

U4 Helpdesk Answer

U4 Helpdesk Answer 2023

Overview of corruption and anti-corruption in infrastructure development

Roughly one-half of all fixed capital investment by governments is in the construction of public infrastructure – an essential component of economic growth and social development, especially in developing countries (Pyman 2021). Yet at the same time governments, citizens and funders are frequently dissatisfied with the outcomes of infrastructure projects as they often involve the waste or misallocation of precious state resources (Wells 2015).

Corruption can have serious consequences for infrastructure projects across three areas. First, corruption in infrastructure provision is likely to increase prices and inflate project costs. Secondly, corruption can cause delays in project completion and lead to poor quality infrastructure. Thirdly, corruption in infrastructure development is likely to distort the public spending structure, with a bias towards high value, high complexity investments into new infrastructure as opposed to spending on maintenance and operations.

While the procurement process is often thought of as the phase most vulnerable to corruption (World Bank 2006a), corruption can undermine the integrity of infrastructure projects at every stage of the cycle, from project initiation to disposal of assets. This Helpdesk Answer considers the corruption risks throughout the infrastructure development cycle and presents ways to improve integrity and ultimately ensure better value for money.

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AUTHOR

Isabelle Adam and Mihály Fazekas
(Government Transparency Institute)

tihelpdesk@transparency.org

REVIEWED BY

Arne Strand (U4/CMI)

**Matthew Jenkins and Antonio Greco
(TI)**

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Please provide an overview of corruption and anti-corruption measures in the infrastructure sector.

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MAIN POINTS

- Risk factors inherent to infrastructure projects that render them particularly susceptible to corruption include the fact that these projects are often large, long-term and complex, involving numerous actors. Moreover, corruption safeguards such as transparency in all phases of the project and contracting cycles as well as citizen participation are often neglected.
- Each phase of the infrastructure development cycle entails specific risks, ranging from undue influence by politicians in project selection to insider trading during the disposal of assets.
- Most countries have implemented mechanisms to reduce some of the more obvious entry points for corruption, such as by improving transparency and competitiveness during the procurement process. However, corruption may simply shift to other stages of the project cycle. For instance, if the contract award is difficult to influence, corrupt activity may centre on the project design and appraisal phase or through amendments to the contract during project implementation.
- Hence, any strategy attempting to tackle corruption in infrastructure will need to approach the sector more holistically and address the fundamental corruption risk factors related to regulatory frameworks and institutional capacity as well as the lack of transparency and public participation.

Introduction

Infrastructure development¹ is a broad topic, as it fulfils an integral function across many crucial public sectors and policy areas including transportation, telecommunication, education and healthcare, and encompasses physical installations or networks ranging from airports to bridges, dams, drinking water supply systems and treatment facilities, power generation plants and facilities, hazardous waste management facilities, hospitals, inland waterways, levees, ports, public parks, railways, roads, schools, solid waste management facilities, communications installations including broadband access, transit systems, and wastewater flow systems and treatment facilities (Transparency International 2018: 4).

Corruption is a major challenge that affects the development of infrastructure projects in both the Global North and Global South. Examples from around the world range from the construction of the Berlin Brandenburg airport,² Brazil's Operation Carwash,³ and the Jakarta-Bandung high-speed rail project in Indonesia.⁴

Corruption has a significant impact on the quality of infrastructure, the cost of projects, and the time taken to complete and maintain them. While corruption in infrastructure is an extremely important topic due to the far-reaching negative effects, it is difficult to tackle because of the inherent complexity of most infrastructure projects, the opaque nature of corruption, especially in public investment and procurement, as well as the difficulty of uncovering corrupt practices (such as the use of substandard materials) through costly and time-intensive auditing methods.

¹ This Helpdesk Answer primarily covers infrastructure projects developed or commissioned by the public sector. Nevertheless, it is important to note that procurement processes might also be run by third sector and international organisations, such as the UN agencies, aid donors, and NGOs – especially in countries with fragile governance systems.

² The construction of the Berlin Brandenburg airport has seen documented cases of corruption and mismanagement related to the project, including allegations of bribery, conflicts of interest and lack of transparency in procurement processes. These issues have contributed to the significant delays and cost overruns in the project.

This Helpdesk Answer is structured as follows: it first seeks to identify common threats and risk factors inherent to infrastructure development. Then, it discusses corruption risks and mitigation measures specific to each phase of the infrastructure project cycle. Last, it presents cross-cutting recommendations and examples of promising anti-corruption approaches.

Background on corruption in infrastructure

Infrastructure development projects comprise multiple consecutive phases that constitute the life cycle of infrastructures. Categorisations of these steps vary, but broadly speaking the process can be divided into six main steps as shown in the schematic graphic in Figure 1:

1. **Initiation:** this phase involves the identification of needs for an infrastructure project and the setting of development priorities for the selection of projects and resource allocation.
2. **Preparation:** this phase entails project planning, including the determination of the feasibility in terms of technical, economic and social aspects, plus drawing up concrete designs and specifications.
3. **Procurement:** this phase covers the selection of contractors or suppliers for the project, and the negotiation and signing of contracts.
4. **Implementation:** this phase involves the physical construction of the infrastructure project according to the plans and specifications developed previously which ends with the formal approval of completion.

³ Operation Car Wash was a massive corruption investigation that began in Brazil in 2014, uncovering a vast network of kickbacks, bribes and money laundering related to large infrastructure projects, including the construction projects managed by Petrobras, Brazil's state-run oil company.

⁴ The project, which is a joint venture between an Indonesian state-owned firm and a Chinese company, has faced criticism for its lack of transparency and has been mired in allegations of bribery and conflicts of interest involving high-level government officials and environmental violations.

5. Operation and maintenance: this phase entails the ongoing operation and maintenance of the infrastructure project to ensure its continued functionality.

6. Disposal: this phase involves the transfer or sale of assets to other entities or the public.

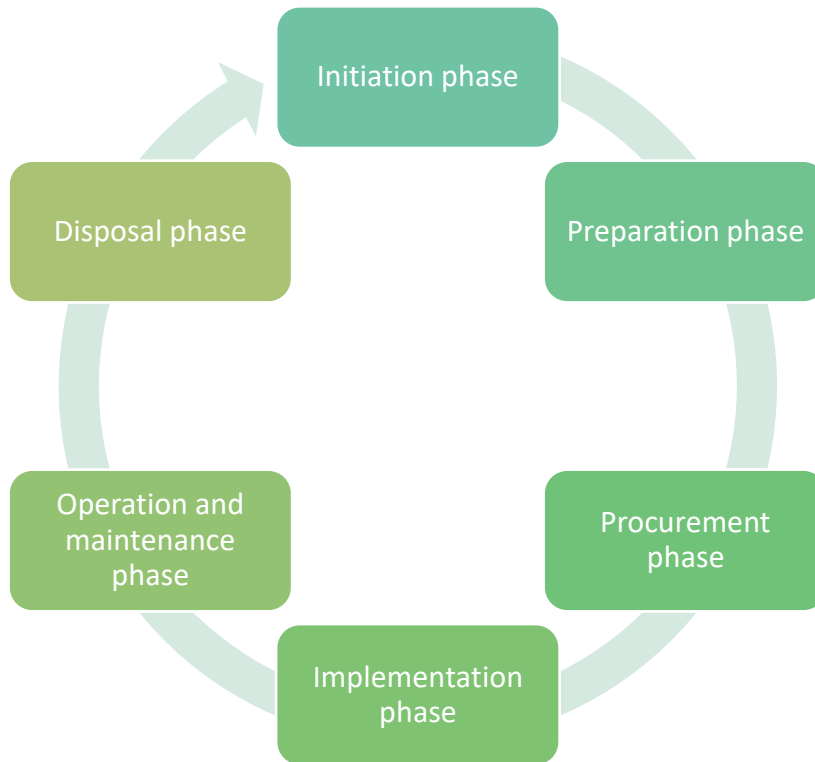


Figure 1. Life cycle of infrastructure projects

Negative effects of corruption in infrastructure projects

The following section considers the deleterious effects of corruption in the infrastructure sector across three areas: financial losses, safety and quality of infrastructure, and human rights and sustainability.

Financial losses

The overall cost of corruption in infrastructure is difficult to estimate as the financial impact goes beyond the sum of bribes paid. Corruption, particularly political corruption in the initial phases of the project cycle, fundamentally diverts investments towards (unnecessary) projects with low returns in financial as well as social terms (value for money) at the expense of funding much-needed maintenance of existing infrastructure or

the construction of more productive projects. The implementation of the most-needed infrastructure projects is especially challenging to control in countries with weak governance systems and fragile states with ongoing armed conflicts.

As the examples presented in this Helpdesk Answer illustrate, corruption not only distorts the project selection process, it disrupts the efficient and economic implementation of selected projects. Corrupt practices in infrastructure projects such as bribery, nepotism, fraud or coercion can cause financial losses to the public budget in three direct ways: increasing prices and inflating project costs, delaying project completion, and distorting the public spending structure.

Firstly, corruption in infrastructure provision is likely to increase prices and inflate project costs even when project specifications are not distorted by corruption. Contractors may inflate project

costs, leading to wastage of resources and increased financial burden on the government as a client and ultimately the taxpayer. Evidence suggests that there is a correlation between corruption levels in the tendering process and the ultimate project cost (Golden & Picci 2005). High project costs may also lead to the cancellation of projects due to unaffordability (Djankov, La Porta, Lopez-de-Silanes & Shleifer 2002).

Price inflation can manifest itself in wages or material costs in the awarded contract, as well as later during contract implementation (European Court of Auditors 2013). For example, in Italy, a study found that region-level corruption in infrastructure was positively correlated with infrastructure prices even after accounting for input costs such as labour and construction materials (Golden & Picci 2005). Similarly, an analysis of road prices in low and middle-income countries using the World Bank's ROCKS dataset showed that country-level corruption risks increased road prices by 7% to 11% (Collier, Kirchberger & Söderbrom 2015). Although this may seem like a small percentage, the absolute costs can be substantial given the high value of many infrastructure projects.

Other studies, such as Alexeeva, Queiroz & Ishihara (2011), have examined absolute unit prices and found that the presence of additional procurement red flags (measuring corruption risks in the tendering process such as single bidding) was associated with an average increase in prices of US\$91,000 to US\$100,000 per kilometre in a sample of road projects in Europe and Central Asia. Furthermore, underlining the importance of government supervision during construction works, Olken (2007) showed that increased monitoring by government auditors in Indonesian road projects led to an 8% decrease in unexplained material costs.

According to an empirical study by Fazekas & Tóth (2018), corruption inflates prices of European road construction projects by 30%-35% on average, with the 3 largest excesses in high corruption risk regions. For example, comparing the corruption risk of an average Bulgarian to an average Swedish road construction project is associated with a €1.2 million or around a 35% increase in the cost of one kilometre of new road construction compared to the average road price.

Secondly, corruption can cause delays in project completion. Corrupt practices often lead to the

award of contracts to entities that may not have the capacity to complete the project within the agreed timelines. Such contractors may also divert funds meant for the project, leading to a shortage of funds, and delays in project completion. Delays in project completion may lead to cost overruns and low-quality provision, or even non-completion (Adegbite, Amaeshi & Amao 2013a; Lewis-Faupel, Neggess, Olken & Pande 2014). According to the European Court of Auditors (2013), EU funded road projects between 2000-2013 experienced an average delay of 41% or nine months longer. Similarly, World Bank funded road projects in several African countries also experienced delays of over a year in contract implementation (Alexeeva et al. 2008).

Delayed provision and long implementation periods provide fertile ground for cost inflation, as is pointed out by Flyvbjerg et al. (2004). Although, time overruns are not straightforward indications of corruption (complex projects can have unforeseen complications), weak supervision and enforcement of the initial contracts give rise to corruption risks. Although the evidence on the impact of non-completed projects is scant, it is likely that these instances represent the most severe harm caused by corruption and may even become a systemic problem in certain places. The unfortunate consequence of unfinished infrastructure projects is that they can often not be utilised at all.

Thirdly, corruption in infrastructure development is likely to distort the public spending structure, with a bias towards high value, high complexity investments in new infrastructure as opposed to spending on maintenance and operations. When politicians and construction companies collude to extract gains from projects in a certain sector, public spending may be steered towards high value investments in that sector, and not according to the actual public needs and demands – the funds for which may run empty.

There are alternative explanations for spending distortions, such as temporal commitment problems (e.g. Dixit 1998), where voters force governments to commit to inefficiently high value projects. However, Tanzi & Davoodi (1997) show that higher levels of perceived corruption in a country are associated with increased public investment but with lower expenditures on operations and maintenance. Similarly, Mauro (1998) shows that country-level corruption is negatively associated with the share of education

related government expenditure in GDP, and this relationship is robust to alternative explanations such as the prior level of development. Findings by Tóth and Fazekas (2018) using large-scale data from government contracts indicate that corruption can steer infrastructure spending towards high value investments, as opposed to small value investment projects, especially in regions with high corruption risks.

Moreover, public spending structure may further be distorted by corrupt pressures from foreign governments and entities, where big ticket infrastructure investment deals are made with foreign financing schemes, often leaving countries saddled with large debts and disadvantageous terms. While there is little comprehensive proof for the levels of corruption in such investment deals, there have been several high-profile cases particularly involving foreign governments. One of the most prominent examples is the Belt and Road Initiative (BRI), a massive infrastructure investment programme led by China.⁵

Several reports and studies have raised concerns about corruption in BRI projects. For example, a 2019 report by the Center for Global Development found that nearly half of the BRI projects examined were “high-risk” for corruption with contributing factors such as weak governance structures, lack of transparency and limited public participation (Hurley, Morris & Portelance 2018). One of the most high-profile cases of corruption allegations in a BRI project is the controversial Hambantota Port in Sri Lanka, which was built with Chinese financing. Investigative journalists and critics have accused the Sri Lankan government of backdoor dealing while taking on an unsustainable level of debt to finance the project (Grey 2018).

In sum, from the public financial perspective, curbing corruption and ensuring good infrastructure governance is key to increase the return on (public) investments, ease fiscal pressure and to enhance debt sustainability.

Safety and quality

Corruption in infrastructure development often leads to poor quality infrastructure as practices such

as bribery, favouritism and nepotism may lead to the award of contracts to incompetent contractors who may not have the necessary qualifications, expertise or experience to construct infrastructure projects to the required standards and may cut corners and use substandard materials to reduce costs. Such practices can lead to premature deterioration and high maintenance costs.

As a result, such projects may be structurally unsound, leading to safety hazards such as collapses, accidents and injuries (Kim, Lee & Han 2017). This ultimately affects the quality of life of citizens who depend on the infrastructure for their daily activities (Abdulai & Kpienbaareh 2017). It may even put their lives at risk; for example, the use of low-quality steel in the construction of bridges can lead to structural failures potentially resulting in the loss of life and property (Aminu 2015). Unsound infrastructure also makes them more vulnerable to natural disasters as numerous examples in the aftermaths of earthquakes have shown (Ambraseys & Bilham 2011; Letsch 2023; Messick 2015).

Contractors may also ignore safety regulations to cut costs or increase their profits, resulting in safety hazards such as the use of unapproved construction materials, non-compliance with safety codes and failure to provide safety equipment (Oberoi & Saksena 2013). Furthermore, corruption may compromise safety inspections as inspectors who are bribed may turn a blind eye to safety hazards. For example, bridges may not be inspected for structural integrity or buildings may not be inspected for fire safety (Andrade 2009).

The infamous case of the collapsed Rana Plaza in Bangladesh that killed more than 1,100 people in 2013 illustrates the danger of corruption. Safety shortcuts due to corruption in the approval and inspection processes were cited as the main reasons for the collapse (OCCRP 2014). Lastly, corruption can cause delays in safety improvements as infrastructure projects may be completed without the necessary safety features, such as roads being built without guardrails or lighting, or buildings not having emergency exits (Ong'olo & Gachanja 2016).

⁵ The BRI aims to connect China with countries in Asia, Africa, Europe and the Middle East through a network of roads, railways, ports and other infrastructure projects.

Human rights and sustainability

As infrastructure development is crucial for fostering inclusive and green growth, corruption in the sector can consequently hinder sustainable development and ultimately violate human rights, such as the equitable access to basic goods and services. Furthermore, corruption in infrastructure development can divert resources from other important social programmes, perpetuating poverty and inequality (Transparency International 2017).

Corrupt practices may lead to the award of infrastructure projects to contractors who have close ties with the government or ruling elites and are favoured over other contractors who may have better qualifications and experience. In countries with ethnic divides or strong religious and tribal affiliations, political leaders may collude with private actors of their own group, excluding others and skewing the playing field (Edwards 2021) as high ethnic inequality is positively correlated with higher levels of corruption (Fried, Lagunes & Venkataramani 2010).

This practice can be linked to clientelism, especially in periods during and after elections, when political actors need to pay off their clientele in return for the campaign support such as donations (Holland & Freeman 2021). Similarly, political leaders may favour their home regions and own ethnic group in the allocation of infrastructure projects. Such political clientelism and patronage potentially affects the equitable distribution of infrastructure, which can lead to severe disparities in the provision of basic public goods and services to different population groups and regions (McDonald, Jenkins & Fitzgerald 2021; Kenny & Spector 2005) and resulting in violations of fundamental rights such as the right to housing, water and healthcare (Adegbite, Amaeshi & Amao 2013b).

Corruption can hence contribute to discrimination against certain groups in accessing infrastructure or even lead to forced evictions, displacement of communities and violations of the right to participate in decision-making processes (United Nations Human Rights Council 2019). Evidence suggests that corruption in infrastructure development has a particularly severe impact on marginalised communities. In Nigeria, for example, corruption in the construction of public schools led to substandard infrastructure and reduced access to education for marginalised children (Adegbite, Amaeshi, & Amao 2013b).

Corruption in infrastructure development can also lead to environmental degradation and violations of the right to a healthy environment as well as further undermining efforts to build climate mitigation and adaptation infrastructure. Brazil is an example of a country in which corruption in infrastructure development has violated environmental and social Indigenous rights (France & Duri 2020; Transparency International Brazil and WWF 2021). For example, corruption in the construction of the Belo Monte Dam resulted in environmental destruction and displacement of Indigenous communities, violating their rights to cultural heritage, land and a healthy environment (O'Brien 2019). Similarly, in the Philippines, corruption in mining projects has led to human rights abuses, including displacement of communities, environmental degradation and violation of the right to health (Global Witness 2019).

Corruption risk factors in infrastructure projects

There are several risk factors specific or inherent to infrastructure projects that render them particularly susceptible to corruption. Firstly, by nature, infrastructure projects are often large in size (in terms of volume of funds as well as the many actors), long-term and complex. Large projects are especially attractive for corruption as even a small percentage of the investment value can result in substantial corruption rents (Rose-Ackerman 1999).

In the case of long-term investments, such as transport infrastructure, the situation is further complicated as the gains of corruption – for example, through building with less/lower quality material – are realised early on, while costs arise only later. It is often difficult to assess the quality of the final product until long after the contract is concluded.

Complex projects are also difficult to monitor and regulate due to high information asymmetry, which makes it harder to detect inflated prices, inferior quality or sluggish delivery. Furthermore, complex infrastructure projects may require highly specialised skills and capacities, which can create monopoly power and pricing, making it even more difficult to detect and punish misconduct (Golden & Picci 2005; Kenny 2007). Additionally, complex financial structures which are particularly prominent in public-private

partnerships (PPPs), due to the use of subcontractors and multiple layers of contracting, which open up gaps for potential conflicts of interest and undue influence on one hand, while complicating accountability and oversight on the other, making it easier for corrupt practices to go undetected (World Bank 2000).

Secondly, infrastructure projects are often conducted under time pressure, which increases the likelihood of corners being cut and oversight institutions not conducting monitoring diligently. Similarly, corruption safeguards such as transparency in all phases of the project and contracting cycles as well as citizen participation are often neglected.

Especially in the procurement process, the lack of transparency can result in corrupt practices such as bid rigging, collusion, and favouritism towards certain contractors or suppliers, which in turn can lead to inflated prices and inferior quality materials and workmanship (Kenny 2007; Auriol & Blanc 2019). In addition, the use of non-transparent procurement methods, such as direct contracting or emergency procurement, can create opportunities for corruption and limit competition (Bauhr, Czibik, Fazekas & de Fine Licht 2019).

Non-transparent procedures may be used in the interest of time or are justified with reference to “national security” needs, particularly in the field of defence and security procurement. However, the decision to rely on these opaque procedures can also be motivated by interest from political actors and their (business) networks. In addition, changes in political leadership or priorities can result in the cancellation or suspension of projects, which can lead to wasted resources and opportunities for corrupt practices.

Thirdly, a related corruption risk in many countries involves weak governance systems in terms of legal and regulatory frameworks as well as the institutional capacities of implementing agencies. This can include weak project management, inadequate oversight and insufficient resources for effective monitoring and enforcement (Kim, Lee & Han 2017), which again creates opportunities for rent-seeking behaviour by public officials, contractors and other actors involved in the project and limits the ability of stakeholders to hold public officials and other actors accountable (Auriol & Blanc 2019).

Furthermore, the lack of effective enforcement mechanisms and penalties can lead to impunity for corrupt practices. When trying to address weak regulatory frameworks, governments often find themselves in an ambiguous position in the dual role of being the client (with potential political interference and the undue personal interests of senior officials) of a project and at the same time being the regulator who should guarantee safeguards and participation (IGC 2016).

Moreover, governments’ authority and accountability duties have become dispersed in contexts where supra-national bodies are involved. This can be seen in the case of the Trans-European Transport Networks project, which is a multi-billion euro initiative aimed at improving the transportation infrastructure across the EU and involving multiple countries and jurisdictions.

While the European Commission, as a supra-national body, plays a significant role in overseeing the project and ensuring that it adheres to EU regulations and standards, individual governments are challenged to maintain full authority and accountability over the project within their borders. At the same time, the EU faces challenges in maintaining accountability and transparency, as the project involves multiple stakeholders and decision-makers (De la Fuente & Ruiz-Giménez 2019).

A similar effect may occur in settings where project implementation lies at **sub-national government** level and the division of competencies and oversight authority is unclear in relation to national governments.

Despite these factors rendering infrastructure projects particularly susceptible to corruption, one needs to be aware that it is an extremely diverse sector. A study on public procurement in Hungary found that whereas the individual tenders with the highest corruption risks are high-value infrastructure tenders, the average corruption risk of the infrastructure sector compared to other sectors is not particularly high (Lukács & Fazekas 2015). As the IMF-funded Corruption Cost

Tracker⁶ shows, corruption risks within the infrastructure sector differ significantly by subsector: highly concentrated and high-value markets (e.g. public utilities or transport equipment) show a much higher corruption risk than subsectors with broad, competitive markets such as construction materials.

These findings suggest that at least some of the attention paid by anti-corruption practitioners to the infrastructure sector may be driven by high-profile cases rather than a solid understanding of the overall risk profile of infrastructure markets. This calls for better data-driven assessments of corruption risks in specific infrastructure subsectors, such as the construction of hospitals or maintenance of road networks. Note, however, that the measurement of corruption risks is limited by the available data on procurement processes and that there is hardly any data on the quality of construction or early deterioration of material, which might be prominent across “low-level” infrastructure projects as well.

Corruption risks across the infrastructure project cycle

Corruption can occur at any phase of the infrastructure project cycle inflicting different costs on societies and requiring a range of mitigation tactics (Benitez, Estache & Soreide 2010; Kenny 2006; 2009). Strategic planning for new projects, the tendering process, the implementation phase, as well as the project aftermath – corruption risks are present throughout the project cycle. While the procurement process is often thought of as the phase most vulnerable to corruption (World Bank 2006a), there are other ways of compromising the integrity of infrastructure projects at every stage of the cycle, as detailed below.

Moreover, corruption during the early stages of project appraisal, design and budgeting may open doors for wrongdoing later. Most countries have implemented mechanisms to reduce some of the more obvious entry points for corruption, such as by improving transparency and competitiveness

during the main tender process. However, by only targeting some types of risk, corruption may simply shift to other stages (Dávid-Barrett & Fazekas 2020). For instance, if the contract award is difficult to influence, corrupt activity may centre on the project design and appraisal phase or through amendments to the contract during project implementation (World Bank 2020).

Project initiation

Due to the importance of infrastructure projects for the whole population of a given country, the needs of all parts of the population should be considered during the prioritisation of several possible investments where different opportunity costs need to be weighed. Projects meeting the most burning needs should be planned first, going through the stages required for sound public investment management: project development, formal appraisal, independent review of the appraisal and objective selection (Wells 2015). However, in many countries, these steps are either missing or poorly carried out (Dabla-Norris et al. 2011), and several corruption risks can undermine processes at this first stage of the project cycle.⁷

Undue influence and political interference

As the previous section highlighted, a weak institutional and regulatory setup can generate a number of corruption risks. It allows undue influence and political interference to dictate the policy direction and strategic planning of infrastructure projects. Influence peddling and bribery can occur when project proponents (e.g. contractors) offer bribes or other inducements (e.g. campaign donations) to influence project decisions at the political level.

Political interference occurs when public officials or politicians use their power to influence the decision to launch an infrastructure project driven by political interests or personal gain rather than objective criteria such as need or cost-benefit analysis. For example, in the period leading up to elections, politicians often interfere to push projects that benefit their constituents (e.g. roads

⁶ The [Corruption Cost Tracker](#) analyses procurement data with regards to corruption risks across a diverse set of 34 countries. For further information, see Government Transparency Initiative (2022).

⁷ For an extensive review of corruption risks during project appraisal and preparation, see Wells (2015).

and bridges). This can result in projects being approved based on political influence or personal connections rather than need or merit – leading to the selection of large projects and new construction over maintenance as well as “white elephant” projects with little or no social benefit, such as bridges without connecting roads, projects for which there is no operational budget to run services (e.g. hospitals or schools) or capital investment in projects that are never completed (Wells 2015).

One example illustrating how political interference can override technical, economic, and environmental considerations in the selection of infrastructure projects is the grand corruption scheme that engulfed Belo Monte, one of the world’s largest hydroelectric plants, which was uncovered as part of the Operation Carwash investigation mentioned in the introduction. The available evidence indicates that corruption played a role in the decision to undertake and award contracts for a project that was unsustainable and contentious. There was no proper assessment of the project’s actual contribution to sustainable development, nor of its harmful effects on the environment and the rights of Indigenous communities (Transparency International 2020).

Inadequate needs assessment

Linked to the previous point, an infrastructure project may be prioritised based on the location of influential politicians or their allies and supporters, rather than on actual need and feasibility. Biased or inaccurate needs assessments can result in projects that are not well-suited to local needs and are unnecessarily costly as projects are poorly planned and executed, resulting in cost overruns and delays.

For example, in Kenya, it appears that road expansion in any given year has been closely related to the home regions of the prime minister and the minister for public works, as well as to those of other ethnic groups represented in the cabinet. One outcome of this phenomenon is deterioration of the road network in areas that lack a high-ranking minister or political connections (Wales & Wild 2012).

⁸ For a Transparency International Helpdesk Answer [specifically on unsolicited proposals](#), see Bullock (2019).

Lack of public consultation

The inadequacy of needs assessments can be compounded by the involvement of interest groups that manipulate the process to advance their own interests to the point where decision-makers exclude public input or consultation to avoid scrutiny and push through a project that may not be in the public interest. This can lead to projects that do not meet the actual needs or preferences of the communities they are meant to serve, as the aforementioned Belo Monte case shows, for example.

Unsolicited proposals

Unsolicited proposals⁸ occur when private firms reach out to the government with a proposal for an infrastructure project without the government having requested to do so. For this reason, they present different corruption risks, patronage or malfeasance than typical PPPs that follow standard procedures and are driven by publicly identified needs (Transparency International Helpdesk 2019; World Bank 2018).

While potentially providing space for innovation and helping government offload responsibilities for financial and technical feasibility, unsolicited proposals are considered vulnerable to corruption for two reasons. First, because of their low levels of transparency, it is unclear what the origins of the project idea were and if bribery or lobbying by private contractors motivated a government official to orchestrate the proposal for private gain. Secondly, the lack of competition in unsolicited proposals raises concerns and opens the door to several vulnerabilities down the line.

Mitigation measures

- Install a mechanism to deal with conflict of interests in project selection (World Bank 2020).
- As a mitigation measure for unsolicited proposals, clear evaluations and specific ex ante timelines throughout the process can reduce opportunities for corrupt coordination (Bullock 2019). The Swiss challenge system (common in the Philippines and also used in Guam, India,

Italy, and Taiwan) uses competitive tendering to determine the project developer but gives the original proponent the right to countermatch any better offers, hence safeguarding competition but fostering innovation (Hodges & Dellacha 2007)

- Ensure strategic documents and investment plans for infrastructure, an authorised body for decision-making; assurances on the funds available (World Bank 2020)
- Corruption risk assessments in the specific industry in question as well as in the concrete project, requiring risk mitigation plans that refer to political pressures (World Bank 2020)
- Requiring infrastructure needs to involve the broadest possible array of population through participatory consultation processes (World Bank 2020).

Project preparation

Specific infrastructure investments should not come as a surprise but be designed based on appropriate legislative provisions and anchored in preparations that include extensive pre-evaluations and investment planning. While necessary to ensure value for money in infrastructure investments, corruption risks can also arise during the project preparation phase.⁹

Evaluation of investments

Technical and financial feasibility studies as well as environmental and social impact assessments are required for most infrastructure projects and help to determine overall value for money. Corruption can occur when these assessments are incomplete, inaccurate or manipulated to support pre-determined project outcomes or minimise the negative impacts of the project on paper (Williams & Dupuy 2017). The deliberate underestimation of costs and the inflation of benefits to get uneconomic projects approved or to provide a cushion for the later diversion of funds leads to projects with low economic returns and excessive cost overruns (Wells 2015).

Undue financing and inflated budgets

The financing of infrastructure projects can also be a source of corruption as political or private interests may push to get projects into the budget without appraisal. Infrastructure spending can occur outside of the strategic planning framework, and be spent without comprehensive consultation and oversight, especially in emergency situations, which opens up opportunities for corruption.

In addition, corruption in the selection of lenders and the provision of loans as well as the choice and setup of the financing model (publicly or in public-private partnership) may be influenced by considerations apart from the public good. Specific risks come with public-private partnerships where private-sector interests may overrule public interests and undue influence is taken in loan agreements with private lenders or international financial institutions. For example, financial institutions might collude with decision-makers in charge of the financing model to agree on terms that are not competitive which may lead to inflated fees or interest rates. This could involve bribery by financial institutions or decision-makers having private interest in or relationships with certain lenders.

Land acquisition

Bias in the selection of project sites and acquisition is a critical part of the planning phase for infrastructure projects. Corruption risks can arise when the process is not transparent and potentially motivated by private or political interests, rather than objective assessment, or when compensation is not provided at market rates. For example, in 2010 when India spent an estimated US\$10 billion on infrastructure projects to host the Commonwealth Games in New Delhi, it was later revealed that corruption was rampant in the land acquisition for the projects. One example is the case of the construction of the Yamuna Expressway, which was supposed to connect the Games Village to the main stadium. According to a report by Transparency International India, the land for the expressway was acquired at a highly inflated price, with farmers being paid only a fraction of the market value of their land (Mazumdar 2014).

⁹ For an extensive review of corruption risks during project appraisal and preparation, see Wells (2015).

Rigged permission procedures

There can be corruption risks related to planning permissions, import licences, licence approval and the lack of consultations with affected communities. For example, in the case of the Palm Oil Plantation Project in Indonesia, the government was accused of corruption in the permission procedures for the construction of the project. According to a report by Global Witness, the government granted permission for the project without proper environmental assessments and consultation with Indigenous people, resulting in the destruction of rainforests and the displacement of local communities. (Global Witness 2016).

Incomplete or inaccurate project design

Project designs may be incomplete or inaccurate on purpose to increase contractors' profits, favour a specific contractor or leave room for later adjustments open to corrupt manipulation. This can lead to inflated costs, delays and substandard quality, as well as potential opportunities for corruption. For example, contractors may take advantage of incomplete or inaccurate designs to increase the scope of work and inflate costs.

Mitigation measures (World Bank 2020; CoST 2021)

- Require the budgets for infrastructure projects to earmark funds for anti-corruption monitoring and oversight.
- Define an activity scheme for technical and feasibility studies on projects, the estimation of costs with upper and lower limits, ensuring provision of financial resources, market analysis on circumstances important for technical and financial meaningfulness of the projects and identification, prevention and

management of all corruption risks related to all phases of the projects.

- Require participation of civil society in infrastructure project design, assigning a point of contact for relations with civil society.

Public procurement

The procurement process, from the definition of tender specifications, through choosing the procurement method, selecting bidders, to awarding the contract is considered the stage of the project cycle most vulnerable to corruption due to the complexity of the process and the manifold loopholes that can be used to steer a contract to a favoured bidder (Kingsford Owusu & Chan 2021; World Bank 2006a). The methods are increasingly sophisticated. For example, three out of four foreign bribery cases in procurement involve intermediaries, such as local subcontractors, consultants, agents or corporate vehicles (including subsidiary companies, local consulting firms and offshore companies in tax havens) (OECD 2014).

The aim of institutionalised corruption in procurement is usually to steer the contract to the favoured bidder without detection in a recurrent and organised fashion (Fazekas & Tóth 2014). This requires at least two violations of principles of impartial distribution of public resources: i) avoiding competition by, for example, using unjustified sole sourcing or direct contract awards; and ii) favouring a certain bidder by, for example, tailoring specifications or sharing inside information (Fazekas, Tóth & King 2016). A non-exhaustive list of such practices indicating corruption risks in public procurement are presented in Table 1 below.

Table 1. Procurement practices and supplier characteristics indicating corruption risks

Corruption risk	Description
Non-competitive or less competitive procedure types	Using procedure types such as direct contracting which can favour a certain bidder. While open competition is relatively hard to avoid in some tendering procedure types where large sums of money and public scrutiny is involved, others such as accelerated negotiated or negotiated without competition procedures are by default much less competitive; hence, using less open and transparent procedure types can indicate the deliberate limitation of competition, thereby increasing corruption risks (Chong, Klien & Saussier 2015).
No call for tenders publication	Not publishing a call for tenders or similar notice prior to the bid submission deadline and evaluation of bids as this would make it harder for competitors to prepare a bid.
Restrictive or tailored tendering terms	The technical, financial and legal requirements and the product descriptions are defined to favour a certain bidder.
No contract award publication	Avoiding publication of contract awards on required platforms, such as national e-procurement portals, can obscure the process and hinder competitors' ability to complain or appeal against the decision.
Suspiciously short advertisement period	If the advertisement period (the number of days between publishing a tender and the submission deadline) is too short for preparing an adequate bid, especially for large tenders considered in this study, it can serve corrupt purposes; where the issuer informally tells the well-connected company about the opportunity ahead of the public announcement of the tender (Piga 2011).
Single bidding	When only one bid is submitted to a tender on an otherwise competitive market. While single bidding might also reflect non-corrupt behaviour such as contract renewal, its widespread presence over longer periods across many procuring bodies is more likely to signal systematic deviations from competitive norms.
Non-transparent supplier registration	The supplier company is registered in a tax haven or country considered a secrecy jurisdiction and/or beneficial owners are unknown/untraceable.
Political connections of suppliers	Suppliers have links to political office holders such as donating to party campaigns or employing politicians (e.g. the revolving door).
Insufficient supplier size	The supplier is not large enough to credibly deliver the contracted work (e.g. its annual turnover is smaller than the contract value).
Insufficient supplier age	The supplier has insufficient experience to credibly deliver the contracted work (e.g. it was founded less than a year before contract award).
Supplier sanctions record	The supplier or any of its owners/managers have been sanctioned in the past or are under investigation at the time of contract award.
Extensive subcontracting	The contract includes only an extreme share of subcontracted content (e.g. more than 50% of the contract value). Contractors with weak technical or financial capacity may subcontract work to less qualified companies, which can result in delays, cost overruns and quality issues.
Non-competitive prices	Unit prices for standardised inputs, such as a tonne of gravel, are higher than local competitive market prices.

Adapted from: Fazekas, Cingolani & Tóth (2016); Fazekas & Tóth (2018).

Restricted and unfair access to public procurement opportunities translates into higher prices, lower quality and quantity to generate corruption rents. Such rents may be extracted in the form of bribes, but it is more typical to channel rents through broker firms, subcontracts, offshore companies and bogus consultancy contracts to name a few typical instruments. As public procurement and especially infrastructure delivery involves huge sums, the typical institutionalised corruption scenario involves elites from both the public and private sectors, such as elected officials, high-level bureaucrats and wealthy business people (Fazekas & Tóth 2018), as shown in the Belo Monte case (France & Duri 2020).

Mitigation measures (Fazekas & Blum 2021; Wells 2015; World Bank 2020)

- Modern e-tools for procurement processes should be used to eliminate direct contacts between the actors of those processes.
- Governments should establish a fair, transparent and competitive procurement process enabling the best proposal to win.
- There should be an open tender, or else proper justification of a closed/direct tender process.
- Specifications should be clear, and an appropriate time should be given to respond to the tender.
- Independent oversight should be given to the procurement process.
- Government departments should undertake wide, pre-market consultation processes with all relevant stakeholders.
- Projects and suppliers should be audited before the contract is signed to ensure that fraud, corruption, collusion and other illegal activity is identified.
- Governments should conduct due diligence on the prospective contractors and subcontractors to ensure they are reputable and that their role is appropriate and commensurate with their remuneration.

Contract implementation

In the phase of project implementation, it is crucial that supervising engineers and overseeing procurement officers ensure the fulfilment of the contractual obligations. Corruption risks arise when this supervision is lax or supervisors even

collude with the contractors to skim funds from the project, as detailed below.

Modified contracts and variations

These are alterations to the original contract scope or price made during the implementation phase. Corruption can occur when contractors are allowed to inflate the cost of the original contract scope, or allowed to charge for extra, overpriced products. Often, such variations or scope extensions are unnecessary or do not meet the requirements of the project. Contract modifications can also play a complex role in the conduct of corruption, when a favoured bidder already knows that it will be able to modify the contract, it can submit a competitive bid, seemingly delivering value for money (Dávid-Barrett & Fazekas 2020). Due to the widespread lack of contract implementation data compared to tendering and contract award information, opacity favours corruption during contract implementation.

Embezzlement or misuse of materials

Contractors can use substandard materials, fail to follow required quality control procedures or supply less equipment than specified to save money and pocket the difference (Stansbury & Stansbury 2008). This can result in infrastructure that is unsafe, unreliable or prone to failure. One example is the case of the Chinese company, Sinohydro, which was accused of using substandard materials during the construction of the 300 MW Chisumbanje ethanol plant in Zimbabwe, resulting in the facility being shut down due to safety concerns (Mugabe 2015). In another case, the Philippine government discovered that a road project had been constructed using substandard materials, causing the road to deteriorate just two years after its completion. It was later discovered that the contractor had replaced some of the required materials with lower quality substitutes to save costs (Nalzaró 2017). As mentioned previously, the detection of substandard quality is difficult as it requires costly audits and often happens long after the conclusion of the project.

Collusion between contractors and supervisors

Contractors may collude with project supervisors and inspectors to bypass quality control measures, to obtain the formal approval for substandard work, to increase the contract price or adjust the work required to make extra profit, cover potential losses or recover money spent on bribes (Wells

2015). This can involve offering bribes, threats or other inducements to inspectors or supervising engineers (OECD 2012; Wells 2015). Furthermore, the public officials who are managing project implementation on behalf of the client are often fully aware of this collusion or even actively collaborate in it, in many cases since the project preparation stage to systematically embezzle funds from projects (Mawenya 2007).

Ghost workers

Ghost workers are individuals who are listed on the payroll but do not actually work on the project. This can occur when corrupt officials or contractors inflate the number of workers on the project and then pocket the salaries of the non-existent workers. This practice can increase the overall cost of the project and reduce the quality of the work as fewer resources are available for actual construction. Additionally, it can lead to delays in the project timeline as work is not being completed as efficiently. There have been several examples of ghost workers being used in infrastructure projects. For instance, in Nigeria, an investigation found that nearly 24,000 ghost workers had been added to the payroll of a road construction project, leading to an estimated US\$100 million in losses. (Akintoye, Goulding & Zawdie 2013). In Pakistan, it was found that ghost workers were added to the payroll of a water supply project, leading to a loss of nearly US\$60 million (World Bank 2006b).

Delaying tactics

Contractors may use delaying tactics to inflate costs and extend project timelines, leading to cost overruns and schedule delays. This can include slowing down work, submitting excessive paperwork or failing to meet milestones.

Mitigation measures (Lagunes 2021; OECD 2019; Wells 2015; World Bank 2020)

- Contracts should accurately describe performance requirements and responsibilities, along with construction and payment terms, and introduce anti-corruption clauses.
- Arbitration clauses should be mutually agreed (depending on the jurisdiction) and contractual disputes and variations should be handled in a clear and timely manner.
- Governments should closely monitor and audit the quality and performance of the

supplier and the project to ensure contractors are not concealing substandard work or creating unjustifiable delays, and apply contractually defined penalties, bonuses and fines when warranted.

- Civil society and local stakeholder monitoring can augment government monitoring capacities and local feedback should be incorporated into the oversight framework and acted upon effectively.
- Renegotiation of contracts should be done in a clear and transparent manner, mutually agreed between parties and made public.
- Governments should maintain contract terms, and care should be taken to make sure that the standards to which the private-sector contractor operates are not eroded without compensation to the public-sector authority.
- Potential corruption in infrastructure projects should be investigated, prosecuted and sanctioned.

Maintenance and operation of assets

Corruption risks in this phase include embezzlement of project funds, bribes for the provision of maintenance services and collusion among service providers, as detailed below. An example of corruption in the maintenance and operation phase is the case of the Trans-Alaska Pipeline System in the United States. The pipeline was constructed in the 1970s, and its maintenance and operation were contracted to the Alyeska Pipeline Service Company. In 2009, the company was fined US\$20 million for environmental violations and for falsifying maintenance records. The company had neglected required maintenance activities and falsified records so that it appeared that the maintenance had been performed when this was not the case. This led to significant damage to the environment and the reputation of the company (Sennett & Melvin 2010).

Misappropriation of funds

Corruption in this phase can manifest in the embezzlement of funds allocated for the maintenance and operation of the infrastructure project. Such embezzlement can lead to inadequate maintenance or complete neglect of the project, resulting in significant damage or loss of life. Often, there is a lack of allocated funds for maintenance in the first place as new construction takes

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precedence in public investment and project selection stage for future projects.

Corruption in maintenance contracts

Bribery, nepotism and other corrupt practices similar to the ones highlighted in the procurement phase also apply the awarding of maintenance contracts, which can result in negligence or incompetence of maintenance personnel, which in turn leads to reduced service life and higher maintenance costs.

Lack of community involvement

The exclusion of local communities in the maintenance and operation of infrastructure projects can reduce oversight and create a conducive environment for corruption.

Mitigation measures

- Infrastructure quality information can be collected either through crowdsourcing (e.g. a mobile app enabling faults to be easily reported) or through systematic monitoring frameworks (e.g. regular engineering reviews). Infrastructure quality information should be publicly available to achieve maximum impact.
- Annual performance reports are undertaken and publicly accessible.
- Anti-corruption measures in the tendering of public infrastructure asset operation and maintenance contracts (e.g. highway fee collection services).

Disposal of assets

Disposal of assets is the final phase of an infrastructure project, and it involves the transfer or sale of assets to other entities or the public. The disposal of assets phase presents several corruption risks, including insider dealing in the sale of assets, manipulation of asset valuations and bribery of disposal officials, as detailed below.

Conflicts of interest

Public officials involved in the disposal of assets may have personal interests that conflict with their official duties. This conflict of interest can lead to

corruption, where officials favour certain buyers or undervalue the assets for personal gain. This can be related to bribery, with officials taking bribes from buyers or sellers to favour one over the other.

Insider trading

In some cases, insiders may have access to confidential information about the assets that they can use to gain an unfair advantage in the sale or transfer of assets. Insider trading can lead to corruption, where insiders profit from their knowledge of the asset's true value.

Lack of transparency

The disposal of assets process should be transparent to ensure fairness and prevent corruption. However, in some cases, the process may lack transparency, making it easier for officials to engage in corrupt practices.

Lack of competition

When there is a lack of competition in the disposal of assets process, it can lead to corruption, for example, if there is only one bidder for an asset.

Improper valuation

The value of assets should be determined objectively to ensure a fair price. However, officials may undervalue or overvalue assets to benefit certain buyers or sellers, leading to corruption.

Privatisation

Privatisation of assets can also present corruption risks. In some cases, officials may favour certain buyers or undervalue assets to benefit private companies that are close to them.

Mitigation measures

- A public asset registry can be established and made accessible to the public.
- Clear policies and procedures are in place for the disposal of assets, including transparency and accountability measures, such as public tender processes and independent valuations.
- Advertisement of sales and registry of privatisation transactions are published in a publicly accessible portal.

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- Privatisation is conducted through competitive auctions, accessible to all potential buyers.
- When infrastructure reaches end-of-life, the public is informed of its disposal or decommissioning in a timely manner.

Cross-cutting anti-corruption measures

While the previous section disaggregated corruption risks and mitigation measures per the individual stages of the infrastructure project cycle, these are in fact interrelated. Corruption during the early stages of project appraisal, design and budgeting may open doors for wrongdoing later. And although most countries have implemented mechanisms to reduce some of the more obvious entry points for corruption, such as by improving transparency and competitiveness during the main tender process, corruption may simply shift to other stages (Dávid-Barrett & Fazekas 2020).

For instance, if the contract award is difficult to influence, corrupt activity may centre on the project design and appraisal phase or through amendments to the contract during project implementation (World Bank 2020). Hence, any strategy attempting to tackle corruption in infrastructure will need to approach the sector more holistically and address the fundamental corruption risk factors related to regulatory frameworks and institutional capacity as well as the lack of transparency and public participation.

Strengthening regulatory frameworks and institutional capacity

The World Bank's Infrastructure Governance Assessment Framework (2020)¹⁰ highlights the importance of going beyond individual safeguards and developing a comprehensive, whole-of-government approach. As an indispensable basis for integrity systems, governments need to develop and enforce a regulatory framework that covers

both the prevention and prosecution aspects of misconduct.

There are trans-governmental regulatory and policy frameworks outlining relevant anti-corruption standards and mechanisms, such as:

- the UK government's Toolkit for Combating Corruption in Infrastructure services (Sohail & Cavill 2007)
- [the tools to mitigate corruption risks in infrastructure projects](#) compiled by Engineers Against Poverty (Hawkins 2013)
- the OECD's [Infrastructure Anti-Corruption Toolbox](#) (OECD 2021), which provides a holistic approach to empower actors across the infrastructure value chain to prevent, detect and report corruption and support a level playing field for business.

At the same time, anti-corruption can also be integrated into the specific regulatory framework of public investment management, public-private partnerships, state-owned enterprises and sectoral legislation. To achieve that goal, the use of the so-called "integrity risk assessment and management"¹¹ tools should also be envisaged in the policy documents and accompanied by comprehensive preventive measures to respond to identified risks. Implementing reforms in this area requires high-level political will, managerial commitment and adequate capacity within public institutions. In terms of measuring the levels of public accountability in national legal framework, the World Bank's [PAM Framework](#) and the application [EuroPAM](#) can provide a comprehensive picture of the regulatory setup in numerous countries (ERCAS 2020; World Bank Governance and Public Sector Group 2013).

One way to strengthen institutional capacity to address corruption risks in infrastructure projects is by establishing independent, meritocratic and well-resourced national infrastructure agencies that foster a zero-tolerance to corruption approach (Gilardi 2008). Such agencies should be responsible for the entire project cycle from planning, design and implementation, to maintenance and disposal of infrastructure assets. They should ensure that the processes in each

¹⁰ See Bajpai & Myers (2020a).

¹¹ They are known by different names in different parts of the world: "integrity plans" in Europe, "vulnerability to

corruption assessments" and "system integrity assessments" in the USA.

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Overview of corruption in the infrastructure sector

project phase are transparent and competitive and that project benefits are distributed fairly.

As an example of a national infrastructure agency, in the Philippines, the National Economic and Development Authority (NEDA) was established to provide guidance and oversight for infrastructure development. NEDA coordinates with other government agencies to ensure that projects are planned, designed and implemented in accordance with the country's national development plan. It also conducts project appraisal and evaluation to ensure that projects are economically and financially viable and consistent with national priorities (World Bank 2018b).

A key contribution of and requirement for a transparent institutional setup includes the comprehensive publication of open data on infrastructure projects. Open data can enable citizens, civil society organisations, journalists and governments to monitor infrastructure projects and detect potential corruption risks.

For example, the CoST initiative (2017) has developed a data standard for publishing infrastructure project information in a standardised, machine-readable format. It disaggregates 40 data points on project and contract data for proactive disclosure as well as data points for disclosure upon request. Such data enables tighter, real-time monitoring of corruption risks at the contract level and would allow for early intervention and preventive measures curbing the cost of corruption in infrastructure provision.

Lastly, there should be mechanisms for challenging procurement decisions for corruption related violations, as well as to ensure that the uncovered irregularities are prosecuted and sanctioned and that justice is effectively enforced. The independence of the judiciary around these issues is important for ensuring a strong investment climate. The three factors discussed here – comprehensive and effective regulatory frameworks covering risks across the infrastructure value chain, strong and independent institutions such as a national infrastructure agency and judicial enforcement – can collectively be a powerful counter to root out causes of corruption in infrastructure projects.

Enhancing multi-stakeholder cooperation

One issue with robust anti-corruption controls is that they are occasionally viewed as slowing down infrastructure projects. In response to this critique, the OECD's Infrastructure Anti-Corruption Toolbox highlights that effective anti-corruption in infrastructure projects requires multi-stakeholder cooperation and collective action (OECD 2021).

Multi-stakeholder cooperation refers to the involvement of various stakeholders in planning, implementing and monitoring infrastructure projects (OECD 2017), such as government agencies, engineer associations, urban planning associations, investigative journalists, civil society watchdogs, aid donors, citizen monitoring and audit groups, state audit institutions, creditors such as international financial institutions and private-sector contractors.

Multi-stakeholder cooperation is crucial to mitigate corruption risks in infrastructure projects because different actors can contribute to anti-corruption monitoring throughout the project cycle, each offering unique perspectives, skills and resources that can help prevent corruption and promote transparency and accountability. Especially in states with weak governance and fragile systems, multi-stakeholder groups involving international and civil society actors can help to compensate the lack of state capacity.

For instance, government agencies can enforce laws and regulations, conduct oversight and monitoring activities, and ensure that public resources are used efficiently and effectively. Private-sector entities can bring expertise in project management, risk assessment, due diligence, and financial management, and also act as watchdogs to ensure that public procurement processes are fair and transparent. International actors (e.g. UN agencies and aid donors) as well as civil society organisations and community representatives can provide valuable insights into local conditions and needs, promote public awareness and education, and help hold stakeholders accountable for their actions. Here it is important to ensure equal representation of stakeholder groups as well as fostering female representation within these groups.

One example of the practical implementation of multi-stakeholder cooperation for mitigating corruption in infrastructure projects is the CoST

initiative. CoST is a multi-stakeholder sector-specific initiative, currently with 19 participating nations. The CoST initiative has four categories of activity including:

- disclosure of information (see also the point on data transparency above)
- projects work via multi-stakeholder groups comprising representatives of government, the private sector and civil society
- independent assurance by auditors
- strengthening social accountability, e.g. by training citizen monitoring groups at the local level¹²

Another example of multi-stakeholder collaboration for anti-corruption is Transparency International's integrity pact model for infrastructure which draws on experiences of integrity pacts implemented for infrastructure projects across the EU (Transparency International 2018). The model is threefold:

- it supports a move to open contracting, envisaging a role for the integrity pact in moving beyond project-by-project transparency to broader openness
- it sets high expectations for contractors to play their part in anti-corruption
- it advocates for the involvement of the communities most affected by a particular infrastructure

Related to this, TI Australia has developed an [Infrastructure Corruption Risk Assessment Tool](#) (ICRAT) designed to assist civil society and other stakeholders to ask the right questions and hold to account those responsible for commissioning, selecting and financing public infrastructure (Transparency International 2022). The tool provides a practical, easily applicable roadmap to identify and mitigate red-flag corruption hotspots during the process of project selection.

Lastly, the OECD (2022) proposes to catalyse collective action and counter corruption in infrastructure through a [non-judicial grievance mechanism](#). It highlights three mechanisms, namely, the national contact point for responsible business conduct, the high-level reporting mechanism and the integrity pact's dispute

resolution mechanism, which are well-suited to addressing corruption risks across the infrastructure lifecycle.

In sum, by collaborating with each other, stakeholders can create a network of checks and balances to reduce the likelihood of corruption, increase project efficiency and promote equitable and sustainable development. Moreover, multi-stakeholder cooperation can help build trust among stakeholders, foster better communication and collaboration and promote a culture of integrity and ethical behaviour. This can help create a positive environment for infrastructure development that benefits all stakeholders, including the public, and helps to minimise the risk of corruption.

¹² For examples of the CoST approach implementation, see Bajpai & Myers (2020b).

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www.U4.no

U4@cmi.no

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