MAKING INROADS ON CORRUPTION IN THE TRANSPORT SECTOR THROUGH CONTROL AND PREVENTION

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5

Making Inroads on Corruption in the Transport Sector through Control and Prevention

WILLIAM D. O. PATERSON AND PINKI CHAUDHURI

"Roads connect food, goods, markets, people, families, communities, and lives. They connect politicians, civil servants, the police and the military, the judiciary, and governments. But roads can lead from heaven to hell, as the ugly heads of greed and envy often seize the material opportunities for graft and corruption in the development, maintenance, and operations of roads."

Manolito Madrasto, Former Secretary General,
International Federation of Asian and Western Pacific
Contractors' Associations (IFAWPCA)

The financial rationale for combating corruption in transport infrastructure is very strong. Budgets are large, often making up 10–20 percent of a country's national budget. The road subsector alone may constitute the majority of a developing country's annual infrastructure budget. Additionally, 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. The prevalence and style of corruption varies considerably between countries and agencies. Leakage from corruption may be as low as 5 percent but can often amount to 20 percent of transaction costs in corrupt countries or even more in some instances. Similar levels of wastage are possible through inefficiency and ineffective resource use, so collectively strengthening governance and capacity in the transport sector could potentially save 10–40 percent of sector expenditures.

Beyond the direct costs of resource leakage, corruption frequently diverts funds to projects with lower economic rates of return. Corrupted construction is often substandard, reducing project sustainability and increasing the need for maintenance and rehabilitation. Transport infrastructure is fixed and subject to considerable local influence on land use and social and economic development, so not only are the opportunities for extracting rent potentially high but the impacts are also significant and long term. These economic losses may be as large or larger than the direct financial costs of corruption. Furthermore, significant institutional costs are often

associated with corruption. Corruption is rarely, if ever, limited to one sector, and the effects of corrupt practices in the transport sector are likely to spill over to other sectors and the broader economy. Thus, there is a broad rationale for combating corruption to ensure institutional integrity and sustainability within and across sectors.

Despite the considerable financial, economic, and institutional costs of corruption, within government departments the capacity for due diligence in combating corruption is often low. In the engineering profession, which constitutes a major part of transport infrastructure spending, rigorous systems of checks and balances exist regarding the roles of owner, supervisor, and supplier; contract provisions; regimes for testing and certifying quality; measuring and payment for quantities; and obligations and sanctions. Many of these systems have legal status, but where they are weakly applied or individuals conspire, corruption may emerge. Even within international financial institutions and donor agencies, institutional integrity and anticorruption practice areas remain nascent. At the same time, the transport sector has substantial potential for stemming corrupt practices where they may exist.

This chapter 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 as well as remedies, and develops strategic management mechanisms to combat corruption in the transport sector. The focus of this chapter is thus geared to strengthening integrity in the transport sector and, toward that goal, to helping establish operational practices for institutional strengthening and anticorruption work in the sector. The first section reviews the political and transactional anatomy of corruption by mapping key risk areas in the transport sector that are vulnerable to corruption at the national, sector, and project levels. The second section analyzes remedial options in a twin-pronged strategy—first with a focus on short-term controls, investigation, fraud detection, sanctions, and their enforcement in the transport sector; and second, through a longer-term preventive approach that aims to build internal controls and capacity in ways appropriate to local conditions and the prevailing modes of corruption.

WHAT CORRUPTION LOOKS LIKE IN THE TRANSPORT SECTOR

The working definition of corruption adopted by the World Bank Group is "the abuse of public funds and/or office for private or political gain." Corrupt practices in the transport sector thrive in an environment of weak institutions, but not all such instances result in corrupt activity. For instance, during budget preparation, agencies may inflate their needs, distort priorities, or identify and cost programs and projects inaccurately—all of which lead to inefficiency but not necessarily to corrupt practices (for a discussion on the legal status of a variety of seemingly suspicious acts, see Søreide 2005). Thus, it is important to distinguish between corruption—intent and action to abuse public office for private gain—and a range of institutional weaknesses that result in waste and inefficiency (that may also provide opportunities if not incentives for rent-seeking behavior and policy bias). This chapter maintains this distinction throughout as the connection is very tight between poor governance, process weaknesses and abuses, state capture, and project-specific administrative corruption. In tackling corruption, this distinction becomes important, because the response

may differ somewhat depending on whether the source of the problem is incompetence or corruption. Enforcement-oriented remedies can only tackle downstream effects, and thus a broader sector integrity approach is needed for long-term and upstream impact on both corruption and incompetence.

Typology of Governance Failure and Corruption in the Transport Sector

The governance-corruption spectrum in the road sector illustrates the close nexus between state capture at the national and sectoral levels, a range of governance failures at the agency and department levels, and administrative corruption at the project level. Governance failure is the broadest level of analysis and action, covering all corrupt activities as well as noncorrupt but inefficient processes and systems. State capture involves the manipulation of rules, laws, policies, and public entities other than for their intended purposes for private or political gain. A subset of corruption, state capture is often associated with grand corruption because it involves the wholesale distortion or exploitation of public entities, elections, or broad government functions such as national budgetary processes. Administrative corruption involves the abuse of public office or funds for private gain through the manipulation of specific transactions. This kind of behavior, which involves bribes, kickbacks, and the like, is what has traditionally been considered to be corrupt behavior.

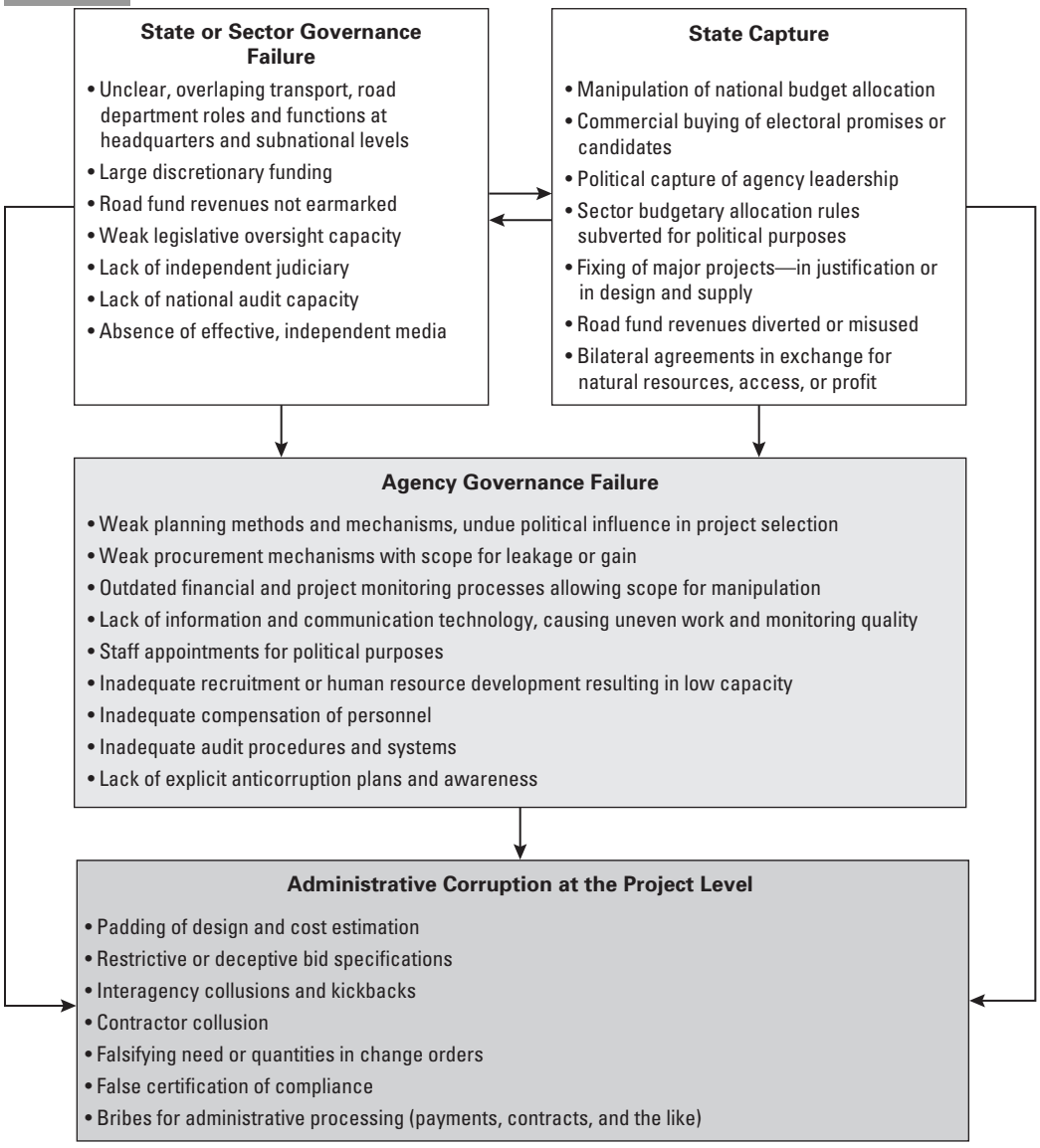
Broadly speaking, in the transport sector, governance failures at the country and sector levels relate to arbitrariness in decision making, to discretion in the spending of public funds, and in some cases, to poorly defined original mandates. At the agency level, the governance failures in the road sector tend to stem from the absence of appropriate business processes and mechanisms that can increase efficiency and reduce discretion. These mechanisms include information technologies as well as automated planning and financial tools and applications that replace individual discretion with objective and automated criteria for decision making, thereby making it much harder for unintended or corrupt purposes to prevail, and if attempted, making corrupt acts much easier to detect. Figure 5.1 depicts the levels of governance failures and corrupt activity and some of the typical indicators of both.

A bare-bones typology of corruption in the transport sector would thus comprise:

- State capture often involving grand corruption at the country and sector levels, a high level of political discretion over transport expenditures, poorly defined entities and structures, and subversion of public entities and resources other than for their intended purposes. Grand corruption also includes capture of the legislative process of transport policy making through aggressive lobbying processes that can often involve various forms of corruption, including illicit quid pro quo favors, kickbacks, and outright bribery.
- Administrative corruption refers to capture of the government's supply and demand chain for goods and services that are intended for public/taxpayer benefit but are diverted by government officials. In transport, this includes pilferage of materials and equipment; manipulation of contracts for works, goods, or services; or award of concessions for private sector operation of rail, port, air, or road facilities and services.

Corruption in the transport sector involves a variety of strategic behaviors from improper influence in budgeting and the choice of projects at the level of state

FIGURE 5.1 **State Capture versus Administrative Corruption in the Road Sector**



Source: Authors.

capture to a range of activities to extract rent, or "something of value," in return for a public good such as a carriage permit, a construction contract, or a concession or lease (table 5.1 lists such activities, along with operational definitions). Public officials at all levels may be involved, from ministers to clerks. Administrative corruption almost always involves an explicit transaction, whereas the transaction in state capture may be indirect, as for example, in cases where ministers choose policies that will benefit firms in which they have an interest. Even in the case of administrative corruption, the kickback may be remote from the administrative decision—a beneficiary firm might pay for the education or other benefits for a member of the

TABLE 5.1 Types of Corrupt Activity Prevalent in the Transport Sector

Corrupt activity	*Definitions and examples*
Bribe	Payment to a government official for any type of favor. Bribes are paid by firms to be "short listed" or prequalified, to win contracts, to approve contract amendments and extensions, to influence auditors, to induce site inspectors to compromise their judgment regarding quality and completion of civil works, and to avoid cancellation of contracts for poor performance. Bribes are typically paid on a one-off basis for a specific task or favor performed. They are often a percentage of the contract or benefit desired. The amount of the bribe is often negotiated, sometimes causing significant delays in contract awards, project implementation, or the payment of invoices.
Kickbacks	Payment made by a successful bidder to a third party as a result of an arrangement made prior to bidding. This is typically regarded as a share of proceeds from a bid that has been padded sufficiently to cover the payoffs and kickbacks to the parties involved. Kickbacks are usually arranged as a percentage of the bid amount and increase in size with the status of the party concerned.
Collusion	Agreements among bidders to manipulate the bidding process or its results in a manner that is mutually satisfactory. Public officials may orchestrate or be involved in the collusion in return for a bribe. Collusion often involves bid rigging (see below).
Bid rigging	Actions that influence a bid price in a noncompetitive way to achieve a prearranged objective. All forms of bid rigging include some type of information or procedural asymmetry to tip the scale in favor of a contractor or consortium. Two common forms are manipulation of bid specifications and sole-source contracts, both of which unfairly exclude competition. In bid rigging involving collusion, parts of a bid may be deliberately raised in order to create a losing bid. The "winning" bid may be set above the known cost estimate ("highball") in order to finance kickbacks after award. In noncollusive bid rigging, contractors may submit a "lowball" bid, where the price is set low to win the contract, only to be increased after the contract award through change orders or addenda, often with the help of officials.
Fraud	Illicit documentary practices to subvert qualification requirements, such as commercial registration or financial capacity, or to cover up poor performance and corrupt practices, such as billing for works never performed, failing to meet contract specifications for road construction, and inflated billing for goods and services, among other actions. Fraud by project officials includes diverting project assets such as computers or vehicles, documenting "ghost employees," and setting up front companies (to create the illusion of competition or conceal the identity of the principal owners or beneficiaries for taxation avoidance, usually working in concert with selected complicit firms).

official's family, for example. Most bribe givers are contractors, private firms, or a consortium of firms. These activities, in most if not all types of legal jurisdictions, are actionable offenses and are punishable under the law. Importantly, even though the corrupt acts can be broken down into actionable offences, the larger evidentiary chain may reveal complex connections with state capture. Other than pilferage, corruption in modal transport sectors is as likely to conjoin administrative and state capture—including policy capture at the legislative levels—as it is to be unraveled by a discrete "smoking gun" or proverbial "hand in the cookie jar." In terms of solutions, this signals a need for an integrated approach to control, through internal control systems, detection techniques, and external monitoring.

Corruption in Transport at the Sector Level

At the sector level, corruption typically occurs in the context of the capture of the policy-making process. Private interests, often through politicians, exert influence on the direction and content of policies to favor their own activities or investments. This then affects sectoral planning and the annual allocation of budgetary resources.

State Capture

In transport, state capture tends to occur in two forms. The first form involves the allocation of high-level responsibilities, appointments, and mandates pertaining to the planning and funding of transport infrastructure. Political or vested interests may determine the allocation of resources to transport and other major investments with little regard to objective planning criteria, forecast of needs, or expected rates of return. New investments may be favored over maintenance because they offer more and larger opportunities to cream off or divert funds. The extent to which these top-level decisions are the mandate of a few appointed or elected officials without adequate interaction with a rigorous planning process, impact analysis, or consultation can provide an opportunity for influencing the disposition of a substantial amount of public resources and the potential for incurring substantial damage or social costs. Collusive alliances rely on higher-level cover, and appointments may foster an oligarchic or corporate influence over the planning and funding processes. The rules relating to major private sector investment in transport may allow indirect involvement of public officials through participating companies, or oversight arrangements may have loopholes that give officials opportunities for private gain. Revenues collected through a state-owned port operator or toll road company or through other means may be directed to political party funding.

The second form of state capture involves bilateral concessions, wherein the government may grant substantial benefits—through preferential access to scarce natural resources or another concession—in return for investment in a major transport asset, such as construction of a port, airport, or highway, or for supply of particular commodities such as rail cars or aircraft. These schemes take numerous forms. The construction of a border road may be offered in return for access to logging of hardwood forests. Undue influence may be exerted on the shaping of national policy on the privatization of rail, ports, or airports, such as the packaging of rail networks and services; or of port and airport facilities and services, which would confer a special benefit to the concessionaire. A related form of state capture at the legislative level involves the power of industry lobby groups—such as the automobile and road construction industries—that attempt to bias legislation in their favor, such as in emissions control, fuel economy, and safety regulations.

Discretionary Influence in Resource Allocation

The allocation of national resources to and within the transport sector typically involves a combination of fiscal criteria, economic planning and development criteria, and political discretion. For transport systems, established methods for planning, evaluating, and prioritizing capital investments integrate socioeconomic, spatial, and environmental considerations at a network level. These methods are complex, and

their results can also be manipulated, misrepresented, or ignored in order to elevate the priority of a project.

In some governments, elected representatives are allowed line-item or allocation privileges that are entirely discretionary, with little legislative or technical scrutiny. Line-item budgets, sometimes referred to as "pork barrel," may indicate that an objective planning process is being bypassed.[1] Such discretionary power may be used to seek direct gain through kickbacks to allies or indirect gain through increased business and rising land prices in the representative's constituency.

Recurrent expenditures include operations and maintenance, where total spending may be small but is widely dispersed. These funds are handled by local jurisdictions and may be given lower levels of scrutiny. Allocations may be directed to support political influence, including withholding funds from disfavored areas. This overriding of technical and objective criteria in program allocation effectively undermines the government's ability to be a prudent asset manager.

Where objective criteria have been established for budget allocation or prioritization (based, for example, on an inventory of assets), the corruption risk may extend to manipulation of the information on which decisions are based. An example would be the overreporting of road and bridge inventory, where funding allocations are based on length of road and bridges, or overreporting of staff by including temporary staff in the count. Another example would involve reclassification of local roads to national road status in order to qualify for national funds and thus a larger budget allocation than would otherwise be warranted on functional grounds. Such a change of road status would also result in eligibility for greater maintenance funds, which may receive lower scrutiny or be jurisdictionally targeted.

Role of Institutional Structures and Policies

The nature of sector institutions can significantly change the nature of corruption. Traditionally, the transport sector has been vertically integrated. Transport infrastructure is typically delivered through a public works department, and transport services are regulated, and in some cases provided, through a transport department. The probity of such a model depends considerably on internal controls and the integrity of individual officials.[2] In corrupt environments, the nature of the work, weak controls, and weak accounting mean that a public works director or engineer could easily direct the use of heavy equipment and staff to tasks of little public priority or even private gain. The purchase and maintenance of equipment also provide ample opportunities for private use and pilfering. In transport operations and services, the power afforded to officials for granting permits or licenses could also permit external influence.

Since the mid-1980s, sector reforms have focused on the separation of operations from policy-making and regulatory functions with the aim of greater efficiency in service delivery and often lower cost of service. Major gains were achieved through separating service provision from infrastructure management, especially in air- and seaports. It is expected that such deconcentration of power allows for greater impartiality and transparency and, depending on the legislative and contractual mandates of the parties involved, likely provides stronger incentives and controls for accountability. The resulting structure is considered less vulnerable to state capture than a vertically and functionally

integrated public sector agency. Commercialization of service delivery in the sector, by separating management and operations and by procuring works and services under contract and through competitive processes, was advanced mainly to achieve efficiency gains in quality and cost. Where effective competition and oversight exist, this approach has improved the accounting of works and services—both technical and financial—as well as the quality and cost. Corruption remains a risk, however, because it has shifted to transaction management—the procurement process, quality control, and financial control—exploiting weaknesses in each process. These weaknesses are often exacerbated at subnational levels where the capacity of local government units may be thin, staff are close to local vested interests, influence engenders alliances, and scrutiny may be light.

The mixed performance of these unbundled structures in recent time offers important lessons. For the unbundling of the functions to perform effectively, there needs to be both adequate capacity in each of the new sector entities and effective market forces. Where the transport sector is small, professional capacity is weak, or corruption spans public and private sectors, such unbundling is likely instead to increase the opportunities for corruption and governance failure and is especially vulnerable to influence over staff appointments or high-level alliances among officials. For example, under early road fund models, corrupt officials were sometimes able to capture road boards, which were given additional autonomy over substantial funds that were often treated as "off-budget" because of their dedicated revenue stream from road users. Under "second generation" road funds, the oversight has been made stronger and more transparent by involving road users and diversifying the composition of the board; however, where appointments are subject to high-level political authorization, the process can still be compromised through a directed appointment of corrupt "players" and relaxation of controls. Similarly, corruption has flourished in semiautonomous port authorities and services where the appointments have been political or controls have been weak. Thus, sector restructuring will reduce corruption only to the extent that critical assumptions and caveats on the governance environment and institutional capacity are realized.

Corruption at the Agency Level

Poor governance at the sector level often results in problems at the agency level that lead to corruption. Business processes and control systems may be inadequate and inefficient because leadership at higher levels is less concerned about sectoral outcomes and more with generating private returns: the impetus for agency officials to establish or improve effective procedures and more efficient systems is weak. A common corollary is a perversion of personnel management in which recruitment, transfers, assignments, and promotions are based less on merit and more on favors and connections. The resulting environment thus leads to ample opportunities for administrative corruption to emerge and thrive.

Weak Business Processes and Controls

Corrupt practices at an agency level generally thrive with two facilitating factors—weak internal controls and processes, and an alliance or network of cooperating agents. Accounting methods and financial management processes are critical to the tracking of funds and transactions. When these are in paper form, the difficulty of

verifying authenticity, tracking individual transactions, and retrieving or auditing transactions in a corrupt environment rises steeply, and corrupt agents have developed many fraudulent schemes, ranging from petty cash theft through substantial internal transfers or manipulation of book entries. Standard internal controls and audits can be subverted by falsified documents or co-opted staff at critical but not necessarily visible or senior positions. Fund transfers between offices may be destined for a local office where scrutiny and document control are more lax than at headquarters, or they may be billed to bulk or general tasks that are plausible but typically not measured, such as routine repairs, landslide removal, safety repairs, and earthworks. Emergency maintenance is typical of a category that few would dispute but is rarely subject to explicit measurement and control. In return for fraudulent documentation, payments may be made to local officials or agents, or claims for expenses may be misrepresented. Revenue collection is a notorious point of leakage, especially in remote locations or in enforcement situations, such as traffic or vehicle infringements, toll or tariff collection, and registration or testing.

Other perversions of agency processes may involve the use of agency or public assets, usually with the connivance of and protection by officials in key positions. The use of heavy equipment for private or nonpublic purposes is a common feature of some public works agencies—sometimes to further arguably good social or community interests. Some equipment scams involve renting out equipment in return for receipts that are not documented, the billing of multiple repairs to a single vehicle, the retention of scrapped vehicles on the inventory to which are charged various maintenance and overhaul costs, and similar schemes that provide cover for stealing funds. Theft of materials from warehouses and quarries, where bulk materials are rarely inventoried, or of spare parts is another example. Critical to these schemes is a cadre or small network of agents who manage the scheme, usually with an identifiable leader. Often, however, the appearances of normal operation are such that nonparticipants in the scheme may be set up or targeted for blame in the event of an investigation, especially if senior officials are involved.

Personnel Appointments

Staff appointments and promotions may be used as rewards or incentives for cooperation with corrupt practices. Sometimes staff positions may be sought not for the pay or prestige they bestow but for the rent-seeking opportunities they offer. In the case of technical management positions, entry rules such as technical qualifications may be relaxed or waived in order to place a favored ally; such hirings also compromise the quality of professional decisions in that jurisdiction. These employees or "agents" are co-opted or placed in critical nodal points within the bureaucracy to facilitate corrupt transactions. They may be embedded in the procurement or disbursement chain with relevant authorization, or they may be the collection agents for bribes and kickbacks. A recent study on corrupt practices reveals that the entry fee paid to obtain a "lucrative" position, such as in transport, can be very high and may be financed by an informal network of creditors—family, neighbors, community—at high rates of interest, thereby generating a significant bloc of stakeholders who are directly or indirectly invested in and rely on corrupt practices (CESIFO 2004).

Lack of Oversight, Monitoring, or Independence

In corrupt environments, even the institutional watchdogs, such as the national auditor or a departmental inspector, may be compromised and provide clearances in return for a share in kickbacks. In cases where annual audits reveal substantial amounts of undocumented transactions, the typical explanation is loss or lack of documentation, which is a governance failure, whereas some cases are as likely to be signs of corruption but with no evidential material to detail the transactions or identify the parties involved. Weak investigative and judicial capacity—or quiescent or complicit agency management—means that few of these cases are likely to be solved and prosecuted. In certain situations, even external groups that have been brought into the process to enhance transparency because of their supposed independence, such as nongovernmental organizations or other civil society representatives, have been compromised. Where the incentives are sufficient—whether in terms of payments, or through the cultural pressures of respect for authority or of harmony and cooperation, or from fear of reprisals—there are examples of the so-called independent monitor being co-opted with payments or acquiescing without objection. Improved transparency is important in securing the trust of users as well as in adding another oversight mechanism. At a minimum, the subversion of outside monitors adds to the cost of the corrupt transaction.

Mechanics of Transport Corruption at the Project and Transaction Level

Corruption at the sector and agency levels invariably "cascades down" to the project level, beginning with the processes for preparing the project, to the bidding and implementation phases, and to the payment process.

Preparation of Projects

While most corrupt activities at a transaction level are found during the bidding phase of procurement, several forms of corruption can be inserted during the preparation phases of study, design, and prebid documentation. In the feasibility study or design stages of a project, consultants may overdesign a facility if their fee is based on a percentage of project cost. Or they may bias a decision for a project option that could involve higher income for them from design and supervision services downstream. They may also be influenced at this stage by political or vested interests who may benefit financially from a specific option. Adverse impacts on environmental and social safeguards such as land acquisition or terrain stability may be deliberately understated, or traffic demand and similar benefits overstated, to influence the feasibility or cost estimates of the project. Provisions for minimizing conflict of interest are common in consulting assignments, but these controls do not necessarily eliminate design bias.

When controls are imposed to ensure that bids conform closely to the agency cost estimate, the designs or cost estimates may be manipulated through the quantities or unit costs used in preparing the design in conjunction with various bidding games. Agency officials may inflate the project cost estimate with the knowledge that the output can be provided at a lower cost so that the margin is available for

distribution as kickbacks. Overestimation can occur when the decision maker is certain of the contract award—guaranteeing the awardee a comfortable margin, part of which is shared with the decision maker. Alternatively, the project cost can be underestimated to facilitate the authorization of a project, only to be inflated later through variations or cost overruns.

The specification of goods, equipment, or materials to be procured may incorporate critical features that favor a particular product or supplier, including the use of trade names. Especially in regard to equipment or materials, corrupt officials may collude with contractors to specify design or material requirements that give a certain contractor advantage (through proprietary rights, for example, or through location or access rights), often in return for kickbacks. Information asymmetry is also deliberately created to conceal corruption. Favored contractors may be tipped off regarding incomplete or inaccurate information deliberately inserted into the specifications, thereby enabling the firm to disregard a particularly onerous condition in its bid and thereby submitting a winning low bid. Tip-offs may also permit the submission of an alternative high bid with options that may be used during evaluation to override the specifications and give the award to a higher bidder.

Bidding Phase

Several opportunities for corrupt actions occur during the bidding phase. One of the most pernicious involves bid rigging and access. Informal conditions can be imposed on firms for participation in bidding for a project, either by officials of the contracting employer or by external individuals such as a local politician, official, or influential party. These conditions can include a requirement to pay a certain portion of the contract value in return for being allowed to sign the contract or gain access to the site and to continue operations unimpeded. The margins to cover these kickbacks are generated in two ways. If the specifications and cost estimate are accurate, kickbacks can be generated downstream by firms bidding substantially above the cost estimate, by generating large variation or change orders and cost overruns during implementation, or by compromising the quality of construction in ways that are not apparent. If awards are forced to be close to the cost estimate, kickbacks can be generated upstream by agency officials through manipulation of the design and cost estimates. Frequently these margins are well established and known among the industry and may be distributed according to an established hierarchy of shares to nominated officials and agency directors; these payments are often regarded as supplemental income where the remuneration of government officials is particularly low. In most cases, these amounts may be up to 10 percent of the contract price, but in some countries and where political influences are strong, they can be as high as 30 percent of the contract price. Kickback schemes can exist without overt signs of collusion and, especially if the margins are relatively small, on the order of 10 percent or less, they may not be apparent in an examination of bid prices.

Another form of corruption in this phase is collusion (box 5.1). It is common practice in the construction sector in some countries for contractors to share work among firms by taking turns as the "favored" contractor. Under this arrangement, everyone "wins" over the long haul. Collusive practices involve the outright rigging

BOX 5.1 Case Study Examples of the Mechanics of Collusion in Road Civil Works

The examples of corruption summarized here are generalized from actual instances of corrupt transactions in road construction projects involving World Bank and other multilateral donor funds that have been uncovered, some of which are currently under investigation.

Construction cartels involve agreements between competitors that make procurement less competitive, whether through tenders or quotations. They may include any or all the following, which are not mutually exclusive: collusive tendering, market sharing, and price fixing. In one instance, a highly organized and institutionalized cartel set the contract price with the agency for projects with international financing. The cartel controlled all aspects of the bidding process so that the procurement controls appeared to be ineffective. For many years the cartel operated with impunity, with high-level political influence ensuring the "anointed" contractor would be successful. The losing bidders complied with the collusive practice so that they could obtain government agency contracts in the future. Politicians, losing bidders (contractors), and government officials were party to the scheme and received kickbacks. These illicit payments were referred to as shares, and the collusive scheme was known as the SOP—standard operating procedure. The person who arranged the cartel activity or collusive scheme was known as the fixer or coordinator, and the cartel was so institutionalized that it was an open secret among contractors, government officials, politicians, and the construction industry generally.

Typically such collusive practices operate under "silent guidelines." The winner is supposed to set aside 3 percent of the contract to be shared by the other prequalified and losing bidders. The "matchmaker" asks contractors if they are interested in a particular project. At a follow-up meeting, the anointed winner, who always has local political support in exchange for corrupt payments, arranges the price markup and negotiates the payments for the politicians (two-thirds of their share on winning the contract and one-third on implementation). Contractors add 20–28 percent to the estimate depending on the circumstances of each project. The losing bidders receive the price they are to bid one day before the bid deadline. The arrangers check the losing prices right before they are submitted to make sure they are correct and conform as pre-arranged. "Divers" (contractors who deliberately reduce their price to win a contract) can avoid the pre-arranged bidding but will be punished by not winning government work in the future. If a particular contractor "dives," the system is so controlled that project officials can counter the lower bid, for example, by extending the bid date, should they desire to do so. If a diver does win the bid, the company will either make no money and will have trouble with politicians or will have to make some compromise agreement with the politicians.

"Shares" refers to the percentage of the contract paid corruptly. In one case, these shares were distributed as follows: One share each went to the bid committee members, the bid committee chairman, the legal advisers, the local nongovernmental organization or media (to look the other way), the coordinator or mediator, and the winning bidder; four to five shares went to the project management unit; and three to five shares went to the losing bidders. In another example, 6 percent of the contract price was paid to the executive office and representatives, 5 percent to national politicians, 1 percent to agency personnel, 1 percent to the agency project director, and 3 percent to local government officials, including the mayor. Inspectors were paid relatively small amounts. Some of the kickback funds came from a 15 percent mobilization payment to contractors at the outset of the contract because the kickbacks have to be paid up front.

of bid prices; "losing" contractors do not submit bids even if expressions of interest are extended, submit intentionally high bids, or withdraw their bids before the final stage of the bidding process when the lowest evaluated bidder is determined. The designated "winning" contractor structures his bid to accommodate the payments he will need to make after he is awarded the contract. Besides collusion among contractors, corruption in the procurement process can also take place through the inconsistent application of prequalification or eligibility screening. Contractor

collusion can also involve a large number of firms either structured as a consortium or as subcontractors. "Cascade subcontracting," as it is called, may occur at any stage of construction (such as groundwork or materials transport) and can radically transform the initial financial estimate.

Corrupt agents may also circumvent regulations involving contract packaging and bid invitations. Splitting large construction contracts into smaller contracts with weaker or streamlined regulation may offer more opportunity to influence the award, even for one firm or patron. It also allows the same firm to do the work and submit bills under phony company names. In other instances, corrupt agents may restrict publicity by publishing a bid announcement in a journal with limited circulation under false claims of urgency. A restricted call for tenders such as limited international or national bidding, while justified under certain circumstances, may be used to eliminate rivals (Bueb and Ehlermann-Cache 2005).

At bid openings without adequate oversight, a false price may be read out or a discount not read out, which could prevail over the accurate prices during bid evaluation (see, for instance, box 9.2 in chapter nine). During bid evaluation, a large arithmetic correction may be contrived to favor a desired firm or to penalize a disfavored firm. After the winning bidder has been selected, the bid price or conditions may be changed when either a corrupt agent or official or the firm may impose new conditions before starting the job. Even without corrupt intentions, the official or the firm could agree to the coerced modification of the bid price in order to start the work. These ex post change orders are justified by the corrupt officials on a variety of grounds, mostly based on alleged change in prices, inflation, unavailability of certain materials or equipment, and the need to substitute more expensive alternatives, among others. In consultant technical evaluations, which carry the most weight in a quality- and cost-based selection system, selections can be manipulated to favor a particular firm, often through a knowledgeable or informed person on the evaluation panel.

Implementation Phase

Once project construction begins, another mode for generating additional kickbacks is through a proliferation of change orders, variation orders, or amendments, which may collectively increase a contract price by 10–50 percent above the original contract price and extend the delivery period. Variations are essential changes that are agreed between the implementing parties—supervisor, contractor, client—but may be used to conceal substantial excess quantities or unnecessary services that would be billed but not delivered. This approach may be used to enrich a different set of people from those involved in the original award, especially if the project staff, management, or local officials have changed in the interim.

Supervisors are another point of vulnerability. Certification by quality assurance inspectors, either during implementation or once a work is completed, may be used to extract rent from the contractor. On one hand, materials or quality that does not comply with the specifications may be permitted with the complicity of officials, who provide such latitude for a price. Field or laboratory test results may be made to reflect compliance with specifications even when they failed or the tests were not

actually conducted. Testing staff are frequently very junior and often may be housed and fed by the contractor they are monitoring, so it can be difficult for them to act independently or to reject work. On the other hand, corrupt officials may fabricate deficiencies in materials or construction to exert pressure on the contractor for a bribe. In developing countries, lax supervision may frequently result from weak skills or experience. However, where corruption is rife in an agency, even an independent quality assurance team can be susceptible to bribe or capture in such instances.

Payment to Firms

Bribes may be sought for processing claims for payment after certification of quantities and quality of works, goods, or services in compliance with stipulated standards. This is often evident from long payment delays, which may be caused by negotiations for a bribe or a particular result. The multiple layers of approval required may provide more opportunity to extract rents to expedite processing than do short, focused approvals. Some payment delays, however, simply reflect long approval paths and slow manual procedures or inefficiency—all governance failures but not intentionally corrupt.[3]

A PROPOSED REMEDIAL FRAMEWORK

As the pressure to develop strong anticorruption interventions has intensified, a variety of approaches has emerged in the transport sector. These usually have focused on transactions and fiduciary processes at the level of a development project and have been enforced through a project-specific legal agreement. While these approaches are a necessary short-term step for development aid partners, the ultimate goal must be to increase the resilience of the sector to corruption and to reduce the incidence of corrupt activity in the sector as a whole at the country level. With this long-term goal in mind, this section outlines a twin-pronged strategy of prevention and control to be applied at each of the core levels of the sector—sector institution, organization, and transaction.

The goal of the preventive paradigm is one of good governance that has the direct and indirect effect of preventing opportunities for corruption to thrive. The objective is to prevent, monitor, and deter corruption as well as to educate all stakeholders on its costs and on approaches to prevention. In a prevention framework, the interventions are ex ante, using strategies, policies, and tools that seek to prevent, preempt, and deter corrupt acts based on the mapping of risks and vulnerabilities in sector entities and transactions. However, just as good medical practice must combine preventive health care with aggressive treatment of existing virulent disease, combating corruption will need to stem the current flow of corrupt activity while improving overall sector governance. Thus the goal of the control paradigm is to rigorously confront, prosecute, and punish corrupt acts. Ex post interventions use strategies, policies, and tools that help confront corrupt acts that are suspected—either while in progress or once they have been alleged, investigated, or proven. Table 5.2 summarizes the core remedial framework that is proposed, and specific options and activities within each strategic category are discussed below.

TABLE 5.2 Remedial Framework and Menu of Response Options

Levels of governance and incidence of corruption	*Goal: Improve governance to prevent and reduce corruption* *Objectives: Prevent, monitor, educate, deter* *Outputs: Ex ante interventions*	*Goal: Rigorously confront and punish corrupt acts* *Objectives: Control, law enforcement* *Outputs: Ex post interventions*
State capture at the sector level	Undertake dialogue and remedies at the CAS (country assistance strategy) level Reduce discretionary spending of revenues Adopt improved, objective, and transparent national budgetary allocation rules Reduce areas of discretion with good rule making Earmark revenues for special purpose entities Increase appropriate civil society interventions at sector entities Adopt appropriate legal reforms Restructure sector to allow for incentive-based reforms; reward reform-oriented staff and entities, activities Improve public access to information Increase judicial independence, reform, and accountability Mount educational campaigns on anticorruption	Take strong, coordinated donor action, sanctions in event of country- or sector-level scandal Bring donor pressure to investigate appropriately Engage in damage control, restore perception of integrity, send strong message of due process Publicize trials, enforce court orders
Agency process and capacity failure	Modernize business planning and fiduciary tools Improve human resource development and management Reform procurement system, including improved automated processes Upgrade information technology Train employees, raise awareness, change management Plan and implement institutional anticorruption Set up complaints hotline at agency Monitor performance Establish integrity indicators, collect baseline data, monitor	Investigate staff and firms aggressively Prosecute all parties involved Establish or review institutional anticorruption plan, make changes based on recent events Review agency processes based on integrity indicators
Transactional integrity compromises	Install effective internal fiduciary, audit controls Implement project management and supervision controls Set up project audits by ombudsman or auditor general Establish project monitoring in-house and by a third party Solicit civil society oversight Forge integrity pacts with private firms Train staff in basic investigative requirements	Train staff to detect suspicious activity Coordinate project teams and investigative teams Conduct rigorous investigations to collect evidence Follow up with due process and trials Apply criminal and professional sanctions (such as debarment of firms) aggressively

Controls and Enforcement-Based Integrity Restoration Options

Project and management staff in government agencies and among bilateral and multilateral donors cannot be expected to undertake some of the detailed investigations that are required for strong control, nor do they have the technical and legal expertise to conduct such forensic tasks. This discussion is intended to give guidance on indicators of suspicion, fraud, and abuse of public funds in the transport sector, so that staff can be proactive in detection and know when to call the authorities or ask for investigative assistance and how to establish monitoring processes so that actionable evidence is not lost. Some legal distinctions are important. As noted in the earlier discussion on state capture, not all governance failures are crimes—government officials can engage in many acts that are inept or inefficient and cause enormous losses without intending to defraud, extort, or commit a crime. In detection and investigation, the issue of actionable evidence, that is, evidence that establishes intent to commit a crime, becomes critical to the forensic process.

Detection: Recognizing Red Flags

Increased controls and investigation work by donor agencies and some governments have begun to narrow the wingspan around corrupt agents and the scope of their transactions. Operational teams can learn from the collective experience of investigative efforts undertaken so far that reveals patterns of events and behavior in the procurement process. For bribes and kickbacks, teams should be alert to the existence of local "agents" that provide generic, ill-defined services. Often such agents have boilerplate contracts with no clear definition of services to be delivered, and the agent's compensation is calculated as a percentage of the contract rather than on a time or services basis. Unexplained delays, bidding irregularities in favor of a small group of contractors, or unjustified sole-source awards are also common signs that bribes and kickbacks are being offered and extracted.

Some obvious indicators of bid rigging include selection of unqualified contractors, unreasonable prequalification requirements, unreasonably short times to submit bids, selection of other than the lowest qualified bidder, multiple contract awards just under the bidding threshold, and selection of the low bidder followed by a change order increasing the price or scope of the project. Questionable disqualification of the winning bidder and extension of an expired contract rather than a rebidding process should also alert project teams that some impropriety may be occurring. Contractor collusion can often produce indicators such as persistently high bid prices, relatively few bidders, and the same bidders, with losing bidders becoming subcontractors. Bid cartels may be operating if bid prices drop when new bidders enter, or when there are apparent connections between bidders' affiliated companies, such as the same fax numbers on two bidders' bidding documents. Indicators of fraud in project implementation include poor quality of works, frequent repairs, bogus inspections, and complaints from users, as well as inadequate supervision and inspections.

Investigation: Gathering Actionable Evidence

As noted above, red flags may be the tip of the iceberg and are useful to alert project staff; however, they do not constitute actionable evidence. The process of gathering

proof to indict and prosecute perpetrators of fraud and corrupt transactions requires labor-intensive forensic work. This is typically undertaken by law enforcement authorities or by institutional integrity teams that are trained and qualified to uncover corrupt payments and receipts. Typically, such an investigation entails working from either the point of payment or the point of receipt to prove that an illegal payment occurred. Both involve financial investigations of givers and receivers. To prove fraud, investigators often test prices of inputs for reasonableness and compare the actual quantity and quality of goods received with those claimed in official invoices. Proof of receipt of a bribe often involves "lifestyle checks" of suspected officials to demonstrate that they are living beyond their legitimate means or have unexplained financial resources.

In recent years, donors' internal investigative units have detected some fraud and corruption by maintaining databases containing series of bid-related information and searching the database for indications of corrupt transactions. For instance, internal database queries to detect bribes and kickbacks may analyze high prices, high-volume purchases, or unusual approval patterns. One detection method involves searching on the basis of improper or excessive change orders. The typical anticorruption or fraud investigation begins with a tip, report, or discovery of a red flag and is then followed by a detailed investigation of the transaction. With the new genre of financial investigative software, investigators can test the allegations of tipsters by querying the database, interviewing officials, interviewing contractors such as losing bidders, tracing illicit funds, and other financial forensic techniques.

For donor project or program staff, the issues are likely twofold. First, staff will need to address the burden of an additional layer of due diligence in an environment of scarce time and resources. Second, staff will need to assess risk and make judgments when considering the gravity or veracity of a suspected red flag. Some may have a tendency to refer cases to the organization's investigative arm—if there is one—at the first sign of a red flag, which would overload investigative units and create backlogs. The challenge for them is to begin monitoring a range of red flags, assess which ones are actionable and which may be indicative of more general weakness in capacity, and pursue those that are likely to yield the highest payoff—in this case, prevent the larger diversion of funds. This approach will include increased communication between project and investigative units in the government and in donor agencies and training of operational teams to learn basic evidentiary rules and investigative techniques. In addition, forensic tools such as detection software will need to be increasingly incorporated into the procurement process in-house, to reduce dependence on the investigative arm of the organization. These new forensic tools will involve resources, training, and a learning curve in the immediate term.

Enforcement of Sanctions: Legal Regime and Political Will

Aggressive enforcement of sanctions against corrupt officials and contractors, such as debarment and blacklisting, is important and has been undertaken by a growing number of transport agencies and donors. Ample evidence shows that major sectorwide changes are usually implemented only after a "big fish"—either a senior

government official or a major firm—has been caught and prosecuted. Thus, the effectiveness of a preventive strategy may depend on first achieving successful enforcement and sanctions in a major case. In the ultimate analysis, the effectiveness of sanctions will depend on the broader legal and judicial framework of the country and the type of legal, judicial, and procurement reforms the government is willing to undertake. This is a generic issue affecting all sectors and not unique to transport. What may be useful is for the transport sector to proactively engage in the reform process within the country to identify specific sector-related amendments and adjustments in laws, regulations, and procedures that seek to plug evidentiary loopholes in the country's enforcement structure that is peculiar to transport contracts.

Preventive Strategy for Enhancing Institutional Integrity

A preventive strategy for combating corruption focuses on strengthening the governance environment at each of the levels of the sector and the value chain in ways that specifically target and limit the various forms of corrupt behavior. The structure of a particular strategy will need to be adapted to address the prevalent risks evident in a specific situation. Thus, it may begin with the more easily achievable aims (the low-hanging fruit) and progressively focus on the more important issues and finally on the longer-term issues. Ultimately, however, the strategy must be complete, as the forms of corrupt behavior will adapt over time, like a virus, to bypass the remedial measures until the costs of corruption once again outweigh the incentives.

The key factors that engender good governance are transparency, accountability, and efficiency. To sharpen the focus on corruption, several key elements of a preventive anticorruption strategy are outlined in table 5.3. Transparency is enhanced through the power of information and communications technology, mechanisms for sharing and revealing information, and incentive structures. Accountability is enhanced through formal institutions such as the legal and judicial environment, external forces such as the effective voice of citizens and users outside the public sector, and internal drivers such as incentives. Sector efficiency is enhanced when firms compete openly and the preference or power of the elite is harnessed, institutional operations have been reformed, and external markets provide a higher incentive than local rewards. The following discussion provides examples of actions that can be developed under each of these nine elements, together with typical tools that can be used in the transport sector and applied at each institutional level.

Information Power

Information on assets, costs, and performance provides crucial evidence that enables and facilitates accountability and transparency. The power of data for demonstrating what was intended and what was actually delivered, whether costs are reasonable or high, whether qualifications are fraudulent or not, lies at the heart of reducing the space for discretion, subjectivity, and ambiguity in the decisions on which corruption thrives. Traditional decision making relies strongly on status, experience, or skill with significant use of subjective criteria and discretion. While that works well in the

TABLE 5.3 Elements of a Remedial Anticorruption Strategy

Strategic element	*Focus*	*Explanation*
Data power	Metrics	Information on assets, costs, and performance provides crucial evidence that enables and facilitates accountability, transparency, and incentives.
External accountability mechanism	Effective voice	To be effective, external mechanisms (such as civil society) need to be coherent and have adequate power and integrity.
Transparency mechanism	Reduced discretion, improved confidence and integrity	Use of information and communication technology, computerization, e-procurement, e-governance, and access to asset inventory and management data can all improve transparency.
Incentives	Drivers of good behavior, prevention	Rewards and recognition can be offered to compensate for loss of revenue.
Roles of the firm and the elite	Reducing the incidence of capture	Disempowering agents of the elite provides a more level playing field and enhances competition.
Judiciary and legal environment	Consistent enforcement, protection of integrity	A well-functioning judicial system strengthens prosecution and discourages corrupt behavior.
Political reform	Improving the enabling environment for a sector	Political reforms provide leadership and example as well as foundation blocks, such as procurement legislation, streamlined institutional structure, and efficient business processes.
Capital market development	Requires governance discipline	The protocols and standards of international business impose governance discipline and efficiency.
International donors and financing agencies	Incentives for international acceptance	Harmonization of donor approaches improves transparency, accountability, and efficiency, making it easier for donors and third parties to enforce discipline within the donor community and in donor projects

Source: Adapted from material by Daniel Kaufmann, World Bank Institute, 2004.

hands of honest and informed agents, it provides open space for the corrupt to manipulate results to their own advantage. In this information age, the power of data and information needs to be appreciated as a critical tool for making decisions more objective and thus consistent and transparent. These information tools are available for and useful at each step in the process cycle.

- *Inputs.* Reliable data on the inventory of existing assets or stock, and their current condition, use, and costs, are critical as a baseline for decisions on where and how further investments should be made and on evaluating actual delivery. Reliable data on finances, qualifications, and past performance are critical in evaluating the capacity of firms for delivering services under a competitive process. Examples abound where data on existing conditions have been distorted to justify needs or a procurement award or to cover up the undersupply of new goods.

- *Options.* Knowledge of alternatives and comparison of options are crucial to good decision making and cost saving. An insistence on defining options and obtaining market information on alternative products or treatments, and making this information available, can reduce the influence that a corrupt vendor or buyer may have on restricting the market to a predetermined choice.
- *Evaluation and selection.* The use of systematic methods and objective information is critical to transparency and needs to span several dimensions, such as technical, economic, financial, social, environmental, and value. System-based tools for asset management and budget programming provide a quantitative and objective frame of reference against which political or corruptly motivated alternatives can be evaluated.
- *Outputs.* The accurate measurement of the products or services delivered—in quantity, quality, location, and compliance with specifications—and of the payments for them is one of the most important tools for eliminating wastage, underdelivery, or diversion. Pay items that are notoriously difficult to measure, such as freight damage, earthworks in emergency road works, and routine or general maintenance of vehicle or assets, are favorite targets of the corrupt, and measurement is generally more accurate when it is based on performance or results.
- *Results.* Where payment is based on outputs, the benchmarking of output costs on the basis of average unit costs—with a defined unit of output—can be used to compare across jurisdictions or over time (this may be a key indicator when prices are being rigged and funds diverted). Where the measurement of outputs may be corrupted, it can be useful to shift the control to a measure of outcome or result. Examples are performance-specified contracts and longer-term contracts where the contractor or supplier is responsible for ensuring quality and where payment is based on actual results rather than outputs per se. In this case, the measurement of performance criteria and results themselves becomes highly critical because it is directly linked to payment for the services provided.
- *Monitoring and evaluation.* The amounts of information involved in this entire process cycle are often large, complex, and technical; possibly widely dispersed; and either change over time or involve multiple transactions. The format and design of reports need to be very practical and targeted on critical measures for monitoring to be effective, either by internal or external parties. Moreover, managing the data to keep them current and reliable is critical to the success of an information-based approach.

The tools for implementing these objectives need to be designed to fit individual cases, but the following examples indicate the range of tools that have been found to be effective in the transport sector.

- A computer and communications network supporting the agency is crucial for managing and exchanging information, for comparing and analyzing data, and for generating reports. While paper-based tools have an important place in some situations and in some subnational governments or small agencies, the reality is that digital media and technology have rapidly become a given in management of the sector. Careful and appropriate design of the computer systems must take

into account the operating budget, the technical capacity of staff, system performance, stability, and security. Systems do not need to be large or complex to be effective, but they do need to be stable and secure.

- An asset inventory eliminates gaps, duplication, and ambiguity. The inventory should begin with an explicit definition of assets, the quality of the data must be ensured and the asset data regularly updated. Video images in the database allow a virtual review and verification of road, port, or airport assets.
- Accounting and financial management reports should cover cost centers to reconcile transactions and inputs against project outputs, include account balances to control exceptions and diversion, and provide a means for verifying the use of budget transfers.
- Annual or regular reports should be prepared in readable format with explicit data on various performance measures—physical assets or stock (vehicles, roads, bridges, port facilities), outputs, costs of delivery (including average output cost), safety, staffing—compared with benchmarks and trends.
- Specific reports aiding interpretation of inventory or transactions help nonprofessionals monitor or review performance and manage results. For example, a straight-line diagram of a road that indicates current and previous inputs by location allows unambiguous interpretation of outputs.

Transparency Mechanism

Enhancing transparency involves reducing the areas of discretion and ambiguity by the consistent use of objective criteria and processes, keeping sensitive information secure, and making access to general information available to stakeholders in an appropriate way. These actions improve the integrity of the processes and the confidence of participants in the results. The power of information and communications technology for managing and processing large amounts of data and providing access to information is huge and plays a large role in making transport operations transparent. The basic elements include guidelines, Internet-based tools, computerized applications for procurement, procurement monitors, and independent procurement agents.

Clear, agreed, and announced guidelines on the processes to be followed in public procurement and project management are the basic tool of transparency. The guidelines set the rules of the game, the eligibility to participate, and the way it will be administered. Many of the improvements in the fight against corruption have come through upgrading and harmonizing the guidelines that government and various financing agencies apply to procurement. The most successful guidelines incorporate best practice and set standards that are applied during the selection, evaluation, and award of contracts. This area is the first and primary element for an agency to review, examining it against the evidence of prevalent corrupt practices and strengthening the weak links. However, compliance with the guidelines rests on the integrity of those administering it, and infiltration or co-opting of staff can occur. Also some types of corruption, such as bribes and collusion, occur behind the official process, and special techniques are required for detection.

The use of Internet- or Web-based communication technology, such as e-procurement, to address the transparency issues is powerful and developing quickly as the computerization of agencies and the transport sector evolve. A major advantage is that the same information is available to all participants. Usually this step is introduced progressively as the information technology capacity of the agency and the industry evolves. It is important that the coverage, reliability, and security of the systems are adequate and that the literacy of the industry is sufficient for the information to enhance and not limit competition. Typical Internet-based communications include advertisement of bid opportunities and information, announcement of contract awards and prices, announcement of bid prices and evaluation results, availability of bid documents on line for downloading, and direct submission of expressions of interest, eligibility, or bid documents.

In addition to improving the efficiency of the procurement process, computer applications can also enhance transparency in the evaluation process. One example involves the production of notices and bid documents. Computerization of these documents can improve their quality by ensuring integrity of mandatory text and selected optional text, consistency of data, compliance with guidelines on specific requirements, and completeness. Similarly, computerization can help process evaluation results and generate evaluation reports. A computerized registry of civil works contractors has proved successful in improving the integrity of prequalification processes: the legal, commercial, and financial data of firms in the database are compared with the qualifications profile of a project, and a list of eligible firms is generated together with a list of those firms not qualifying and the reasons for disqualification. Various provisions for due diligence are applied to the data entry process and to a right of review for disqualified firms.

A common approach to enhancing transparency has been the use of a nonagency person as a monitor in key stages of the procurement process in order to introduce an element of independent review of compliance of processes with the guidelines. This is typically applied to public stages such as bid opening, and it guards against some missteps. However, these monitors typically need to have their participation costs covered and may also be prone to capture by corrupt agents (see box 5.1). Attention must be paid to their selection, funding, and training; to inserting them into evaluation parts of the process; and to using techniques of rotation and undercover review to preserve their integrity in the process.

In extreme cases where capacity is weak or corruption is extensive, enhancing transparency may require instituting a parallel process for conducting procurement through an independent procurement agent appointed outside the implementing agency. Results would be provided to the agency responsible for making and implementing the decisions. While this approach is similar to the use of procurement agents in the past, it represents a significant departure from the development aid principles of internal capacity and ownership.

External Accountability Mechanism

The structure and design of accountability mechanisms is one of the primary and most important controls and preventive tools in combating corruption. Accountability mechanisms involve parties external to those involved in the transactions and

ostensibly independent of them. Their purpose is to ensure the integrity of the process and to see that the rules are followed, with an absence of corruption. A widening array of tools is being employed as the limitations of traditional mechanisms are discovered. These tools fall into four categories—financial audit, technical audit, fiduciary review, and third-party monitoring—and a comprehensive accountability framework would include all four.

A financial audit is a periodic inspection of accounts to determine whether all funds and assets have been used for their legitimate and intended purpose and are fully accounted for. The integrity and extent of the financial audit, which is a mandatory requirement of public agencies and financing agencies, is critical to its effectiveness as an anticorruption tool. Steps to ensure the independence and impartiality of the auditor are critical, whether the auditor is public or private, and thus the selection process needs careful attention. The substance of an audit is in the management report, where specific accounting issues and anomalies are identified and explained, and project teams should use this report to require correction of specific weaknesses in accounting and internal controls. Often, the audit does not extend down to subnational offices, except on a sample basis or if a comprehensive computer-based financial management system is in place. Targeted audits should be conducted where corrupt activity is suspected. The quality of documentation identifying the purpose of the transaction and the person responsible for it may become key evidence in a forensic investigation of the paper trail. The scope should include an audit of the asset register to determine the location, disposition, and deployment of assets owned and procured by the agency. This is particularly important in relation to items such as vehicles and computers that are particularly liable to theft, numerous, and periodically written off and are thus notoriously difficult to monitor at an agency level.

A technical audit is a periodic inspection to determine that the assets and services provided with the funds were appropriate to their intended purpose and were delivered in the quantity, quality, and location or disposition specified. A relatively new but powerful tool, technical audits inspect the implementation of projects; they are essentially auditing the quality of operation, supervision, and project management by a transport agency. A technical audit's primary purpose is to verify that the goods or assets purchased under an expenditure program were delivered as specified to the place and persons legitimately intended. It can also extend to evaluating the appropriateness of the specifications and standards applied in the projects or transactions. To be credible, the audit must be conducted by a technical professional qualified and experienced in the subject and independent of the implementing agency. Because this audit strikes at the core business role of an agency and requires extensive cooperation and access to data, the auditor can be placed under considerable pressure to understate or overlook certain aspects or even be misled through nondisclosure. Thus, the selection and administration of the technical auditor sometimes can present difficulties, especially if the corrupt network extends to the leadership of the agency. In some cases, it may be necessary to employ the auditor or administer the audit through a separate public agency, such as an ombudsman, inspectorate, or other impartial oversight body. A particular version of this audit, originating from nontechnical sectors but of potential application to the transport sector, is a Public Expenditure Tracking Survey (PETS). This survey combines financial and technical

aspects by tracking the expenditure of funds on a specified program through every step of the process from national authorization down to delivery and use at the local and individual level.

A fiduciary review is a comprehensive review of an implementing agency's procurement, financial management, and project management processes, including their internal controls and oversight. The review is conducted by an independent group periodically or as warranted. In implementing environments where the risks of corruption are high and extensive, a comprehensive fiduciary review provides an intensive inspection and evaluation of all the financial, procurement, and implementation processes of an implementing agency. Its outputs assess the level of corruption risk in each process, identify the points of weakness and required remedial actions, and adjust the review and authorization thresholds. Because of the degree of access to information required, such reviews are typically undertaken by a multidisciplinary team of specialists with extensive participation by government officials.

Third-party monitoring is a continuous mechanism for monitoring the execution of sector expenditures, including the procurement and implementation of projects. The third party is either a public agency external to the implementing agency, a civil society group, or a private agent employed by the government in an independent role. In transport agencies, the integrity of fiduciary processes has generally been secured by requiring parallel independent evaluation by a panel of individuals from different sections of the agency. These individuals are accountable to each other, and the panel itself is accountable to agency management. When the evaluation panel or the agency management becomes corrupted, these provisions are not enough, and third-party monitoring by a person or group independent of the agency is introduced. Public sector models for third-party monitoring include an inspectorate within the sector ministry but independent of the subsector being monitored, a national auditor, or a national agency with the role of monitoring for corruption. When these, too, are corrupted, the involvement of civil society and the private sector—independent of the government—may be needed to provide the process with a measure of independence and accountability. Some of the effective models for third-party monitoring and their related issues include the following.

A common option is the appointment of an independent observer, typically from a nongovernmental organization or other representative citizens' group, to attend bid openings, observe bid evaluation, or participate in technical audit inspections. This may be a mandated requirement for the agency, or it may result from an external demand from a watchdog organization. For this model to be effective, observers need to be actively engaged, from the unsealing of the bid box to actual sighting and posting of the bid amounts, and be trained and competent in all aspects of the bid process or the construction-delivery process. Issues experienced with the observer model include the logistics and costs of attending the process and pressures of co-option and collusion by threat or a share in kickbacks. In addition, the signs of collusion may not be apparent without specialized tools, and the observer may not wield enough authority to influence acceptance of the result.

Outsourced monitoring is a second option. Auditors or monitors trained in fraud detection and financial forensics may be employed in-house or hired from the private sector. Where internal auditors may be susceptible to corruption, the hiring

of a monitoring or forensic accounting service from private sector firms with an arm's length relationship to the agency and the appropriate incentives may yield higher payoffs in terms of investigation, detection, actionable evidence, and results. Stronger audit clauses can be inserted in contracts that provide for review of a contractor's financial records. Administrative rules can also require annual financial disclosures by project and government officials, as well as require contractors and subcontractors to disclose all fees and commissions. Compliance with the rules would be ensured through rigorous audits.

A variant of the independent observer model is the appointment of an independent evaluator—an individual or firm with the requisite professional skills to conduct an independent evaluation of the bids or proposals in parallel with the official committee. In this model, one set of bids would be set aside and sealed at bid opening for later review against evaluated documents. The evaluator would be present in the bid evaluation meetings to receive all information but would conduct an independent evaluation and submit it as a separate report to an independent official, either above the evaluation committee or in a monitoring agency. A final recommendation must include a reconciliation or explanation of differences between the official and independent findings. Issues with this model include the authorizations needed to give the evaluator access to confidential information, the difficulties in defining and managing the reporting and conclusion of recommendations, the sensitivity of an agency to exposing dissent, and the cost and financing of the service.

The most stringent of the third-party monitoring options is to hire an independent private sector agency to undertake all aspects of procurement on behalf of the agency. In this model, the independent agent would manage the process from start to finish. He would conduct parts of the process in public, as in the public model, involve agency officials in the evaluation process and public meetings, and make recommendations to the agency for official authorization. Normally with this model, the implementing agency financially responsible for the output signs the contract for the works or services. Issues with the independent agent model include hiring, financing, and monitoring the independent agency and the acceptance by government of the need for such a high level of control and independence. In other respects, the model is similar to the hiring of engineering or other transport services.

For sector-level issues, such as accountability for the allocation and expenditure of funds, the external accountability mechanism operates in parallel with the formal government budget process. In this instance, the public agency and a cohort of groups representing civil society and stakeholders agree on a social compact covering a range of expenditure programs, agency performance standards, and obligations to the community. In the case of the road sector, the concept views all interventions—whether they involve asset preservation or network expansion—as part of a larger dynamic process involving diverse stakeholders. The thrust of a "road social contract" is one of public accountability and transparency: the road agency holds itself accountable to road users for efficient expenditure management and road service conditions through a published annual compact with a representative civil society group to achieve a stipulated level of performance that is derived from and monitored through a participatory process. Operationally, the road social contract can take the form of a memorandum of understanding (MOU) between the agency

and civic organizations representing the general public. The process could also be applied to a semiautonomous sector, fund such as a road fund, through the annual report and an MOU between the fund's oversight board and a representative civil society group.

At an organizational level, an agency can be held accountable for a range of performance measures through a tool such as an agency report card, in which citizens or transport users are able to articulate their assessment of agency performance and value for money in a range of measures. This assessment is then publicized and formally addressed by the agency. This tool has been used in a growing number of applications for infrastructure and municipal services, and while it focuses more generally on organizational capacity and efficiency issues, it can have an impact on certain forms of corruption, such as those associated with redirection or subversion of funds, underdelivery or overpricing, and various transparency measures. This tool could be particularly useful in monitoring a road social contract.

Incentives

The choices made by any person at any point in the value chain are driven very much by individual incentives and how these might be influenced by external or institutional factors. This is an intersection between formal rules, informal rules of the game, and values. To break a cycle or pattern of corrupt behavior, the incentives for good behavior must outweigh the rewards for engaging in or acquiescing to corrupt behavior. Likewise, the risks and cost of corrupt behavior must outweigh its rewards. While incentives are a generic and not very sector-specific issue, some examples as they apply in the transport sector include the following.

At the state level, any personal gain a politician may receive by arguing for an inappropriate allocation or budget line item can be counterbalanced by calling attention to the politician's position in a way that might cost him votes or loss of reputation among his constituency. For example, a strong civil society or media voice could make information available on the socioeconomic benefits of alternative transport allocations or projects or reveal "white elephant" projects sponsored by the politician.

At the transport agency level, incentives are driven by the perception of the effectiveness of internal controls, protection afforded by senior management or elite patrons, threats to job security, protection of whistleblowers, and the risks of exposure. Changing these incentives to reduce corruption requires the strengthening of internal controls, enforcing penalties for violation of controls, appointing staff of integrity to critical positions, rotating staff to avoid formation of collusive alliances, affording agency protection against external influences, and providing whistleblower protections, especially to lower-ranked personnel who are usually the most vulnerable in the process.

At a transaction and individual level, incentives can be improved by emphasizing transparency, employing systems that limit the areas of discretion, speeding up the processing time to limit the risks of deal negotiation, and preventing or discouraging any interaction of staff with interested stakeholders (such as bidders, local authorities, or politicians). Here, too, leadership by example is important. Leaders who display integrity and act ethically can provide powerful incentives. For individuals, the opportunity to report malpractice to a hotline or ombudsman in confidence

or anonymously is essential to counter the likelihood of threats and reprisals. The adequacy of remuneration is an important factor in some situations. Where salaries are very low, individuals are vulnerable to bribes and gifts in kind, such as vehicles or mobile phones, often given in exchange for silence and complicity. At this level, a restructuring of salaries can assist in reducing the vulnerability. However, at the manager level where the deals are organized, the sums changing hands may be substantial—a 1 percent share of a $20 million contract, for example, may represent 10–30 years of salary. At this level, only severe sanctions, such as loss of employment, pension, and forfeiture of assets, may be sufficient to shift the incentives from bad to good. For a firm bidding for a contract, the price to be paid for patronage and the right to operate within a given constituency may become too high if the sanctions imposed for collusion, such as prolonged blacklisting, preclude it from a substantial portion of its regular income.

Roles of the Firm and the Elite

When an oligarchy or elite faction dominates a corrupt culture, all players, whether government or private sector, may be beholden to the power of the elite for survival, patronage, or compliance with the one establishing the informal rules of the game. One or a few powerful and possibly corrupt firms may likewise exert a dominant control of the market. Curbing such power can be very difficult, and a combination of powerful tools is typically required. First, benchmarking of prices or independent verification of agency estimates is important to reveal and publicize the markup or margin that is likely to typify the take from a bid. Second, strict adherence to a range of transparency provisions to allow open, level competition and to protect contesting firms is crucial. Third, the process must be supported by a monitoring power approaching or exceeding that of the elite; this may be achieved by mobilizing civil society into a coherent strong voice (in ways noted earlier), by applying international norms (such as ISO—International Standards for Organizations—and accounting standards) or by the intervention of an international organization (such as international financing institution) that imposes both rules and oversight. Fourth, the process needs a credible and strong investigative and deliberative body, such as a credible anticorruption commission where cases can be brought against the elite or powerful firms. Finally, there are tools for making major or international firms more accountable to an industry or international monitor than to local elites in ways that could affect the worldwide or national business of the firms unless they refrain from participating in local corruption. An example in the transport sector is the integrity pact (box 5.2).

Industry associations in several industries are proposing and adopting sector agreements, such as the Business Principles for Countering Bribery in the Engineering and Construction Industry. The core principles for these sector agreements are often developed in partnership with Transparency International or under the auspices of the World Development Forum in Davos, Switzerland. Under this approach, signatory companies commit themselves to certain rules of market behavior, including a zero tolerance policy on bribery. At this time, such sector agreements among private sector providers do not contain mutual monitoring and sanctioning provisions; peer pressure is expected to promote compliance.

BOX 5.2 Private Sector Integrity Pacts

The integrity pact instrument developed by Transparency International is relevant to the transport sector. Under an integrity pact, a principal and all the bidders in an investment project mutually commit to refrain from and prevent all corrupt acts and submit to effective sanctions in the event of noncompliance. The Korean Public Procurement Service has implemented an integrity pact for all contracts since March 1, 2001. The pact is meant to remind the private sector that business values originate from business ethics and to exhort businesses to join the campaign against corruption. The Korean Integrity Pact is unique in that it requires contractors to submit an "integrity pledge" within 10 days of award of the contract, or forfeit the contract award. Contractors must also agree to strict penalties for violation of the integrity pact, including debarment. Contracting officials are also required to submit an integrity pledge to their respective procurement heads agreeing to strict sanctions in the event of violations.

National and Cross-Sectoral Factors

Anticorruption efforts in the transport sector also are dependent on simultaneous efforts in its external operating environment. A strong legal and judicial environment is essential for legal controls and remedies to be effective; contract provisions need to be upheld and fraud and other infractions prosecuted if any of the sectoral legal framework is to be effective. The availability of commercial information on registered businesses, including financial information on tax returns, through freedom of information legislation can greatly assist in the detection of fraud. Procurement legislation that promotes competition, accountability, and transparency and that strengthens the provisions for monitoring and remedial action is also essential. Finally, a climate of political and commercial reform is invaluable in encouraging the transport sector to be restructured, to separate and commercialize functions, to reduce or refocus regulation, to shorten and clarify the lines of accountability, and to enhance transparency and focus on performance. Usually, the progress of reform in the transport sector must align with public sector reform initiatives at the national level, but the commercial implications in the sector also make it a good one for piloting and driving reforms.

International Drivers

In countries where corruption is prevalent in the public sector and much of society, it is evident that international factors can be strong incentives for controlling corruption. In addition to the influence that international agencies can place on a national government, international drivers such as international financing and trade agencies can also exert significant influence on the integrity and efficiency of the transport sector. Regulatory reform in transport logistics ahead of accession to the World Trade Organization can reduce corruption losses due to pilferage, bribes, and fraud. The procurement and project management guidelines imposed by multilateral development banks can raise competitiveness and transparency in the sector and, if the guidelines are applied consistently, can help overcome national cartels. For maximum impact, bilateral agencies could also adopt open processes. The current move for harmonization of procurement and project management procedures in the

sector under international development aid effectiveness initiatives is important for reducing the opportunities for corruption involving international firms and internationally financed goods and services.

Measuring Progress: Relevant Indicators and Baseline Data

As the strategy for governance reform and anticorruption plans in the transport sector is implemented, appropriate indicators to measure the results need to be defined. Emphasis to date has been placed on the formulation of tools, approaches, and investigative techniques. Going forward, more attention will need to be paid to relevant indicators of institutional integrity that can be incorporated into projects and CASs. The initial emphasis may be on implementation and compliance with anticorruption plans, where monitoring teams can review and refine the indicators through projects.

Examples include comparing variances of bid award prices with agency cost estimates across the agency or by division; looking at the average or unit prices of standardized items of works or goods, such as the price for handling containers or the cost of asphalt overlay per square meter; and comparing indicators by administrative or political district to reveal possible individual variances or biases. Other examples include looking at the duration of preparation, bidding, and implementation phases of procurement relative to norms, as well as the duration of contract processing stages, such as signing or clearances, relative to norms. Other measures include the percentage of all contracts awarded following modernized procurement tools and processes (or the percentage of agency expenditures implemented by contract); progress in the implementation of an e-procurement action plan; and measures of results of internal investigations, such as the number to cases sent to an ombudsman or investigative body.

More analytical work is needed in formulating indicators of institutional integrity, and in this area donors and development partners will need to harmonize their approaches from the outset to be able to measure and take stock of the incremental progress collectively.

CONCLUSION

As traced throughout this chapter, the transport sector is prone to corruption in many developing countries. The political value, the high value of some contracts, numerous small contracts and projects distributed locally, and weak or obsolete business processes are all points of vulnerability in the sector. A distinction is made, which can often be blurred in reality, between the results of weak sector governance (inefficient business processes and ineffective policies) and corruption (deliberate acts for illegal private gain or influence), but it is clear that corruption can thrive where governance is weak. However, the sector has well-established tools and processes for planning, designing, procuring, implementing, and monitoring programs and expenditures in the sector, so there are fertile opportunities for increasing the level of detection and control of corruption.

An understanding of the prevalent modes of operation of corruption in each subsector in a particular country is a necessary precursor to strengthening control and reducing the incidence of corruption. To that end, the chapter has identified common forms of fraud, corruption, and collusion that can be found in transport infrastructure projects and in transport agencies. Finally, guidance is provided on a twin-track strategy for curbing corruption: strengthened enforcement and a preventive strategy. The preventive strategy identifies several key elements to guide the design of an approach appropriate to local circumstances, including using the power of information; providing external accountability, transparency, and incentives; controlling the role of the elite and firms; and taking advantage of national and cross-sectoral factors (legal and judicial environment, political and commercial reform) and international drivers (the roles of international markets, agencies and related standards and protocols).

The complexity and, in some places, the deep roots of corruption in the sector mean that reducing corruption may take time as anticorruption plans are developed, implemented, and strengthened and as anticorruption efforts in all levels of government across sectors are mainstreamed. In all cases, attention to preventive measures and capacity-building efforts will be part of a long-term strategy. In those situations where corruption is endemic, a menu of stronger preventive measures will be needed in both the short and medium terms, together with active prosecution of substantial cases. The potential dividends from success in the transport sector are incentive enough for all development partners to actively pursue anticorruption efforts in transport.

ENDNOTES

1. Pork-barrel funding per se is not indicative of corruption, either in transport or in any other sector, as it is part of a broader democratic culture in which elected representatives are expected to provide aggressively for their constituents, and it can even allow for healthy performance-based competition in the electoral process. However, in many countries, the share of the national budget for transport can be disproportionately high in terms of such discretionary funding compared with transport funding that is subject to legislative scrutiny.
2. Modal operations, especially air, rail, and sea, are usually managed under separate entities in most countries, and the issues differ somewhat in each case.
3. This may also result from poor budget planning where revenue forecasts prove too optimistic and agency budgets have to be cut as a result of midyear shortfalls. However, because they create queuing among contractors for payment, these incidents do create opportunities for bribery.

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