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Anti-Corruption and Integrity Standards, Systems and Strategies for Optimizing Infrastructure Projects Delivery

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Abstract

CORRUPTION is one of the greatest obstacles to the development of safe and adequate infrastructure. Project funds are diverted to corrupt officials, funders, contractors, consultants, suppliers and agents. The total loss and impact to corruption is difficult to quantify. Corruption imposes great human, economic and project cost losses to the public. The harmful effects of corruption are most severe on the poor in the developing world who are in most cases hardest hit by economic decline, are most reliant on the provision of public services, and are least capable of paying the extra costs associated with bribery, fraud, and the misappropriation of economic privileges. Anti-bribery standards, systems and strategies for optimizing infrastructure projects delivery are some of the best ways to deal with the bribery and corruption risk in infrastructure development. As part of their contribution to anticorruption, professional engineering institutions (PEIs) should come up with impeccable code of ethics, and professional rules of conduct for its members. Without strong governance in institutions, the bribery and corruption risk escalates.

Organisations are now beginning to look for independent verification that their clients, partners, and supply chain have implemented anti-corruption systems. British Standards Institution (BSI) published BS 10500 in 2011, which is specification for an anti-bribery management system. Organisations can obtain certification to BS 10500 in a similar way to obtaining certification to ISO9001, 14001 and 18001. ISO also published a new ISO37001 anti-bribery standard in 2016.

This paper also establishes a framework and scope for analysing corruption in construction projects. This framework was premised on zero tolerance and preventing corruption *via* a stakeholder engagement approach and crafting strategies across the whole project lifecycle. The WFEO Committee on Anti-Corruption (CAC) conducted a pilot baseline infrastructure anti-corruption survey in Zambia and Zimbabwe to create future periodic anti-corruption index reports as well give anti-corruption recommendations to Governments, Corporates, Civil Society, Business and PEIs. The study was funded by the Royal Academy of Engineering (RAEng) in phase one of the Africa Catalyst pilot projects. The study was a game changer as it produced a ground-breaking toolkit for accurately measuring the corruption risk in infrastructure using primary data compiled from a sample of active stakeholders in the built environment.

The study established that, tackling corruption in the construction sector requires the elaboration of a comprehensive strategy that involves efforts from all stakeholders, including public sector, private companies and consumers. Some of the most effective anti-corruption strategies as proposed by stakeholders were to increase political accountability, strengthen civil society participation, create a competitive private sector, improve public sector management as well as put in place institutional restraints on power. The use of technology especially, ICTs developments in artificial intelligence (AI), big data, deep learning and the internet of things (IoT) should be quickly harnessed by positive forces before the perpetrators adopt them first, as this is our greatest hope of effectively minimizing corruption.

Keywords: anti-bribery standards, anti-corruption strategies, infrastructure projects delivery, optimization of policies.

1. Introduction

This paper discusses anti-corruption standards, strategies and models that may be used by stakeholders to minimize corruption in infrastructure development. Corruption is broadly defined as the abuse of public office for private gain and has been generally acknowledged to be a universal problem in developing and developed worlds. It encompasses all activities involving bribery, deception and/or dishonesty in order to gain personal or corporate profit. It should be noted that corruption has many different definitions globally, and this has caused some complications especially in jurisdictions where it is not criminalised. For instance, in Zambia, corruption is defined as the "soliciting, accepting, obtaining. giving, promising or offering of gratification by way of a bribe or other personal temptation or inducement or the misuse or abuse of a public office or authority for private advantage or bribery, extortion, benefit through peddling, nepotism, fraud, rushed trails, and electoral malpractices". The Global Infrastructure Anti-Corruption Centre (GIACC), on the other hand, defines corruption generally to include all criminal activities involving bribery, extortion, cartelism, deception, collusion, abuse of power, embezzlement, trading in influence and money laundering [11]. The UN's Global Programme against Corruption (GPAC) defines it as "the abuse of power for private gain" and this includes both the public and private sectors [16].

Anti-Corruption, therefore, mainly refers to the institutional and social interventions aimed at reducing opportunities for corrupt practices and making corruption a high risk undertaking through rules, regulations and practices governing public, private officials, and the general citizenry that will promote transparency and accountability. This entails the identification, detection and elimination of the causes of, and conditions conducive for, corruption and unethical behaviour; and deter any corruption-related activity and other unethical conduct that may lead to corruption.

The use of anti-bribery standards like the BS 10500, which is being converted to an ISO standard, can drastically reduce corruption, [10]. WFEO was a appointed as a liaison organisation to the ISO project committee, which developed the standard, and participated in the drafting meetings. The ISO 37001 is a vital tool, which can help organisations demonstrate that they have implemented effective anti-bribery controls.

ISO 37001 is most effective as a 'requirements' standard, which is capable of independent certification. While most countries participating in the drafting of ISO 37001 supported the new standard as a "requirements" standard capable of certification, some countries were pushing for the new standard to be merely a guidance standard which cannot be certified. The WFEO CAC strongly believed that the certifiable requirements standard is the correct approach.

2. The impact and cost of Corruption

Corruption in the planning, design, financing, procurement, execution and maintenance of construction projects is one of the greatest obstacles to the development of adequate and safe infrastructure. Construction projects are prone to corruption due to a number of factors, including: contractual structure; diversity of skills; the size, uniqueness, complexity and length of projects; concealed work; lack of transparency; extent of government involvement; and acceptance of the status quo, [3].

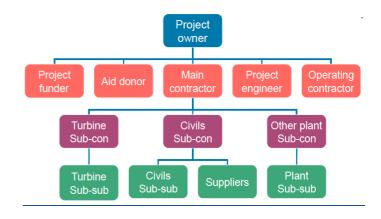


Figure 1. An example of the complex nature and relationships of construction project in the power sector. Source: GIACC, 2010.

Bribery is widely acknowledged as one of the greatest challenges to international development and poverty relief. For organisations and individuals, bribery poses a criminal, financial and reputational risk. Ethical organisations lose work to unethical competitors. Bribery reduces quality; increase costs, and endangers lives. Increasing awareness of the damage caused by bribery has resulted in calls both at

international and national level for effective action to be taken to prevent bribery, [13].

Several international conventions have been passed which require signatory countries to criminalize bribery and to take effective steps to prevent and deal with it. Most countries have introduced or strengthened anti-bribery laws, [5]. All OECD countries have made it an offence for organisations and individuals from those countries to pay bribes to public officials in other countries, [1], [4]. Numerous cases of prosecution of organisations and individuals for bribery have now occurred in many countries.

However, it is not sufficient merely to have good laws and prosecution. Good management in government, in organisations and on projects is vital if bribery is to be prevented. Bribery prevention should be treated in a similar manner to quality and safety management. A significant number of organisations internationally have responded to the and ethical environment changing legal implementing anti-bribery management systems within their organisations, partly because it is the right thing to do, and partly to ensure that the organisation and its employees do not fall foul of It is not sufficient for an anti-bribery laws. organisation to implement controls only within its own organisation. Ethical organisations also need to take reasonable steps to ensure that their partners, agents, consultants, sub-contractors and suppliers adopt anti-bribery programmes.

3. Nature and Extend of Corruption

Corruption practices found in the Construction sector can be grouped in three broad areas:

- Corruption within the public sector
- Corruption in the interaction between public and private sector (procurement)
- Corruption between public sector and consumers (petty corruption).

Besides bribes, other systems and policies should minimise the damage done by corruption by countering the incentives to build the wrong thing and to build and then operate it badly. In this case, the focus should be on macro-sectoral issues such as overall budgeting and project selection and on physical auditing of the status of physical capital, [9].

Corruption on construction projects has both a human and economic cost. It is damaging to the project, and to the companies and individuals involved on the project. Losses from corruption on construction projects are estimated at between 5% and 50% of project costs, depending on the country and sector [9].

Human cost

- Stealing of public money
- Fewer good roads, schools and hospitals
- Poor safety and environmental procedures
- People die due to lack of food and healthcare, and dangerous infrastructure.

Economic cost

- World Bank and EU Commission estimate of the cost of corruption (bribery and fraud) generally: 5% of the world's gross product = US\$1.5 trillion p.a.
- Conservative estimate of cost of corruption in the international construction sector: 5% of the global construction sector = US\$200 billion.
- National Development is affected by levels of development
- Project implementation is compromised by corruption.

Corruption is one of the greatest obstacles to the development of safe and adequate infrastructure. Project funds are diverted to corrupt officials, funders, contractors, consultants, suppliers and agents, [15].

Corruption 'occurs in all nations, both developed and developing countries, in public and private sector as well as non-profit organizations'. The problem of corruption within or across nations is not a recent phenomenon, nor is it exclusively a Third World problem, [12]. However, corruption exists both in developed and developing countries in different forms, degrees and has differing consequences.

Furthermore, within those countries falling in the category of developing countries, ranging from the bigger, relatively well developed countries such as Indonesia to the smaller poorly developed countries such as Equatorial Guinea, we can observe differences in corruption practices pertaining to the unique economic, political, and social features of each country.

4. A life-cycle framework for Analysing Corruption

Corruption risk assessment needs a project cycle approach. It is widely acknowledged that corruption vulnerabilities in infrastructure provision needs to be seen through the lens of the project cycle. Assessing corruption risk from the early stages of project identification and design through pre-qualification and tender, construction and operation stages all the way to commissioning and maintenance.

There is common assumption that significant corruption occurs only in the tendering phase of a project. This is not correct. It should be assumed that: significant corruption can occur in any phase of a project.

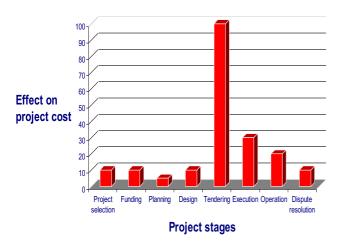


Figure 2: The Perceived <u>Assumed</u> risk of corruption of corruption. Source GIACC, 2010.

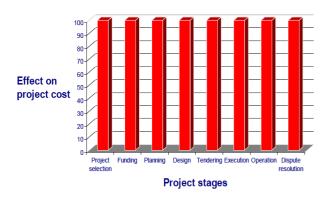


Figure 3: The Real Project life-cycle risk potential of corruption. Source GIACC, 2010.

5. Strategies to Combat Corruption

A stakeholder analysis of preventive measures should be applied to yield better results. These strategies reflect the view that much of the problem can be addressed by focusing on deterrence and prevention in key areas.

- This should be done by all stakeholders who include: Multilateral and bilateral donors
- Export credit agencies (ECAs) and commercial banks

- National governments
- Civil society, media and NGOs
- Private sector companies
- Inter-governmental systems and international legal systems

Consequently, tackling corruption in the Construction sector requires the elaboration of a comprehensive strategy that involves efforts from all stakeholders, including public sector, private companies and consumers. Such a strategy should aim at promoting and consolidating the rule of law. Measures must of course be tailored to fit the Particular context of a country's governance and legal system and efforts can only be effective if they reflect a country's own priorities.

The following stakeholders must all play their part if the battle against corruption is to succeed.

(i) Multilateral and bilateral donors

- Governance Improvement Plans (GIPs) should be a routine part of donor projects (e.g. all project lending should require corruption risk assessments and governance improvement plans with independent monitoring).
- A skilled assessor, or team of assessors, given appropriate access to documents and individuals for the duration of the project, could play a material role in preventing and uncovering corruption.
- Key project participants should commit to a strict anti-corruption policy.
- This reinforces the notion that long-term mechanisms to fight corruption must be an integral part of sustainable infrastructure development similar to safeguard policies for environment and social management aspects.

(ii) Export credit agencies (ECAs) and commercial banks

- Anti-corruption measures on financing should be harmonized by ECAs and incorporated in the Equator Principles.
- This requires adopting and applying anti-corruption and bribery measures, disclosure policies and standards.
- This reflects an important message from industry and finance institutions that corruption is not only bad for business, it distorts trade, and increases risks and costs for all extending financing for public sector projects.

(iii) National governments

- Anti-corruption tools should be adopted in national / sectoral governance systems dealing with projects.
- On the public sector's side, enhancing or promoting the culture of transparency and accountability as well as promoting effective regulation are crucial.
- This requires adapting tools appropriate to fight corruption in national systems of governance with related capacity building support from the donor community.
- National Integrity Pacts (NIPs) for overall regulatory systems;
- Project Integrity Pacts (IPs) for the implementers and government agencies, and
- Business Integrity Pacts (BIPs) for project companies and corporations.
- Among other measures, public companies and enterprises may be required to publish salaries and representation limits of staff members, or require senior staff to make an annual declaration of assets.
- At the project level, adopting tools like the Compliance Plans.

(iv) Civil society, media and NGOs

- Civil society and NGO involvement in governance reform around projects should be strengthened, especially independent monitoring, social accountability and compliance activities.
- Civil society can play a role in providing transparency and enabling local people most vulnerable to the effects of corruption to have a voice in anti-corruption measures on projects that impact them.
- An effective communications strategy on infrastructure projects can ensure that beneficiaries have the information they need to monitor the delivery of project benefits and hold providers accountable.
- Consumers' active participation in programs designed to increase accountability of service providers should be promoted by for example enhancing the advocacy capacity of consumer associations.

(v) Private sector companies

 Private sector companies involved in project development and equipment

- supply should adopt transparent mechanisms to promote integrity in business transactions.
- Project companies developing or managing assets and companies supplying equipment or services should meet recognized good practice standards for corporate governance and have explicit internal anti-corruption policies.
- Companies should apply monitor-able codes of ethics across the company, from executive levels to the shop floor.
- Industry associations can provide anti-corruption guidelines, either on an international or a regional basis in order to reach members not directly involved in donor or ECA financing.
- On the private sector's side, corporate governance and transparent practices need to be reinforced.

(vi) Inter-governmental systems and international legal systems

- Existing UN and OECD Conventions to combat North–South Corruption should be enforced and measures should be introduced to target high corruption-risk infrastructure sectors [11].
- The critical factor will be to demonstrate in clear and convincing terms the many adverse impacts that corruption in hydropower has on national development strategies.

(vii) Professional Engineering Bodies

- These should come up with impeccable code of ethics, and rules of conduct for its members
- These are the biggest players in construction.
- They represent all the stakeholders in one capacity or the other.
- If Engineers are ethical there will be a significant reduction in corrupt practices.

Other effective anticorruption strategies as proposed by stakeholders including the World Bank, Transparency International and professional Institutions of Engineering are:

- Increasing Political Accountability.
- Strengthening Civil Society Participation.
- Creating a Competitive Private Sector.
- Institutional Restraints on Power.
- Improving Public Sector Management.

To reduce the corrosive impact of corruption in a sustainable way, it is important to go beyond the symptoms to tackle the real causes of corruption. One other strategy is to ensure that companies are committed to a stakeholder approach to offer curtailment of the practice by considering:

• Basic Value Proposition

- How do we make our stakeholders better off?
- What do we stand for?

Sustained stakeholder cooperation

• What are the principles or values on which we base our everyday engagement with stakeholders?

An understanding of broader societal issues

O Do we understand how our basic value proposition and principles fit or contradict key trends and opinions in society?

Ethical leadership

- What are the values and principles that inform my leadership?
- o What is my sense of purpose? What do I stand for as a leader?

6. Evidence Based Decisions: The Infrastructure Anticorruption Index as a practical tool to measure and combat corruption.

The World Federation of Engineering Organizations (WFEO) Committee on Anti-Corruption (CAC) conducted baseline infrastructure a pilot anti-corruption survey in Zambia and Zimbabwe (2017). The aim of this baseline survey was to create future periodic anti-corruption index reports that gives anti-corruption recommendations Governments, Corporates, Civil Society and the Federation of African Engineering Organisations (FAEO), and their regional Professional Engineering Institutions (PEIs).

Perception-based indicators of corruption such as the Corruption Perceptions Indices and Worldwide Governance Indicators have been roundly criticised because they focus on people's attitudes towards the prevalence of corruption and not on the nature of the act or its exact magnitude. (Evidence and experience based).

The model index proposed in the study was a game changer as it uses real life practical project experience rather than perceptions only. OUR study derived its indicators from the GIACC Infrastructure Scorecard, Theory of Change (ToC) as adapted by CoST and the Public Investment Management (PIM) framework as

underpinned in the theoretical and conceptual frameworks adopted.

This Royal Academy of Engineering Africa Catalyst funded pilot produced a ground-breaking toolkit for accurately measuring the corruption risk in infrastructure using primary data compiled from all stakeholders in the built environment.

The salient features and findings:

- A total of 45 respondents to the Pilot survey conducted by WFEO in 2017 in Zambia and Zimbabwe.
- Corruption was generally regarded in both Zambia and Zimbabwe as the main source of leakage in business entities and that embedded cultural practices and a poor economic climate were the key drivers of corruption.
- In the pilot Index, Zambia performed better with a score of 67% compared to Zimbabwe with 53% [17].
- The most interesting findings lay in the respondent's actual experience of corruption, this to us was the starting point in recommending working policies, standards and regulations to ensure zero tolerance to corruption in the infrastructure sector and indeed to the other areas.

The Conclusion of the Infrastructure Anticorruption Index study for Zambia and Zimbabwe were:

- It was also found that adverse influence by politicians on the selection, design, award and execution of public sector construction projects fuel corruption.
- In Zimbabwe, the level of corruption in the public sector was found to be very high and although ways and means of reducing corruption were identified there was general lack of political will to implement them. It should be noted that the studies were done during the Mugabe regime, and future tracer studies and the index should measure the new administrations as necessary.
- In Zambia lack of autonomy of anti-corruption institutions and political interference hampered their effectiveness in containing corruption in the construction sector.
- Overally, although the study does understandably reveal a very high level of corruption in both countries, it was encouraging to observe that the respondents had such a high level of awareness of corruption, and they collectively thought that

- it was wrong and damaging (whatever its size), and wanted better governance, more effective policies, standards and strategies to be put in place to prevent it.
- The infrastructure anticorruption indices should be done every year at a harmonized time to create the desired outputs, outcomes and impact guided by the theory of change.
- The pilot study recommended that the best way forward is for the expansion of the index into a global infrastructure anti-corruption scorecard and index to cover the Sub Saharan Africa Region and indeed expand to the rest of the rest of the world with the help of partners like the World Bank, the OECD and others.

7. The Implications of adopting the ISO37001

In 2013, the International Organisation for Standardization (ISO) decided to develop and publish an international anti-bribery management systems standard. The standard was numbered ISO 37001, and was developed by an ISO Project Committee with delegates from 22 countries participating in the drafting exercise. The publication of ISO 37001 was on 15 October [6].

The standard takes account of internationally recognised good anti-bribery practice. It is applicable to small, medium and large organisations in the public, private and voluntary sectors. The bribery risk facing an organisation varies according to factors such as the size of the organisation, the countries and sectors in which the organisation operates, and the nature, scale and complexity of the organization's operations.

Many organizations have already invested significant time and resources into developing internal systems and processes for preventing bribery [7]. ISO 37001:2016, Anti-bribery management systems – Requirements with guidance for use, is designed to support and broaden those efforts, while providing transparency and clarity on the measures and controls that organizations should be putting in place and how to implement them most effectively and efficiently. ISO 37001 will help prevent, detect and deal with bribery, whether such bribery is by or on behalf of an organization or its employees or business associates.

Using a series of related measures and controls, including supporting guidance, the anti-bribery management system specifies requirements for:

- An anti-bribery policy and procedures.
- Top management leadership, commitment and responsibility.

- Oversight by a compliance manager or function within the organisation.
- Anti-bribery training and capacity building.
- Periodic bribery risk assessments and appropriate due diligence on projects and on partners, agents, consultants, sub-contractors and suppliers.
- Implementing financial and commercial controls to reduce bribery risk,
- Reporting, monitoring, investigation, and review.
- Corrective action and continual improvement undertaking.

Therefore, the standard specifies the implementation by the organisation of reasonable and proportionate policies, procedures and controls which are designed to prevent bribery taking place by, on behalf of, or against the organisation, and to detect and deal appropriately with any bribery, which does take place.

ISO 37001 is likely to be useful to organisations in the following ways: It will help provide assurance to the board and shareholders of an organisation that their organisation has implemented best practice anti-bribery controls. A project developer or project funder may require the contractors, suppliers and consultants which are constructing a project to provide certification to ISO 37001 as evidence that they have implemented anti-bribery controls in their organisations.

Organisations may require their major sub-contractors, suppliers and consultants to provide evidence of certification to ISO 37001 as part of their supply chain approval process (on a similar basis to their requiring evidence of certification to ISO 9001 etc.). We believe that ISO 37001, will materially help reduce the risk of bribery by helping organisations implement anti-bribery controls.

The cost of certification is likely to vary materially according to the size of the organisation obtaining the certification with estimates so far making it at a less than \$4000 for the Small to Medium Enterprises (SMES) on a scalable manner with regard to the size of the corporation. Cost is unlikely to be a competitive disadvantage since a procuring entity will normally require all its bidders to be certified to BS 10500 or ISO 37001; or additional points given in the procurement evaluation for evidence of anti-bribery policies. The cost of implementing the system is likely to be minimal when compared to loss which could be suffered by damage, organisation, which gets involved in bribery. The World Bank estimated the bribery risk worldwide to be over a trillion USD. This system can help prevent this huge loss and ensure that the money is channelled to economic development.

8. The Implications of Technology: "Fourth Industrial Revolution" on the fight against Corruption.

The advent of technology especially advances in ICTs, artificial intelligence (AI), machine learning and the Internet of things should make anti-corruption a lot easier as they bring new means of interconnectedness and unprecedented surveillance. The Fourth Industrial Revolution, or Industry 4.0 is an opportunity for the world to use enhanced data mining, deep machine learning and other techniques to ensure a total zero tolerance to corruption on the digital zone.

With technologies like block chain, IoT and digital identification crime, corruption and modern day slavery should be easy to detect. The only thing is to ensure that the criminals are not ahead of the pack.



Figure 4: The IoT will be able to monitor all human and machine interactions real time. Author illustration (27 March 2018).

The Internet of Things (IoT) is a scenario in which everything is provided with unique identity and is equipped with ability to automatically transfer data over networks without human-human or human-computer interaction. Simply put, everything is connected over IP and interacts on pre-defined logic. This offers a great opportunity for the anticorruption network to harness this technology ahead of the bad intentions. Technology is a two-edged sword which must be handled with care. A first mover approach is recommended for anti-corruption technology in the industrial revolution 4.0.

9. Conclusion

Infrastructure sectors are particularly exposed to corruption practices since they involve monopolies or quasi monopolies of critical public services, huge construction works and opportunities for concessions or privatizations; all of them possible sources of huge profits. Corruption has been identified as one of the greatest obstacles to countries' development since it distorts public expenditures, undermines institutions and deters further investments. Anti-corruption policies must be improved in order to increase the effectiveness of development programs aimed at reducing poverty

Corruption prevention needs to become part of the management process, on a similar basis to safety and quality management. Corruption on construction projects can be prevented if action is taken at three levels: project, corporate and professional, [2]. Major steps are being taken internationally by the construction industry to prevent corruption. Several international co-operative initiatives have been established. Corruption can be prevented if the construction industry works together to this end.

The Infrastructure Anticorruption Index should differentiate itself like the World Justice Forum (WJP) Rule of Law Index which uses innovative instruments only informed by primary data compiled from impacted and affected citizen responses and reactions to the phenomena under study.

All stakeholders including governments, civil society, financial institutions, professional bodies and donors should support the expansion of this project to create credible, measurable evidence infrastructure anticorruption index which will be one of the best tools to fight corruption. We appeal to create more interventions stakeholder to "Strengthen the Role and Capacity of Professional Engineering Institutions (PEIs) to promote Ethics, Professionalism. Governance and Integrity Infrastructure Development".

The OECD has demonstrated leadership and commitment to zero tolerance to corruption for a long time and it is our wish as WFEO CAC to be their partners in advancing this noble cause.

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