

# TRANSPORT PAPERS

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## Deterring Corruption and Improving Governance in Road Construction and Maintenance



TRANSPORT  
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# **Deterring Corruption and Improving Governance in Road Construction and Maintenance**

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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 on governance and corruption in the transport sector. The Sourcebook is meant as a resource to 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 program of work 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.**







## 1 WHAT IS IN THIS SOURCEBOOK?

This Sourcebook is in seven sections. **Section 2** provides an overview of governance and corruption, and the framework used to evaluate governance and corruption risks in transport. **Section 3** describes a “generic” transport sector structure and several tools for evaluating governance at the sector level. The next four sections describe how to detect corruption, and improve governance in:

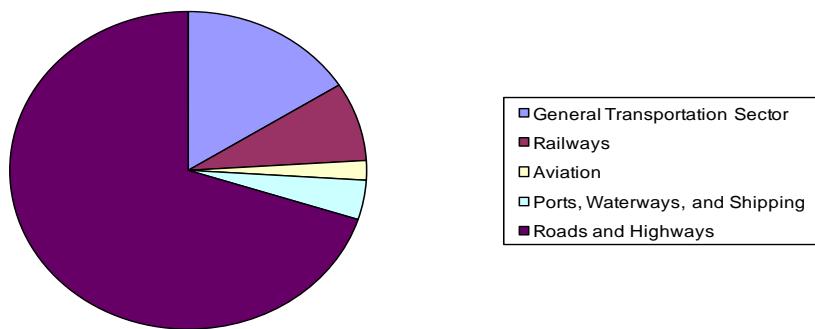
- Sector policy and planning (**Section 4**)
- Capital works (**Section 5**)
- Government engineering and construction units (**Section 6**)
- Public-private partnerships (**Section 7**)

Finally, **Section 8** suggests ways in which governance and probity can be monitored and how information from monitoring can be evaluated to inform future interventions.

### 1.1 Why Focus on Roads?

This is a Sourcebook on road construction and maintenance. The focus is on roads—and not other forms of transportation infrastructure, such as aviation, railways, ports, waterways and shipping, or public transportation—because roads are the dominant transport investment around the world. For example, the World Bank has 310 active projects with a Roads and Highways component, accounting for 70 percent of World Bank transport lending at the end of Fiscal Years 2008 (as illustrated in Figure 1.1).

**Figure 1.1: Distribution of World Bank Projects in the Transport Sector**



Source: [World Bank Transport Website](#)

### 1.2 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 transport sector.

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.

## 2 OVERVIEW OF GOVERNANCE AND CORRUPTION

Corruption in the transport sector is harmful—transport infrastructure plays a key role in development and government investment in the sector is high. Government investment in road transport can reach from 2 to as high as 3.5 percent of GDP, making up a majority of government financed construction.<sup>1</sup> Further, opportunities for corruption can be extensive as the “large numbers of tangible goods and services in the transport sector—such as permits and contracts with multiple points of entry at central and local levels—lend themselves to corruption”.<sup>2</sup> Developing effective strategies to improve governance and reduce corruption in the transport sector is necessary.

A solid understanding of what corruption involves, why it takes place, and how improving governance can reduce corruption is a vital first step in developing an effective strategy for detecting and deterring corruption.

This section aims to help practitioners develop such an understanding by presenting a framework for thinking about corruption in the transport sector. In Section 2.1 we define corruption and discuss some of the factors that influence its incidence.

### 2.1 Definitions of Governance and Corruption

Governance and corruption mean different things to different people. Examples of definitions used by leading institutions and academics are summarized in

**Table 2.1: Definitions of Governance and Corruption**

<b>Definitions of Governance</b>	
Australia Government Department of Finance and Administration-website	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.
World Health Organization, based on UNDP definition	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.
Bakker, 2003	The process by which stakeholders articulate their interests, their input is absorbed, decisions are taken and implemented, and decision-makers are held accountable.
Keefer, 2004	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.

<sup>1</sup> Kenny, C. (2008) "Transport Construction, Corruption, and Developing Countries", *Transport Review*

<sup>2</sup> Paterson, William D.O. and Pinki Chaudhuri. "Making Inroads in Corruption in the Transport Sector through Control and Prevention" in Campos, J. and Pradhan, S. (2007) *The Many Faces of Corruption: Tackling Vulnerabilities at the Sector Level*, Washington, DC: The World Bank, page 159.

### 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.

This Sourcebook adopts the World Bank definition of corruption: "*Corruption is the abuse of public funds and/or office for private or political gain*".<sup>3</sup>

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). Figure 2.1 demonstrates how rule-breaking and corruption form a subset of poor governance.

There are two distinct kinds of corruption: "personal" and "campaign finance". **Personal corruption** is behavior on the part of officials in the public sector<sup>4</sup> in which they improperly 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 (see an example of campaign finance corruption in Box 2.1).

#### Box 2.1: Campaign Finance Corruption in Illinois

One of 19 counts of indictment brought against impeached Illinois governor Rod Blagojevich involved "attempted extortion of a highway contractor." The count alleges that Blagojevich used his perceived power over the Illinois Tollway to raise funding for his campaign. In fact, Blagojevich had no legal authority to make Tollway decisions.

In a meeting with an executive of a company that manufactured and distributed road building materials, Blagojevich said that he was "planning on announcing a \$1.5 billion road building program that would be administered through the Illinois (State) Toll Highway Authority (Illinois Tollway)." He then asked the executive to help raise contributions for his campaign. Blagojevich instructed his chief of staff, Alonzo Monk, to "get [the] Construction Executive to raise \$500,000 in contributions." Blagojevich indicated that he might have announced a larger amount of money for the road building project, but wanted to see whether the executive would perform well in raising campaign contributions.

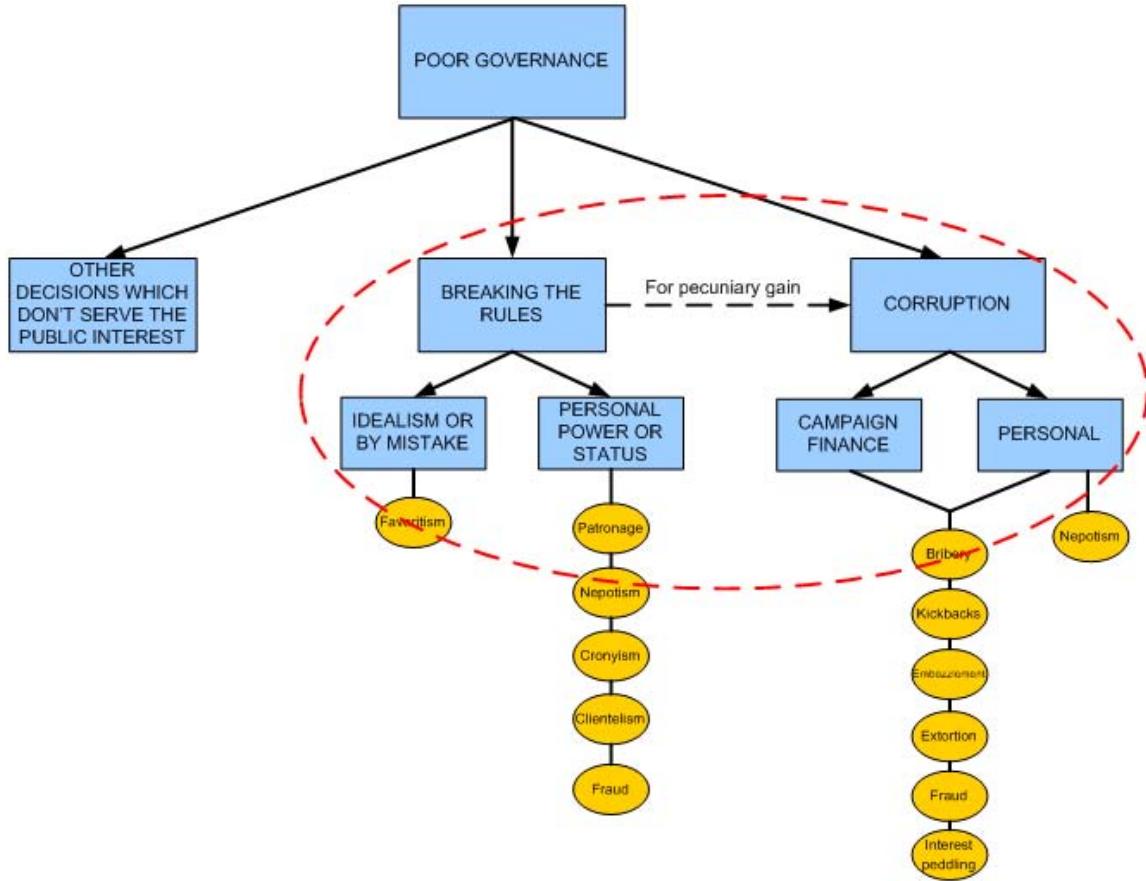
Source: "Illinois Tollway not directly involved in Blagojevich indictment, but..." TollRoadsNews. 2 April 2009.  
<http://www.tollroadsnews.com/node/4089>

<sup>3</sup> Corruption has often been defined as "the misuse of public power for private profit". This definition is the base of Rose Ackerman's well-known work *Corruption and Government: Causes, Consequences, and Reform* (1999). For a complete discussion of corruption definitions, please refer to *Measuring Corruption* (2006), edited by Charles Sampford, and *The International Handbook on the Economics of Corruption* (2006), edited by Rose-Ackerman.

<sup>4</sup> Private sector behavior 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 under our definition.

**Figure 2.1: The Scope of Our Inquiry: Corruption and Other Clear Categories of Poor Governance**

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#### 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 2.2 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.

### **Box 2.2: 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>5</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.

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

- General adherence to the 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.

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.

The next section describes the governance structure of the transport sector.

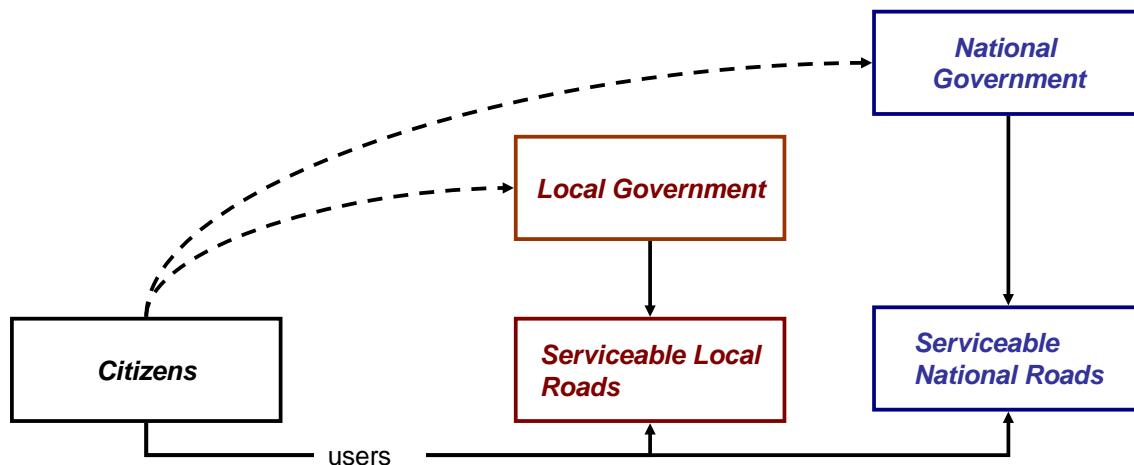
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<sup>5</sup> Extract from speech delivered at Probity Perception Index Seminar by N. Vittal, Kolkata, 2002.

### 3 SECTOR STRUCTURE AND GOVERNANCE

This section aims to help sector practitioners understand governance and corruption in the transport sector. The section first describes a generic governance structure of the roads sector (Figure 3.1). The section then discusses the inherent characteristics of the roads sector that lead to governance problems. Section 3.1 suggests a framework for evaluating governance at the sector level. Section 3.2 revisits the governance structure in Figure 3.1, adding sector “functions”, and identifying several “hot spots” of poor governance.

**Figure 3.1: Governance Structure of the Road Infrastructure Sector**



As Figure 3.1 illustrates, national governments are typically responsible for providing serviceable national roads, and local governments for providing serviceable local roads. At the national level, this is usually done through a transport-specific ministry (for instance, a Ministry of Transport); at the local government level, there may be an entity responsible for transport (for instance, a District Roads Board).

In order to provide serviceable roads, these roads need to be built, rehabilitated, and maintained. Governments can choose to carry out these functions on their own (also known as “force account”) or can contract out some or all of these functions to the private sector.

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.

#### **What are the inherent characteristics of the transport sector that lead to governance problems?**

The fact that transportation is a service with great social importance, significant externalities, and public good characteristics is at the heart of governance problems in the sector. Roads are a classic example of a “public good”: roads are often non-excludable, and non-rival (except at high levels of congestion). Central and state governments overwhelmingly fund roads because of their social importance. Because of road’s public good characteristics, road funding typically comes from general taxation or a levy on road users (for instance, a petrol tax or vehicle registration charges), or both, rather than through user fees.

Since roads are being paid for through general taxation and levies on road users, users should be able to demand serviceable roads from government. However, road users can’t express their dissatisfaction

by opting for another road service provider. Thus “demanding” services from government doesn’t work well.

### How do these inherent characteristics lead to poor governance?

Corruption has many possible causes, especially when we focus on sectors that provide public goods to citizens. Klitgaard<sup>6</sup> introduced a simple way to look at corruption:

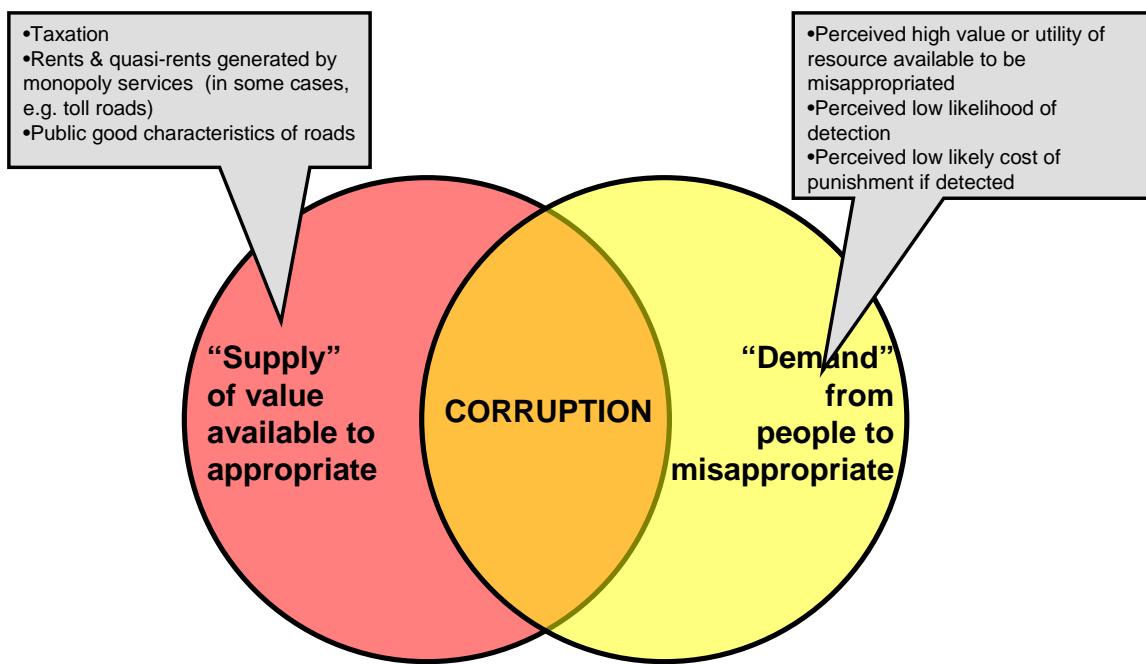
$$\text{Corruption (C)} = \text{Monopoly (M)} + \text{Discretion (D)} - \text{Accountability}$$

Using the above formula, we usually find corruption where:

- An individual (as comptroller, company president, government official) has monopoly power over goods or services
- An individual has the discretion to decide who gets to supply the goods or services required, or how much a person receives
- There is no system through which others may scrutinize how the individual arrived at the decision (in other words, there is no transparency).

The public good characteristics of roads mean that government provides funding with no “clear owner” to the sector, creating a “supply of value” available for misappropriation. 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 3.2.

**Figure 3.2: Understanding the Causes of Corruption**



#### Supply of value

As Figure 3.2 indicates, resources flow into the transport sector through taxation, rents and quasi-rents. This creates a supply of appropriable value. The roads sector has a significant supply of such value—and is prone to corruption—because:

<sup>6</sup> Klitgaard, R. (1991) *Controlling Corruption*, Los Angeles: University of California Press

- **Projects are large and complex**—High project costs and the participation of various actors (for instance, government ministry, road administration, political actors, contracts, sub-contractors, and so on) creates many avenues for the misappropriation of value
- **Discretionary funding**—In some cases, a proportion of a government's transportation budget is set aside for discretionary spending. Some public officials may use this funding for projects that don't serve the public interest. Also, selecting these projects can simply reflect poor choices; in others, public officials may deliberately select projects from which they will be able to misappropriate.

### Demand for value

Having a supply of value available to misappropriate is not enough to cause corrupt behavior—there must also be people who want to misappropriate this value. People are more likely to try to wrongly appropriate value if they believe that the benefits of corruption to them outweigh the costs. This requires that:

- They highly value the resources available to be stolen
- They believe they are unlikely to be detected
- They believe that the likely cost of punishment, if detected, is low.

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 costs of honesty may be high.<sup>7</sup>

Obviously, these conditions of “demand” are likely to vary significantly from country to country, even where the conditions of “supply” within each country transport sector are similar. The next section suggests a framework and tools for evaluating governance at the sector level.

### 3.1 Evaluating Governance at the Sector Level

To evaluate governance at the sector level it is useful to carry out a “sector level scan”. Such a scan considers governance and corruption issues across the transport sector as a whole. A scan may begin by looking at corruption indicators at the national level, and sector performance indicators. Finally, sector-specific surveys and other tools can further point to areas of corruption and governance weaknesses.

Governance practitioners are increasingly realizing the importance of focusing on sector-level governance challenges and associated policy responses. With this in mind, a few World Bank teams have started developing sector-specific diagnostics assessments. The goal of the sector diagnostic exercises is to evaluate the governance structure in a given sector, map potential entry points for corruption, and benchmark governance performance to support long-term monitoring. The World Bank provides extensive technical assistance while also prioritizing capacity building at the local level to develop, within local counterparts, the skills needed to replicate and expand these diagnostic techniques for longer term monitoring.

The sector level approach acknowledges the need for sector relevant solutions to governance challenges. Therefore, the diagnostic assessment combines three types of data gathering methods to create a comprehensive look at governance in the specific sector contract:

- Research and in-depth interviews with all relevant stakeholders to ascertain the structure and players in the relevant sectors, and to acquire a detailed understanding of the sector production chain

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<sup>7</sup> See, for instance Ruiz, J. and Hummer, D. (eds) (2008) *Handbook of Police Administration*, Boca Raton, Florida: Taylor and Francis Group

- A large scale survey using experience-based questionnaires. The survey targets private citizens, businesses, and public officials. Quantitative, experience based data from the surveys is used to draft a report on the state of governance in the sector, identify priority areas, and construct numerical indicators to monitor agency-performance in key areas
- Audits of past projects to gather information on real cost overruns, quality of work, and perhaps prevalence of weak governance practices such as abuse of sole sourcing, lack of regular inspections, failure to verify work, instance of contractor reprimand and so on.

Currently, sector-specific diagnostic assessments are being implemented in Senegal and Mauritania (in the transport sector) and Yemen and Morocco (in the health sector).

Box 3.1 describes how a sector level governance diagnostic study—similar to a “sector level scan”—was commissioned in Mali due to the limited availability of information at the sector level.

#### ***Box 3.1: Sectoral Governance Diagnostic Studies in Mali***

The World Bank in cooperation with the Government of Mali is conducting governance diagnostic studies in priority infrastructure sectors. The draft Country Assistance Strategy (CAS) identified improving governance as one of three main challenges to achieving the country's strategic objective. The Government of Mali recently adopted a Governance Action Plan, however the Plan does not focus on sectoral governance issues.

The governance diagnostic study aims to address the challenges posed by the CAS, but not addressed by the Governance Action Plan, by evaluating governance issues within priority infrastructure sectors in Mali. The studies will help develop a set of recommendations to the Malian Government on ways to address governance issues in each sector as well as over-arching governance themes.

A key goal of the diagnostic studies is to make governance and anti-corruption efforts central to the work of the Mali country team, and no longer viewed as the work of a group of specialists.

Source: World Bank. 2007. Project Concept Note. Governance and Anti-Corruption for Development Diagnostic: Determining Issues and Options in the Context of the Mali CAS 2007-2010.

#### **Country indicators provide “priors” but must be treated with caution**

Looking at 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 transport sector. Various development banks and non-governmental organizations (NGOs) have developed tools to assess corruption risks and to tackle corruption at the country level (Box 3.2). Some leading examples of cross-country data on corruption include Transparency International's Corruption Perception Index (CPI) and the Worldwide Governance Indicators by Kaufmann and Kraay. Governance practitioners have also focused on country-specific data on governance and corruption (Source List 4.1 beginning on page 35 provides more examples of country-level governance and anti-corruption indicators).

Indicators of corruption at the country level can be treated as a set of initial assumptions—or “priors”—for sector level corruption risks. These priors offer a starting point to form a view of corruption risk in the transport sector that can then be updated with sector level information as it becomes available.<sup>8</sup>

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<sup>8</sup> The term “priors” refers to the Bayesian probability concept of revising prior estimates of probability in light of experience and new information. Further information on Bayesian probability and its relation to policy analysis can be found in Source List 3.1.

### **Box 3.2: 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 transport 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).

That said, national-level, cross-country indicators need to be treated with care, as they are often based on perceptions, rather than more objective measures, and can fail to capture country-specific policy changes because of their cross-country nature. Transparency International’s 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. Box 3.3 describes one example where a change in the perception of corruption may not have reflected the change in value of corrupt transactions.

### **Box 3.3: 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” World Bank Policy Research Working Paper 3315, May 2004

### **Sector performance can be an indicator of quality of sector governance**

Sector performance indicators can provide information about the quality of sector governance. Examples of two commonly used indicators of performance in the transport sector include accessibility and road conditions. Poor sector performance, as indicated by these performance measures, may be caused in part by corruption.

Table 3.1 describes one indicator and its possible relationship to poor governance and corruption. Data on indicators may be found in the sources shown in Source List 3.1 on page 19.

A specific region or country may have developed its own measures of sector performance, which may help indicate corruption at the sector level. Box 3.4 shows how the Sub-Saharan Africa Transport Policy Program has developed suitable indicators to track sector performance in African countries.

**Table 3.1: Corruption and Sector Performance Indicators**

Indicator	Description	Possible relationship to poor governance or corruption
<b>Road Condition</b>	<p>Road condition refers to the percentage of total roads in "good", "regular", or "poor" condition. Evaluation criteria differ for paved and unpaved roads.</p> <p>Condition descriptions for paved roads include:</p> <p>"<b>Good</b>" condition roads are largely free of defects, requiring only routine maintenance and surface treatment</p> <p>"<b>Regular</b>" condition roads have defects and weakened structural resistance, requiring resurfacing, but not demolition of the existing pavement.</p> <p>"<b>Poor</b>" condition roads are barely functional and un-maintainable without significant rehabilitation.</p>	<p>The level of a road's condition depends on how well it was built initially and how well it has been maintained. Similar to accessibility, road conditions must be understood in the country context. Nevertheless, a high percentage of "poor" condition roads may indicate a corruption risk. For instance, a large number of potholes may be the result of:</p> <ul style="list-style-type: none"> <li>▪ A tendency to misuse resources generally (by not investing sufficiently in routine maintenance)</li> <li>▪ Poor quality of construction and repair work</li> <li>▪ Fraud in construction and repair work</li> <li>▪ A bias toward large capital projects.</li> </ul>

#### **Box 3.4: Sub Saharan African Transport Policy Program Indicator Initiative**

The Sub-Saharan Africa Transport Policy Program (SSATP) Transport Sector Data and Indicator Initiative is a four-year project aimed to use the World Bank's core transport indicators as the basis for collecting a common set of transport data in SSATP countries.

The initiative's purpose is to:

- Coordinate and promote establishing datasets that enable the production of key transport sector performance indicators
- Understand and assess how capacity constraints affect sustainable data collection.

The indicators would be used to compare sector performance over time and between countries and enhance transport planning in SSATP countries. The initiative divides data into four areas that are critical to poverty reduction and growth:

- Road-network management (service to users, quality of roads, and degree of usage)
- Road-network access of rural populations (closely related to the aforementioned RAI)
- Urban mobility and transport (related to means of transport, costs, and distance and time to work)
- Transport and transit corridors (related to import/export of goods, including containers).

The initiative also includes secondary indicators that allow for analysis of the transport system in a given country by sub-sector, including: Transport Sector Management Sustainability; Road Transport; Urban Transport; Rail Transport; Water Transport; Air Transport.

Since its inception, the initiative has processed two full cycles of data collection in 2005 and in 2006 in 16 countries and a partial one in 2007. All data is available through the World Bank Development Data Platform, a web-based database system that makes all World Bank data accessible to whoever has an internet connection.

Preliminary experience indicated significant data gaps, poor quality of data, and weaknesses in institutional and financing capacities of data collection. The initiative identified the lack of well-functioning Transport Sector Data Management Systems (TSDMS) as the root cause of these persistent problems. At the end of 2006, the SSATP conducted Institutional Assessments of TSDMS in five SSA countries. This led to the publication of "*Guidelines for establishing a sustainable and useful transport sector data management system*," which is intended to guide sector practitioners and decision-makers toward sustainable production, management and dissemination of transport-related data. The initiative continues to support the development of TSDMS frameworks in selected countries.

Source: DANIDA. "Monitoring and Indicators in the Road Sector." Ministry of Foreign Affairs of Denmark. Technical Note. 2006.

"Data and Indicators." World Bank SSATP website. <http://go.worldbank.org/TEBRXOFYTO>

#### **Surveys and other tools can help identify corruption areas and governance weaknesses**

Various tools can indicate areas vulnerable to corruption and governance weaknesses in the transport sector. Specifically, sector practitioners may look to the following tools to assess corruption risk at the sector level:

- Asset observation
- Stakeholder complaints and dialogue, focus groups
- Surveys of corruption in infrastructure.

#### **Asset observation**

Evidence that individuals working in a sector are enjoying living standards beyond what their wages could support is another indicator of corruption.

"Red flags" could include observations of:

- Obvious displays of wealth (for instance, the Minister of Roads and Public Works in an East African country reportedly purchased a customized Mercedes S50 for about US\$179,000<sup>9</sup>)
- Frequent overseas trips by sector officials and family members
- Asset declarations from senior officials and politicians that reveal assets well beyond what those individuals' official salaries would support.

Such observations can serve as useful indicators that corruption may be occurring within the transport sector. Source List 3.1 provides useful sources for further information on detecting corruption through asset observation.

#### **Stakeholder complaints and dialogue**

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

#### **Customer complaints**

A roads ministry or a sector regulator may have a complaints service, which may be a useful source of information. Sector practitioners should evaluate the reliability of information from these complaint services when considering whether they might provide information that may help identify areas of corruption and poor governance.

#### **Media reports**

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>10</sup>

#### **Stakeholder dialogue**

Talking to non-government stakeholders to learn their views on sector problems may be useful as they have differing perspectives and may also have less to lose, and more to gain, in exposing corrupt practices. Focus group discussions with selected stakeholders can be useful for this purpose. 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 instance, consulting engineers, lawyers)
- Non-governmental organizations working in the transport sector
- Unions operating in the sector.

#### **Surveys of corruption in infrastructure**

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

- Review existing surveys that deal with governance and corruption, which may already collect some limited information on the transport sector and can be a useful starting point

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<sup>9</sup> Press reports from Transparency International.

<sup>10</sup> See Soreide (2006) *Business Corruption: Incidence, Mechanisms, and Consequences*.

- Commission special surveys, to gather information on service delivery or perceptions of corruption (or both) in a particular country or region. There are broadly two options for commissioned surveys:
  - **Quantitative surveys** to collect data on key indicators of transport infrastructure (see Box 3.5 and Box 3.6)
  - **Perception surveys**—to canvass the views of stakeholders both within and outside the transport sector. Perceptions of corruption in Government in the Philippines (see Box 3.7) highlighted the Department of Public Works and Highways as one of the most corrupt Government entities in the country.

#### **Box 3.5: Public Expenditure Tracking Survey (PETS) in Tanzania**

Public Expenditure Tracking Surveys (PETS) were first used as a tool for assessing the leakage of public funds in education in Uganda. Following the success of PETS in Uganda, Tanzania began conducting its own surveys in 1999. The first PETS in Tanzania, conducted by Price Waterhouse Coopers, focused on education and health. The second PETS, completed in 2001, expanded to include water and rural roads.

In rural roads, the results revealed:

- Underreporting of receipts (for instance, one district recorded less than ten percent disbursement of central government funds received during the financial year 1999/2000)
- Poor management of local road funds, noting that road funds did not follow the “public expenditure/other charges” formula and district councils followed no consistent mechanism for using the funds and recording receipts.

The survey concluded that district councils “prefer aggregate expenditure items to reduce transparency.” Sectoral heads were normally not informed when there were transfers from the central government, which opened room for re-allocation and/or redirection of funds without the consent or even knowledge of sectoral heads.

Unlike the Ugandan initiatives to enhance transparency following PETS, the first two PETS in Tanzania have failed to promote further national-level discourse on transparency and accountability in service delivery at the local level. For example, researchers Reinikka and Svensson note that, “the findings of the two [Tanzanian] PETS were disseminated during the national budget consultations, but they have not had as strong a catalytic effect on central government oversight or transparency arrangements as the PETS in Uganda.” Nevertheless, the surveys have resulted in increased information dissemination. After the completion of the second PETS, the Treasury decided that all transfers to districts from the center would be advertised in the media.

Source: Sundet, Geir. “Public Expenditure and Service Delivery Monitoring in Tanzania: Some international best practices and a discussion of present and planned Tanzanian initiatives.” 19 March 2004.

***Box 3.6: Monitoring Road Works Contracts and Costs in Sub-Saharan Africa***

A set of indicators was constructed to assess vulnerability to corruption in World Bank-funded road sector projects in 13 countries in Sub-Saharan Africa. The indicators are based on a dataset developed with information from 109 roads and bridge works contracts and 76 supervision consultancy contracts. For each contract, the study analyzed information on bidding, costs, performance, and other project details. The indicators were developed by observing patterns in data analysis that paralleled allegations of the corruption.

The study identified the following indicators that may indicate a projects vulnerability to corruption:

- Difference between contract values and their engineer's estimates
- Cost overruns
- Time overruns
- Bidding statistics for contracts with and without pre-qualification: number of firms that applied for pre-qualification, pre-qualified firms, firms that bought bidding documents, number of bidders, number of disqualified bidders
- Time between bid opening and contract signing dates
- Cost per km for similar works
- Road works unit costs
- Cost per kilometer of supervision consultants
- Ratios between supervision contract values and relevant road works contract values.

Source: Alexeeva, Victoria, Gouthami Padam, and Cesar Queiroz. "Monitoring Road Works Contracts and Unit Costs in Sub-Saharan Africa for Enhanced Governance." *Transport Paper 21*. World Bank: Washington, D.C. September 2008.

***Box 3.7: Corruption Survey of Government Agencies in the Philippines***

According to a Social Weather Services Survey (released in November 2008), the Philippines' Department of Public Works and Highways (DPWH) is seen as one of the "least sincere" government agencies in fighting corruption in the Philippines. The survey monitored perceptions of sincerity in fighting corruption in 30 government agencies. It placed the DPWH among the bottom three agencies, scoring below 50 or "very bad" on the anti-corruption perception index.

The survey found that:

- Seven out of ten companies were asked for a bribe in a transaction with the Government
- There is a perception that the Government's ability to function without corruption is weakening
- Anti-corruption sincerity ratings improved for only 8 out of 30 government agencies.

The Social Weather Stations has undertaken eight Surveys of Enterprises on Corruption since 2000 as part of the Transparent Accountable Governance (TAG) project. Small and medium enterprises comprised two-thirds of the survey sample and large enterprises comprised the remaining one-third. The 2008 survey included interviews with 402 enterprises in Metro Manila, Metro Cebu, Metro Davao, Cavite-Laguna-Batangas, and Cagayan de Oro-Iligan.

The TAG project uses the surveys as part of its integrated approach, working with government agencies, businesses, and the public to encourage open debate on corruption and how to counter it. The earlier surveys were instrumental in the organization of the private sector Coalition Against Corruption in 2004.

Source: Based on Social Weather Stations Media Release. "2008 SWS Survey of Enterprises on Corruption: Anti-corruption sincerity ratings improved for only 8 out of 30 agencies." 21 November 2008.

### 3.2 Governance and Corruption Analysis by Function

Figure 3.3 again illustrates a generic governance sector structure, but adds functions (for instance, regulation, planning financing, constructing, and so on) and organizations (central, state, local governments, and private firms) to the simpler Figure 3.1 (on page 7).

Where these functions take place, and how organizations relate to one another, can differ enormously from country to country. However, these functions must be carried out in each sector, and the generic list of organizations that perform these do not vary much from place to place. Using a generic list of organizations provides a useful way of looking for corruption and improving governance that is disaggregated and specific enough to be useful, but still has general cross-country applicability.

In Figure 3.3, the numbered circles identify poor governance and corruptions “hotspots”. These include:

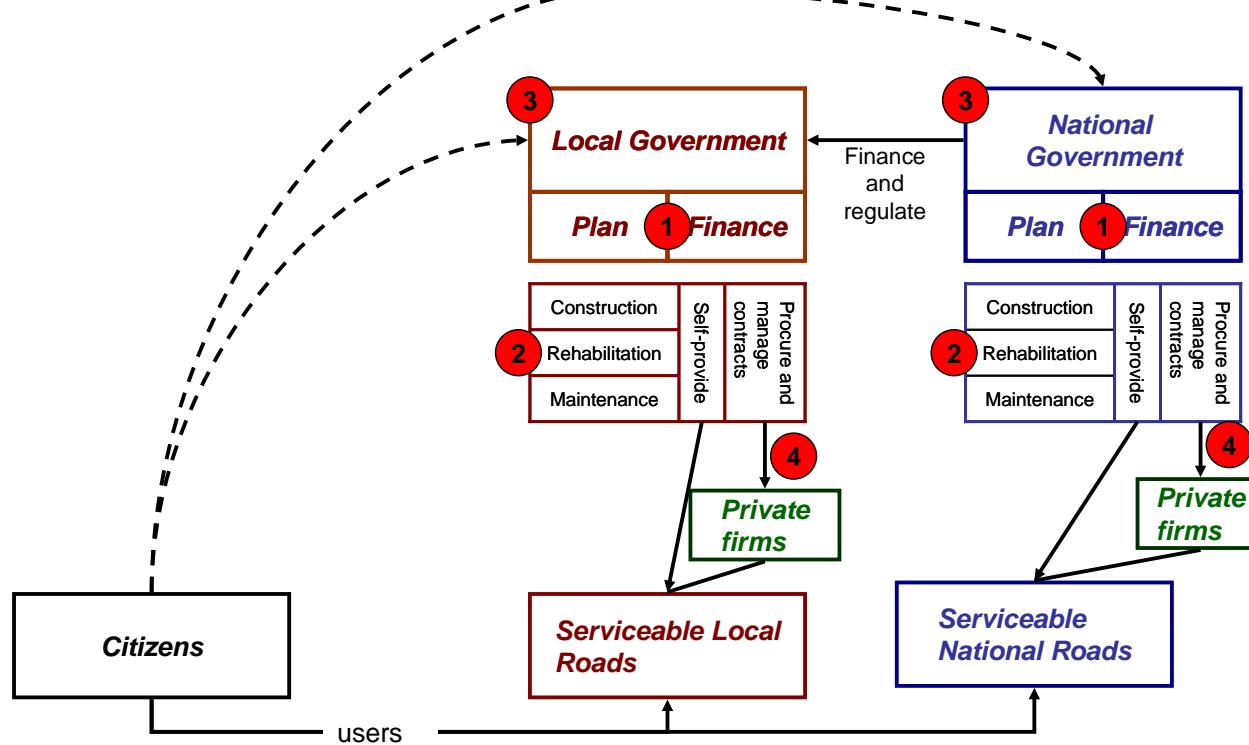
1. Sector policy and planning
2. Capital works (design and method of construction, selection of project participants, project supervision, and contract claims)
3. Government engineering and construction units (human resources, suppliers, government department property)<sup>11</sup>
4. Public-private partnership (PPP) contracts (award, regulation, and management).

The remainder of this Sourcebook is structured around identifying corruption and improving governance in these four areas.

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<sup>11</sup> This refers to when government provides roads works and services in-house—commonly called “force account”. “Government engineering and construction units” refer to the specific department or division within a government entity that provides roads works and services.

**Figure 3.3: Poor Governance and Corruption Hotspots in the Road Infrastructure Sector**



### Source List 3.1: Transport Sector Structure and Governance

Source	Description
<b>Useful country-level indicators</b>	
<b>Cavill, S. and Sohail, M (2007) "A note on Research Methodology for Combating Corruption"</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, at 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.
<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>i</sup>
<b><a href="#">Transparency International's Corruption Perception Index</a></b>	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. 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>ii</sup>
<b>The Asia Foundation's Governance Surveys</b>	The Asia Foundation has conducted several surveys on governance and corruption in Asian countries. The Foundation uses the surveys to develop country-specific indexes. Recent surveys have resulted in the development of Corruption Benchmarking in Mongolia, a Local Economic Governance Index in Indonesia, and a Provincial Competitiveness Index in Vietnam.
<b>United Nations Development Programme (not dated) <a href="#">"Sources for Democratic Governance Indicators"</a></b>	This document was prepared for governance practitioners in the United Nations Development Program'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>iii</sup>
<b><a href="#">World Bank Country Policy and Institutional Assessment indicators</a> (CPIA)</b>	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>12</sup> A low accountability score might indicate a higher susceptibility to corruption, and certainly suggests poor governance generally. <sup>iv</sup>

<sup>12</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>)

<a href="#"><b>World Bank Institute Worldwide Governance Indicators</b></a>	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>v</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 4,000 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>vi</sup>
<b>World Bank and International Finance Corporation "Doing Business" &amp; "Enterprise" surveys</b>	The "Doing Business" surveys provide objective measures of business regulations and their enforcement across 181 countries and selected cities at the sub-national level. The economies are then ranked on the ease of doing business (from 1 to 181, with 1 being the best). 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>vii</sup> 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>viii</sup>
<b><i>Limitations of country-level indicators</i></b>	
<b>Arndt, C. and Oman, C. (2006) "Uses and Abuses of Governance Indicators", OECD Development Centre</b>	Chapter 4 analyses the World Bank Institute's World Governance Indicators (WGI). It outlines four core problems with these indicators: <ol style="list-style-type: none"> <li>1. Likelihood of correlation of errors among the 37 sources from which the WGI is constructed limits its statistical legitimacy</li> <li>2. Unable to compare over time</li> <li>3. Biased sample</li> <li>4. Insufficient transparency.</li> </ol> This paper is available online. <sup>ix</sup>
<b>Galtung, Fredrik (2005) "Measuring the Immeasurable: Boundaries and Function of (Macro) Corruption Indices"</b>	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: <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>

<p><b>Kaufmann, D. and Kraay, A. (2008)</b>  <u>"Governance Indicators: Where Are We, Where Should We Be Going?" Policy Research Working Paper 4370, Washington, DC: World Bank</u></p>	<p>Scholars, policymakers, aid donors, and aid recipients acknowledge the importance of good governance for development. This understanding has spurred an intense interest in more refined, nuanced, and policy-relevant indicators of governance. Kaufmann and Kraay review progress to date in the area of measuring governance, using a simple framework of analysis focusing on two key questions: (i) what do we measure? and, (ii) whose views do we rely on? For the former question, they distinguish between indicators measuring formal laws or rules 'on the books', and indicators that measure the practical application or outcomes of these rules 'on the ground', calling attention to the strengths and weaknesses of both types of indicators as well as the complementarities between them. For the latter question, they distinguish between experts and survey respondents on whose views governance assessments are based, again highlighting their advantages, disadvantages, and complementarities. The authors emphasize the need to: transparently disclose and account for the margins of error in all indicators; draw from a diversity of indicators and exploit complementarities among them; submit all indicators to rigorous public and academic scrutiny; and, in light of the lessons of over a decade of existing indicators, to be realistic in the expectations of future indicators.<sup>x</sup></p>
<p><b>Keefer, P. (2004)</b> <u>"A review of the political economy of governance: from property rights to voice"</u> World Bank Policy Research Working Paper 3315, May 2004</p>	<p>Keefer reviews progress made in understanding the effects of different dimensions of governance on economic development, and the sources of good governance. Future progress in developing policy responses to bad governance will depend on separately examining the security of property rights, the quality of bureaucratic performance, corruption, voice, and accountability. Progress will also depend on explicitly linking problems of governance to the overarching political environment and the incentives of governments to correct those problems.</p>
<p><b>Kenny, C. (2007)</b> <u>"Construction, Corruption, and Developing Countries"</u> World Bank Policy Research Working Paper 4271</p>	<p>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".</p>
<p><b>Kenny, C. (2006)</b> <u>"Measuring and reducing the Impact of Corruption in Infrastructure"</u>, World Bank Policy Research Working Paper 4099</p>	<p>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 infrastructure sectors, 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. The paper recommends some priorities for infrastructure corruption research, in particular regarding disaggregated and actionable indicators of weak governance and corruption.<sup>xi</sup></p>
<p><b>Soreide, T. (2006)</b> <u>"Is it wrong to rank? A critical assessment of corruption indices"</u>, CMI Working Paper</p>	<p>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).</p>
<p><b>United Nations Development Programme (2007)</b> <u>"Governance Indicators: A User's Guide"</u></p>	<p>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>xii</sup></p>
<b>Sector Performance Indicators</b>	
<p><b>OECD (2001)</b> <u>"Performance Indicators in the Road Sector"</u></p>	<p>This OECD publication recommends common indicators and criteria that can be used to measure performance in road network management. The report also identifies the data needs and information networks required to support these indicators.</p>

<p><b>Recanatini, F. et al (2005) "Why Are Some Public Agencies less Corrupt than Others? Lessons from Institutional Reform Survey Data", Presented at the Sixth Jacques Polak Annual Research Conference, November 2005</b></p>	<p>The paper studies microeconomic data on corruption at the public agency level in ten developing countries, trying to understand which features of the agency influence corruption, and how to curb corruption inside each agency. The sources of the data are surveys of the employees working inside each public agency, as well as customers of the agency (households or firms). The authors find that corruption is influenced by two kinds of variables. On the demand side, corruption is more prevalent among agencies that provide services to firms (rather than households), and that provide an exclusive service for which there is no alternative. On the supply side, the internal organization of the agency is a major determinant of corruption. Three features of the organization are systematically associated with less corruption: having decisions regularly audited by external or internal auditors; maintaining open and transparent procedures; and basing personnel decisions on criteria of merit and professional competence. Moreover, the procedure for appointing the head of the agency also matters. Agencies whose head is popularly elected are systematically more corrupt and adopt worse internal organizations.<sup>xiii</sup></p>
<p><b>SSATP (1999) "Road Sector Performance Indicators for African Countries", the World Bank.</b></p>	<p>Table 1 of this paper presents a matrix listing seven objectives for the road sector and the performance indicators applicable to African countries that can be used to measure the fulfillment of those objectives. For each objective, performance indicators are given for three sector participants: Government Ministry, Road Administration, and Road User.</p>
<p><b>Sohail, M and Cavill, S. (not dated) "Combating corruption in infrastructure services: A tool-kit", WEDC Institute</b></p>	<p>This document provides 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.</p>
<p><b>World Development Indicators</b></p>	<p>World Development Indicators provide country-wide information on the percentage of the rural population with access to an all-season road<sup>xiv</sup>. This information is calculated based on the size of the rural population, road length, and arable land area and is complimented by household surveys.</p>
<p><b>Enterprise Surveys</b></p>	<p>The Enterprise Surveys have some infrastructure-specific questions on transport user costs and operations. For instance, the "manufacturing" questionnaire asks businesses questions like: Do you think that the transportation of goods, supplies and inputs is an obstacle to the current operations of this establishment? What was the total annual cost for transport (not including fuel)? These surveys will be useful to review for a better idea of the degree of governance in the transport sector.<sup>xv</sup></p>
<p><b>Quantitative Service Delivery Survey</b></p>	<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. 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.</p>
<p><b>DANIDA. "Monitoring and Indicators in the Road Sector."</b> <b>Ministry of Foreign Affairs of Denmark. Technical Note. 2006.</b></p>	<p>Offers a brief and non-technical introduction to indicators and monitoring tools of relevance to the road sector. Gives a brief overview of international work and proposals regarding road-sector goals, indicators and targets. Presents and assesses the typical monitoring indicators used in Danish Road Sector Programme Support (RSPS). Discusses principles of alignment and the choice of indicators in future Danish road-sector programs, offering concrete examples of indicators.</p>

<a href="#"><u>"Data and Indicators."</u></a> World Bank SSATP website.	Gives an overview of the Sub-Saharan Africa Transport Policy Program four-year initiative to develop a set of transport performance indicators. Includes data collected from each of 16 participating countries.
<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 World Bank's website. <sup>xvi</sup>
<b>Philippine Center for Investigative Journalism's "Investigation Corruption"</b>	This paper provides an example checklist of what to look for, and the types of questions to ask, when investigating corruption. <sup>xvii</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 and anti-corruption agencies. Most agencies have complaint registers where stakeholder grievances are recorded.
<b>Soreide (2006) "Business Corruption: Incidence, Mechanisms, and Consequences"</b>	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>xviii</sup>
<b>World Bank (2006) "Public-Private Options for Developing, Operating, and Maintaining Highways: A Toolkit for Policymakers"</b> Washington, DC: The 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>xix</sup>
<b>Surveys of Corruption in the Transport and Related Sectors</b>	
<b>Anti-Corruption Resource Centre, "Designing a Taxpayer Baseline Survey in Uganda"</b>	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>xx</sup>
<b>Reinnika, Ritva and Jakob Svensson. (2001) "Basic Service Delivery: A Quantitative Survey Approach"</b> World Bank	This paper discusses the main features, strength, limitations, and potential uses of Quantitative Service Delivery Surveys (QSDSs), and is available online. <sup>xxi</sup>
<b>Reinikka, R. and Svensson, J. (2001) "Explaining Leakage of Public Funds", The World Bank</b>	This article describes using Public Expenditure Tracking Surveys (PETS) as a tool for assessing the leakage of public funds in education in Uganda. It is relevant as PETS was used to track funds for transport spending in Tanzania.

<b>UN Habitat, "<a href="#">The Urban Corruption Survey</a>"</b>	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 transport, but does provide relevant advice on preparing corruption surveys. <sup>xxii</sup>
<b>World Bank Institute <a href="#">Country Diagnostic Surveys</a></b>	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>xxiii</sup>
<b>World Bank Sector Specific Diagnostic Assessment</b>	<p>The sector-level diagnostic currently developed for Mauritania, Senegal, Yemen, and Morocco are part of a pilot exercise aimed at generating policy solutions for sector-specific governance challenges. In the case of Mauritania, the project began from the interest expressed by the Mauritanian transition government (following a coup in 2005 and subsequent transfer to civilian power in 2007) to address the serious governance failures in three priority sectors—transport, public construction, and procurement. The diagnostic assessments use a multiple data gathering approach to assess the governance vulnerabilities. The approach combines (1) traditional research and in depth interviews with relevant stakeholders in the public and private sector, (2) the use of experience based survey questionnaires to generate performance benchmarks and (3) information from project audits to more specifically identify leakages and oversight failures.</p> <p>The main objective of the diagnostic exercise is to provide policy useful information while building local capacity. Thus, the World Bank management of the diagnostic is complemented by a high level of government and civil society participation. The diagnostic exercise also helps to produce locally vetted reform solutions through a participatory assessment and to build a coalition at the local level.</p>
<b><i>Corruption Risks and Sector Functions</i></b>	
<b>Kalnins, V. (2005) "Assessing Trends in Corruption and Impact of Anti-Corruption Measures", Anticorruption Network for Transition Economies</b>	This paper provides a useful analysis of different types of governance indicators, including methods for identifying corruption risks.
<b>Project Appraisal Document, "<a href="#">Philippines: National Roads Improvement and Management Program (Phase 2) Project,</a>" World Bank</b>	In response to major corruption allegations during Phase 1 of the Philippines National Roads Improvement and Management Project (NRIMP-1), the World Bank introduced a variety of measures to deter corruption in Phase 2 of the project. Annex 13 of the Project Appraisal Document describes in detail the Sector Integrity Strengthening Framework that will be implemented in Phase 2 of the project to help deter corruption. A major part of this framework involves identifying key corruption risks across the sector and describing how NRIMP-2 will address them. <sup>xxiv</sup>
<b>Stansbury, C. "<a href="#">Road Projects: How Does Corruption Occur?</a>" Global Transport Knowledge Partnership</b>	This website describes how corruption may occur in roads projects, from project selection to completion. It provides 45 generalized examples of corruption that can occur in roads projects. <sup>xxv</sup>

<p><b><u>"The Anti-Corruption Handbook"</u></b>, World Bank, East Asia and Pacific Region.</p>	<p>This handbook presents lessons learned, tools, examples and warnings for sector practitioners, drawn from World Bank staff member experiences. The handbook focuses on corruption within community orientated projects across several sectors. One of the sections discusses "drawing a map" of sector stakeholders and their interactions—practitioners have learnt from experience that this is an effective technique for understanding corruption. While much of the source material is derived from the East Asia and Pacific region, the handbook uses specific examples from 11 countries located in four different regions.<sup>xxvi</sup></p>
<p>Fischer, Pius (2006) <b><u>"Rent-seeking, Institutions and Reforms in Africa: Theory and Empirical Evidence for Tanzania,"</u></b> Springer.</p>	<p>This book presents a detailed case study on the road sector corruption in Tanzania uncovered by the <i>The Report of the Presidential Commission of Inquiry Against Corruption</i>, commonly known as the "Warioba Report." The report uncovered cost escalation in road projects ranging from 6 to 353 percent. The Warioba Report was instrumental in instigating an anti-corruption agenda in the Tanzanian government. Excerpts from the original, pre-print report obtained by the World Bank in Dar es Salaam in 1997, including pages that went missing from the published version of the report, can be found in Appendix A of this book.<sup>xxvii</sup></p>
<p>Paterson, William D.O. and Pinki Chaudhuri. "Making Inroads in Corruption in the Transport Sector through Control and Prevention" in Campos, J. and Pradhan, S. (2007) <b><u>The Many Faces of Corruption: Tackling Vulnerabilities at the Sector Level,</u></b> Washington, DC: The World Bank, page 159.</p>	<p>Explains the risks and forms of corruption throughout the value chain of public expenditures for transport infrastructure and services. Offers tools for identifying fraud and corruption. Develops strategic management mechanisms to combat corruption in the transport sector.</p>
<p>World Bank. (2007) <b><u>"Corruption Warning Signs: Is Your Project at Risk?" Good Practices in Latin America and the Caribbean. Volume 1 Number 1.</u></b></p>	<p>Highlights existing or emerging good practice from operations in the Latin America and the Caribbean Region. Contains a set of most common corruption warning signs which may appear throughout the project cycle.</p>



## 4 SECTOR POLICY AND PLANNING

This section discusses:

- Why good policy, planning, and project selection is part of good governance (Section 4.1)
- Why poor planning and project selection may indicate poor governance (Section 4.2)
- Some techniques for improving planning and project selections (Section 4.3).

### 4.1 Good Policy, Planning, and Project Selection is Part of Good Governance

Since roads are comprised of a complicated, interdependent networks, with long-lead times, long lived assets, and multiple parties involved, sensible and consistent policies and plans are needed if the sector is to work well.

Planning may take place at a national, state, regional, or local level. Ideally, lower levels plans would be "nested" within the higher level plans, which would themselves consider sub-national views and issues.

Good planning would promote efficiency and accountability by:

- Giving stakeholders a chance to be involved in developing plans
- Making the intended direction of the sector (and government) expenditure clear, and providing a justification for this
- Allowing stakeholders to judge whether actual development are in line with plans.

Good project selection would be in line with plans, and provide clear justification for why these projects are being implemented, again helping with accountability and performance.

### 4.2 Poor Planning and Project Selection may indicate Poor Governance

Poor planning and project selection may indicate poor governance. Poor planning and project selection generally involves an inefficient sector investment plan that selects projects that are not cost benefit justified and are not least cost.

Poor planning and project selection generally occur when sector planning processes do not include a well-designed method for prioritizing sector investments. Without a method in place for selecting projects, it is easier for corrupt officials to influence the planning process and selection of projects. Common problems indicating poor governance, and possibly corruption, include:

- **Bias in favor of new works.** 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 roads, which provide lucrative opportunities for corruption
- **Inappropriate project choice.** Selection of projects may be biased towards those that offer the opportunity to extract further value from project participants during project implementation.

Common problems indicating poor governance, and possibly corruption, at the level of project planning, include:

- **Project planning limited to one alternative.** Project planners should consider multiple alternatives to meeting the project's proposed needs,

including consideration for multiple modes of transportation. Not considering alternatives may be purely logistical, but could indicate poor project planning. And there may be a corrupt reason behind why, for example, project planners considered a bridge, but not a ferry

- **No economic evaluation performed.** A standard cost-benefit analysis should be used to validate the need for a project and the project alternative chosen
- **Misrepresentation of costs or benefits.** Project planners may misrepresent the costs or overestimate the benefits of a project or project alternative in order to skew the results of economic analysis. Box 4.1 notes the frequency of such misrepresentation.

#### ***Box 4.1: Systematic Underestimation of Costs in Transport Projects***

A survey of transport projects published in the APA Journal concluded that underestimation of costs at the time of decision to build is the rule rather than the exception for transportation infrastructure projects. The study surveyed a total of 258 projects made up of rail, fixed-link and road projects in North America, Europe and several developing countries. The study found that costs are underestimated in almost 9 out of 10 projects and that costs that have been underestimated are wrong by a substantially larger margin than costs that have been overestimated.

Specific findings include:

- For rail projects, actual costs are on average 45 percent higher than estimated costs
- For fixed-link projects (tunnels and bridges), actual costs are on average 34 percent higher than estimated costs
- For all project types, actual costs are on average 28 percent higher than estimated costs
- Cost underestimation appears to be more pronounced in developing nations than in North America and Europe (data for rail projects only)

The authors of the study conclude that the breadth and scope of such cost overestimation eliminates the possibility of random error. Instead, they argue that these findings indicate intentional and systematic misrepresentation, and that this misrepresentation has an economic explanation (since strategic misrepresentation of costs is in the economic self-interest of project planners). For example, when multiple projects compete for discretionary grants from a limited federal budget each year, project planners have an incentive to make their projects look better or else some other project may get the money.

Source: Flyvbjerg, Bent, Mette Skamris Holm, and Søren Buhl, "Underestimating Costs in Public Works Projects Error or Lie?" *APA Journal*, 2002. Vol. 68, No. 3.

Box 4.2 demonstrates how the United States federal earmark system, as a major piece of United States transport project selection process, facilitates poor governance in planning.

#### ***Box 4.2: The United State Federal Earmark System—How Discretionary Funding Fosters an Environment for Kickbacks***

As Chairman of the Transportation Committee in the US House of Representatives, Representative Don Young of Alaska had great influence on appropriating federal funding for transportation projects. As Chairman, the number of earmarks more than tripled—from 1,850 projects worth US\$9.35 billion in 1998 to 6,371 projects valued at US\$24.2 billion in 2005. According to federal auditors, thousands of these new earmarks weren't priorities for state transportation officials.

An investigation discovered that millions of dollars earmarked for highway projects were approved by the Congressman for people who in turn contributed to his campaign.

Specifically, the investigation found that:

- Of the US\$6.5 million in contributions that Young collected, about 85 percent came from people who didn't live in Alaska and couldn't vote for him
- According to an analysis of Young's campaign finance reports, beneficiaries of just seven earmarks carrying a total price of US\$259 million—none for a project in Alaska—gave the Congressman at least US\$575,000
- Examples of earmarks allocated by Representative Young for which he received kickbacks

include:

- A US\$5 million earmarks benefiting Syracuse, N.Y., shopping mall developer Robert Congel. The earmark funded a study of transportation projects near where Congel hopes to build North America's largest mall. Congel, his employees, family members and friends donated more than US\$33,000 to Young
- US\$100 million for a multibillion-dollar project to add four truck lanes to a 325-mile span of Interstate 81. The plan was scaled back dramatically after an environmental review. However, executives of many of the 40 companies backing the plan, their family members and political action committees gave Young US\$237,000
- US\$32 million for five California projects backed by Young's friend and colleague, then-Republican Congressman Richard Pombo. One of the projects included a highway interchange in Pombo's hometown of Tracy near San Jose, where he and his family had extensive real estate holdings. Young collected more than \$34,000 at a San Jose area fundraiser in April 2004.

Young is under investigation by the Federal Bureau of Investigation and the US Justice Department for his relationship with campaign donors. In light of the investigations, Republican members of the House of Representatives have removed Young from his position as ranking Republican member on the Transportation Committee for the 2010 term.

Source: Gordon, Greg and Erika Bolstad. "Alaska lawmaker promoted earmarks, raked in cash." McClatchy Newspapers. 11 November 2007.

#### **4.3 Improving Planning and Project Selection can Improve Governance**

To ensure that the "best" projects—those that represent highest value for money, and provide citizens with the roads and road conditions they desire—are consistently selected, the planning process used by sector planners needs to be sound. A good sector planning process needs to:

1. **Forecast need for expansion and asset preservation.** This should ideally involve a combination of realistic projections (based on valid assumptions about current traffic demand and forecasted traffic growth), the periodic collection of data from the road network (such as information on road conditions and road access), and user preferences (identified through stakeholder consultation)
2. **Develop a least-cost expansion plan for satisfying need.** 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
3. **Implement that plan.** Ideally, every project identified in a sector plan would be correctly evaluated at the planning stage. However, in reality it is not feasible for sector planning purposes to evaluate projects at the level of detail required to make decisions about implementing specific projects. Therefore, each project should be individually evaluated to ensure that it is cost benefit justified, and least cost.

Government officials involved in sector planning may understand the importance of a sound planning process in principle, but may have difficulty in moving from an existing, inefficient system to a planning process which identifies relevant and efficient solutions.

#### **Techniques to improve planning**

A sound planning process can be facilitated by inputs that improve planners' ability to effectively evaluate the road network. The following measures can provide inputs that improve planners' effectiveness:

- **Good data collection.** Good data collection is an essential component of forecasting the need for new works, maintenance and rehabilitation. Box 4.3 explains how data collection took place in Timor-Leste during the development of a sector investment plan

- **Using road management tools.** Once data has been collected on the entire road network, sector planners must determine which combination of possible projects ensures the best performance and value-for-money of the network. Due to the complexity of this evaluation process, and its importance to the performance of the road network, many sector planners have turned to road management tools, such as RED or HDM-4, to help identify which projects should be implemented and what level of investment is required. Box 4.4 describes several types of road management tools useful in varied country circumstances.

#### **Box 4.3: Data Collection for Investment Planning**

Timor-Leste has a small national road network, but a high road density and proportion of paved roads per capita relative to its population density and level of economic development. Timor-Leste's core road network contains 1,400 kilometers of national roads and 800 kilometers of district roads.

In order to develop a road sector investment plan, a planning team carried out an analysis of the road network. The planning team felt that a thorough analysis of current infrastructure was an essential task to be undertaken before proceeding with providing funding for a specific project.

The planning team took the following steps to collect data on current conditions of the road network:

- Measured the entire primary and secondary road networks using the global positioning system (GPS)
- Divided the core network into homogeneous sections. The team attempted to minimize the number of sections in order to enhance the overall clarity of the analysis, but ensured that these sections were homogeneous in terms of traffic patterns and engineering characteristics
- Surveyed 1,600 kilometers of roads, including all national roads, carrying out a large number of traffic counts around the country on these roads
- Surveyed roughly one-quarter of the 800 kilometer district road network, carrying out traffic counts on almost half of them.

The table below shows the data gathered by the planning team.

**General Surface Conditions of the Core Road Network in 2005**

Road Network	National		District		Total	
	Km	%	Km	%	Km	%
Paved						
Good or fair	791	61	211	42	1,022	56
Poor or very poor	506	39	291	58	792	44
Subtotal	1,297	100	502	100	1,799	100
Unsealed						
Good or fair	0	0	43	14	43	10
Poor or very poor	108	100	267	86	375	90
Subtotal	108	100	310	100	418	100
Total	1,405		812		2,217	

The team also analyzed demand for roads based on road traffic conditions and future estimates. To forecast demand, the team:

- Reviewed existing traffic data in Timor-Leste. This showed scarce traffic data that was not consistent over the years and was considered unreliable
- Completed a series of traffic counts at strategically located stations. Traffic counts were conducted in about 30 locations that were defined and prioritized so as to concentrate the team's time and resources on the Timor-Leste priority roads and other candidate roads as determined by the team
- Assessed seasonal variations of traffic, taking into account the main factors driving changes in traffic patterns—the rainy season and the season for coffee production.

Source: Asian Development Bank. "Timor-Leste: Road Sector Investment Planning in the Pacific, An Example of Good Practice." Pacific Studies Series. July 2007.

Box 4.4 describes four road management tools for developing countries.

#### **Box 4.4: Road Management Tools for Developing Countries**

Many countries use road management systems to evaluate the road system as a network. These systems perform high level analysis of the network by using inputs provided by sector managers to appraise conditions, determine needs, and evaluate costs, economic impact and network performance. Several examples road management systems developed for use in developing countries include:

**Highway Development and Management System (HDM-4)**—HDM-4 can be used for both project and network evaluation. At the project level, HDM-4 is commonly the basis for an evaluation of economic viability. At the network level, HDM-4 can be used to help decision makers develop a strategic plan for road investments, with or without budget constraints. A drawback of HDM-4 is its requirement for extensive data to produce helpful results.

**Road Economic Decision Model (RED)**—RED is a consumer surplus model designed to help evaluate investments in low volume roads. The model is implemented in a series of Excel workbooks that: collect all user inputs; present the results in a user-friendly manner; estimate vehicle operating costs and speeds; perform an economic comparison of investments and maintenance alternatives; and perform sensitivity, switch-off values and stochastic risk analyses.

**Road Network Evaluation Tools (RONET)**—RONET assesses the current characteristics of road networks and estimates future performance depending on different levels of network intervention. RONET has many configuration options for use in African countries and other developing countries. It was fully released in October 2007.

**Performance Assessment Model (PAM)**—PAM allows decision makers to decide between options for road maintenance funding based on an analysis of the level of performance achieved by the road network and economic impact when various options are considered. It can also be used at the evaluation stage to measure the actual performance achieved by the road network in comparison to the targeted performance.

Source: Sub-Saharan Africa Transport Policy Program. "Road Management and Financing Tools." The World Bank. 2009. <http://go.worldbank.org/2VD3CR0LB0>

#### **Techniques to improve project selection**

Improving project selection relies on an economic analysis that is transparent, objective, and reliable. Although many practitioners conduct some form of basic economic and financial analysis for each roads 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 analysis to justify a pre-determined project choice.

In any economic evaluation, several key features are important to consider. Specifically, sector practitioners should ensure that planners have included in the economic evaluation:

- The "no build" alternative. It may be, for example, that project participants have proposed the least-cost build alternative, but this does not mean that the least-cost build alternative is more efficient than not building
- Lifetime costs of the project. Asset preservation costs, including maintenance and rehabilitation, should be included in the economic evaluation both to ensure project sustainability and to accurately determine the most efficient project alternative
- Appropriate discount rates. Officials can bias capital intensive projects by using low discount rates during evaluation. Sector practitioners should ensure that discount rates reflect the true time value of the public sector resources.

An economic evaluation is not valuable if inputs in the analysis have been distorted. To increase probity in the economic evaluation—especially for major works projects—sector practitioners should encourage external scrutiny of the evaluation process. External observers should review both the proposed need for a project and the economic analysis that justifies that project. Possible sources of consultation for an external review include:

- A line ministry or government agency, not involved in the planning process, but with relevant expertise
- Private sector consultants. A hired consultant should review both the reliability of the inputs and the methodology of the economic analysis
- Relevant interest groups. Interest groups may be able to comment on the proposed need for the project and any benefits that, on a qualitative level, seem unreasonable.

Other practices that can improve project selection include:

- Balancing technocratic criteria and democratic input
- Empowering citizens.

#### **Balancing technocratic criteria and democratic input**

Box 4.5 provides an example of trying to find a balance between technocratic criteria and democratic input when selecting projects.

#### ***Box 4.5: Transport Funding in New Zealand—Being too Technocratic can be Counter-Productive***

Starting in 1986, the Government of New Zealand radically reformed transport governance. Before the reforms, New Zealand's national highways were the responsibility of a National Roads Board, while planning, design and construction were all carried out by the Ministry of Works, and funded through annual appropriations. The key reform steps—widely regarded internationally as best practice, included:

- Separating commercial functions from policy, planning and regulation by corporatizing (in 1988) and then privatizing (in 1996) the engineering and construction units of the former Ministry of Works
- Creating Transit New Zealand (in 1989) as a corporate entity responsible for managing the national highway network, and required to competitively contract out all consulting, maintenance and construction work
- Creating a multi-year road fund and an independent transport funding agency, Transfund, in 1995. Before 1995, Transit New Zealand was responsible for both managing national highways and allocating roading funds to local authorities. Local authorities complained that this created a conflict of interest, and so the funding and national highway responsibilities were separated. Transfund was given statutory responsibility for choosing which projects to fund, independently of both local and national government.
- Making project selection on a rational, benefit-cost driven basis. Transfund decided which projects should be funded, using a benefit-cost model. Projects were ranked from those with the highest benefits per dollar of funding down, and funding was allocated by starting at the top of the list and going on down until all available funds were committed (the point at which the funds ran out was generally at a benefit-cost ratio of four).

There is no doubt that moving construction and engineering services into the private sector in order to focus government on policy, planning, funding, and competitive contracting, was desirable.

Yet New Zealand arguably took a step too far in trying to make project selection and funding entirely technocratic. While this seemed like a good idea at first, it had a number of deficiencies in practice. Clearly, funding only those projects with a benefit-cost ratio above four means that many beneficial projects are not built. Moreover, the system did not generate political support for increasing funding. Partly as a result of the limited funding, small incremental improvements were selected over potentially transformative and strategic options. Moreover, the system was unable to counteract the vagaries of local politics in Auckland—home to nearly a third of the

country's population—so the urban highway network the city needs remained stalled.

In time, elements of the funding reforms were rolled back, bringing more political control over spending decisions. There were rumors that the Prime Minister in 2006 personally instructed the independent board on the decisions it should make. Certainly Cabinet starting approving additional funds for major projects of national interest. This increased transport funding, but also meant that project selection reverted to political rather than technocratic criteria. Planning, funding and highway management have recently been reintegrated into a single body—the New Zealand Transport Agency. While the Agency continues to have an independent board, it is now required to take account of statements of government priority.

The lesson may be that, rather than aiming for completely rational and independent decision-making, sustainable good governance regimes for transport should provide a balance between rational analysis and democratically accountable decision-making.

Source: Organisation for Economic Co-operation and Development (2001) *Performance Indicators for the Road Sector*, and Castalia research

## **Empowering citizens**

Citizen demand for good roads is an important factor in ensuring that providers deliver good road 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.

### **Information**

To demand good road services, citizens need information on what level of service they are actually getting, and what level of service they could reasonably expect. Box 4.6 shows how knowledge and information enlightened citizens about their rights and prompted them to protest corruption in local roads projects.

#### **Box 4.6: Community Unites to Protest Against Poor Construction Work**

"*Fort Portal protests over poor road works*" read the newspaper headlines in the Rwenzori region of Uganda in June 2007. For some people it was unbelievable to see religious leaders, the Mayor of Fort Portal municipality, Civil Society Organisations (CSOs) and students, side by side in peaceful protest, despite their different political backgrounds and ideologies.

However, for the Kabarole Research and Resource Centre (KRC), the sight of Fort Portal residents taking to the streets together, with placards that read "*No to corruption and shoddy work, where is value for money?*", was a testament to their successful work educating local communities about their rights.

For a number of years KRC has worked towards stimulating awareness of the responsibility of individuals, local leaders and CSOs to contribute towards development and good governance. Brainstorming fora, such as dialogues, retreats, and radio programmes, are used to facilitate a process in which local stakeholders can understand conflict, development, corruption, political harmonisation and the potential for reconciliation in the Rwenzori region and Uganda as a whole. Retreats held at the Kasunga Training and Conference Centre have identified challenges such as corruption in public and private institutions, and the need for economic empowerment in the region. Open discussion and reflection on these issues has enlightened local stakeholders on their rights and entitlements, particularly in the area of service delivery.

Development partners are awakening to the concept that knowledge is power, and that for critical analysis of development programs the community must be empowered with information. KRC has spearheaded the process with its 'Poverty Resource Monitoring and Tracking Model' (PRMT) and the 'Civil Society Radio Program' (CSR), which has the sole aim of empowering local communities to actively advocate for their entitlement to improved service delivery and sustainable development initiatives. As a result of these sensitisation activities and the space afforded by retreats and radio talk shows to engage with their leaders, communities are actively demanding accountability from their service providers.

The Fort Portal protests reflected the concern of local stakeholders about the work done by the China Chongqing International Construction Corporation (CICO) on the Fort Portal to Hima

Road. Areas of the completed road were already developing potholes. A petition was handed to Mr Ndiwa Chepkongin Chemasuet, Resident District Commissioner (RDC) of Kabarole District. Due to the demonstration, the Commissioner of Roads from The Ministry of Works, the Chinese Embassy, the Ministry of General Duties and local leaders, were forced to inspect the road and several action meetings were held. An agreement was reached that no payment would be made to CICO until the construction was improved to the required standard.

Source: International Forum for Rural Transport and Development (2007) "Governance in Rural Transport and Development" *Forum News*, Vol 14(1), December 2007.

Methods for increasing information on current levels of service above and beyond information gained from individual household experience or casual neighborhood discussions include:

- **Requiring 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
- **Using report cards, surveys or consumer meetings** to gather a wide range of consumer feedback on performance. Box 4.7 shows how surveys of road conditions conducted by children successfully instigated government response
- **Establishing rules** for providing consumers with information on request, ideally via a dedicated consumer services department.

#### ***Box 4.7: Survey of Road Quality Conducted by School Children in India***

Bangalore's Children's Movement for Civic Awareness (CMCA) organized for school children to carry out surveys of road conditions between April and May 2000. Children from 28 schools participate, using surveys and checklists to assess the quality of Bangalore's roads. The survey helped citizens hold their public officials accountable, and gave school children the experience of civic empowerment.

The children, between 12 and 14 years old, were told that standing water ruined the roads, and needed to be drained. Lecturers explained the critical factors: the drainage system, impediments to road safety, and the quality of the riding surface.

The children did site visits to 23 roads to carry out surveys and fill out checklists. Some of the items covered were:

- Presence of side drains
- Evenness of the surface of the footpath
- Obstructions to pedestrians
- Number of potholes
- Number of cracked areas
- Presence of signs or painted lines to indicate a road hump, and
- Unfilled or uncompacted diggings for electrical or telephone cables.

The checklist included instructions like, "look for spots where the opening of the shoulder drain is at a higher level than the road surface (i.e. water cannot freely flow to the drain)."

The results of the survey captured the poor quality of the roads. The children presented their findings to the Bangalore municipal commissioner at a public hearing, and made headlines in the city's newspapers.

The municipal commissioner ordered his officials to take immediate steps to upgrade the roads. Citizens saw visible improvements in road maintenance. For example, many observed filled-in potholes. The municipal commissioner's office has continued to quickly respond to poor quality road complaints following the children's initial road survey. Some schools have continued to participate with CMCA, notifying the commissioner's office of poor quality roads. Within 10-15 days, road maintenance has begun on those roads.

Source: Arroyo, Dennis M. "Even kids can stop corruption in infrastructure." From Inquirer News Service posted on Transparent Accountable Governance (TAG) project website. 2 August 2004.

### Source List 4.1: Sector Policy, Planning, and Funding

Source	Description
<b>Policy and Planning</b>	
<b>Pemberton, Simon. (2000) "Institutional Governance, Scale and Transport Policy – Lessons from Tyne and Wear." Journal of Transport Geography. 8:4.</b>	<p>This paper uses several theoretical frameworks to highlight issues of institutionalization, scale, and the role of the state in the governance of transport policy. The importance of the central state in deriving policy, and the relationships developed between new, as well as existing (institutional) actors operating sub-nationally is argued to be crucial to developing more effective processes of governance for transport.</p>
<b>Bickerstaff, Karen, and Gordon Walker. (2005) "Shared Visions, Unholy Alliances: Power, Governance and Deliberative Processes in Local Transport Planning," Urban Studies, 42: 12.</b>	<p>This paper looks at the upsurge of participatory rhetoric in local governance. The paper investigates two case studies of deliberative exercises used by local authorities to develop their local transport plans. The research, across a range of stakeholder groups, reveals a problematic relationship between citizen involvement and established structures of democratic decision-making. Attention is drawn to the institutional constraints which account for the limited realization of the participatory agenda in local governance. Conclusions are developed relating to both the process of participation evaluation and the wider consequences of the expansion of public involvement for the renewal of local democracy.</p>
<b>Vigar, Geoff. (2002) "<u>The Politics of Mobility: Transport, the Environment and Public Policy,</u>" Taylor &amp; Francis.</b>	<p>Examines the idea that a "predict and provide" approach is being displaced by an emergent "new realism" in transport planning. This shift entails the development of demand management as a potential new discourse for the discipline with implications for the relevance of this discourse in wider governance contexts. The book presents case studies of local transport policy-making and in-depth analysis of UK national transport policy in the period 1987–2000 to highlight how policy was promoted and resisted. Unlike other contemporary studies of transport policy-making, it does this through pioneering a detailed methodological and theoretical framework derived from the social and political sciences.<sup>xxviii</sup></p>
<b>Bickerstaff, Karen and Gordon Walker. (2001) "<u>Participatory Local Governance and Transport Planning,</u>" Environment and Planning A, 33:3.</b>	<p>Evaluates public participation in local transport planning in the United Kingdom. Examines the rationales, methods, and outcomes of recent public participation initiatives in the context of a new emphasis on participation in central government policy rhetoric and planning guidance. Identifies failures of current practice and the barriers which constrain further development.<sup>xxix</sup></p>
<b>World Bank (2005) "<u>Economic Evaluation Notes,</u>" Transport Notes, TRN-5 to TRN-26</b>	<p>These notes were developed in response to requests for help in applying both conventional cost benefit analysis in transport and addressing newer topics of interest. The notes are arranged in four groups:          TRN-5 provides the context within which economic evaluation is used in the transport sector          TRN-6 to TRN-10 provide criteria for selecting a particular evaluation technique or approach          TRN-11 to TRN-17 address the selection of values of various inputs to the evaluation, like the "treatment of maintenance" or "sources of operating costs"          TRN-18 to TRN-26 deal with specific problematic issues in economic evaluation.<sup>xxx</sup></p>
<b>Hine, John (2008) "<u>The Economics of Road Investment,</u>" ETWTR.</b>	<p>This presentation gives an overview of the questions that should be asked when deciding whether a road project should be financed. Details are given about how to quantitatively assess the costs and benefits of different design alternatives, with special emphasis placed on considering the "without" alternative. A brief summary of the different approaches to analyzing costs and benefits is given along with the advantages and disadvantages of each approach.<sup>xxxi</sup></p>

Source	Description
<p><b>Rioja, Felix K. (2003)</b>  <b>"Filling Potholes: Macroeconomic Effects of Maintenance vs New Investments in Public Infrastructure", Journal of Public Economics, v87, n9-10: 2281-2304</b></p>	<p>This paper analyzes the reasons and effects of neglecting maintenance of existing public infrastructure in favor of building new infrastructure in developing countries.</p>
<p><b>Flyvbjerg, B (2005)</b>  <b>"Policy and Planning for Large Infrastructure Projects: Problems, Causes and Cures", Policy Research Working Paper, No 3781, The World Bank, Washington, D.C.</b></p>	<p>This paper focuses on problems and their causes and cures in policy and planning for large infrastructure projects. First, it identifies the main problems in planning for major infrastructure. Second, the paper explores the causes of misinformation and finds that planners and promoters deliberately misrepresent costs, benefits, and risks in order to increase the likelihood that it is their projects, and not the competition's, that gain approval and funding. Finally, the paper presents measures for reforming policy and planning for large infrastructure projects, with a focus on better planning methods and changed governance structures.<sup>xxxii</sup></p>
<p><b>Lee, John and John L. Hine (2008)</b>  <b>"Preparing a National Transport Strategy: Suggestions for Government Agencies in Developing Countries," the World Bank Group Transport Papers</b></p>	<p>This report aims to assist policy makers and planners in developing countries in the preparation of a National Transport Strategy (NTS). The report highlights lessons that can be learned from NTSs developed by different countries around the world. It draws upon transport strategy and policy documents from 23 countries and from a range of World Bank source material. At each stage of the development of the NTS, a checklist of considerations is given, and, where appropriate, examples of good and bad practice are identified.<sup>xxxiii</sup></p>
<p><b>Archondo-Callao, R. (2008) "Applying the HDM-4 Model to Strategic Planning of Road Works," World Bank Group Transport Papers</b></p>	<p>This technical note presents experience applying HDM-4 and its predecessor, the Highway Design and Maintenance Standards Model (HDM-III), to road network strategic planning evaluations in developing countries. The note aims to provide recommendations and tools to the readers who are involved in strategic planning activities. The purpose of the evaluations, the methodology itself, the input requirements, the challenges, and the presentation of results to decision makers are each reviewed.<sup>xxxiv</sup></p>
<p><b>Archondo-Callao, R. (2001) "Road Economic Decision Model (RED) for Economic Evaluation of Low Volume Roads" Washington, DC: World Bank</b></p>	<p>Provides summary description of the Road Economic Decision Model (RED). RED is a valuable economic evaluation tool for assessing benefits of rural road investments. It is specifically designed to provide a good framework for economic evaluation that is customized for low-income roads.</p>
<p><b>World Bank (1998), Handbook on Economic Analysis of Investment Operations. Washington, DC: The World Bank.</b></p>	<p>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 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.</p>

Source	Description
<b>Sub-Saharan Africa Transport Policy Program.</b> "Road Management and Financing Tools." The World Bank. 2009.	Reviews a range of tools available for managing road networks. Provides a guide aimed at politicians and high-level decision makers in road authorities, as well as technicians and practitioners to help orient the choice of the tool the most adapted to the local conditions and demand.
<b>Flyvberg, Bent, Mette Skamris Holm, and Søren Buhl,</b> "Underestimating Costs in Public Works Projects Error or Lie?" APA Journal, 2002. Vol. 68, No. 3.	Discusses a survey on cost underestimation in transport projects. The paper argues that frequency of cost underestimation indicates that cost misrepresentation is intentional. Provides recommendations to policy makers on how to avoid systematic cost misrepresentation.
<b>Asian Development Bank.</b> "Timor-Leste: Road Sector Investment Planning in the Pacific, An Example of Good Practice." Pacific Studies Series. July 2007.	Examines the lessons learned from Timor-Leste road sector planning in the context of poverty reduction and sustainable development. Provides practitioners with pragmatic analytical tools and methods to develop necessary short-, medium-, and long-term road network plans, maintenance plans, and institutional strengthening. While this paper focuses on the planning process of the road network itself, health and competition in the transport services industry are equally important so that the benefits of the improved road network are shared among all segments of the society.
<b>Funding</b>	
<b>"Paving Our Way: A New Framework for Transportation Finance."</b> Final Report of the National Transportation Infrastructure Financing Commission. February 2009.	This report offers the results of the National Transportation Infrastructure Financing Commission's investigative efforts and deliberations on financing transport infrastructure in the U.S. It provides a new framework for policy makers responsible for financial stewardship of the nation's surface transportation network. <sup>xxxv</sup>
<b>Reinikka, R. and Svensson, J. (2001)</b> "Explaining Leakage of Public Funds", The World Bank	This article describes using Public Expenditure Tracking Surveys (PETS) as a tool for assessing the leakage of public funds in education in Uganda. It is relevant as PETS was used to track funds for transport spending in Tanzania.
<b>Staley, Sam. (2008)</b> "Mobility First: A New Vision for Transportation in a Globally Competitive Twenty-first Century," Rowman and Littlefield Publishers.	Chapter 11 discusses the gap between transport infrastructure needs and transport infrastructure funding. It advocates a direct user-fee system and changing roles for federal, state and local government in funding transport infrastructure.
<b>Carruthers, Robin. (2005)</b> "Why and When Road Funds are a Good Idea"	Presentation provides an overview of Road Funds and discusses what they are designed to do. Covers minimum conditions for a road fund to work and when a road fund is and is not a good idea.
<b>Sector Structure and Inter-governmental Regulation</b>	
<b>Docherty, Iain. (2004)</b> "State Intervention in Contemporary Transport," Journal of Transport Geography, 12:4.	This paper reviews the reasons for the re-engagement of governments in the delivery of transport policy away from the trends towards deregulation, privatization, and other reforms that have characterized planning and service delivery in transport. The paper applies the conceptualizations and theoretical approaches of the 'new economic geography' to explore the changing role of the state in 21st century transport.

Source	Description
<b>Bardhan, P and D. Mookherjee (2003), "Decentralization and accountability in infrastructure delivery in developing countries", Boston University</b>	This article analyzes whether decentralization improves government accountability in providing infrastructure services, including roads. The effects of decentralization on service volumes, efficiency and equity are analyzed under different financing arrangements for local governments. The study seeks to isolate the effects of corruption from the possibility that efficiency is reduced because of limited technical or administrative capacity of local government officials. <sup>xxxvi</sup>
<b>Jhala, Raymond A. (1998) "Involvement of Road Users in the Management of Roads: The Zambia Roads Board Experience," Workshop on Road Management and Finance, National Roads Board of Zambia.</b>	Presents a case study of the implementation of a National Roads Board in Zambia. The paper covers reasons for the introduction of the Roads Board, what policy reforms were implemented, changes to institutional structure, and a detailed description of the functions of the Roads Board. Emphasis is placed on: <ul style="list-style-type: none"> <li>▪ Transparency and accountability</li> <li>▪ Financial management</li> <li>▪ Bottom-up public support</li> <li>▪ Road maintenance.</li> </ul>
<b>Stough, R. and Rietveld, P. (1997) "Institutional issues in transport systems" Journal of Transport Geography, 5:3.</b>	This paper examines the institutional stress that is being created as the traditional transportation institutional framework is being forced to accommodate a wider than traditional range of objectives and interests at the same time that there is rapid change in transport technology. The analysis focuses on both the United States and Europe and offers a research agenda for institutional issues in transportation.
<b>Meligrana, John F. (1999) "Toward Regional Transportation Governance: A Case Study of Greater Vancouver," Transportation, 26: 4.</b>	This paper discusses the evolving institutional structure and governance of transportation planning, policy development and transit delivery within the Greater Vancouver area. The paper explores various methods of transportation governance from complete independence to full regional integration. The move away from a direct provincial role in transportation management to a greater regional transit authority is discussed and critiqued.

## **5 CAPITAL WORKS**

Corruption in capital works happens in many ways including bribes, kickbacks, collusion, bid rigging, and fraud. These activities can take place in the following areas:

- Selection and award of contract(for instance, restrictive or deceptive bid specifications)
- Design and construction specifications (for instance, padding of design and cost estimation)
- Project supervision (for instance, false certification of compliance)
- Contract claims (for instance, falsifying need or quantities in change orders)

In Section 5.1 we suggest methods for detecting corruption in capital works, and in Section 5.2 we give examples of how to increase probity in capital works. The discussion in this Section is limited to contracted out works (government construction units are covered in Section 6 and PPP contracts in Section 7).

### **5.1 Detecting Corruption in Capital Works**

Capital works refers to major road construction works. Detecting corruption in capital works matters because of the high costs of corruption. Transaction costs of capital works can reach from 5 to 20 percent due to corruption. Further, corruption in capital works can compromise returns on road infrastructure investment. In the case of one Indonesian roads project, for example, each dollar's worth of stolen materials reduced returns to the project by \$3.41.<sup>13</sup>

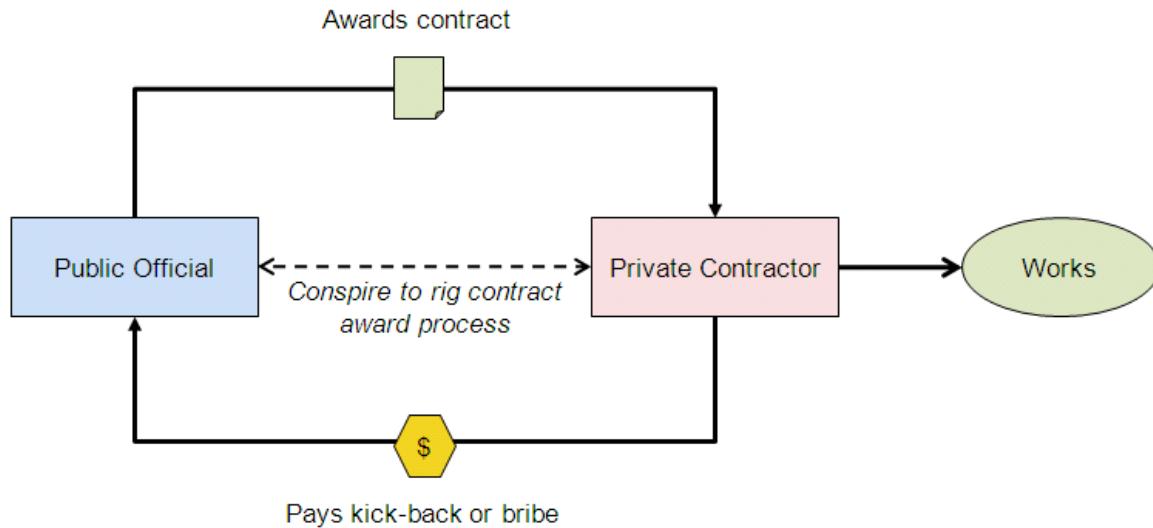
This section first focuses on the most obvious display of corruption in capital works: the selection and award of contracts. Figure 5.1 demonstrates how public officials and private contractors may engage in corruption to misappropriate value from a capital works project. Corruption in capital works can, however, be more subtle, for instance in:

- Design and construction specification
- Project supervision
- Contract claims and variations

Box 5.1 identifies indicators that may raise a "red flag" that corruption is present at each stage of a capital works project.

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<sup>13</sup> Kenny, Charles. "Infrastructure Governance and Corruption: Where Next?" *Policy Research Working Paper 4331*. The World Bank. August 2007.

**Figure 5.1: Corruption in Procuring Capital Works****Box 5.1: Red Flags in Capital Works**

Red flags indicate that a closer look should be taken at an area or activity. Red flags do not indicate fraud or corruption necessarily—they may result from poor management decisions or negligence. They do indicate that further inquiry should be made into the areas or activities in question. The following subsections list red flags that may indicate fraud or corruption at each stage of a capital works project.

**PRE-SOLICITATION PHASE**

- Release of information by firms participating in project design to contractors competing for the contract
- Designing “pre-qualification” standards or specifications to exclude otherwise qualified contractors
- Splitting up requirements to get under small purchase requirements or to avoid prescribed levels of review or approval
- Information leaks to contractors or their representatives by technical or contracting personnel
- Justifications for sole source or negotiated procurement signed by officials without authority or bypassing required levels of review

**SOLITATION PHASE***Preparation of Bidding Documents:*

- Rigged specifications to meet the qualifications of one particular contractor
- Placing any restrictions in the solicitation documents to restrict competition
- Restricting procurements to exclude or hamper any qualified contractor
- Limiting the time for submission of bids so that only those with advance information have adequate time to prepare bids
- Revealing any information about procurement to one contractor, which is not revealed to all (from either technical or contracting personnel)
- Conducting bidders’ conference in a way which invites bid rigging or price fixing, or permits improper communications between contractors
- Failure to assure that a sufficient number of potential competitors is aware of the solicitation

- Improper communication with contractors, or improper social contact with contractor representatives
- Government personnel or their families acquiring a financial interest or employment in a contractor or subcontractor
- Special assistance to a contractor in preparing bid
- Referring a contractor to a specific subcontractor

*Proposal Submission*

- Improper acceptance of late bid
- Falsification of documents or receipts to get a late bid accepted
- Withdrawal of the low bidder (who may become a subcontractor to the higher bidder who gets the contract)
- Collusion or bid rigging between bidders (Indicators of bid rigging: (i) identical bids are received; (ii) a number of bids are received that are much higher than published costs of previous contracts of the same type, or of previous bids by the same firms for similar contracts; (iii) fewer firms bid than would normally be expected from that industry; (iv) there is an inexplicably large gap between the winning bid and all other bids; (v) apparent recurring patterns of low bids, such as corporations always winning a bid in a certain geographical area, or other patters indicating collusive division of territory, or in a particular rotational sequence vis-à-vis other bidders; (vi) the successful bidder subcontracts work to companies that submitted higher bids on the same project; (vii) bids are very close on non-standard items with no suggested retail price; (viii) correlation between contractor that win the bids and the size of the contracts; (ix) certain contractors always bid against each other or conversely certain contractors do not bid against one another; (x) competing contractors regularly socialize, or contractors and government procurement personnel socialize.
- False certifications/information of contractor (size of business certification; certification of independent price determination; financial capabilities; performance; companies conducting business under several names; etc)
- Change in bid after other bidders' prices are known

*Bid Evaluation*

- Improperly disqualifying or discarding the bid or proposal of a contractor
- Accepting non-responsive bids from preferred contractors
- Unnecessary contacts with contractor personnel by persons other than the contracting officer during solicitation, evaluation and negotiation processes
- Any unauthorized release of information to a contractor or other person
- Any exercise of favoritism toward a particular contractor during the evaluation process
- Use of biased evaluation criteria or biased individuals on the evaluation panel
- Documents from competing firms contain similar or identical: (i) company names; (ii) handwriting/signatures; (iii) company stationary; (iv) invoice numbers (in sequence); (v) telephone numbers.

**POST-SOLICITATION PHASE**

*Contract Attribution and Signature*

- Award of a contract to a contractor who is not the lowest responsible, responsive bidder
- Disqualification of any qualified bidder
- Allowing a bidder to withdraw without justification
- Failure to forfeit bid bonds when a contractor withdraws improperly
- Material changes in the contract shortly after award
- Awards made to contractors with an apparent history of poor performance
- Awards made to the lowest of a very few bidders without re-advertising considerations or without adequate publicity
- Awards made that include items other than those contained in bid specifications
- Awards made without adequate documentation of all pre-award and post-award actions including all understandings or oral agreements
- "Back-dated" or after-the-fact justifications may appear in the contract file or may be signed by persons without the authority to approve noncompetitive procurement
- Contractor misrepresentation as to costs during negotiations
- Failure of government personnel to obtain and rely upon pricing data

*Execution, Supervision and Control*

- Receipt of works and services is certified even though physical inspections have not been performed
- Contractors fail to meet the contract terms but nothing is done to force compliance
- Unsuccessful bidders become subcontractors after the contract is awarded
- The labor of government employees is used to perform parts of contracted work
- Contract files are either incomplete or missing required documents
- Contract documents are altered, backdated, or modified to cover deficiencies
- Fictitious or inordinate time frames and dates are entered on contractor records (e.g. maintenance; inspection; receipt of reports)
- Contract deviations by means of changes requested and granted immediately after contract award
- Used or inferior products are substituted for the product actually ordered
- Defective pricing, which might include: (i) persistent defective pricing; (ii) repeated defective pricing involving similar patterns or conditions; (iii) failure to correct known system deficiencies; (iii) indications of falsification or alteration of supporting data; (iv) protracted delay in release of data to government to preclude possible price reductions; (v) identical or nearly identical high salary history data on employees or consultants.
- Employment of people known to have previously perpetrated fraud against the government

*Payments*

- Contractors are overpaid or paid twice for the same items/services and there is no attempt to recoup the overpayments
- Accounting reconciliation is not performed regularly relative to (i) contract payments; (ii) daily transactions; (iii) inventory.
- Cost proposal data that is incorrect or less than current or complete
- Billings (including progress payments) not adequately supported by project status or reliable cost data (including duplicate or altered invoices; double billing; etc)
- Significant increase in price without corresponding increase in work
- Substantial subcontracting without the knowledge and approval of contracting officer
- Failure to meet specifications

Source: World Bank. Project Concept Note, Annex 13: Improved Governance Framework and Project Action Plan. Paraguay Road Maintenance Improvement Project.

### Detecting corruption in selection and award of contract

Corruption in the tender process typically falls into three categories:

- **Bribes and Kickbacks**—key decision makers seek to manipulate the procurement process to award the work to a particular contractor, in return for a payment from that contract. Bribes are payments received in advance, in return for an agreement 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 pre-determined firm)
- **Bid rigging**—includes actions that influence a bid in a non-competitive way to achieve a prearranged objective. For instance, bid rigging could include some type of information or procedural asymmetry to tip the scale in favor of a contractor or consortium (as in, sole-source contracts or manipulated bid specifications)
- **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, and agreement to not carry out proper site inspections).

Collusion between firms does not necessarily involve corruption (see Box 5.2) although experience suggests that government officials are often involved in the process.

### **Box 5.2: Collusion at the Tender Stage**

As described in Section 2.1, this Sourcebook adopts the World Bank definition that “corruption is the abuse of public funds and/or office for private or political gain”. Collusion doesn’t necessarily involve a public official, but does involve the abuse of public funds. Collusion take place when multiple bidders agree to manipulate the bidding process in a mutually satisfactorily way. For instance:

- Bidders agree to structure bids at the same price with one bid offered below the rest. All bids, including the winning bid, are much higher than what would have been procured in open competition. The winning bidder either pays kickbacks to other bidders or agrees to collude with another bidder to win a different project
- Bidders agree to bid in competition, but include total bid costs of all competitors in the bid price. The winning bidder compensates losing bidders for their tender costs.

Sector practitioners can look for the following “red flags” which may indicate collusion amongst bidders:

- All bids are much higher (30 percent or more above) than the estimated project costs
- Bid prices drop when new bidders begin to participate in tenders
- The same few bidders are the only participants, bidders are active in local trade or contractor associations
- Bid documentation showing possible collusion among bidders, such as the same fax numbers on bidding documents, and so on
- A pattern or rotating bid winners, with losing bidders often becoming subcontractors for the winner.

Source: Stansbury, Catherine. “[Road Projects: How does corruption occur?](#)” Global Transport Knowledge Partnership.

Box 5.1 identified various indicators that, if present, would raise a “red flag” that corruption may be taking place in the selection of project participants. (Sector practitioners may already have identified some of these “red flags” in the sector scan for corruption, see Section 3). The three categories of procurement corruption identified above are not exclusive, and indeed are often combined. As a result there are some overlapping “red flags”.

Unusual patterns in bids 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.

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.

### **Detecting corruption in design and construction specifications**

Corruption during the procurement process may take the form of public officials favoring a particular design, material, or method of construction. How this takes place depends on the procurement method used. Project design, selection of materials, and method of construction can either be developed:

- In preparation for the procurement of a particular firm to carry out construction, as is the case of traditional procurement
- Together with a proposal to win the tender to carry out construction, as is the case under the design-build procurement.

Under traditional procurement, in which project design takes place prior to the construction bidding process, public officials prepare (or hire consultants to prepare) a project design and tender documents. Consultants may over-design an infrastructure project if their fee is based on a percentage of the project cost. When this procurement method is used, corruption may occur when public officials:

- **Choose a design that favors a particular firm**—Public officials may deliberately select a particular design and method of construction because it favors one construction tenderer who may be better able to comply with that design method. (For instance, if a prominent Minister owns a steel company, so many designs for transport infrastructure specify steel, even though other materials may be as good or even better)
- **Choose materials that favor a particular supplier**—Public officials may select a design which unnecessarily indicates specific materials to be used in order to favor a specific supplier (as in example above)
- **Choose the most expensive design**—If a public official plans to receive a commission for helping a specific firm win a construction bid—and that commission is calculated as a percentage of project costs—the public official has a vested interest in increasing the size, scope, or design of the project. (For instance, a commission of two percent of the cost of a four-lane roads is higher than a two percent commission on a two-lane road). Further—even in instances where a commission from a particular contractor has not been agreed upon—a public official may still choose the most expensive design in order to maximize the potential for concealing large bribes in the award of the contract and large fraudulent claims made during the project.

Sector practitioners may look to tender documents to assess the risk for corruption. Specifically, tender documents that focus on inputs rather than outputs may alert sector practitioners that public officials could be attempting to bias the tender process to favor a particular contractor or supplier. It may be appropriate to include restrictions that reflect the particular limitations of the location where a road will be built. However, public officials may make inappropriate specifications about design and materials that favor specific tenderers or increase opportunities for corruption during project implementation. In general, when tender documents focus on unwarranted specification of inputs rather than the desired output from the project, the opportunity is greater for decision makers to bias the process in favor of a particular contractor.

### Detecting corruption in project supervision

Project supervision refers to inspecting, monitoring, and certifying the quality level of works provided by contractors. Supervision, which can take place during works implementation or upon project completion, is another area within capital works vulnerable to corruption. Detecting corruption in works supervision matters because inadequate project supervision is likely to result in works that are not up to standard, such as pavement that does not meet quality standards.

Corruption in project supervision generally takes one two forms. On the one hand, a contractor may pay a bribe to an inspector to manipulate certification documents because materials or quality do not comply with specifications. Indicators of this type of corruption include:

- **Bias in inspection site**—The contractor or project officials may insist on choosing the sites for inspections, or agree with the project inspector to only inspect specific sites

- **Falsification of documents**—The project inspector may manipulate inspection certificates or quality tests to pass certification even when these tests failed or were never conducted

On the other hand, public officials may fabricate deficiencies in materials or construction in order to extract payment from a contractor. Using independent quality assurance teams may increase probity during supervision, however, in countries or sectors where corruption is common, even these groups may be susceptible to bribes.

### Detecting corruption in contract claims and variations

Once project construction begins, another way to generate additional kickbacks is through change orders, variation orders, or contract amendments. The initial procurement is usually more transparent than post-award contract adjustments. Contract variations are more common in large infrastructure projects and can collectively increase the final price by 10-50 percent above the original contract price and extend the delivery period.<sup>14</sup>

Contract variations involve changes, which must be agreed to by both parties, but may be used to conceal substantial excess quantities or unnecessary services that would be billed but not delivered. This generally takes the form of either:

- An increase in the price of the contract, for the same output or level of quality
- A reduction in the quality of the contracted works for the same price.

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

## 5.2 Increasing Probity in Capital Works

Increasing probity in capital works involves increasing transparency and accountability in the following stages of road projects:

- Procurement, including selection of project participants and design and method of construction
- Project implementation, including project supervision and contract claims and variations

Box 5.3 describes how the building of the Hong Kong Airport required implementation of multiple anti-corruption components to effectively minimize corruption during all phases of the project cycle.

### **Box 5.3: Good Governance in the Construction of the Hong Kong Airport**

Construction of the Hong Kong International Airport, which opened in 1998, was praised by Transparency International as an outstanding example of how corruption can be minimized. The total capital costs of the various components of the project exceeded US\$20 billion, making it one of the largest infrastructure projects ever. The project included construction of the airport as well as high-speed rail and road connections. There were four major factors that contributed to reducing corruption:

- A clear and strict Prevention of Bribery Ordinance and a strong, anti-corruption institution (ICAC) which has significant legal powers and adequate resources
- Clear rules for the selection and procurement of consultant and construction services, for

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<sup>14</sup> Paterson, William D.O. and Pinki Chaudhuri. "Making Inroads in Corruption in the Transport Sector through Control and Prevention" in Campos, J. and Pradhan, S. (2007) *The Many Faces of Corruption: Tackling Vulnerabilities at the Sector Level*, Washington, DC: The World Bank, page 159.

effective supervision and monitoring of contracts, for the enforcement of accountability among Government officials and contractors, and dispute resolution

- Use of a special institutions such the New Airport Projects Coordinating Office to step in whenever a problem occurred
- A favorable working environment including appropriate salaries, a high degree of professionalism, and relatively a small pool of businessmen who, if caught, will find it difficult to obtain other business.

Source: Transparency International (1999) "Working Paper—Hong Kong: The Airport Code Programme and the Absence of Corruption" *Report by a Mission of Transparency International compising Peter Rooke and Michael Wiehan.*

Box 5.4 describes the Governance and Accountability Action Plan that the State of Orissa has adopted to tackle corruption at the various stages of the Orissa State Roads Project.

#### ***Box 5.4: Governance and Accountability Action Plan for the Orissa State Roads Project***

The state of Orissa's road networks fall far below the quality of roads in similar states. Poor infrastructure, especially transport infrastructure, and problems in governance are the two greatest deterrents to doing business in the region.

To improve roads in Orissa, the Government of Orissa (the Government)—with a loan from the World Bank—has embarked on the Orissa State Roads Project. The project will be implemented by the Orissa Works Department (OWD). The OWD functions as a traditional public works department and, in general, lacks the resources to adequately manage its road network assets.

To address the OWD's weak institutional arrangement and the state's governance problems, the Government developed an Institutional Strengthening Action Plan (ISAP) and a Governance and Accountability Action Plan (GAAP) as part of the Orissa State Roads Project. The ISAP focuses on:

- Reforms and improvements in road asset management
- Resource mobilization
- Road safety
- PPP transactions
- Capacity development in OWD's core responsibilities, such as procurement, project implementation, contract management and quality control, and
- Maintenance management.

The GAAP builds on the existing state-level Anti-Corruption Action Plan in Orissa and the requirements of India's Right to Information Act of 2005. GAAP objectives include:

- Implementation of Right to Information Act, 2005 (RTI)
- Improving procurement practices in the Works Department
- Strengthening preventive vigilance
- Third party monitoring
- Development of monitoring indicators for compliance and outcomes
- Increasing competition and mitigating collusion
- Financial management.

The GAAP includes a comprehensive list of actions to be taken to ensure that each of these objectives is fulfilled.

Source: World Bank. "Orissa State Roads Project." Project Appraisal Document. 11 August 2008.

#### **Increasing probity in selecting project participants**

Probity in selecting project participants relies on a well-run procurement process. Most governments have developed rules or fiduciary requirements for procurement processes. Yet, 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”.

Three techniques that are generally useful to increase probity in selecting project participants are:

- **Strictly enforcing bid validity and contract negotiation periods.** Practitioners may be hesitant to declare misprocurement 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 may indicate 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 into future procurement design.

Employing these three techniques can be difficult. To improve the bid evaluation process and increase probity when risk of corruption is high, sector practitioners might consider:

- **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 advisors and auditors can be appointed to oversee procurement processes in a sector, or across sectors.
- **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. Complaints might be registered through a “hotline” established specifically for a large roads project or through a general procurement complaints hotline
- **Using e-procurement.** 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.

### **Increasing probity in design and method of construction**

Increasing probity in design and method of construction generally involves improving the design of bid specifications. Bid specifications that are too narrowly defined or not in line with expected project outputs may indicate poor governance or corruption. To increase probity in the design of bid specifications, sector practitioners might consider:

**External review of bid specifications.** Conducting an external review of bid specifications 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.

- **Public and community participation in project selection and design.** International experience shows that public participation has increased transparency and accountability in some roads 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 (see Box 5.6). This scrutiny tends to work well when independent people with technical knowledge—such as academics, professional transport experts in private practice, and government officials—combine with citizen groups that are concerned about road services and corruption, to question government and sector plans.

Box 5.5 describes how the Philippines National Roads Improvement and Management Program (NRIMP) incorporated these and other mechanisms to increase probity in capital works projects.

#### ***Box 5.5 Anti-Corruption Measures Combat Collusion and Bid-fixing in Road Projects in the Philippines***

The first phase of the National Roads Improvement and Management Program (NRIMP-1) aimed to provide better road services in the Philippines and improve financial management of the institutions involved in road transportation. NRIMP-1 led to the construction and resurfacing of over 1,400km of roads and restructured the Department of Public Works and Highway's (DPWH's) financial management. During implementation, the World Bank encountered multiple bids exceeding (by more than 30 percent) estimated construction costs. Over the course of three bidding rounds between 2003 and 2006 the World Bank rejected two bids suspected of bid-fixing.

The World Bank postponed approval of the second phase of the NRIMP (NRIMP-2), pending an investigation by the Department of Institutional Integrity (INT). The investigation resulted in the debarment of seven firms and one individual, in January 2009, for engaging in collusive bidding practices.

The second phase of this project, NRIMP-2, which was approved by the Bank's Board of Executive Directors in May 2009, includes new anti-corruption measures to combat the corruption that compromised NRIMP-1. Specific measures added by the World Bank and DPWH to increase procurement and transaction transparency include:

- **Using an independent procurement evaluator**
- **Enhancing procurement controls**, including more reliable contract cost estimates, increased bid analysis, and increased supervision of contracts
- **Strengthening internal controls and internal audit capacity**, by including general maintenance and projects in Government's annual budget to limit cash realignment and authorization
- **Adopting enhanced business practices**, by adopting an e-procurement process and computerizing the contractor qualification process
- **Promoting independent oversight by civil society**, by forming a coalition of citizens—“Road Watch”—to provide feedback on the quality of road services and ensure proper allocation of department funds.

The Government of the Philippines has partnered with AusAID through the Partnership for Economic Reforms to undertake these initiatives and other governance reforms.

Source: Hofman, Bert. World Bank Country Director, Philippines. “[Op-Ed: Building Better Roads through Fighting Corruption](#).” World Bank.2008. Project Appraisal Document for Phase 2 of the National Roads Improvement and Management (APL) Program in the Republic of the Philippines. Washington, DC

**Box 5.6: Decentralized Project Selection and Financing in Indonesian Villages**

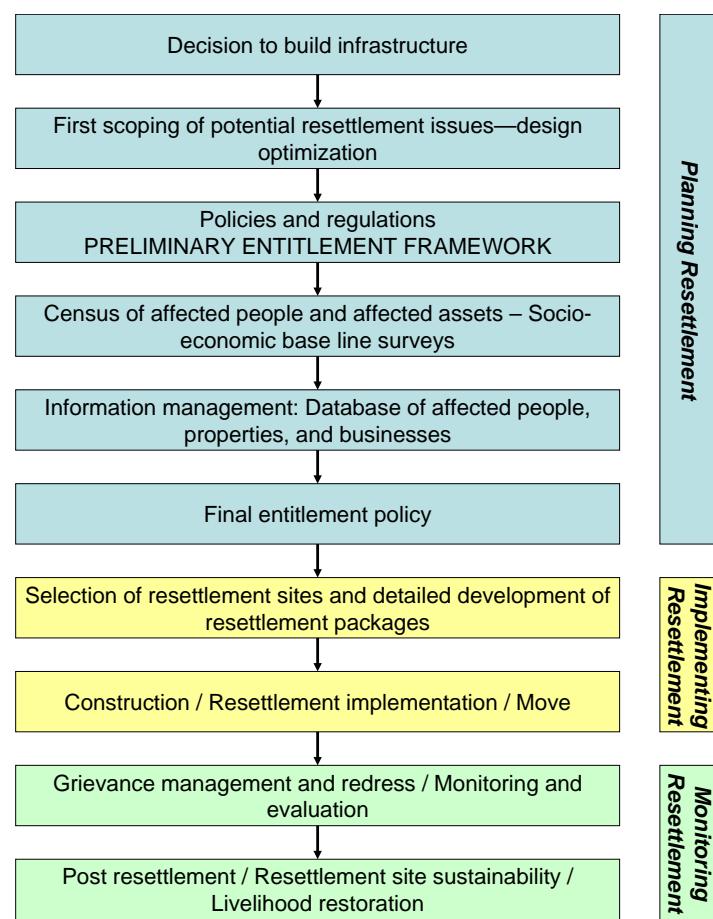
In Indonesia, a 1997 survey of 48 villages found that less than three percent of village development requests proposed through the government's development planning system received funding. To address this gap, the Kecamatan Development Program (KDP), began to emphasize participatory community appraisals during project selection. Financing for the projects was provided by a combination of village and local funding and direct central government support. These features have helped to ensure that local priorities are the key to setting project prioritization. In the KDP, project budgets, financing and procurement decisions are discussed publicly and displayed on village information boards. Each village has an independent committee to oversee contracts and implementation. Journalists and NGOs are invited to act as watchdogs over the procurement and implementation process. In addition, there is an anonymous complaints mechanism that brings concerns to project authorities. KDP projects that met high local demand and were characterized by close local oversight and involvement produced savings of between 25 to 56 percent over conventional infrastructure projects and carried economic rates of return ranging from 33 to 83 percent.

Based on: Wong, S. and S. Guggenheim (2005) Community-Driven Development: Decentralization's Accountability Challenge in World Bank (ed) *East Asia Decentralizes: Making Local Government Work* World Bank: Washington DC.

- **Planning and adequately implementing resettlement.** Resettlement can have significant impacts, particularly on the poor.<sup>15</sup> Planning resettlement should begin at the preliminary stages of project planning, and take into account entitlement options, grievance management, and livelihood restoration. The costs of inadequate planning of resettlement are substantial—while resettlement involves the significant direct cost of compensation and livelihood restoration, inadequate planning is viewed as one of the main causes of delays in road project implementation. Figure 5.2 illustrates the main steps of the resettlement process. Sources on the resettlement process are included in Source List 5.1.

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<sup>15</sup> Giovannetti, F. (2009) *Guidance Note on Urban Resettlement*, prepared for the World Bank and the Government of Maharashtra (Mumbai Urban Transport Project).

**Figure 5.2: The Resettlement Process**

Source: Reproduced from Giovannetti, F. (2009) *Guidance Note on Urban Resettlement*, prepared for the World Bank and the Government of Maharashtra (Mumbai Urban Transport Project)

### Increasing probity in project supervision

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.

To increase probity in project supervision, sector practitioners might consider:

- **Third party oversight.** In most large roads projects, a private engineering consultancy is hired to monitor construction. Bringing in a second line of supervision, for example, allowing scrutiny by a university engineering department or an NGO with the requisite expertise, can further increase probity in project supervision
- **Community oversight groups.** Can be engaged to oversee project implementation. Box 5.7 demonstrates how an NGO in the Philippines was involved in monitoring 20 infrastructure projects. Community scorecards may also be used to monitor the progress of project implementation. Community scorecards involve a community discussion guided by a facilitator who collects information on project progress and provides immediate feedback to those overseeing the project

- **Complaints Mechanisms.** Box 5.8 describes one example of a complaint hotline for reporting fraud in the US Department of Transportation
- **Publishing contract information.** Third party and community members need good information about contract specifications and requirements in order to monitor effectively. One way to ensure access to this information and increase accountability is to make some contract and contract variation information available in the public domain. This information can be published, made available online, or displayed in a public venue. For example, to increase transparency on large contracts, the State Government of Victoria, Australia publishes all contracts (including contract revisions) worth more than AU\$10 million (around US\$7.7 million).<sup>16</sup> Box 5.9 describes how publishing contract information is a key component of the Disclosure Policy of the Punjab State Road Sector Project.

#### ***Box 5.7: Non-governmental Organizations Taking on Corruption***

Corruption in public works contracts is commonplace. In road projects, for example, corners are cut by using less cement or constructing shorter or narrower roads than specified in the bid documents and the difference is pocketed. But some NGOs are fighting back and exposing wrong-doings. In the Philippines, the Concerned Citizens of Abra for Good Governance (CCAGG) monitors infrastructure projects in their province. The group got involved when a news article identified 20 infrastructure projects that had been completed, and they decided to verify the information. What they found were widespread discrepancies and anomalies between government reports and outcomes on the ground, including ghost projects and incomplete works. CCAGG asked the government to investigate, and teams were sent in by the public works department, the National Economic Development Authority (NEDA) and the Commission on Audit (COA). As a result of the investigation, COA filed cases against eleven public works engineers.

The activities of CCAGG came under attack by some government agencies and private companies and some of its members were threatened, but eventually the accused engineers were found guilty. The group relies heavily on the media to influence public opinion and empower the people to demand good governance. As a result of CCAGG's efforts, systemic corruption has been reduced and government officials have become more cautious so they don't become "CCAGGed" as it is known locally when the anomalies are exposed.

Source: Dennis Arroyo. "Pinoys can fight corruption." Inquirer News Service. July 26, 2004.

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<sup>16</sup> Kenny, C. (2006) Measuring and Reducing the Impact of Corruption in Infrastructure, World Bank Policy Research Working Paper 4099.

**Box 5.8: U.S. Department of Transportation Office of the Inspector General's Hotline Complaint Center**

The Office of Inspector General (OIG) has a complaints center and hotline for reporting allegations of fraud, waste, abuse, or mismanagement within the U.S. Department of Transportation (DOT). Allegations can be reported by DOT employees, contractors, or the general public. The OIG's hotline is open 24 hours a day, seven days a week, and is operated by a third party contractor.

**OIG encourages reporting of the following issues:**

- Contract, procurement, and grant fraud
- Environment, health, and safety violations
- Computer crimes
- Product substitution and suspect/counterfeit parts
- Bribery, kickbacks, and gratuities
- False statements and claims
- Conflicts of interest and ethics violations
- Travel fraud
- Theft or abuse of government property
- Other violations of federal laws and regulations.

**Complaint processing**

Callers are encouraged to provide relevant and specific details of their complaints. Upon receipt of a specific allegation of fraud, waste, abuse, or mismanagement, the OIG may take any one of the following actions: open an investigation or audit, refer the matter to DOT management for appropriate review and action, or refer the allegation to another Federal agency.

**Confidentiality**

Individuals who contact the hotline, via telephone or letter, are not required to identify themselves to the hotline operator. The OIG protects identity of complainants to the maximum extent possible by law.

Source: U.S. Department of Transportation Office of the Inspector General. "[OIG Hotline Complaint Center](#)."

**Box 5.9: Disclosure Policy of the Punjab State Road Sector Project**

The Punjab Roads Bridge Development Board (PRBDB), responsible for planning, deployment of funds, fiscal management, and project management on State roads projects, operates under a comprehensive disclosure policy. The PRBDB adopted the policy to reduce the number of project-related complaints. For each project, the PRBDB discloses:

- What is being (and was) done
- Why it is being (and was) done
- When it is going to be (and was) done
- How it is going to be (and was) done.

The PRBDB discloses information to various stakeholders in a number of ways, including:

- **Public consultations.** The PRBDB has held 88 formal and informal sessions throughout the State
- **Work site information.** Each road work site has public information provided through kiosks, display boards, and project information brochures. Key project information is provided as well as Contractor, PRBDB, and Engineer contact information
- **Right to Information (RTI) website.** The RTI website contains information on the functions and duties of the PRBDB, a directory of PRBDB contact information, and the monthly remunerations that officers and employees receive
- **PRBDB website.** The PRBDB website contains up-to-date information on: all ongoing and upcoming projects, the officials handling different projects, acts and policies, and general procurement notices.

Source: Seth, Ripdaman Singh. "Disclosure Policy." Punjab State Road Sector Project. World Bank.

**Increasing probity in contract claims and variations**

Increasing probity in contract claims and variations involves transparency and uniformity in setting and enforcing contract variation rules. Frequent and uncontrolled project variations create opportunities for forms of bid-rigging. Manipulating project variations can be discouraged by making rules on the specific instances when contract variations will be allowed clear from the outset.. 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 genuine bid variations are 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.

### Source List 5.1: Detecting Corruption in Capital Works

Source	Description
<b>Selecting Project Participants</b>	
<b>Porter, Tony <i>International Trends in Procurement Models for Highway Maintenance,</i>" Oput International Consultants, Ltd.</b>	Discusses various procurement models employed and trends in the way work is specified. In particular, the movement from specification and payment based on inputs to outputs to outcomes is examined.
<b>Gilroy, J. "<i>Procurement Outsourcing</i>" 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>xxxvii</sup>
<b>Sohail, M. and Cavill, S. (2007) "Combating corruption in infrastructure services: A tool-kit", WEDC Institute</b>	See Source List 4.1 on page 35. This document provides "tools" to find red flags that corruption may be taking place.
<b>Kramer, W. (2007) "Corruption and Fraud in International Aid Projects" U4 Brief</b>	Highlights the many similarities of how fraud is taking place, 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.
<b>OECD "Bribery in Public Procurement: Methods, Actors and Counter-Measures" (2007) OECD Publishing</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 international case studies of bribery in procurement.
<b>OECD "Fighting Corruption and Promoting Integrity in Public Procurement" (2005) OECD Publishing</b>	This document includes 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 punish 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 "Integrity in public procurement: Good practice from A to Z" (2007) OECD Publishing.</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.

Source	Description
<b>Calkins, D. (2007) "Fighting Corruption: A Matrix of Sector and Project Options" EASUR Anti-Corruption Initiative, the World Bank</b>	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.
<b>World Bank, Procurement Reform in the Philippines: Changing the Rules of the Game</b>	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>xxxviii</sup>
<b>World Bank. Project Concept Note, Annex 13: Improved Governance Framework and Project Action Plan. Paraguay Road Maintenance Improvement Project.</b>	Provides information on the governance component of the World Bank's Road Maintenance Improvement Project in Paraguay. Framework includes comprehensive list of red flags that indicate corruption in road projects.
<b>Transparency International (1999) "Working Paper—Hong Kong: The Airport Code Programme and the Absence of Corruption"</b>	This report recounts a Transparency International mission to Hong Kong to discuss the execution of the Airport Core Program (ACP). Transparency International views the ACP as best practice in how corruption can be minimized in a major infrastructure project.
<b>Wong, S. and S. Guggenheim (2005) <u>Community-Driven Development: Decentralization's Accountability Challenge in World Bank (ed) East Asia Decentralizes: Making Local Government Work</u> World Bank: Washington DC</b>	This paper argues that decentralization reforms must go hand-in-hand with community-driven development (CDD) to promote more responsive and accountable local governments. It describes the dynamics between these two trends including: <ul style="list-style-type: none"> <li>▪ CDD's role in improving the quality of decentralization by promoting greater civic participation, voice, and accountability in local governance</li> <li>▪ CDD's role in delivering cost-effective and timely services within a decentralized context</li> <li>▪ CDD's role in informing and formulating decentralization regulations.</li> </ul>
<b>Guidance on Resettlement</b>	
<b>Giovannetti, F. (2009) "Guidance Note on Urban Resettlement", prepared for the World Bank and the Government of Maharashtra for the Mumbai Urban Transport Project</b>	This guidance note is intended as a tool to help decision makers confronted with resettlement and displacement issues. It provides a step-by-step guide on planning the resettlement process, implementing resettlement, and monitoring and evaluating the resettlement process. Appendix 2 includes examples of good practice in "early scoping of resettlement issues" and "using Google Earth for scoping resettlement issues at early stages of resettlement planning".
<b>World Bank (2004) <u>Involuntary Resettlement Sourcebook: Planning and Implementation in Development Projects</u></b>	This Sourcebook provides guidance on resettlement design, implementation, and monitoring. The Sourcebook argues that if the impacts related to the acquisition of land—and corresponding physical relation and economic displacement of people—are not adequately mitigated, vulnerable populations are likely to "be further impoverished, thereby undermining the objectives of the development process". The Sourcebook provides several resettlement examples from the roads sector. <sup>xxxix</sup>
<b>Project Supervision</b>	

Source	Description
<b>Calkins, D. (2007)</b> “ <i>Guidelines for Supervising ‘High Corruption Risk’ Projects</i> ” <b>EASUR Anti-Corruption Initiative, the World Bank</b>	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).
<b>World Bank (2005)</b> “ <a href="#"><u>Guidance Note for Project Management: Strengthening Institutional Capacity during Project Implementation</u></a> ”	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) systems 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>xii</sup>
<b>World Bank (2004) <a href="#"><u>OP 13.05 Project Supervision</u></a></b>	The World Bank’s Article’s of Agreement require the World Bank to ensure that any loans or 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>xiii</sup>
<b>Alexeeva, V., Gouthami P. and Queiroz, D (2008)</b> “ <a href="#"><u>Monitoring Road Works Contracts and Unit Costs for Enhanced Governance in Sub-Saharan Africa.</u></a> ” the World Bank Group Transport Papers	This study develops a list of quantitative indicators to recognize and track areas vulnerable to corruption in the roads projects funded by the Bank. It is based on the procurement and implementation of the road works contracts in Sub-Saharan Africa. The study develops a new cross-country database with information on bidding, costs, performance, and other details of the Bank-financed road works contracts. <sup>xlii</sup>
<b>Olken, B. A. (2005)</b> “ <i>Monitoring Corruption: Evidence from a field experiment in Indonesia</i> ”, Harvard University and NBER	This paper presents a randomized field experiment on reducing corruption in over 600 Indonesian village road projects. Findings show that increased government audits reduce missing expenditures. The results suggest that traditional top-down monitoring can play an important role in reducing corruption, even in a highly corrupt environment. <sup>xliii</sup>
<b>Callahan, Michael T. (2005)</b> “ <i>Construction Change Order Claims,</i> ” Aspen Publishers Online	This book goes through each aspect of various types of change claims and clarifies issues related to entitlement and those of factual or legal causation.

## **6 GOVERNMENT ENGINEERING AND CONSTRUCTION UNITS**

Government engineering and construction units can be directly responsible for designing, constructing, rehabilitating, and maintaining roads infrastructure. Government engineering and construction units are typically units within a public works department or State transportation department. These units maintain their own labor, equipment, materials and supplies to carry out road works. Generally, they have been (and are still) commonly used for periodic and routine maintenance or emergency response situations.

### **What this section covers, and what it does not**

This section covers governance and corruption issues that are unique to instances when works are provided by government engineering and construction units.

This section does not look at corruption within agencies that are only involved in policy, planning, procurement, and project supervision..

This section focuses on human resources, suppliers, and department property. When a government agency is employing large numbers of laborers, buying lots of materials for a roads project, and maintaining equipment and property there are a number of additional corruption risks involved.

### **6.1 Detecting Corruption in Government Transport Engineering and Construction Units**

This section discusses detecting corruption in:

- Human resources
- Suppliers
- Department property

#### **Human resources**

Human resources includes processes for hiring, firing, setting and amending pay and conditions of employment, assessing performance, providing incentives for staff, assigning work, and deciding on promotion and movement between different position within a unit.

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 department. Department or union officials collect the salary notionally paid to the “ghost worker”
- **Stand-ins**—Using stand-ins is similar to “employing” ghost workers. In this case, someone who is on the department’s payroll does not actually do any work for the department, but pays someone 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 occurs where someone who is on the departments payroll sells their job to someone else. The “purchaser” of the job does the actual work and receives a salary
- **Payment for hiring or promotion**—Managers in a department with the right to hire, promote, or fire people (or with influence over these decisions) demand payments from staff in return for exerting this influence. The payment could be in return for recruitment, for a promotion, or simply for keeping a staff member on. This may be a one-off payment, but is commonly arranged as a continuing contribution of a percentage of that staff member’s weekly or monthly paycheck. A variant of this form of corruption is a staff member paying managers to be transferred to a post that offers him or her greater opportunities to engage in corruption themselves

- **Staff used for non-department business**—Senior department officials may use department staff to work on that official’s own personal or business projects, rather than on department business. This is equivalent to diverting department resources (like inventory or money) for an official’s personal benefit
- **Information or processes known by few staff members**—If very few staff members (or possibly even just one staff member) are responsible for a process—especially when it involves financial management—it will be easier for this process to be manipulated. For instance, if few staff members know how to make a certain type of payment or has access to and control over “petty cash” the risk of detecting corrupt behavior is low.

Sector practitioners can review actual or anecdotal information on the department’s human resources functions, to look for any evidence of corrupt activity.

A good starting place is to review the public works department’s records of current personnel. If these records appear to contain irregularities, or to be out of date (or otherwise poorly maintained), this is a “red flag” that corruption may be occurring. While poor record keeping may be a deliberate ploy to hide human resources corruption, it could also simple reflect incompetence or lack of resources.

Complaints from staff or union leaders can be another useful source of information. For example, if department managers regularly demand payments from staff to retain their job or progress within the department, staff may seek to alert outsiders to this practice. Journalists may be a good source for information about recurring corrupt activity reported outside the department. However, if journalists have little knowledge of common practices in the sector, sector practitioners may need to develop a more structured way to gather complaints from staff. Any system for reporting staff complaints must include protections from retribution by higher level officials 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.

### **Suppliers**

Officials or managers who can influence award of supply contracts could obtain kickbacks (for instance, a percentage of the contract value) in exchange for awarding the contract. To fund the kickback, the supplier provides goods that are worth less than the price it charges the public works department. To do this, the supplier might:

- Inflate the price of goods
- Provide goods that do not meet quality specifications
- Supply a lower volume than the department paid for.

### **Department property**

Corruption in the use of department property and money differs from other types of corruption that occur in government engineering and corruption units. In contrast to the other “schemes” described in this section, here individual(s) directly steal property from the government department.

Stealing government department property means misappropriating anything owned by the department (for instance, money in the department’s bank account, the department’s inventory and stores, or use of its vehicles and equipment). Misappropriation could include:

- Fraud or embezzlement that takes money out of the department’s bank accounts
- Direct theft of property, for example theft of company stores (that could then be resold), diesel taken out of trucks for personal benefit, equipment, and so on
- Use of department vehicles for personal transport needs

- Provision of department vehicles to Ministers or other senior officials outside the department for their own personal or business use
- Travel by Ministers or other senior officials, at the department's expense, where the travel is not necessary (or even related) to the business of the department.

Department officials often have discretion over how some resources within the department are used. Additionally, senior officials may legitimately receive benefits, such as a stipend for personal vehicles, which appear similar to the methods of misappropriation listed above. Where these types of traditions exist, sector practitioners will need to pay extra attention when assessing corruption risk. For instance, as Box 6.1 shows, Kenya's Roads and Public Works Department spent far more on vehicles than could be reasonably deemed necessary.

#### **Box 6.1: Luxury Vehicles for Kenya's Roads and Public Works Department**

A Transparency International report found that between January 2003 and September 2004, the Government of Kenya spent at least US\$12.1 million on the purchase of luxury vehicles, largely for the personal use of senior government officials. The Ministry of Roads and Public Works ranked second among Ministry spending on luxury vehicles. The Ministry spent close to US\$840,000 on the purchase of one Mercedes E240, four Land Cruiser Prados, two heavy duty department Land Cruisers, three Mitsubishi Pajeros V76 GLX, and a Land Rover Freelander. Not one of these expenditures fall within the cost estimate ceiling for Government fleet passenger vehicles stated in the Government Financial Management Act of 2004.

Source: Transparency International-Kenya and Kenya National Commission on Human Rights (2006) "Living Large: Counting the Cost of Official Extravagance in Kenya"

## **6.2 Improving Governance in Government Transport Engineering and Construction Units to Reduce Corruption**

This section offers some processes or techniques for improving governance and reducing corruption in governance transport engineering and construction units. It reviews options for improving governance to reduce corruption in:

- Accounting and management information systems
- Human resources
- Transactions with suppliers
- Misappropriation of department property

### **Improving governance to reduce corruption in accounting and management information systems**

The financial, accounting, and information management 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 department's keep track of finances and inventories, and so are 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 store, integrated with the accounting system.

### **Improving governance to reduce corruption in human resources**

Poor human resource management creates opportunities for department managers or senior officials to appoint unqualified staff, or to draw salary payments for "ghost workers". 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 road mile maintained, 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 resources management include:

- Methods that help to ensure managers or staff are not collecting additional funding or salary payment 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 details 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 position, 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 punishment for the "rule breakers".

A review of staff position may be undertaken together with other reforms. Box 6.2 describes one such example in the United Kingdom where a public works department took the computerization of its payroll system as an opportunity to check for "ghost workers".

#### ***Box 6.2: Uncovering "Ghost Workers" during Payroll Computerization***

A public works department in the UK suspected a number of "ghost workers" in its payroll system. When the payroll system was computerized, the department took the opportunity to check that all workers listed in the system were actual employees of the department. Any non-existent staff were removed from the system. While the check did not reveal who had been picking up the "ghost worker's" wages, it did help get rid of a significant problem. A further audit, 18 months later, uncovered that a computer operator has been collecting his own wages, and those of 30 other workers he had entered into the payroll system.

Source: Heeks, R. (1998) "Information Systems for Public Sector Management", *Information Paper No 4 – Technology and Public Sector Corruption Working Paper Series*, Institute for Development Policy and Management.

### **Improving governance to reduce corruption in transactions with suppliers**

Weak controls over the procurement of supplies can enable staff to engage in corrupt behaviors such as bid rigging and bribe taking. In addition to introducing control for purchasing supplies, departments can use management systems (in particular, budgeting and financial control systems) to reduce the likelihood of "leakage" through poor controls. Systems that readily detect potentially corrupt behavior, by identifying and "flagging" unusual price or supply patterns (or both), can act as a deterrent for corruption, and enable corrupt behavior to be punished.

### **Improving governance to reduce misappropriation of department property**

Poor monitoring of department stores (effectively, all assets that are 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 members who need access to do their jobs, requiring identification before any staff member can take stores out, and inspections of vehicles leaving the department premises
- **Human Resource controls**—Identification cards, to ensure that members of the public are not able to freely frequent department 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 stock-takes will help detect misappropriation. The department 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 financial audits
- **Budgeting and management responsibility system**—which make qualified staff and management directly accountable for stores
- **Security and checks for the department's sites**—to prevent staff from taking company property offsite.

Aside from directly removing stores from the department, staff may effectively "steal" from the department by inappropriately using department property or expense accounts. Such inappropriate use can be deterred through effective:

- **Budget and responsibility systems.** 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 department property and expense account, processes for obtaining permission, and penalties for misuse
- **Internal and external audits.** Compliance with department policies on property and expense account use.

### Source List 6.1: Government Engineering and Construction Units

Source	Description
<b><i>Improving Governance in Government Engineering and Construction Units</i></b>	
<b>Dlesk, Ryan Joseph and Lansford C. Bell (2006) "Outsourcing versus In-house Highway Maintenance: Cost Comparison and Decision Factors," SCDOT Research Project 653: Maintenance Outsourcing, Clemson University.</b>	This paper provides a case study comparison of the cost of performing maintenance activities in-house to the cost of outsourcing these activities. It also evaluated the subjective advantages and disadvantages of outsourcing maintenance work, with a particular emphasis on: personnel availability and expertise, equipment utilization, and the ability to perform quality work. Information is also provided on trends in maintenance outsourcing in 14 US states and 1 Canadian province.
<b>Wisconsin Department of Transportation (2008) "Construction and Materials Manual (CMM)"</b>	Section 2.46 of the Construction and Materials Manual discusses accounting and inspection processes in force account work. The Manual provides examples of daily cost reporting documents and works summary statements.
<b>"Force Account Equipment Summary Record," Federal Emergency Management Agency (FEMA)</b>	Provides sample documents for reporting and accounting for equipment use in force accounts.
<b><i>Sector Reform</i></b>	
<b>Robinson, Richard. (2006) "A Perspective on Road Sector Restructuring in Developing and Transition Countries," Public Administration and Development, 26, 265-278</b>	Discusses two studies that contributed to World Bank's framework for how road administrations had evolved over time from large public works organizations to lean network administrators, working at arms-length from government and making extensive use of contracts.
<b>Andreski, Adam, Subhash Seth and Wendy Walker (2006) "How a Road Agency Can Transform Force Account Road Maintenance to Contracting," the World Bank Group Transport Papers</b>	This paper disseminates best practices on how a government road agency can prepare for phasing out force account procedures in the public sector and creating an enabling environment for contracting out road maintenance. <sup>xliv</sup>
<b>Heeks, R. (1998) "Information Systems for Public Sector Management". Information Paper No 4 – Technology and Public Sector Corruption Working Paper Series, Institute for Development Policy and Management.</b>	Presents five short case studies of IT and public sector corruption. From these it is concluded that, while IT sometimes does detect and remove corruption, it can also have no effect or even provide new corruption opportunities for some public servants. Management of corruption is ultimately shaped more by management decisions and by broader organizational and environmental factors than it is by technology.

## 7 PUBLIC-PRIVATE PARTNERSHIP CONTRACTS

Public-private partnerships (PPPs) are common in the transport sector. In 2007, for instance, 59 road projects—Involving US\$15.3 billion in investments—reached financial or contractual closure.

Corruption in PPPs is most common in procurement. Corruption during the procurement process for PPP transactions resembles corruption in procurement of publicly funded capital works projects.

Post-procurement, however, there are differences. In some cases, PPP contracts can reduce corruption. For instance, PPPs put the corruption risks associated with human resources, suppliers, and property (as discussed in Section 6) into the domain of the private sector. The private sector may manage these resources poorly but, since they are not public resources, it is not corruption.

However, while PPPs can reduce corruption in some areas, PPPs can also generate new governance problems, including governance risks in contract management and renegotiation.

This section:

- Defines the range of PPPs that can be used in the roads sector
- Reviews corruption in PPP contract selection and award
- Reviews post-procurement governance issues. The focus of this section is on renegotiating PPP contracts, since renegotiation gives rise to opportunities for corruption

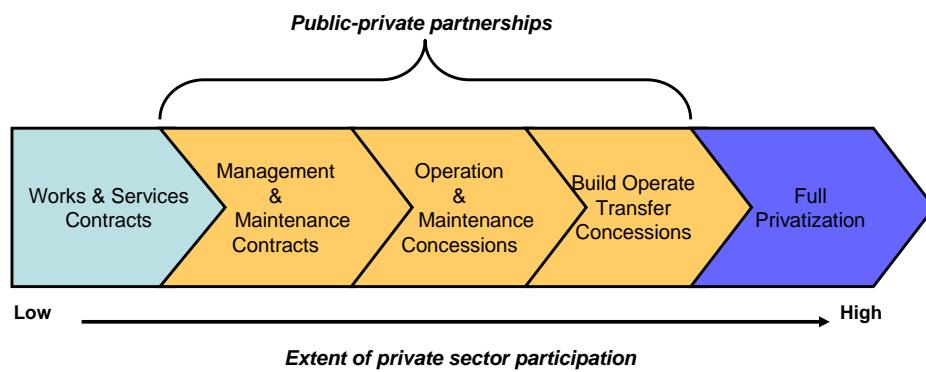
### 7.1 Range of Public Private Partnerships in the Roads Sector

There are a range of PPP contracts that can be used in the roads sector, including:

- Management and maintenance contracts
- Operation and maintenance contracts
- Build-Operate-Transfer (BOT) concessions.

Figure 7.1 shows the extent of private sector risk for each of the contract types. Table 7.1 describes the characteristics of the contracts in more detail.

**Figure 7.1: Range of Public-Private Partnership Contracts**



Source: World Bank, *Toolkit for Public Private Partnerships in Highways*

**Table 7.1: Definitions of Public-Private Partnerships**

<b>Management and Maintenance Contracts</b>	<p>Many road agencies are becoming aware of the high cost and difficulty of managing their traditional force account arrangements for road maintenance and are turning to various forms of contract maintenance to improve efficiency in this sector. The main options are as follows:</p> <ul style="list-style-type: none"> <li>▪ <b>Quantity-based maintenance contracts</b> have been implemented in many countries with good records of success and are often seen as a first step towards PPP. Remuneration of the contractor is based on unit prices defined in the maintenance contract and quantities measured on site. Design works are previously defined by a consultant and a supervision consultant typically assists the Granting Agency in controlling the quality and quantity of work done. The current trend is to include a whole set of maintenance activities required by a road segment or portion of the network in the contract to facilitate administration and achieve economies of scale. These are often referred to as "integral" maintenance contracts as they cover a broad range of work and may include a variety of maintenance, operation and administration services.</li> <li>▪ <b>Performance-based maintenance contracts</b> are derived from the previous type of arrangement by shifting the focus from administration (maintenance activities and resources) to certain performance conditions valued by the users. They typically leave contractors with more autonomy in the design and organization of the works. Remuneration is based on a monthly fee determined up-front stated in the contract and linked to performance indicators.</li> <li>▪ <b>A management contract</b> is an arrangement by which a private company is entrusted with various types of tasks usually performed by the public authority, relating to the organization of road maintenance operations. Usually, the function of the private firm is to respond to day-to-day routine maintenance requirements by contracting private companies, on behalf of the public entity, to perform the works. Management contracts can also (or only) focus on operation management. In this case, typical tasks entrusted to the private sector are: traffic counting, axle-load weighing and providing traffic information, traffic management including surveillance, stand-by services for accidents, traffic regulation, toll collection (usually not remunerated on the basis of the amounts collected but rather on a fixed rate basis).</li> </ul>
<b>Operation &amp; Maintenance Concessions</b>	<p>The host country's objectives may be for the private sector to operate and maintain an already existing road, and therefore the government may grant a concession to the private participants to charge user tolls to help finance the improved operation and maintenance of the road. Such a concession shifts the financial burden of operation and maintenance to the road user and at the same time should increase the efficiency of the road's operation and maintenance. Besides the issues inherent in a concession agreement, an operation and maintenance concession is similar in scope and approach to what is required and negotiated in a typical operation and maintenance agreement between private parties under a BOT-type arrangement (see below).</p>
<b>Build Operate Transfer Concession</b>	<p>Under a BOT, the responsibility of the concessionaire is not limited to operation and maintenance of the infrastructure but also comprises an initial construction, upgrading or major road rehabilitation component. Massive investment and consequent mobilization of private funding sources is therefore required from this company and is to be repaid from the revenue collected from road users (usually tolls). BOT (Build Operate Transfer) stresses the responsibility of the private entity during construction and operation of the road and the handing over (transfer) of the assets to the public entity at the end of the operation period. The high initial investment required from the private sector and the consequent long concession period make the distribution of risk between the parties a key element of success in such schemes. Many variations on this type of contract have been implemented with a consequently growing number of acronyms used to label them (BOOT, BOO, BTO).</p>

## 7.2 Contract Selection and Award

Corruption in PPPs is most common in procurement. Corruption during the procurement process for PPP transactions resembles corruption in procurement of publicly funded capital works projects. For ways to detect corruption and improve governance in procurement, see Section 5. While we don't repeat the discussion from Section 5, sources specific to PPPs are in Source List 7.1.

Awarding PPP contracts involves negotiation over various forms of regulation and payment in the long term. To avoid opportunities for corruption in the negotiation stage, governments can ensure:

- Bidders have a clear understanding of the government's objectives, requirements, and priorities
- Tender documentation is clear and well-drafted. If more issues are appropriately covered in the tender documentations, less items will be subject to time-consuming and costly negotiations once bid have been received
- The bid evaluation process and criteria are transparent. This means supplying as much information about the process as possible, and outlining procedures that ensure all parties are treated equally
- Dialogue between the government agency and bidders is transparent (Box 7.1).

### **Box 7.1: Lack of Transparency in Negotiations leads to Costly Litigation**

In 1999, the New South Wales Government wanted to introduce a new ticketing system to overhaul Sydney's public transportation ticketing system. The Department of Transport called for proposals in 1999, and short-listed four bidders, including Transport Solutions Pty Limited (ITSL), and Cubic Transportation Systems Australia Pty Limited (Cubic). The evaluation committee recommended ITSL be awarded the contract.

Cubic challenged the decision to award the tender to ITSL, and sought injunctive relief stopping the Government from entering into the contract on the basis that the tender evaluation process was "unfair", citing several procedural flaws in the dialogue between the Government and bidders during the evaluation process.

Tender documentation should be carefully drafted and clearly state the actual undertakings and legal obligations. In the Cubic case, the terms of the revised call document were not clearly drafted and they were uncertain as to the nature of the obligations owed by the Government and whether the Government was in fact under a contractual obligation to comply with the NSW Codes of Tendering and Practice.

The court ruled in favor of the Department of Transport in July 2002, but clear and well-drafted tender documentation could have avoided the consequence of protracted and costly litigation.

Source: Allens Arthur Robinson, *PPP Lessons to be learnt*, December 2002.

In the next section, we discuss governance risks with PPPs post-procurement. This includes governance problems in managing PPP contracts, and renegotiation.

## 7.3 Improving Governance of Public-Private Partnership Contracts

Like with procurement risks, many of the corruption risks and methods for improving governance in contract supervision and management have also already been discussed in Section 5. Again, while we do not repeat the discussion from Section 5, sources specific to PPPs are in Source List 7.1.

However, we do address two governance issues that are unique to PPPs:

- Performance-based payments
- Renegotiation.

Performance-based payments increase transparency of project supervision because they have less technical supervision requirements. Performance-based payments also increase accountability by transferring risk to the contractor. Box 7.2 describes how output-based aid—a special type of the performance based payment approach—helps to combat corruption.

#### **Box 7.2: Output Based Aid (OBA) and Combating Corruption**

The synergies that exist between the outcomes of OBA and the tools needed to combat corruption are especially important for the road sector. The positive outcomes of OBA may have the added effect of improving the Governance and Anti-Corruption framework within a country. Two such outcomes include increased transparency and increased accountability. More specifically:

- By explicitly identifying subsidy flows, OBA *increases transparency* regarding the flow of value from the public to the private sector. Identifying subsidy flows is important in combating corruption for two reasons:
  - Corruption occurs when there is a transfer of value, simply because transferring value brings with it the opportunity for that value to be misappropriated. Knowing where and how value flows within and out of the public sector helps identify areas in the sector that are more prone to risks of corruption.
  - Being explicit about where subsidies flow brings transparency. This allows project participants, donors, Governments, and stakeholders alike to know where to look for corruption, thus increasing the probability that corrupt parties will be detected.
- By transferring risk to the service firm/contractor, OBA *increases accountability* in privately financed road operations, which in turn reduces the ways in which funds might be leaked to the private sector. For example, risks of unnecessary contract variations or biased project supervision are reduced when contracts link payment to outputs rather than inputs.

Source: OBA Approaches. Note No. 5. March 2005; OBA Approaches. Note No. 16. August 2007.

Renegotiation is a “governance risk” for PPP contracts. Renegotiation is common in transport PPPs; Guasch (2004) found that renegotiation is especially common in the transport sector, occurring in about 55 percent of contracts.

In some cases, parties are unable to reach a renegotiation agreement. In these cases, PPPs are abandoned by private operators or taken over by governments (or both). For instance, Box 7.3 shows how poor evaluation practices facilitated poor governance in privately financed toll roads in Mexico. Of about 50 toll roads concessions, the Government had to take over 25.

Renegotiating contracts is, however, more common than private operators abandoning PPPs, or government's taking them over. Renegotiation gives rise to opportunities for corruption. In a “well-governed” transport sector, government will take measures to decrease the chances of renegotiation. In cases where renegotiation is seen as “inevitable”, measures will be taken to make sure this process is as transparent as possible.

**Box 7.3: Poor Governance Leads to Government Bailout in Mexican Toll Roads**

From about 1989 to 1994, the government of Mexico undertook an ambitious program of private greenfield tollroad concessionaires. By 1995, it had awarded more than 50 concessions for about 5,500 kilometers of road.

The concessionaires were typically highly leveraged. In fact, the project sponsors who were the equity investors frequently contributed no equity in the form of cash at all. High leverage was possible in part because of the government's involvement. The debt holders were mostly banks owned by the Mexican Government, and the Government may have pressured the banks to lend. In addition, the banks may have believed that the Government would bail them out if problems arose. In any case, the banks arguably didn't exercise due diligence in reviewing the creditworthiness of the concession companies.

Many of the concessionaires soon ran into financial difficulties. Construction costs, at least as reported, were often much higher than expected, while demand was much lower. The problems were exacerbated by the macroeconomic crisis that hit Mexico in December 1994.

Poor evaluation of concession companies' financial capacity to avoid overexposure to risk coupled with unnecessary levels of government support facilitated poor governance in privately finance toll roads in Mexico. As a result, the Mexican government had to take over 25 private concessions, assuming all their debt and all their liabilities to third parties such as construction companies. In the bailout, the government took on about \$7.7 billion in debt, two-thirds owing to Mexican banks and one-third to construction companies. The equity holders are estimated to have lost about \$3 billion.

Source: Ehrhardt, D. and Irwin, T. Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy toward Leverage, Risk Allocation, and Bankruptcy. World Bank Research Working Paper 3274, April 2004.

### What factors increase the likelihood of renegotiation?

Guasch (2004) identifies six factors that increase the likelihood a roads PPP will be renegotiated:

- Lack of regulatory board or defective regulation
- High costs of contract enforcement, or low quality of enforcement
- Government tolerance of aggressive bidding (Box 7.4 describes how aggressive bidding for urban transport franchises in Victoria, Australia)
- Poor or faulty contract design (Box 7.5 describes how poor contract design lead to contract termination in Ukraine)
- Government not honoring clauses
- External factors

***Box 7.4: Poor Demand and Cost Forecasts cause Renegotiation***

In 1999, the State Government of Victoria decided to involve the private sector in provision of urban transport services. The government divided the Public Transport Corporation's operations into five franchises: two urban rail franchises, two tram (trolley) franchises, and one contract for the regional train services.

Contracts were awarded through competitive bidding. In their bids, operators had to provide their plans for the business, and the level of fixed subsidy they would require. The subsidy bid was an important factor in evaluation of the bids. Bidding for franchises was aggressive.

Under the contract the operators took substantially all the input price risk (apart from a general inflation adjustment), all the operating risk, and all the demand risk. In fact, the demand risk was exacerbated by the fact that about a third of the anticipated subsidy was linked to the passenger growth achieved.

Within a couple of years, the franchisees began to hit financial difficulties. First, the strong demand growth bidders had assumed did not eventuate, and the companies' financial positions were very sensitive to demand. Lower than projected demand growth meant not only lower ticket revenues, but shortfalls on projected PGI payments. At the same time, costs were largely fixed, so demand shortfalls had a leveraged effect on profitability. Second, the companies were not able to cut costs by as much as expected.

The franchisees notified the government of emerging financial difficulties in late 2001, and submitted a six-point plan to the regulator with proposals to resolve the situation. In February 2002, 141 claims and disputes were submitted to the government under the franchise agreements. The main reason for renegotiation appeared to be due to the aggressive patronage growth projections of the original bids and lower than forecast cost savings.

Source: Ehrhardt, D. and Irwin, T. Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy toward Leverage, Risk Allocation, and Bankruptcy. World Bank Research Working Paper 3274, April 2004.

***Box 7.5: Poor Contract Design Leads to Contract Termination***

In 1991, the Hungarian Government issued a competitive international tender for a private concession to extend the M1 motorway. Four international consortia bid to build the road. Negotiations with the winning bidder were finalized in 1993. The two parties agreed that the private sector would take on traffic and construction risk, and would be free to set the toll rates.

Soon after the M1 was completed and the toll road was operational, it became clear that the project was in jeopardy since traffic was only half the amount that was forecast by investors, lenders, and the government. Low demand was caused by several factors:

- A parallel road without tolls
- Over-optimistic toll forecasts. Assessments were based on no-toll levels of demand and assumed high growth rates throughout the operation period
- Lower than expected willingness to pay tolls on the behalf of users
- Inefficient allocation of risks during the initial negotiations
- Political instability caused by a change of government to one that was not favorable to PPPs.

To make matters worse, the project's financial backer, the EBRD, suspended funding, forcing a renegotiation. With a new government in office that opposed PPPs and private sector funding of public project, renegotiation proved difficult. Ultimately, the M1 was renationalized.

Source: Bracey, N. "Public Private partnership: Risk to the Public and Private Sector" The Louis Berger Group.

**What steps can contracting parties take to avoid renegotiation?**

To design a well-governed PPP contract, and avoid renegotiation, contracting parties can take the following steps:

- Define the treatment of assets, evaluation of investments, outcome indicators, and procedures and guidelines to adjust and review tariffs in PPP contracts
- Include in the contract a renegotiation clause that specifies:
  - What conditions would allow either side to initiate renegotiation
  - What the renegotiation process would look like
  - What would happen in the event that an agreement could not be reached
- Build flexibility into the design of the risk sharing arrangement to allow both parties to deal with unexpected external shocks
- Ensure that an appropriate regulatory framework is in place before granting PPP contracts.

**If renegotiation is “unavoidable”, what steps can be taken to make this process as transparent as possible?**

Even if mitigating measures are considered and put in place, renegotiation may still occur. To ensure the renegotiation process is transparent and reduces opportunities for corruption, the following steps should be taken:

- Ensure proper regulatory accounting of all assets and liabilities
- Consider review of renegotiation claims by external, professional panels
- Explain to the public immediately any adjustments made through contract renegotiation.

### Source List 7.1: Detecting Corruption in Public-Private Partnership Contracts

Source	Description
<b><i>Limiting Corruption when Procuring Private Providers—General Material</i></b>	
<b>World Bank (2006) “<a href="#">Public-Private Options for Developing, Operating, and Maintaining Highways: A Toolkit for Policymakers</a>”</b>	Sections 4 and 5 of the Toolkit describe types of contracts, how to select a private contractor, and what types of institutional management reforms might need to take place to ensure a successful public-private partnership. <sup>xlv</sup>
<b>Asian Development Bank (2000) “<a href="#">Developing Best Practices for Promoting Private Sector Investment in Infrastructure – Roads.</a>”</b>	Covers best practices in contractual arrangements, sources of financing, the risk allocation, strategic planning, legal and regulatory frameworks, and the role of government. Defines the objectives of private sector participation in the road sectors, reviews international experience, and identifies key issues that contribute to best practices. <sup>xlvii</sup>
<b>Estache, A. (2004) “<a href="#">Where Do We Stand on Transport Infrastructure Deregulation and Public-Private Partnerships?</a>,” World Bank Research Working Paper 3356</b>	Reviews the effectiveness of transport infrastructure deregulation from three angles: efficiency, fiscal and users' viewpoint. Emphasizes that governments willing to make corrections to the reform path are faced with the need to address recurrent and emerging issues in transport systems: tariff structure, quality (timetable, safety, environment), access rules for captive shippers, the trend toward re-bundling and decrease in intra-sectoral competition, multi-modality and the stimulus through yardstick competition. <sup>xlviii</sup>
<b>Queiroz, C. (2005) “<a href="#">Launching Public Private Partnerships for Highways in Transition Economies</a>” Public-Private Infrastructure Advisory Facility (PPIAF)</b>	Reviews potential applications of partial risk guarantees, the required legal framework (for example, concession law) for attracting private capital for PPP schemes, possible steps for a country to launch a program of private participation in highways, the concept of greenfield and road maintenance concession programs, and the treatment of unsolicited proposals. It also summarizes potential applications of the World Bank Toolkit for PPP in Highways as an instrument to help decision-makers and practitioners to define the best PPP approach for a specific country. <sup>xlix</sup>
<b>Amos, Paul. (2004) “<a href="#">Public &amp; Private Sector Roles in the Supply of Transport Infrastructure and Services: Operational Guidance for World Bank Staff</a>”</b>	Provides a framework for World Bank staff for identifying and assessing the different models for public and private roles in the transport sector. It highlights policy and regulatory issues which are important in judging the suitability of different models, and it summarizes the range of instruments available to the Bank Group to support particular models. <sup>xlxi</sup>
<b>Roberts, Peter and Natalya Stankevich. “<a href="#">PPP Resources for Road Transport.</a>” Workshop on Public-Private Partnerships in Highways, World Bank.</b>	Provides extensive list of resources for PPPs in highways across a variety of themes, including case study sources on PPPs in several geographical regions. <sup>lx</sup>
<b>Bracey, N. “<a href="#">Public Private partnership: Risk to the Public and Private Sector</a>” The Louis Berger Group.</b>	Addresses the issues and questions surrounding PPPs by looking at case studies in PPPs and risk-sharing in infrastructure projects throughout the developing world, more specifically, in Asia and Eastern/Central Europe. Looks at cases where donor funding and activity has been used, at least initially, to lower risk and to attract investment. Discusses whether or not these countries have since successfully “graduated” and are now able to attract private sector investment with favorable risk sharing arrangements.
<b><i>Renegotiating Transport Sector PPPs</i></b>	

Source	Description
<b>Guasch, J. (2004) <a href="#"><u>Granting and Renegotiating Infrastructure Concessions: Doing it Right</u></a>, Washington, DC: World Bank</b>	This paper is the definitive source on renegotiating infrastructure concessions. It describes the high incidence of renegotiation, drivers of renegotiation, and government response to renegotiation. Section 7 provides guidelines for optimal concession design, and how to avoid renegotiation. <sup>ii</sup>
<b>Ehrhardt, D. and Irwin, T. (2004) "Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy Towards Leverage, Risk Allocation, and Bankruptcy" <a href="#"><u>World Bank Policy Research Working Paper</u></a>, Washington, DC</b>	This paper examines five case studies of customer and tax payer bailouts in infrastructure projects (these are: Melbourne transport franchises, National Air Traffic Services, Mexican toll roads, electricity in Sao Paulo, and Railtrack). The paper describes how government and regulatory can quantify the extent of the problems and, using option-pricing techniques, value the customer and taxpayer guarantees involved. Finally, it analyzes three options for mitigating the problem:
<ol style="list-style-type: none"> <li>1. making bankruptcy a more credible threat</li> <li>2. limiting the private operator's leverage, and</li> <li>3. reducing the private operator's exposure to risk.<sup>iii</sup></li> </ol>	
<b><i>Limiting Corruption when Procuring Private Providers—Contract Design</i></b>	
<b>UK Treasury, Private Finance Initiative, Standardised Contracts</b>	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>iv</sup>
<b>World Bank (2006) <a href="#"><u>Sample Bidding Document for Procurement of Works and Services under Output- and Performance-based Road Contracts</u></a></b>	Guidance material on procurement of works and services where payments are based on measured "output" reflecting the target conditions of the roads under contract (in other words, "what the roads are supposed to look like"). <sup>v</sup>
<b><i>Limiting Corruption when Procuring Private Providers—Competitive Selection</i></b>	
<b><a href="#"><u>Partnerships Victoria Guidance Material</u></a></b>	The Partnerships Victoria website 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. <sup>vi</sup>
<b>UK Private Finance Initiative Guidance Material</b>	See "Limiting Corruption when Procuring Private Providers—Contract Design" above.
<b><i>Limiting Corruption when Procuring Private Providers—Unsolicited Bids and Negotiated Selection</i></b>	
<b>Hodges, J. and Dellacha, G. (2007) <a href="#"><u>Unsolicited Infrastructure proposals: How some countries introduce competition and transparency</u></a>, Public Private Infrastructure Advisory Facility Gridlines, Note 19, March 2007</b>	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. <sup>vii</sup>

Source	Description
<b>Hodges, J. and Dellacha, G. (not dated)</b> <a href="#"><u>"Unsolicited Infrastructure Proposals: How Some Countries Introduce Competition and Transparency"</u></a>	This paper reviews three current systems for approving and tendering unsolicited proposals (Bonus system, Swiss Challenge system, and Best and Final Offer system). It provides summaries of country or state practices that have introduced competition and transparency (including: Argentina, Australia, Canada, Chile, Costa Rica, India, Indonesia, Korea, the Philippines, South Africa, Sri Lanka, Taiwan, and the United States). Links to applicable laws and regulations are contained in Appendix C. <sup>lvii</sup>
<b>Allens Arthur Robinson, <a href="#"><u>PPP Lessons to be learnt</u></a>, December 2002.</b>	Provides a case study from New South Wales of how lack of transparency in the bid evaluation and negotiation process can lead to costly litigation.
<b><i>Output- and Performance-based Contracting</i></b>	
<a href="#"><u>Training Course for Contracting Performance-based Management and Maintenance of Roads</u></a>	The course is structured in four parts and contains a good mix of modules, case studies and workshops. A <a href="#"><u>Training Report for Thailand and China</u></a> provides more information on the two completed training courses held to date. <sup>lviii</sup>
<b>Stankevich, Natalya, Navaid Qureshi and Cesar Queiroz, (2005) "<a href="#"><u>TRN-27: Performance-based Contracting for Preservation and Improvement of Road Assets</u></a>"</b>	This note reviews worldwide experience with the performance-based contracting approach, highlights the main advantages, the steps involved and the results generated. The document is intended to provide Ministries of Transport and road agencies of developing and transition countries with a clear understanding of the benefits and risks of applying the performance-based contracting approach. <sup>lix</sup>

Source	Description
<p><b>Zietlow, G. 2005. "Cutting Costs and Improving Quality through Performance-Based Road Management and Maintenance Contracts - The Latin American and OECD Experiences."</b>  <b>Birmingham, April 24-29. University of Birmingham (UK), Senior Road Executives Programme, Restructuring Road Management.</b></p>	<p>Reviews performance-based road management and maintenance contracts in Latin America and OECD countries. Emphasizes how contracts vary based on country context. Includes lessons learned and recommendations for future contracts.</p>
<p><b>Hartwig, T., et al (2005) "<a href="#">Output Based Aid in Chad</a>" OBA Approaches</b></p>	<p>This note describes how using performance-based contracts to improve the roads has the effect of extending supervision and providing accountability for results in Chad.<sup>lx</sup></p>
<p><b>Brook, P. and Smith, S. (2001) "Contracting for Public Services: Output-Based Aid and its Applications"</b> Public-Private Infrastructure Advisory Facility, The World Bank.</p>	<p>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>xi</sup></p>
<p><b>Mumssen, Y. and Kenny, C. (2007) "<a href="#">Output-Based Aid in Infrastructure: A Tool for Reducing the Impact of Corruption</a>" OBA Approaches Note Number 16.</b></p>	<p>Describes how output-based aid (OBA) is a useful tool for reducing corruption. Emphasizes how specific elements of OBA, including transparency, accountability, competition, limits on discretion, and development impact, may lead to reduced corruption. Describes corruption challenges that OBA may not address.<sup>xii</sup></p>

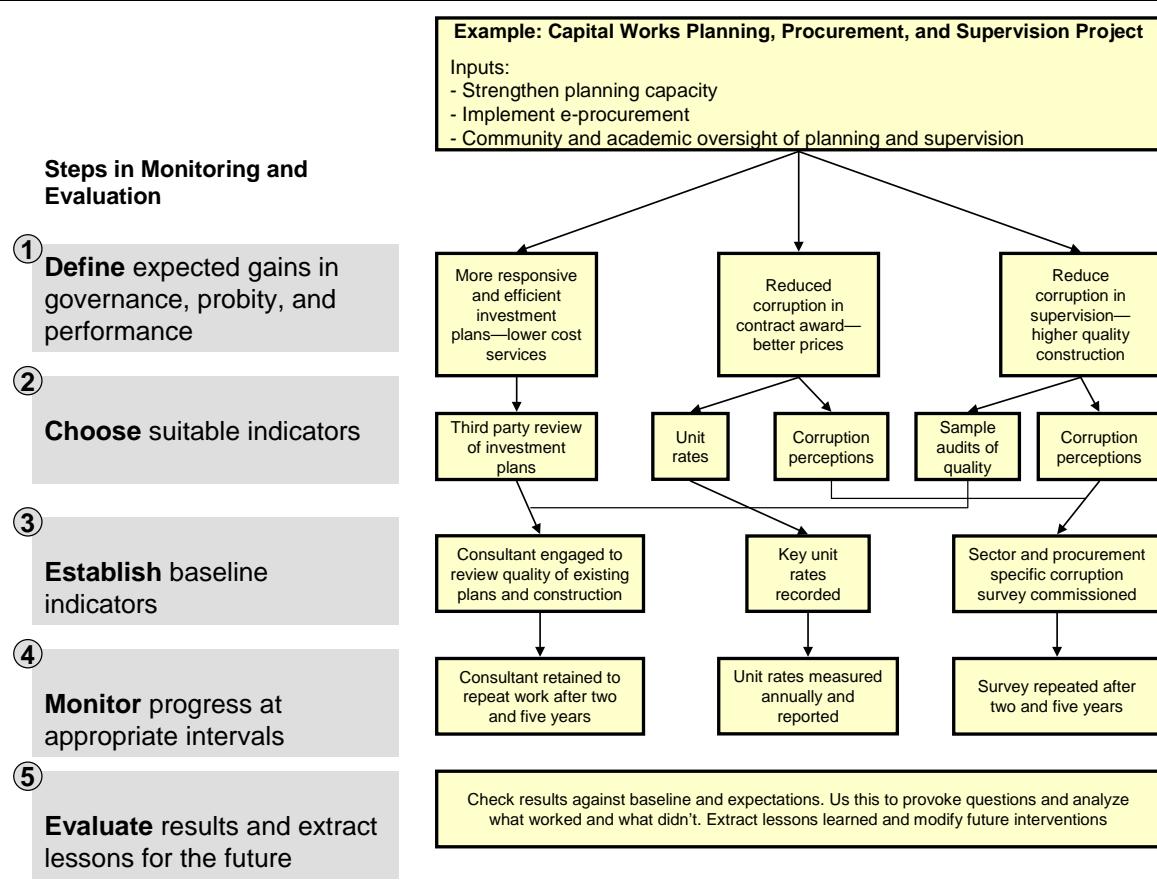


## 8 REVIEWING PROGRESS

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 8.1 lists (on the left-hand side) the typical steps in monitoring and evaluating 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.

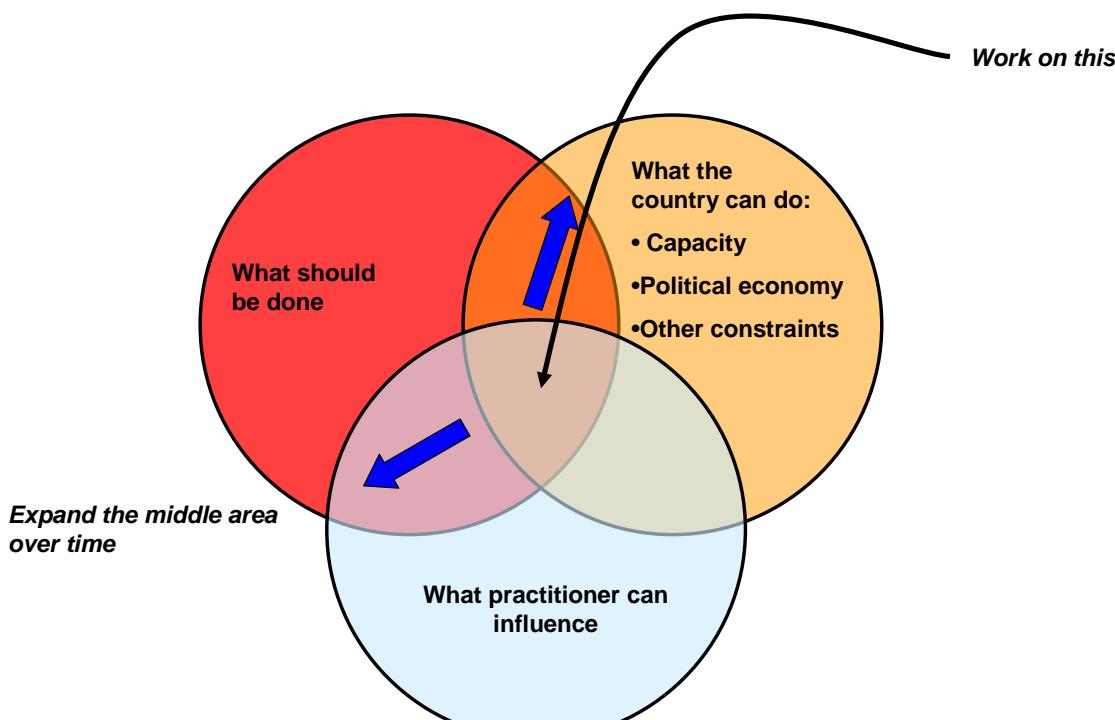
**Figure 8.1: Monitoring and Evaluation**



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.

### 8.1 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 8.2).

**Figure 8.2: Recognizing Variability in Country's Abilities and Circumstances**

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 anticipated results?
- What is the expected chain of causation between the inputs and the anticipated result?

In the example illustrated in Figure 8.1, 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.

## 8.2 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 8.1 indicates how important this choice is.

### **Box 8.1: 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 unharmonized 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

In selecting which indicators are suitable for monitoring purposes, practitioners may consider the following principles:

- Indicators chosen should relate to the intended results, while also being proximate to the actions whose success is being monitored. The ultimate intended result of actions to increase probity in capital works may be to lower the cost of transport infrastructure.
- 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 indicators, or existing surveys, such as the relevant parts of the Doing Business Survey.<sup>17</sup> In other cases, it will be worth developing indicators specifically for the project. For example, practitioners could use simple surveys that collect data on reported side-payments or bribes (see example in Table 8.1).

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<sup>17</sup> For more information on the Doing Business Survey, please see <http://www.doingbusiness.org/>

**Table 8.1: 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>				
	Staff exchange professional favors for political influence in obtaining promotions (%)	Staff are expected to make side payments in order to obtain promotions (%)	Staff exchange professional favors for political influence in obtaining transfers (%)	Staff are expected to make side payments in order to obtain transfers (%)
Almost always (~100) or 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 no know/Not sure	1	0	1	0
Weighted average	20.5	11.8	51.5	27.5

Source: Davis, J. (2003) "Corruption in Public Service Delivery: Experience from South Asia's Water and Sanitation Sector" *World Development*, Vol 32(1), p. 61

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 8.2).

### **Box 8.2: 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

### **8.3 Establishing a Baseline**

Ideally, at the beginning of a pro-poor 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.

### **8.4 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 Ministry of Transport 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.

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
2. Establishing external reviews and audits by a reliable, independent firm
3. Analyzing and reporting on results

### **8.5 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 probity interventions are discontinued or modified at an early stage, and that successful interventions are continued.
- **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.
- **Imposing penalties on agencies 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.

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.

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