, to extend piped water services to the area. This paper is a useful case study, summarized in Box 10.7 on page 141.</p>
<p><b>Webb, M. and Ehrhardt, D. (1998). "Improving Water Services Through Competition". Public Policy for the Private Sector</b></p>	<p>This paper takes the focus from stopping utilities from abusing their monopoly power (for instance, through regulation) to ways of reducing monopoly power. It introduces some methods for reducing monopoly power in the water sector, for instance, by increasing the use of competition in purchasing inputs, relying on competitive bidding for the right to supply an areas, and benchmarking rival utilities in different areas.<sup>e</sup></p>

<sup>d</sup> [http://www.castalia.fr/SITE\\_Default/x-files/1863.pdf](http://www.castalia.fr/SITE_Default/x-files/1863.pdf)

<sup>e</sup> <http://rru.worldbank.org/documents/publicpolicyjournal/164webb.pdf>

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Source List 11.1 Improving Probity in Real-world Contexts (*continued*)

Source	Description
<b>Second-best approaches</b>	
<b>Dhaka Water and Sewerage Authority Performance Improvement Program (see Castalia Report on Draft Guidance on Addressing Sector and Provider Governance Risks for DWASA)</b>	Bangladesh presents a challenging environment for water sector governance improvements, and is rated as a high-corruption country by Transparency International. Limited oversight of billing and collection creates opportunities for Dhaka Water and Sewerage Authority (DWASA) staff to personally gain at the expense of customers or the utility (or both). Revenue collectors may demand additional payments from customers or may not pass on the full amount of customer payments to the utility. In zones that have carried out the Performance Improvement Program (PIP) collections have improve drastically, indicating that not all revenue was being collected or passed on to the utility prior to carrying out the PIP.
<b>Estache, A. and Kouassi, E. (2002). "Sector Organization, Governance, and Inefficiencies of African Water Utilities" Policy Research Working Paper No. 2890. World Bank</b>	This paper provides an analysis of the efficiency levels reached by 21 African water utilities. Lower corruption or governance problems levels are expected to be associated with better coverage levels. The paper concludes that the institutional capacity of the country and the governance quality are significant driving factors in the performance of each utility.
<b>Ghariani, F. (2004). "Public Modes of Engagement Project: SONEDE Case Study". UNESCO-IHE-Delft</b>	This case study explains how the union is represented on the Board of the National Water Supply Authority (SONEDE) in Tunisia—an undoubtedly challenging country context—and how this has proved helpful in creating some autonomy of the provider from the political directorate.
<b>Johnston, D. and Budiman, J. (2006). "Reform of the Water Supply Institution of Aceh Province, Indonesia". Water, Engineering and Development Centre</b>	In post-tsunami Aceh, the local water supply authorities needed to be rehabilitated quickly, and given simple tools to operate efficiently. This paper explains how effective reforms were achieved in an environment of limited resources. <sup>f</sup>
<b>World Bank (2008). "Political Economy of Policy Reform: Issues and Implications for Policy Dialogue and Development Operations" Oxford Policy Management/World Bank</b>	<p>A main message of the study is that when designing, implementing and assessing operations, such as investment projects or budget support programs, a better understanding and management of the political economy of reform is key, as it helps to enhance development effectiveness. Data collected from operational experience through the case examples shows that further emphasis should be given to Getting a contextual understanding of the issues through analysis and dialogue, plus better access to data that can be validated and which will improve operational design</p> <p>Broadening the Bank's view and nature of interaction with a wider range of stakeholders (not limited to Finance or sector ministries), including sub-national or local governments; the parliament, including the political opposition; private sector; civil society, and formal and informal institutions</p> <p>Applying a partnership approach; based on listening and learning, more emphasis on participatory approaches for better communicating; and valuing and using local expertise more.</p>

<sup>f</sup> <http://wedc.lboro.ac.uk/conferences/pdfs/32/Johnston.pdf>

(continued on next page)

## Source List 11.1 Improving Probity in Real-world Contexts (continued)

Source	Description
Plummer, J. (2005). <i>“Anti-corruption efforts in the Post-tsunami Reconstruction of Water and Sanitation Infrastructure and Services in Aceh, Indonesia”</i> . Water and Sanitation Program.	This detailed and insightful report into corruption in the water supply in Indonesia’s troubled Aceh province describes and analyses how poor governance in the province contributed to corruption in the water sector. It analyses how decentralization, low capacity, conflict, and natural disaster exacerbated corruption. It details how corruption in a number of areas, including procurement and capital projects, took place, despite the application of Government and development bank procurement rules and processes. It also outlines a strategy for over-coming corruption and improving governance, within the constraints of a decentralized, post-conflict, post-disaster environment.” <sup>g</sup>
Schwartz, J. and Halkyard, P. (2006). <i>“Postconflict Infrastructure: Trends in Aid and Investment Flows”</i> . Public Policy for the Private Sector. World Bank	Typically, post-conflict countries have serious infrastructure needs, and private sector interest during or right after conflict is likely to come only from small-scale service providers. This paper discusses the cases of some countries that have coupled aggressive reform and liberalized policies to attract larger investors soon after conflicts end. <sup>h</sup>
Schwartz, K. (2006). <i>“Managing Public Water Utilities: An Assessment of Bureaucratic and New Public Management Models in the Water Supply and Sanitation in Low- and Middle-Income Countries”</i> UNESCO-IHE Institute for Water Education	Section 2 of this report provides a good description of the technical, social, and economic factors making the organization of the water sector difficult. It summarizes well how the economic characteristics of water services make government involvement inevitable, and accountability and good governance difficult to achieve. Section 3 provides a useful summary of the “public choice” school of thinking about bureaucratic behaviour. The public choice school analyses how individual incentives determine how organizations act, and points out some of the systematic difficulties in making public sector organizations effective, efficient, and accountable.
<b>Systems thinking</b>	
Castalia, Manila: <i>Water and Sewerage Concessions</i>	This study describes governance problems that arose when an imperfectly designed regulatory system came under pressure as a result of the 1997 Asian Currency Crisis.
Senge, P. (1990). <i>“The Fifth Discipline: The Art &amp; Practice of the Learning Organization”</i> . New York: Double Day	This book by Peter Senge, a senior lecturer at the Massachusetts Institute of Technology, focuses on groups problem solving using the “systems thinking” methods to convert companies into learning organizations. The five disciplines—building shared vision, mental models, team learning, personal mastery, and system thinking—represent approaches for developing three basic capabilities: fostering aspiration, developing reflective conversation, and understanding complexity.
World Bank (2007). <i>Project Paper: Indonesia 3rd Kecamatan Development (Phase 2) Project. 4</i> . World Bank	The Kecamatan Development Project (KDP), launched in Indonesia in 1998, is a good example of a systems-based approach to improving governance, within the unique Indonesian context. It is designed to operate on multiple levels in many sectors, involving both national and local institutions to allow villagers to propose virtually any investment they would like—from infrastructure provision to small-scale economic activities.  The project’s objective is to institute transparency and democracy from the bottom up in a country where serious abuse of office and top-down planning have been endemic. It calls on villagers to demand accountability from both the government and their neighbours, and to take responsibility for the investments they deem important.

<sup>g</sup> <http://www.swedishwaterhouse.se/swh/resources/20051028170848anticorruption%20efforts%20in%20aceh%20reconstruction.pdf>

<sup>h</sup> [http://rru.worldbank.org/documents/publicpolicyjournal/305Schwartz\\_Halkyard.pdf](http://rru.worldbank.org/documents/publicpolicyjournal/305Schwartz_Halkyard.pdf)

## **PART III LEARNING FROM EXPERIENCE**

One of the areas that is often neglected in programs aimed at improving probity in the water and sanitation sector is that of reviewing progress or results, identifying lessons learned, and feeding this information back into the planning process. For example, a recent review of World Bank practice (carried out as background for this Sourcebook) found that, out of 30 country, sector, and project strategies from 10 countries, only 5 adequately reviewed the strengths and weaknesses of past interventions (lessons learned) and clearly identified how the impacts of proposed governance interventions were to be assessed over time and “fed-back” into future work.

Monitoring and follow up are important as a way of assessing the effectiveness of strategies adopted for improving probity. If a strategy is effective, this should be evident from an increase in observable indicators of integrity, and corresponding decrease in indicators of corruption risk. Ideally, monitoring and review should be designed-in from the start. The sector strategy or project design could establish what the review process for that strategy or project would be.

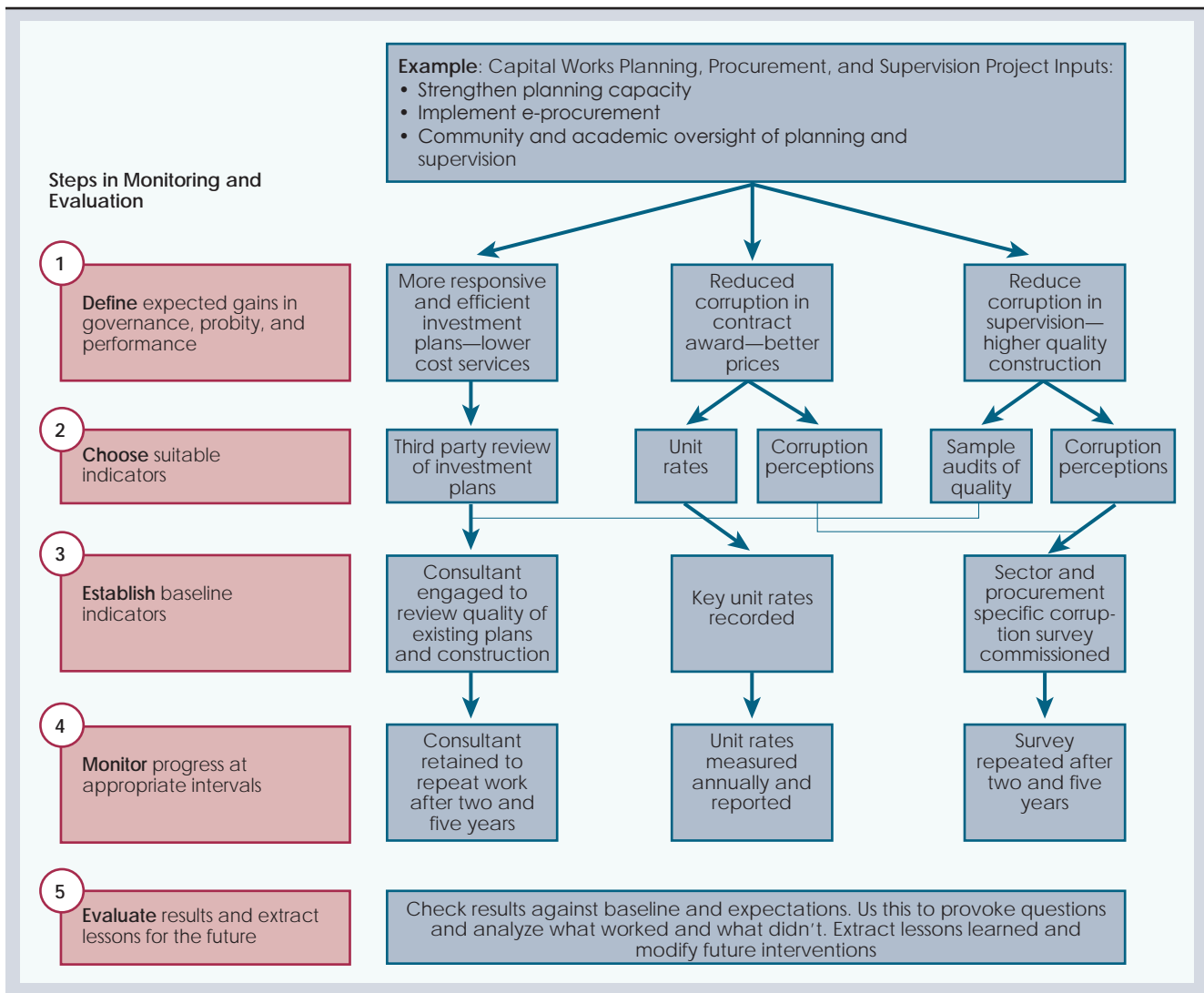
## 12 REVIEWING PROGRESS

Monitoring and evaluation can be thought of as “closing the loop” for pro-probity interventions. This section suggests ways in which progress in improving governance and probity can be monitored, and how information from monitoring can be evaluated to inform future interventions.

Figure 12.1 lists (on the left-hand side) the typical steps in monitoring and evaluation of governance and anti-corruption initiatives. It also provides (on the right-hand side) an example of how a monitoring and evaluation regime could be developed for a project focused on improving planning, procurement, and supervision in capital works.

As illustrated in the figure, the basic steps are to define the expected results, choose indicators for those results, establish a baseline value for the indicators, monitor changes in the indicators over time, and evaluate the results to learn lessons for the future. These steps are each discussed below.

Figure 12.1 Monitoring and Evaluation



## 12.1 Defining Expected Improvements

To monitor progress against expectations, there must be clarity on expected results. Sector practitioners should recognize variability in country's abilities and circumstances and focus on the area where what **should** be done, what the **country can** do, and what the practitioner **can influence** coincide, with the aim of expanding this area of overlap over time (see Figure 12.2)

It follows that before designing a monitoring and evaluation program, practitioners must be clear about:

- What are the inputs or interventions whose success is to be monitored?
- What are the hoped for results?
- What is the expected chain of causation between the inputs and the hoped for result?

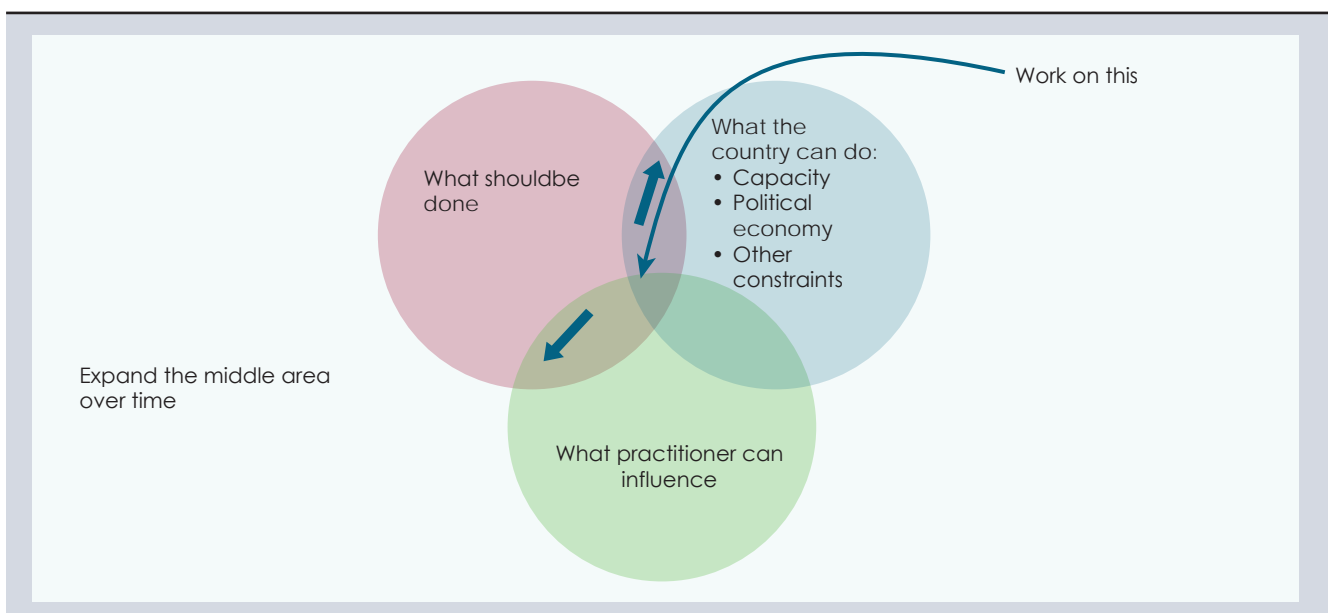
In the example illustrated in Figure 12.1, the actions involve strengthening planning capacity, bringing in e-Procurement, and involving third parties in supervising procurement and construction. The hoped for chain of causation is that these measures would improve planning and reduce corruption in capital works. The desired result is that more appropriate capital works are procured and that the cost of the works is lower, while the quality is higher. Ultimately it is hoped that this would reduce the cost and increase the quality of water and sanitation services.

## 12.2 Choosing Suitable Indicators

To monitor progress, practitioners will need something that can be observed and measured, that correlates well with the intended results of the program—in other words, a suitable indicator. Box 12.1 indicates how important this choice is.

Part II of the sourcebook lists numerous indicators that may be suitable for detecting corruption or assessing governance. In selecting which indicators are suitable for monitoring purposes, practitioners may consider the following principles:

Figure 12.2 Recognizing Variability in Country's Abilities and Circumstances



- Indicators chosen should relate to the intended results, while also being proximate to the actions whose success is being monitored. Figure 12.2 illustrates the difficulty in getting this right. The ultimate intended result of actions to increase probity in capital works may be to lower the cost of water services. It might seem that the cost of water service would therefore be an appropriate indicator. The difficulty is that the cost of water service is affected by far more than corruption in capital works—these are the “confounding factors” shown in the figure. If the cost of water increases because electricity prices rise rapidly, the indicator will tell us little about the success of the anti-corruption initiative. For this reason, a more proximate indicator—such as an expert assessment of the quality of the provider’s capital expenditure plan—might be a better guide to the success of the intervention
- Indicators for monitoring purposes should ideally be quantitative, rather than qualitative. Ideally they should be clearly defined, with a clear and simple process for measuring them. The indicators should also be relevant over time since several years may elapse between the baseline, interim and final measurements
- Because most indicators are not perfect measures of corruption or governance, the practitioner should select a set of relevant indicators to review. While conclusions drawn from a single indicator may be misleading, if several indicators are telling the same story, practitioners can have more confidence in their conclusions.

In some cases practitioners may be able to use indicators that are already being reported, for example sector performance indicators (such as the level of non-revenue water), or existing surveys, such as the relevant parts of the Doing Business Survey.<sup>36</sup> In other cases, it will be worth developing indicators specifically for the project. For example, practitioners could supplement performance reviews with simple surveys that collect data on reported side-payments or bribes (see example in Table 12.1).

### Box 12.1 Choosing Indicators in Uganda

Uganda has had a number of M&E initiatives and systems. However, diagnoses of Uganda’s M&E arrangements in 2001 and 2003 revealed a large number of uncoordinated and un-harmonized monitoring systems at the sector and subsector levels—at least 16 separate systems. In addition, a detailed investigation of three sectors (health, education, and water and sanitation) revealed a considerable data-collection burden at the district and facility levels.

The management information systems for those three sectors collected data on nearly 1,000 performance indicators, involving almost 300,000 data entries per annum for each of the 110 districts in Uganda. These indicators largely focused on spending, activities, and the physical state of facilities such as schools and health clinics.

However, measures of client satisfaction and outcome measures, such as health status and learning outcomes, were largely missing. Unfortunately, the quality of the data was highly uncertain and often considered poor. As a result, the sector ministries and agencies relied heavily on inspection visits rather than on self-reported performance indicators.

The diagnostic findings led to the decision to create a National Integrated M&E System (NIMES) under the aegis of the Office of the Prime Minister. The objective of NIMES is to create an umbrella M&E system within which existing systems will be coordinated and harmonized and government capacities to conduct and use M&E strengthened.

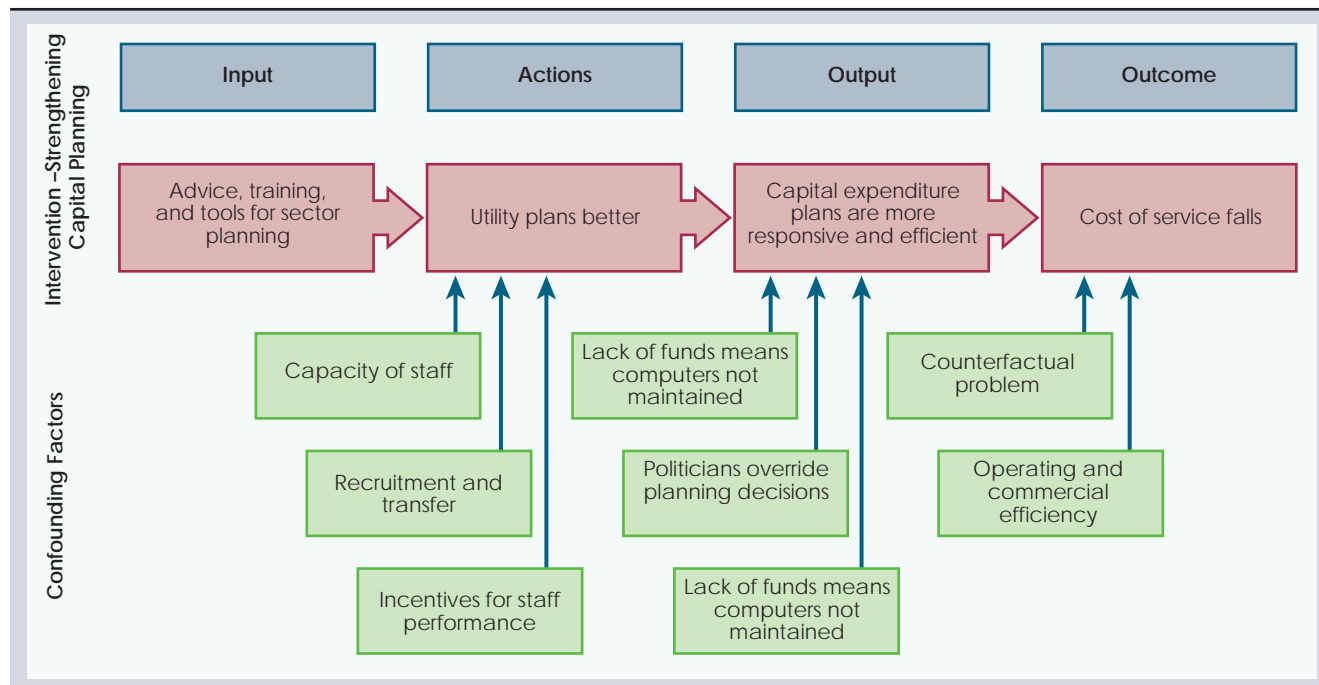
Various working groups have been created under NIMES addressing the following issues: M&E in local governments; policy research; evaluation; national statistical data; sector management information systems and spatial data; civil society organizations and M&E; and financial information.

NIMES is reducing the very large number of performance indicators, especially at the sector level, with a greater focus on outputs, outcomes, and impacts, as well as on the setting of targets.

Source: Mackay, K. (2007). “How to Build Monitoring & Evaluation Systems to Support Better Government”. World Bank

<sup>36</sup> For more information on the Doing Business Survey, please see <http://www.doingbusiness.org/>

Figure 12.3 The Art of Choosing Monitoring Indicators



Practitioners may also collect more detailed cost information for unit inputs and supplier contracts, to determine if changes in procurement are taking place. Price tracking can provide a more objective indicator than perceptions of corruption, and has been successfully used in some economic studies of corruption (see Box 12.2).

Table 12.1 Example Survey on Use of Favors and Bribes in Human Resources

<i>How often do you think this particular form of favor or influence happens in (name of institution)? Please note that I am not asking about your involvement, or of anyone in this (office/section/department), but about the entire organization</i>				
	<i>Staff exchange professional favors for political influence in obtaining promotions (%)</i>	<i>Staff are expected to make side payments in order to obtain promotions (%)</i>	<i>Staff exchange professional favors for political influence in obtaining transfers (%)</i>	<i>Staff are expected to make side payments in order to obtain transfers (%)</i>
Almost always (~100) quite common (~75)	13	6	44	13
About half the time (~50) or occasionally (~25)	36	26	46	56
Rarely or never (~0)	50	68	9	31
Do not know/Not sure	1	0	1	0
Weighted average	20.5	11.8	51.5	27.5

Source: Davis, J. (2004). "Corruption in Public Service Delivery: Experience from South Asia's Water and Sanitation Sector". *World Development*, Vol 32(1)53-71

### Box 12.2 Using Objective Cost Measures to Track Corruption

A Harvard economist wanted to examine the success of different approaches—external supervision versus community participation and supervision—for detecting and deterring corruption in Indonesia. The study examined the accuracy of beliefs about corruption, using data from Indonesian villages. Olken compared villagers' stated beliefs about the likelihood of corruption in a road-building project in their village with a more objective measure of actual "missing expenditures" (based on the projects' official expenditure reports and an independent estimate of the prices and quantities of inputs used in construction).

Olken found that villagers' beliefs contain information about corruption, and that villagers are able to distinguish between corruption in the road project and other types of corruption in the village. However, he found that the magnitude of their information is small (mostly since officials hide corruption where it is hardest for villagers to detect). This may limit the effectiveness of grass-roots monitoring of local officials. He also found evidence of biases in corruption beliefs; for instance, ethnically heterogeneous villages have higher perceived corruption levels but lower levels of missing expenditures. The findings illustrate the limitations of relying solely on corruption perceptions, whether in designing anti-corruption policies or in conducting empirical research on corruption.

Source: Olken, B. (2007). "Corruption Perception Versus Corruption Reality". Harvard and NBER.

## 12.3 Establishing a Baseline

Ideally, at the beginning of a pro-probity intervention, practitioners would clearly establish the baseline levels for each of the indicators in the set, alongside expected or desired levels after a period.

Such a baseline measuring approach was insisted on by the government in Kenya prior to the implementation of the "Total War Against HIV and AIDS" project. Because media reports had suggested a significant leakage of funds from Government initiatives, the Government requested a forensic audit of the previous AIDS project before the new project began, to identify governance weak points that should be addressed as part of the program going forward. A similar forensic audit will be conducted on the current program to determine if governance has improved (judged by whether "leakages" have reduced) under the revised approach.

In the water and sanitation sector, the work done in diagnosing corruption risk during project design (see Part II) may provide an adequate baseline. If it does not, it will usually be money well spent to commission additional work to establish baseline values for the chosen monitoring indicators.

## 12.4 Monitoring Progress

An entity needs to be made responsible for checking the levels of the indicators at appropriate points, and reporting the results. Such an entity needs to be capable, reliable, and impartial, and must be formally committed to reviewing the indicators. In some countries the suitable entity could be the Ministry of Finance or the National Audit Office. Alternatively, a more sector-specific agency, such as the regulator or Ministry of Water could take on the monitoring duties. In a decentralized system, local councils, chambers of commerce or well-organized consumer groups could be given some monitoring functions. However, it is important that the selected entity has incentives to monitor and report accurately, and does not have incentives to hide corrupt activity or poor governance performance.

In the example given in Figure 12.1, the practitioner engages a consulting firm to establish a baseline value of key indicators such as unit costs and the quality of construction. This firm is then retained to repeat the exercise at regular intervals. An approach like this could have advantages if the firm selected has a reputation for professionalism that it wishes to protect (thus guarding against bias). The approach would also help to ensure comparability over time (by increasing the likelihood that the monitoring methodology will remain stable), and could lock-in monitoring resources at the start of the contract (through the multi-year contract with the consulting firm).



Once an entity (or entities) has been given responsibility for oversight, the review could be completed by:

- 1. Setting reporting requirements for the provider and other sector agencies based on a clear template.** The less of an administrative burden imposed by such reporting templates, the more likely it is that they will be completed. The administrative burden can be minimized by ensuring that forms require only the essential information required for monitoring—for routine reporting, in particular, the format should be simple, comprehensible and short. Similarly, some reporting requirements may be streamlined into a single report containing sufficient information for all of the entities that want to review performance data. For example, there may be many demands for monitoring data from planners, water supply bodies, and health officials who want information regarding water and service quality. Local administrative officials may require information on activities undertaken by staff as a means to ensure that funds allocated have been used appropriately. Regulators may also need information on services and costs to be submitted on a regular basis. A simple and clear reporting format can ease the job for both the entities submitting the data and the entities reviewing the data, and helps to ensure data continuity over time
- 2. Establishing external reviews and audits by a reliable, independent firm.** If the results of an audit or report are likely to identify governance concerns, the providers or officials concerned will have incentives to attempt a cover up by mis-reporting, or bribing others to submit false reports. Accordingly, it is important that the monitoring firm or entity is independent, and unlikely to be influenced by threats or bribes, and that it has incentives to report correctly. In some countries this is achieved by hiring a consulting firm to undertake monitoring activities. For example, in Tanzania, the Ministry of Water contracts Ernst & Young to monitor water provider adherence to the terms of a Memorandum of Understanding with the government. In Indonesia, the World Bank was able to resolve many problems with inaccurate audits by ensuring that the auditors were adequately paid for their transportation and accommodation costs, and had less “need” to seek reimbursement through bribes from the officials under review<sup>37</sup>
- 3. Analyzing and reporting on results.** Once data has been collected, it needs to be processed in a way that produces meaningful information. Where reports are lengthy or require a detailed understanding of water sector issues they are unlikely to be appropriate for anything but a small technical audience. Where information is needed by non sector-specialists for use in planning, it would be best for data to be analysed first by specialists and then reported in a short, clear format consistent with the use to which the data will be put.

## 12.5 Evaluating Results and Drawing Conclusions

Once information has been generated from the review, and analyzed in accordance with the intended use for the information (such as identifying cost abnormalities, or identifying the incidence of bribes), the lessons learned need to be fed-back in to the sector planning and governance intervention process.

Possible feedback mechanisms include:

- **Identification of decision-points in the project or sector-plan implementation process, where new information or past experience can be reassessed.** This may be particularly important for ensuring that unsuccessful pro-probity interventions are discontinued or modified at an early stage, and that successful interventions are continued. For example, Box 12.3 describes a pro-probity that was disbanded at an early stage due to political interference. If more information

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<sup>37</sup> World Bank (2004). “*Village Justice in Indonesia: Case Studies on Access to Justice, Village Democracy, and Governance*”. World Bank.

on the program's success had been available, and an appropriate and transparent "decision-point" on whether to continue with it had been identified in advance, the program might have been continued for a longer period, with improved results

### Box 12.3 Example of A Successful Program Being Abandoned

In one city in Indonesia, a progressive water agency director established a program in which middle-tier staff held public meetings with customers in their districts once a month. Problems and complaints presented by customers during these two- to three-hour sessions were assigned to particular staff for follow-up, with explicit deadlines for resolution noted in the meeting minutes. Among the more than 50 management staff interviewed, 90 percent reported that such meetings with customers were helpful for them—yet the program was abandoned after only a few months. Senior staff explained that some of the city's elected representatives were unhappy about being bypassed in the dialog between the W&S agency staff and their constituents. These politicians lobbied a senior state official, who ordered the agency director to suspend the program.

Source: Davis, J. (2004). "Corruption in Public Service Delivery: Experience from South Asia's Water and Sanitation Sector". *World Development*, Vol 32(1)53-71

- **Recording "lessons learned", and feeding these back into future sector strategies or project design (both within sector, and more widely to other agency staff).** Lessons learned, if accurately recorded and reported, can be invaluable for future planning. Vague "success reports" are generally unhelpful; practitioners and governments need to know why a particular program has been successful or unsuccessful. For example, the KDP project in Indonesia has been well evaluated, leading to the identification of factors that might affect its replicability and success elsewhere (see Box 12.5). Similarly, following the introduction of report cards in Bangalore the World Bank commissioned an assessment to understand what effect, if any, the card had on governance and accountability (see Box 12.4).

### Box 12.4 Assessment of Impact of Report Cards in India

The Bangalore Citizen Report Card (CRC) was pioneered by an independent NGO, the Public Affairs Centre, in 1994. The report cards involve surveys of random samples of households in Bangalore to assess their satisfaction levels with various dimensions of the quality of services provided by the municipal government and other public service agencies. The dimensions covered by these service delivery surveys include behavior of staff who serve them, quality of service, information provided by staff, and extent of corruption (speed money). The agencies that householders are asked to rank include water, power, other municipal services, transport, housing, telephones, banks, and hospitals.

The first report card found several problems: low levels of public satisfaction; public agencies that were not citizen friendly; a lack of customer orientation; corruption; and a high cost for the inefficiency of the public sector. The second CRC survey in 1999 revealed improvements in satisfaction levels but no improvement in the proportion of households paying bribes.

The World Bank's Independent Evaluation Group commissioned an assessment of the impact of the first two report cards (1994 and 1999) based on interviews with a sample of agency heads, senior state officials, citizen action groups, and the media in Bangalore. The interviewees reported that they were generally appreciative of the report card as a tool to obtain feedback on services. Following the CRC findings, many of the agencies initiated reform measures. The report cards helped increase public awareness of the quality of services and stimulated citizen groups to demand better services. They influenced key officials in understanding the perceptions of ordinary citizens and the role of civil society in city governance. Bangalore has witnessed a number of improvements, particularly following the second report card. There is now greater transparency in the operations of government agencies and better responsiveness to citizens' needs. Although a number of other factors have also contributed to this transformation of Bangalore, the report cards acted as a catalyst in the process.

Source: Mackay, K. (2007). "How to Build Monitoring & Evaluation Systems to Support Better Government". World Bank.

### Box 12.5 Evaluation of the Success factors Behind the KDP Project

The Kecamatan Development Project (KDP), launched in Indonesia in 1998, has been said to be among the most thoroughly evaluated operations in the World Bank's portfolio. The design of KDP is particular to the Indonesian context. The summary below shows which factors have shaped its features and contributed to date in its successful implementation, distinguishing between project characteristics that were influenced by the project design team and those external conditions on the ground.

#### *Exogenous Factors*

- A broad range of stakeholders supported increased empowerment for poor, local people in the project area
- The high level of corruption in government and contract services led the government to agree to bypass its own financial processes and allow funding to go directly from a central project account to the local level
- Broad-based land ownership or communal use of land permitted a wider range of village members to benefit from the program
- Relatively high levels of education and low salaries allowed KDP to retain a large number of well-qualified staff for implementation and capacity building.

#### *Design Features*

- The commitment to a multi-sector, open menu approach provides the basis for villagers to genuinely choose the projects and activities that are most important to them
- The inclusion of credit for economic activity, still a questionable method in terms of viable repayment rates, increases options for choice at the village level, and may provide a form of social risk management
- The rapid roll out, designed as a scale operation from the start, provides credibility to villagers that the program is capable of providing benefits to them
- Villagers are encouraged to speak out for themselves, rather than through intermediary NGOs or CBOs
- Vesting implementation responsibility in a relatively weaker agency, but with structures at regional and local levels, has allowed the Bank to shape the program
- The Bank has been willing to commit a relatively high level of staff resources, based in-country, to see through the design and implementation of the program.

While no program can be directly replicated, those seeking to adapt a KDP approach should weigh each of the above characteristics to determine to what extent they might be adapted for successful adoption elsewhere.

Source: Edstrom, J. (2002). "Indonesia's Kecamatan Development Project: Is it Replicable?" Social Development Paper. No. 39. World Bank.

- **Imposing penalties on providers or government officials for not meeting objectives or rewards for meeting objectives, as measured through the indicators.** Examples of penalties include withholding funding disbursements, or prohibiting providers or officials from being involved in the next stage of program implementation. In Tanzania, the government reviews water utility and local government performance indicators on an annual basis. If reports have not been submitted on time, or if established performance objectives have not been met, the government has the power to delay the release of budget funds until the problem has been resolved. Conversely, utilities that meet objectives are "rewarded" by being given access to increased capital investment funds, and increased autonomy over their management.

Such a feedback loop seems easy in principle, but can be complicated in practice—the results of the review may be controversial, and sector stakeholders may act to have the information suppressed. In other cases, the information may be made available, but it may be difficult to change existing governance structures or procedures in line with the findings. Sources of further information on monitoring and evaluation are listed below.

## Source List 12.1 Reviewing Progress

Source	Description
Davis, J. (2004). <i>“Corruption in Public Service Delivery: Experience from South Asia’s Water and Sanitation Sector</i> , World Development, 32(1) 53–71	This paper provides interesting examples of monitoring and evaluation of pro-probity interventions in South East Asia.
Howard, G. (2002). <i>“Water Supply Surveillance: A Reference Manual”</i> Water, Engineering and Development Centre	This book provides guidance on data collection and use of surveillance findings in improving water supplies. Although the focus is primarily on water quality, rather than governance, the book has useful examples of quantitative indicators that can be measured under a performance benchmarking exercise. It also advises on techniques for feeding back information from monitoring and evaluation into future project design. The guidance is derived from experience in Uganda, Ghana, and Bangladesh. <sup>a</sup>
Kusek, J. and Rist, R. (2004). <i>“Ten Steps to a Results-Based Monitoring and Evaluation System”</i> . Washington, DC: World Bank	This toolkit explains the importance of monitoring and evaluation, and describes clearly what a good monitoring and evaluation system should achieve. It includes a full glossary of monitoring and evaluation terminology (based on OECD definitions) and an extensive reference list for further reading. The toolkit explains that an appropriate evaluative program can provide the context necessary for correctly interpreting information generated through the monitoring process, such as performance data.
Mackay, K. (2007). <i>“How to Build Monitoring &amp; Evaluation Systems to Support Better Government”</i> . World Bank.	Explains how Governments can institute M&E to enhance transparency and support accountability relationships by revealing the extent to which government has attained its desired objectives. Strong accountability, in turn, can provide the incentives necessary to improve performance.
Olken, B. (2007). <i>“Monitoring Corruption: Evidence from a Field Experiment in Indonesia”</i> . Harvard University and National Bureau of Economic Research	To examine the success of different approaches (external monitoring versus community participation and monitoring) to monitoring levels of corruption, the author designed and conducted a randomized, controlled field experiment in 608 Indonesian villages. Traditionally, much of the empirical work on corruption has been based on perceptions of corruption rather than on direct measures of corruption. This paper, however, builds on a small but growing literature that examines corruption by comparing two measures of the same, physical quantity, one “before” and one “after” corruption has taken place. This allows for accurate measures of quality over time, and enables the author to determine the extent of losses due to corruption.
Schacter, M. (2000). <i>“Evaluation Capacity Development—Sub-Saharan Africa: Lessons from Experience in Supporting Sound Governance”</i> . World Bank	This paper explains that M&E can support sound governance in several ways. However, substantial M&E achievements on the ground are rare in Sub-Saharan Africa. The binding constraint appears to be insufficient demand for M&E. Few leading bureaucrats and politicians in Sub-Saharan Africa accept the value of an evaluation culture that supports fact-based administrative and political accountability. The major lesson from two decades of governance support in Sub-Saharan Africa is the failure of the blueprint approach to reform. This failure is instructive. It demonstrates that future interventions, if they are to have a reasonable chance of success, must pay careful attention to: <ul style="list-style-type: none"> <li>• The quality of local leadership for reform</li> <li>• Local capacity to design and implement reform programs</li> <li>• Features of the local incentive and accountability environment, particularly as they relate to the level of corruption in the public sector and the quality of public service delivery</li> <li>• Capacity-building needs of decentralized as well as centralized forms of governance</li> <li>• Forces external to the public service that support government reform.</li> </ul>

<sup>a</sup> <http://www.lboro.ac.uk/wedc/watermark/reference-manual/wss-ref-insides.pdf>

## **APPENDIX A GLOSSARY**

### ***Access to information***

Refers to the right of interested parties (the public, NGOs, the media, etc.) to receive information held by government. This right, protected by international and national laws, provides that official documents should be generally available, and that any exceptions should be limited and specific. Access to information increases government accountability to its citizens and reduces opportunities for corruption.

### ***Accountability***

Accountability denotes a relationship between a bearer of a right or a legitimate claim and the agents or agencies responsible for fulfilling or respecting that right. One basic type of accountability relationship is that between a person or agency entrusted with a particular task or certain powers or resources, on the one hand, and the 'principal' on whose behalf the task is undertaken, on the other.

### ***Auditing***

Auditing refers to an official examination of an organization or institution's accounts, to make sure money has been spent correctly, i.e. according to rules, regulations and norms. Audit institutions like national and regional Auditor Generals, Audit Offices, State Comptrollers, Ombudsmen, Tribunals de Cuentas, Cours de Comptes etc. make a vital contribution to good governance by detecting poor management and inappropriate use of public money. Auditing institutions can be considered the taxpayers' independent and professional watchdogs.

### ***Bid rigging***

Occurs where officials or managers rig or interfere with the contract award to favor a particular bidder, or bidders (usually in return for a bribe or kickback payment).

### ***Bribes***

Payments to an official or utility staff member, paid in advance in return for a promise to act a certain way (for example, award a supply contract to a particular firm, or install a connection within a particular time frame).

### ***Build-Own-Operate-Transfer (BOOT)***

A BOOT model involves a single organization or consortium designing, building, funding, owning, and operating a scheme for a define period of time (usually around 25 years) and then transferring the ownership across to an agreed party.

### ***Clientelism***

Clientelism is an informal relationship between people of different social and economic status: a 'patron' (boss, big man) and his 'clients' (dependents, followers, protégés). The relationship includes a mutual but unequal exchange of favors, which can be corrupt. Patrimonial and clientelist practices can institutionalize hegemonic elites and political corruption, often reaching the highest ranks of state power.

### ***Competitive bidding***

Competitive bidding is a selection process based on the principle of open and transparent advertisement of an item or service, which ensures that the best bidder wins according to qualifications, value and other objective criteria (and consequently not according to family or friendship ties, bribery or

threats). Competitive bidding processes are often required by law on public contracts and purchases above a certain value.

### ***Cronyism***

Cronyism refers to the favorable treatment of friends and associates in the distribution of resources and positions, regardless of their objective qualifications.

### ***Embezzlement***

Embezzlement is the misappropriation of property or funds legally entrusted to someone in their formal position as agent or guardian.

### ***Extortion***

Extortion is the unlawful demand or receipt of property or money through the use of force or threat. A typical example of extortion would be when armed police or military men exact money for passage through a roadblock. Synonyms include blackmail, bloodsucking and extraction.

### ***Favoritism***

Favoritism refers to the normal human inclination to prefer acquaintances, friends, and family over strangers. It is not always, then, a form of corruption. However, when public officials demonstrate favoritism to unfairly distribute positions and resources, they are guilty of cronyism or nepotism, depending on their relationship with the person who benefits.

### ***Fraud***

Fraud is an economic crime involving deceit, trickery, or false pretenses, by which someone gains unlawfully. An actual fraud is motivated by the desire to cause harm by deceiving someone else, while a constructive fraud is a profit made from a relation of trust.

### ***Incentives***

An incentive is an inducement or stimulus (the carrot or the stick), that encourages someone to do something. Incentive theory provides a conceptual framework for analyzing the role and potential of recruitment and promotion mechanisms, detection and penalties, and different wage systems in improving the efficiency of public agencies. It challenges, for instance, the simplistic view that pay increases will always reduce fraud in public administration. Note that an incentive might also be a bribe, persuading officials to return undue favors to the briber.

### ***Interest peddling***

Interest peddling occurs when a professional solicits benefits in exchange for using his influence to unfairly advance the interests of a particular person or party. Interest peddling is addressed through transparency and disclosure laws, which aim to expose suspect agreements.

### ***Kickbacks***

Similar to bribes, but are paid after the fact (for example, once the supply contract has been awarded to a particular firm)

### ***Nepotism***

Nepotism is usually used to indicate a form of favoritism that involves family relationships. It describes situations in which a person exploits his or her power and authority to procure jobs or other favors for relatives. Nepotism can take place at all level of the state, from low-level bureaucratic offices to na-

tional ministries. Many unrestricted presidents have tried to secure their (precarious) positions by nominating family members to key political, economic, and military/security posts in the state apparatus.

### ***Patronage***

Patronage refers to support or sponsorship of a patron (wealthy or influential guardian). Patronage is used, for instance, to make appointments to government jobs, promotions, contracts for work, and so on. However, there is “no such thing as a free lunch”; most patrons are motivated by the desire to gain power, wealth, and status through their behavior. Patronage transgressed the boundaries of legitimate political influence, and violates the principles of merit and competition.

### ***Transparency***

Transparency is the quality of being clear, honest and open. As a principle, transparency implies that civil servants, managers and trustees have a duty to act visibly, predictably and understandably. Sufficient information must be available so that other agencies and the general public can assess whether the relevant procedures are followed, consonant with the given mandate. Transparency is therefore considered an essential element of accountable governance, leading to improved resource allocation, enhanced efficiency, and better prospects for economic growth in general.

### ***Water sector***

Combined water and sanitation sector

Source: Castalia and the Anti-Corruption Resource Center (2007)

## **Other Water Working Notes**

Water Working Notes are published by the Water Sector Board of the Sustainable Development Network of the World Bank Group. Working Notes are available online at [www.worldbank.org/water](http://www.worldbank.org/water). Working Notes are lightly edited documents intended to elicit discussion on topical issues in the water sector. They disseminate results of conceptual work by World Bank staff to peer professionals in the sector at an early stage, that is, "works in progress." Comments should be e-mailed to the authors.

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