# MEASURING LOSSES TO PUBLIC PROCUREMENT CORRUPTION: THE UGANDA CASE

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**ABSTRACT**.  Public procurement is a function of government that is most prone to corruption, particularly in developing countries, where there is insufficient transparency and competition in procurement processes.  According to some World Bank studies, more than $1 trillion were paid in bribes a year (Kaufman, 2004). This paper, based on a study funded by the U.S. Agency for International Development, will focus on how to measure monetary losses to corruption in public procurement in Uganda.

## INTRODUCTION

The phenomenon of corruption has existed over the ages. The first cases of corruption date back to 3000 B.C., that has prompted some authors to consider it as the second oldest practice, after prostitution, in the world (Arnáiz, 2006; Malem Seña, 2004; Noonan, 1984).  Daniel Kaufman (2004) of the World Bank estimated that more than US$1,000 billion is paid annually in bribes; and the volume of bribes exchanging hands for public sector procurement alone to roughly 200 billion dollars per year.[1]   Despite its constant existence, undertaking research in corruption was considered until  few decades ago as "politically incorrect" (Quah, 2006, p. 939) as corruption was "almost taboo as a research topic" and was "rarely mentioned in scholarly discussions on the problems of government and planning" (Myrdal, 1998, pp. 938-929).  However, according to Jon Quah (2006, p. 939), "this taboo no longer exists, as research on corruption in many countries mushroomed into a

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'growing industry' in the 1990s." Indeed, there have been scattering research reports and publications prior to the 1980, including for example, Amick (1876), Andreski (1968), Bayle (1966), Becker and Stigler (1974), Bhagwati (1974), Huntington (1968), Leff (1964), Rose-Ackerman (1978), Sherman (1975), Tendler (1979), Titmuss (1970), and White (1958). Moreover, the World Bank and other development agencies did not explicitly address corruption in its development strategies; but rather chose to raise the issue in discreet ways with individual governments.

Interest in research on corruption, however, emerged in the 1980s. Indeed, in 1980, the International County Risk Guide (ICRG) model for forecasting financial, economic, and political risk was created by the editors of *International Reports,* the widely respected weekly newsletter on international finance and economics. The ICRG rating comprises 22 variables, one of which is corruption.[2] There is also an increasing number of publications in corruption including; for example, Bunker and Cohen (1983), Cadot (1987), Carino (1986), Dey (1989), Etzioni (1988), Goel and Rich (1989), Horrowitz (1985), Klitgaard (1988), Lee (1986), Lindgren (1988), Lui (1985; 1986), Montias and Rose-Ackerman (1981), Quah (1989), Rahman (1986), Tirole (1986), and Wade (1982).

Research on corruption has mushroomed since the 1990s, as confirmed by US Agency of International development (2005, p. 1):

> Over the past twenty years, members of the donor community have increasingly recognized that corruption — commonly (but not uniquely) defined as the abuse of public office for private gain — is a major impediment to economic development."

Indeed, the World Bank shifted its business emphasis toward policy reform in 1983 and began to help countries eliminate rent-seeking behavior through a broader reform of trade regimes, financial sectors, and public sector institutions. Good governance became an important theme and was addressed in a landmark document, the 1983 *World Development Report on Public Management*. Another landmark document was issued by the World Bank is the 1989 *Africa Long-Term Perspectives Study*. The World Bank's efforts to build a framework of integrity around its operations reached its highest level in September 1996, when its former President Wolfensohn announced that the World Bank would do everything within its power to fight "the cancer of corruption." In September 1997, in an effort to cure the "cancer," the

World Bank's Board of Executive Directors endorsed an anticorruption strategy that laid out actions in four key areas (World Bank, 1997). Subsequently, numerous research reports on corruption were published since the second half of the 1990s (See www.worldbank.org for a complete list of these reports).  Joining the World Bank's efforts, the United Nations General Assembly adopted a resolution on January 28, 1997, requesting that the Secretary General assist member states in designing strategies to prevent and control corruption. This resolution provides greater impetus for UNDP to more systematically approach the issue of corruption (United Nations Development Programme, 1997, p. vi).  Then, by its resolution 58/4 of October 31, 2003, the UN General Assembly adopted the United Nations Convention against Corruption. The Convention was open to all UN member States for signature December 9-11, 2003 in Merida, Mexico, and thereafter at United Nations Headquarters in New York until December 9, 2005. The Convention was be open for signature by regional economic integration organizations provided that at least one member State of such organization has signed this Convention in accordance with its article 67 (2).  The United Nations Convention against Corruption entered into force on 14 December 2005.  December 9, 2006 marked the first International Day against Corruption (http://www.unodc.org).  The Convention is a single, comprehensive platform for fighting corruption by further strengthening the global anti-corruption process.[3]

The Organization for Economic Cooperation and Development (OECD) Investment Committee established the Working Group on Bribery in International Business Transactions in May 1994 (www.oecd.org). The OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, adopted by the Negotiating Conference on November 21, 1997, and entered into force in 1999, requires signatory countries to criminalize the bribery of foreign public officials, wherever committed, and to put into effect various preventive and enforcement measures. The OECD Convention also requires international co-operation, mutual legal assistance and extradition. All OECD countries, and some non-OECD countries, have ratified this Convention and most have enacted the necessary laws (http://www.oecd.org/department/0,2688,en_2649_34859_1_1_1_1_1,0).

Several regional and international organizations have also introduced conventions against corruption. The Inter-American Convention against Corruption was adopted by the Organisation of American States in 1996

(http://www.oas.org/juridico/english/ Treaties/b-58). The Council of Europe Criminal Law Convention on Corruption entered into force 01/Nov./2003 (http://conventions.coe.int/Treaty/en/Treaties/Html/173).

To strengthen cooperation among its member economies in fighting against corruption, the Asian Pacific Economic Cooperation (APEC) leaders endorsed the Santiago Commitment to Fight Corruption and Ensure Transparency and the APEC Course of Action (COA) on Fighting Corruption and Ensuring Transparency during the APEC Summit Meeting in Santiago in 2004. In 2005, an Anti-Corruption and Transparency Expert Task Force was created (www.APEC.org).

In addition to international and regional organizations' efforts in fighting corruption, the U.S. Agency for International Development (USAID) has assisted since 1998 developing countries in fighting against corruption. The Americas' Accountability Anti-Corruption Project was initiated to improve governmental accountability and financial management in developing countries. In 1999, it issued in 1999 *A Handbook on Fighting Corruption* for its international staff. The USAID has invested significant resources ($184 million and $222 million in fiscal years 2001 and 2002, respectively) to anti-corruption and better governance programs in developing countries (USAID, 2005).

In the last 16 years (1990-2006), numerous research papers, technical reports, and books have appeared in numerous academic journals in all disciplines, in websites of numerous governments, international organizations, research organizations, and universities[4] (see Rose-Ackerman (1999) for publications from 1990-1998.

This paper will provide a brief overview of recent research activities and research approaches in corruption, including relatively new research approaches including sectoral approach and spend analysis or public expenditure review. The remaining part of the paper will focus on the procurement integrity in Uganda.

## LITERATURE REVIEW

The word "corruption" is a strange term for social scientists to use, in view of its normative implications. A number of alternate definitions of corruption have been advanced, and researchers and policymakers should check their implicit assumptions whenever the term is used. The

definition currently most widely used is "the use of public office for private gain" (Gray and Kaufmann, 1998). However, in recent years, this definition becomes debatable as there have been major corruption cases in the private sector, such as Enron, and Adelphia in USA. Thus, in February 2006, the heads of the African Development Bank, Asian Development Bank (ADB), European Bank for Reconstruction and Development, European Investment Bank, Inter-American Development Bank, International Monetary Fund, and World Bank agreed on the need to standardize their definition of corruption. They established a task force to develop a uniform framework for preventing and combating fraud and corruption. At their September 17, 2006 meeting, all institutions agreed in principle on standardized definitions of corrupt, coercive, collusive and fraudulent practices as follows (Asian Development Bank, 2006, p. 2):

(i)   A corrupt practice is the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party.

(ii)  A fraudulent practice is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation.

(iii) A coercive practice is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party.

(iv) A collusive practice is an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party.

On August 1, 2006, the World Bank adopted the definitions of corrupt, coercive, collusive and fraudulent practices agreed by the above task force. The World Bank also added the term "obstructive practice," which it defined as "deliberately destroying, falsifying, altering or concealing evidence material to an investigation; making false statements to investigators to materially impede an institution's investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to an investigation or to pursuing the investigation; or acts intended to materially impede the

exercise of the institution's contractual rights of access to information." (ADB, 2006, p. 1).

Corruption has been viewed as a "multi-headed dragon" (Camerer, 1999), or "hydra" (USAID, 2005, p. 1) to describe a multitude of corrupt aspects, which requires a multitude of research approaches. At least four research approaches can be identified in the present literature:

- *Institutional Approach*. This approach is focused on "bureaucracies" or governance. This approach is focused on "governance and anti-corruption" including government structure, bureaucracy, laws and regulations, civil society organizations and media. "Good governance" has been a focus of international organizations and donor countries in assisting developing countries including the World Bank (2006), United Nations Development Programme (1997), and USAID.

- *Corruption Assessing or Measurement Approach*. There have been a number of attempts to "measure" corruption including measuring the *prevalence* of corruption in particular contexts, the *level* of corruption and the *impact* of corruption. Many organizations, including Transparency International and the World have initiated corruption indexes (See Lanyi [2004] for a comprehensive overview of corruption measurement).

- *Public Expenditure Tracking Surveys* (PETS). This research approach was pioneered by Jakob Svensson (2003) in Uganda and is now being implemented in several countries. PETS tracks public expenditures down the chain from the central government, to the provincial government, to the district government, to the subdistrict governments all the way to delivery points (i.e., schools and clinics). If one level of government reports distributing more funds than the level below receives, it may be possible to pinpoint the leakage (by theft or diversion) of public funds (Lanyi, 2004). This approach, when it is used to track procurement expenditure, is called "spend analysis," which has been used widely in the private sector. Spend analysis is a tool that provides companies knowledge about how much is being spent for what goods and services, who are the buyers, and who are the suppliers, thereby identifying opportunities to leverage buying, improve performance, and save money. One survey of 147 companies in 22 industries indicated that such an approach produced savings of more than $13 billion in 2000 (A. T.

Kearney, Inc., 2002). According to the US Government Accountability Office (2004), the US Department of Agriculture's spend analysis of products and services purchased in fiscal year 2000 led the department to negotiate an agreement for office supplies with one major vendor that has so far yielded savings of $1.8 million; and the US Department of Veterans Affairs used an automated spend analysis of pharmaceutical procurement and a strategic approach to help save $394 million in 2003. In addition to the above benefits, spend analysis is a very useful tool to detect the leakage of procurement funds.

- *Sectoral Approach*. This approach complements the general system approach. This approach identifies and addresses governance vulnerabilities in specific sectors. USAID had a series of sectoral research on corruption covering education, energy, environment, health, justice, political parties, private sector, public finance, and agricultural sector (Blechinger, 2002; Chapman, 2002; Fink, 2002; Pepys, 2003; Ruth, 2002; Schaeffer, 2002; Vian, 2002; Webster, 2002; Webster, 2002; Winbourne, 2002). Many other researchers also used this sectoral research on corruption covering tax administration (Fieldstad, 2006), and customs (Yang, 2006). This sectoral approach is described comprehensively by J. Edgardo Campos and Sanjay Pradhan (2007).

Although there have been a lot of publications and research reports on corruption, research focus on public procurement has just recently emerged, covering general corruption in public procurement (Søreide, 2002), construction and engineering industry (Stansbury, 2003), and public works (Golden and Picci, 2006). The Asian Development Bank and the Organisation for Economic Cooperation and Development (2006) provide a very comprehensive list of measures for curbing corruption in public procurement in Asia-Pacific region.

The literature on corruption provides a challenging set of ideas and research approaches concerning public procurement corruption studies. The author seeks to add a new research dimension to the study of corruption: It uses one of the research approaches recently initiated, the sectoral approach, to study procurement corruption in Uganda. Studies show that public procurement is most prone to corruption (World Bank, 2004; Søreide, 2002). Uganda is one of the countries most prone to corruption.[5]

**BACKGROUND**

**Corruption and Anti-Corruption Efforts in Uganda**

Transparency International, a non-profit organization, ranked Uganda as one of the most corrupt countries in the World, particularly in 2001 when it was ranked as the third most corrupt country, after Nigeria and Bangladesh.  But Uganda's corruption has been reduced significantly since 2003 (as shown in Table 1).[6]

**TABLE 1**
**Uganda's Corruption Ranking as Compared with other Countries in the World**

| Year | Corruption Perception Index* | Country Rank | Number of Countries |
|------|------------------------------|--------------|---------------------|
| 1998 | 2.6 | 73 | 85 |
| 1999 | 2.2 | 87 | 99 |
| 2000 | 2.3 | 80 | 90 |
| 2001 | 1.9 | 88 | 91 |
| 2002 | 2.1 | 93 | 102 |
| 2003 | 2.2 | 113 | 133 |
| 2004 | 2.6 | 102 | 146 |
| 2005 | 2.5 | 117 | 159 |
| 2006 | 2.7 | 105 | 163 |

Note:   * indicates perceptions of the degree of corruption as seen by business people, risk analysts and the general public, and ranges between 10 (highly clean) and 0 (highly corrupt).  Please note that as Transparency International compiles

Source: Transparency International (Various Year), "Corruption Perceptions Index." [Online]. Available at www.transparency.org.

The Government of Uganda (GoU) attaches a great deal of importance to tackling the problem of corruption, for it is aware that corruption undermines good governance and retards the economic development to which it is committed.  The Inspectorate of Government (IGG) was established in 1986 as a center of the GoU's anti-corruption strategy. As part of its mission to promote good governance through

elimination of corruption and removal of administrative injustice in public offices, the IGG commissioned two studies, namely *National Integrity Survey*, in 1998 and 2002. The intention of those studies was to develop empirical information that can be discussed, analyzed, and used to help GoU, civil society and the private sector to formulate and implement policies and programs to improve governance and thereby reduce corrupt practices. A further objective of the 2002 survey was to generate information on household and institutional perceptions and experience of corruption in government, which could be compared with the *Baseline Survey 1998* survey.

As part of the GoU's drive to reform public procurement to make it transparent, accountable and capable of delivering better value for money, the Public Procurement and Disposal of Public Assets Authority (PPDA) was set up under the Public Procurement and Disposal of Public Assets Act of 2003 as the principal regulatory body for public procurement and disposal of public assets. The functions of the PPDA are derived from Section 7 of the Act and can be summarized as follows:

  - A policy function, which entails advising and reporting on public procurement and disposal processes;

  - A regulatory function, which entails issuing the various tools for conducting public procurement and disposal and compliance with the law;

  - A data management function, which entails developing a system of managing data on all public procurement and disposal;

  - A capacity building function, which entails developing procurement and disposal capacity through training and line support; and

  - An audit function, which entails auditing the bid preparation process and the award and completion of contract.

Public procurement, especially at the local government level, is believed to be one of the principal areas where corruption in Uganda takes place, although the extent of the problem and the areas where it is most prevalent are unknown. The six procurement audits that have been carried out so far by the PPDA have revealed serious departures from prescribed practices that carry some degree of risk. However, it has not been established whether these departures were attributable to corruption or to other factors.

The PPDA and IGG jointly determined that it was necessary to carry out a Public Procurement Integrity Survey to deal with emerging issues and also to update, with respect to the area of public procurement, the findings of the previous IGG surveys. The survey was conducted on a similar basis to the National Integrity Surveys, while being focused on perceptions of corruption in public procurement and disposal at both local and central government levels.

**Survey Purposes**

The specific purposes of the survey are

- To gauge the extent to which corruption is perceived as influencing the outcome of public procurement and disposal in Uganda;

- To identify the vulnerable stages (as described later) in the procurement and disposal process;

- To identify the relative prevalence of corruption in different central government ministries (that have direct relevance to local governments) and in local governments and the factors that account for the differences in risk; and

- To identify the deterrent and other measures which are perceived as being effective in reducing the incidence of corruption and in changing attitudes to corruption.


## RESEARCH METHODOLOGY

The survey was managed by a consulting firm, ARC, Inc.'s SDU II project, which was funded by the US Agency for International Development. It was authorized by PPDA. A Steering Committee was created which include the Executive Director of the PPDA (who chairs the committee), representatives of USAID, the World Bank, the European Union, the Office of the IGG, the Ministry of Finance, Planning and Economic Development, the Ministry of Local Government and other stakeholders for the purpose of providing overall direction to the project. Representatives of SDU II attend meetings of the Steering Committee and reported to it on the progress of the project. The Steering Committee provided any necessary guidance to SDU II in the course of the survey.

### Survey Contents

The surveys in local governments cover two distinct and separate areas. The first is a perception survey, based on a questionnaire developed by SDU II that is designed to elicit responses relating to perceptions of corruption both at central and local government levels at the various stages of the procurement process. These responses are designed so that the classes of persons engaging in the various types of corrupt activity are identified at every stage of the procurement process. This will also generate data that will enable the identification of the amount that is lost annually to corrupt activities within the procurement process.

The second is a sampling of selected procurements. This is also in sub-stages:

- An examination of the pre-qualification process. This will examine the creation of the pre-qualified list of service providers and involves a determination of the local government and service provider's perceptions with respect to corruption in the process of the creation of the pre-qualified list.

- An objective selection of a range of procurement types to be sampled and then a sampling of those procurements, which includes documentary compliance as well as the experience of the local governments and tendering service providers.

### Survey Sample

#### *Institutions*

The survey covered procurement and disposal of 26 districts and 7 municipalities, selected randomly and 12 central government ministries that provide direct services in the districts or have an important relationship with local government. In respect of local governments, the sampling percentage is very high. Normally, surveys that sample 10% of the total pool are considered sufficiently statistically valid to allow for the extrapolation of results to cover the entire pool. In this case the survey sampled 35.5% of all higher local governments as of July 1, 2006. In terms of a distinction between districts and municipalities, the percentage sampling is 32% of districts and 53.8% of municipalities. In fact, this percentage is higher because the number of new local governments that were created with effect from July 1, 2006 were carved

from existing local governments and the procurement and disposal activities that were covered were pre-July 1, 2006 activities which had been undertaken by the then existing local governments. If the pre-1 July number of local governments is considered as the most appropriate number for calculating the percentage (being 56 districts and 13 municipalities, then the figure is 47.8%). In terms of a distinction between districts and municipalities using the pre-July 1 figures, the percentage sampling is 41% of districts and 53.8% of municipalities.

With respect to central government, the sample includes all central ministries, institutions and authorities that have a substantive interaction with local governments. The inclusion within the survey of the results of PPDA audit and supervision activities therefore constitutes a high statistical sample so that the results can be extrapolated to cover all central ministries, institutions and authorities. It is considered that inclusion of these various authorities, ministries and agencies should provide sufficient coverage of public procurement and disposal activities in Uganda to constitute a representative national sample.

### *Individuals*

At the local government level, 3,426 individuals were selected from the randomly selected districts and municipalities, and were grouped into three categories:

- Local government administrators, including accounting officers, members of contract committees and tender boards, officials working in procurement and disposal units, inspection units and on technical evaluation committees and others performing functions related to procurement;

- Local politicians, including local political leaders, community leaders, organizations and others with knowledge and interest in the affairs of the ministries or in the local government; and

- Vendors, including those on the pre-qualified list of the procuring and disposing entity.

At the central government level, 405 government officials were selected, including (a) members of relevant Parliamentary committees; and (b) ministers, accounting officers, members of contract committees, officials working in procurement and disposal units, inspection units, technical evaluation committees and others performing functions related

to procurement of Ministry of Health, Ministry of Education and Sports, Ministry of Agriculture, Animal Industry and Fisheries, Ministry of Water, Lands and Environment, Ministry of Works, Housing and Communications, Ministry of Gender, Labour and Social Development, Ministry of Finance, Planning and Economic Development, Ministry of Local Government, National Medical Stores, Regional Referral Hospitals, Local Government Finance Commission, Uganda Police, Inspectorate of Government, and Public Procurement and Disposal of Public Assets Authority.

**Design of Survey Instruments**

Prior to the design of the survey instruments, a documentation review was undertaken. The documents in the review include:

- Various laws and regulations such as the Inspectorate of Government Act of 2002, the Penal Code Act of 1970, the Prevention of Corruption Act of 1970, the Public Procurement and Disposal of Public Assets Act of 2003, the Local Governments of 2006, and Public Procurement and Disposal of Public Assets Regulations, and the Local Governments Financial and Accounting Regulations; and

- Various reports such as *Uganda National Integrity Survey 1998, Final Report, Uganda Second National Integrity Survey 2003 Final Report,* World Bank's *The Republic of Uganda Country Integrated Fiduciary Assessment, Volume 4: Country Procurement Assessment Report* (June 2004), Inspector General of Government's *Reports to Parliament* in 1998-2004, Auditor General's *Public Accounts of the Republic of Uganda* in 1998-2004, and various reports of audits, inspections and investigations undertaken by PPDA.

In order to establish a connectivity with the previous IGG National Integrity Surveys, the survey instruments were designed to take into account the following design parameters:

a. The definition of corruption used was that as set out in the Inspectorate of Government Act of 2002 being "the misuse of public power for private gain."

b. The types of corruption as well as the definitions used that formed the core of the survey were the same as those used in the *Second National Integrity Survey* (2002), which are summarized under the anacronyn **BEEFF:**

- *Bribery*: Where payment is made for services that should be freely given.

- *Embezzlement*: Where public property/money is converted to private use.

- Extortion: When money, services or other gains are demanded with threats.

- *Fraud*: When private gain is obtained through trickery.

- *Favouritsm*: When benefits are obtained through personal relations between those with power and those seeking favours (jobs, land, or other property or other benefits).  It may include nepotism and wealth or gender discrimination.

A total of 8 survey instruments or forms were designed to be used in the survey as shown in Table 2.  Each form has many questions, particularly Form 1, which is 13-pages long, consisting of 8 parts and 46 questions.

The survey instruments were disaggregated to match the stages in the procurement process, and the persons engaging in corrupt activity by position. The forms were pre-tested by SDU II in three non-survey local governments, Rakai, Mpigi and Jinja Municipality. The lessons learnt from that pre-tests have been incorporated in the final versions. The amendments made were not of a substantive basis as it was found that the forms were more than adequate to elicit adequate responses.

**TABLE 2**
**Lists of Survey Instruments**

| No | Contents |
|---|---|
| Form 1 | This is the most complex of all of the forms used in the survey. It elicits detailed responses in a numeric fashion and was administered primarily by interview. The purposes of the form are to elicit data relating to: <br> 1. The stages and positions prone to corruption of different types in the central and local government procurement processes. <br> 2. The deterrent or other measures effective in the area of procurement to reduce the incidence of corruption or to change attitudes towards corruption. <br> 3. The effectiveness of financial management structures in controlling corruption and the levels of corruption experienced. <br> 4. The incidence of reports of corruption in procurement <br> 5. Corruption reporting and complaints systems |

| No | Contents |
|---|---|
| | 6. The integrity of government with respect to procurement processes. |
| Form 2 | Details the selection of the procurements sampled at LG level, disaggregated by funding sources. |
| Form 3 | Details the firms that applied for pre-qualification and those that were pre-qualified, disaggregated by goods, works and services. |
| Form 4 | Assessment of the pre-qualification process by participating firms. |
| Form 5 | Assessment of the pre-qualification process by local governments. |
| Form 6 | Assessment of the sampled procurements by analysis of available documentation |
| Form 7 | Assessment of sampled procurements by participating LG officials |
| Form 8 | Assessment of sampled procurements by participating LG tenderers. |

The survey instruments were to be confidential as the survey was not an investigation or enforcement activity. Moreover, as the purpose of the survey is to reveal the extent and prevalent areas of malpractice rather than to take action against the perpetrators, the identity of persons interviewed are not be revealed.

**Survey Management**

The survey instruments were undertaken by three teams of interviewers who were specifically selected based on their experience with local government financial and procurement systems. Each team consisted of three interviewers, called consultants, and was supervised by a regional coordinator. As mentioned above, as the survey instruments had rich contents, it took about 60-75 minutes to finish an interview. The interviewers spent approximately 10,000 hours on the survey. In order to get cooperation of intended, selected respondents, SUD II obtained an endorsement letter from the Uganda Prime Minister.

**Response Rates**

Of 3,426 selected local government individuals, 2,093 (consisting 257 politicians, 1,023 officials, and 813 providers or vendors) or 61.1% were interviewed. Of 405 selected central government officials, 217 or 53.6% were interviewed. The response rates per institution and local government were high, and exceed substantially international standards, due to a strong political support and a solid financial support.

## LOSSES TO PROCUREMENT CORRUPTION

The following equation was used to calculate losses to procurement corruption:

$$Y = E \text{ x } \%C$$

Where:
$Y$ is the losses to procurement corruption,
$E$ is the expenditure amounts expended by local and central government in procurement, and
$\%C$ is as a percentage the amount of that total expenditure that is lost to corruption.

It is very difficult to measure accurately losses to procurement corruption as it is difficult to calculate accurately procurement budget, as explained later. Moreover, it is difficult to know accurately the average percentage of procurement budget lost to procurement corruption as vendors offer different percentages of contract values to different corrupt officials.

### Calculation of Total Procurement Expenditure FY 2004-2005

#### *Local Government (LG)*

The calculation of total LG procurement expenditure in FY 2004-2005 has been performed by totaling all funding sources to LGs and then deducting all non-procurement expenditure. This required the removal of all wages, 80% of unconditional grant and local revenue and an amount of 5% for overall monitoring and supervision costs.[7]

The unconditional grant and local revenue have been reduced by 80% as this represents the amount of these two revenue sources that are used for wages, allowances and related costs, which are non-procurement related. Table 3 summarizes the revenue sources and the deductions made. The calculation for LGs shows that 31.28% or Ush 453.5 billion (US$249,151,000 an assumed exchange rate of Ush 1820) of total LG revenue in FY 2004-2005 was expended by way of procurement.

**TABLE 3**
**Local Government Procurement Expenditures, FY 2004 - 2005**

| Expenditure by Funding Sources | Amount (in Sh Billions) |
|---|---|
| UCG | 87.53 |
| Wage | 394.74 |
| Non-Wage Recurrent | 153.27 |
| Development | 170.01 |
| Local Revenue | 644.19 |
| **Total** | **1,449.74** |
| **Discounted by:** | |
| Less 80% of UCG | 70.02 |
| Less Wage | 394.74 |
| Less 80% of Local Revenue | 515.36 |
| Less 5% of (Development + Recurrent Non-Wage) | 16.16 |
| **Total Discount** | **996.28** |
| **Net available for Procurement** | **453.46** |
| **Procurement Expenditure as % of LG Budget** | **31.28%** |

### Central Government

The calculation of total CG procurement expenditure in FY 2004-2005 has been performed by totaling all revenue sources to CG and then deducting all non-procurement expenditure as shown in Table 4. This required the removal of all wages, domestic and external interest, a discounted recurrent non-wage figure, and LG transfers. Based on an analysis of expenditure, 35% of the CG recurrent non wage is expended on allowances, medical expenses etc, while the balance of 65% is spent on procurement related items. The CG recurrent non-wage is therefore discounted by 35%.

The calculation for CG shows that 34.79% or Ush 1173.5 billion (US$644.61million at an assumed exchange rate of Ush 1820) of total CG revenue in FY 2004-2005 was expended by way of procurement.

**TABLE 4**
**Calculation of CG Procurement Expenditures, FY 2004 - 2005**

| Category Of Expenditure | Amount (in Ushs Billions) |
|---|---|
| Wage | 776.31 |
| Recurrent Non Wage | 1,162.94 |
| Development | 495.79 |
| Donor Projects | 938.03 |
| **Total Public Expenditure** | **3,373.07** |
| **Discounted by:** | |
| Domestic Interest | 156.50 |
| External Interest | 61.40 |
| Local Government Programmes;(501)* | 798.28 |
| Wage(Centre) | 776.31 |
| Rec. Non Wage(Centre) 35% of 1184.18 | 407.03 |
| **Total Discount** | 2,199.52 |
| Estimated Funding Available for CG Procurement | **1,173.55** |
| Net % age for Procurement in CG Budget | **34.79%** |

### c. Variance with World Bank

This methodology throws up a figure that is substantially at variance with the World Bank's *Country Integrated Fiduciary Assessment 2004 Volume IV: Country Procurement Assessment Report* (CPAR) (available at www.worldbank.org) that estimates that 60-70% of the national budget passes through the procurement system. Even if the LG proportion of central transfers that pass through the procurement system are added back into the central figures, the percentage of the national budget that passes through either the CG or LG procurement system cannot exceed 44% of the national budget.

It has not been possible to identify the basis on which the CPAR reached the estimate of 60-70% as the CG wage bill alone accounts for 23% of the national budget. As there are a variety of other deductions that are clearly not procurement related, the CPAR estimate cannot be independently justified at this time. If the calculations made in this survey are in error, the basis of the calculation made has been disclosed

and the figures can be independently reworked at some time in the future.

## Calculation of Loss Due to Corruption in Procurement, FY 2004-2005

In the questions that were posed to all of the interview subjects were specific questions that related to the amounts lost in identified procurements and the identification of any "tariff" figure that was in general use with respect to amounts that had to be paid as corrupt payments. There were insufficient responses as to exact amounts of government revenue lost for every identified instance of corruption as the exact amounts were often not known by the respondents. However, over 12% of the interviewees answered the question and were able to identify a commonly applied "tariff" to the amounts (percentages) of contracts that had to be paid by way of a corrupt payment. Service providers and others uniformly declined to answer the questions.

As shown in Table 5, the percentage of government revenues lost to procurement corruption (or tariffs) was in the range of 1-30% of contracts by value. In order to determine the percentage of tariffs, weighted means are calculated as follows:

$$\overline{X} = \frac{\sum_{i=1}^{n} f_i x_i}{\sum_{i=1}^{n} f_i}$$

Where:

$\overline{X}$ (weighted mean) is average tariffs as a percentage of contract value

$x_i$ is tariffs as % of contract value

$f_i$ is number of responses

According to LG politicians and officials, loss due to procurement corruption is higher in the central government (9.59%) than in local governments (7.15%) as shown in Table 5. This translates to losses due to procurement related corruption in FY 2004-2005 (Table 6), using the equation mentioned earlier, $Y = E\ (\%C)$.

**TABLE 5**
**Level of Corruption in Central Government As Perceived by Local Government Officials**

| Local Government Responses | | | Tariffs as % of contract value ($x_i$) | Total % Tariffs $f_i x_i$ |
|---|---|---|---|---|
| Administrators (N = 156) | Politicians (N = 12) | Administrators and Politicians (N =168) $f_i$ | | |
| 42 | 3 | 45 | **0** | 0 |
| 3 | | 3 | **1** | 3 |
| 1 | | 1 | **2** | 2 |
| 1 | | 1 | **3** | 3 |
| 8 | 2 | 10 | **5** | 50 |
| 1 | | 1 | **7** | 7 |
| 1 | | 1 | **9** | 9 |
| 76 | 5 | 81 | **10** | 810 |
| 1 | | 1 | **12** | 12 |
| 7 | | 7 | **15** | 105 |
| 11 | 1 | 12 | **20** | 240 |
| 2 | | 2 | **30** | 60 |
| 1 | | 1 | **35** | 35 |
| 1 | | 1 | **40** | 40 |
| 1 | | 1 | **50** | 50 |
| 1 | 1 | 2 | **102** | 204 |
| Total **158** | **12** | $\sum_{i=1}^{n} f_i x_i = \textbf{170}$ | | $\sum_{i=1}^{n} f_i = \textbf{1630}$ |

$$\overline{X} = \frac{\sum_{i=1}^{n} f_i x_i}{\sum_{i=1}^{n} f_i} = 1{,}630/170 = \textbf{9.59\%}$$

| | LG Administrators | | LG Politicians | |
|---|---|---|---|---|
| | # of Responses | % | # of Responses | % |
| Valid Responses | 158 | 12.4 | 12 | 5.4 |
| Missing | 1117 | 87.6 | 211 | 94.6 |
| Total Sample | 1275 | 100.0 | 223 | 100.0 |

Note: 12 of 223 or 5.4% responding LG politicians rated tariffs at 15.17% of contract values, and 158 or 14.8% of responding LG officials rated tariffs at 7.15%. As only 3 of 813 responding vendors rated "tariffs" and at a very low rate of .2% and thus, were considered as invalid and excluded from this table.

**TABLE 6**
**Level of Corruption in Local Government As Perceived by Local Government Administrators and Politicians**

| Local Government Responses | | | Tariffs as % of contract value | Total % Tariffs |
| Administrators (N = 156) | Politicians (N = 12) | Administrators and Politicians (N =168) $f_i$ | $(x_i)$ | $f_i x_i$ |
|---|---|---|---|---|
| 52 | 10 | 62 | **0** | 0 |
| 3 | | 3 | **1** | 3 |
| 3 | 1 | 4 | **2** | 8 |
| 1 | | 1 | **3** | 3 |
| 14 | 2 | 16 | **5** | 80 |
| 1 | | 1 | **6** | 6 |
| 1 | | 1 | **8** | 8 |
| 1 | | 1 | **9** | 9 |
| 98 | 11 | 109 | **10** | 1090 |
| 6 | | 6 | **15** | 90 |
| 7 | 1 | 8 | **20** | 160 |
| 2 | | 2 | **25** | 50 |
| | 1 | 1 | **30** | 30 |
| 189 | 26 | $\sum_{i=1}^{n} f_i x_i = 215$ | | $\sum_{i=1}^{n} f_i = 1537$ |

$$\overline{X} = \frac{\sum_{i=1}^{n} f_i x_i}{\sum_{i=1}^{n} f_i} = 1{,}537/215 = \mathbf{7.15\%}$$

| | LG Administrators | | LG Politicians | |
| | # of Responses | % | # of Responses | % |
|---|---|---|---|---|
| Valid Responses | 189 | 14.9 | 26 | 11.7 |
| Missing | 1086 | 85.1 | 197 | 88.3 |
| Total Sample | 1275 | 100.0 | 223 | 100.0 |

Notes: LG politicians rated tariffs at 6.6% of contract values, and LG officials rated tariffs at 7.15%. Only 4 of 612 or .7% responding vendors rated tariffs and at a very low rate of .25%, and thus, were considered as invalid and excluded from this table.

**TABLE  7**
**Amount of Loss from Total Procurement Expenditure, FY 2004 -
2005**

| Level of Governments | Tariffs as % of Procurement Values | Procurement Expenditure (In Ush Billions) | Loss to Procurement Corruption (In Ush Billions) | US$ million (Ush 1,820) | Loss as % of Annual Budget |
|---|---|---|---|---|---|
| Local Governments | 7.15% | 453.46 | 32.42 | 17.81 | 2.24 |
| Central Government | 9.59% | 1,173.55 | 112.54 | 61.84 | 3.34 |
| Total | | 1,627.01 | 144.96 | 79.65 | 3.01 |

The identifiable *direct* losses[8] due to corruption in procurement at both central and local government levels in FY 2004-2005 is therefore likely to be of the order of Ush144.96 billion (US$79.65 million). The direct losses would be 2.24% of the total local government budget and 3.34% of the central government budget.  Expressed in international terms, these figures are not high. According to Transparency International (2005), a bribe of 5% of the project cost would be considered quite low; and bribes can be in excess of 30% of the project cost.   A study of 20 transition economies found that 14.6% of a company's total amount of bribes was averagely spent to obtain governmental contracts, in four of the countries between 30% and 45% (Hellman, Jones and Kaufmann, 2000).  Although compared with other countries, procurement corruption in Uganda is not high, it is still reflective of a serious on-going issue with procurement corruption at both central and local government levels.


**LIMITATIONS OF THIS MEASUREMENT METHOD**

It is not easy to measure accurately monetary losses to procurement corruption for various reasons. First, in many cases, it is very difficult to obtain accurate data on annual procurement volumes. According to the World Bank's country representative in Uganda, about 70% of the Uganda government budget is for procurement expenditures or outlays. But, according to the US AID's project director's budget calculation, the

volume of procurement expenditures or outlays is much smaller, as shown in Tables 3 and 4. Second, measuring accurately government revenue losses to procurement is not easy, if not impossible. When briberies are discovered, monetary transactions can be traced. But in reality, very few bribery cases have been caught. Our method, based on the perception of public procurement stakeholders, is not accurate either due to respondents' ignorance and bias. Finally, monetary losses to public procurement corruption should no be measured only on the basis of monetary transactions between the takers and givers; consequences of corruption have to be measured. For example, due a corruption a bridge is not built appropriately and collapses. In this case, the costs of corruption should include costs of removing debris of the collapsed bridge and the cost of building a new bridge. This does not external economic costs.

## CONCLUSION

After providing a comprehensive literature review of corruption, and proposing a conceptual framework for studying corruption in general and public procurement, in particular, this paper focuses on measuring revenues lost to procurement corruption in Uganda.  The implication of this study is to offer a method of measuring monetary losses to public procurement corruption, but also to confirm the volume of government revenues lost to procurement corruption. It also raises limitations of the measurement method used in this study.  As mentioned, this paper covers only one of several issues of the USAID funded research project.

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**NOTES**

1. The $1 trillion, calculated using 2001-02 economic data, was on an estimated size of the world economy at that time of just over US$30 trillion, and does not include embezzlement of public funds or theft of public assets (Kaufmann, 2004).

2. The ICRG rating comprises 22 variables in three subcategories of risk: political, financial, and economic. A separate index is created for each of the subcategories. The following risk components, weights, and sequence are used to produce the political risk rating:

| Sequence | Components | Points (*max.*) |
|---|---|---|
| A | Government Stability | 12 |
| B | Socioeconomic Conditions | 12 |
| C | Investment Profile | 12 |
| D | Internal Conflict | 12 |
| E | External Conflict | 12 |
| F | Corruption | 6 |
| G | Military in Politics | 6 |
| H | Religious Tensions | 6 |
| I | Law and Order | 6 |
| J | Ethnic Tensions | 6 |
| K | Democratic Accountability | 6 |
| L | Bureaucracy Quality | 4 |
| Total | | 100 |

Source: "About ICRG" [Online]. Available at www.ICRGOnline.com (Retrieved December 23, 2006).

3. The Convention is fighting against corruption in a number of ways:

- the criminalization of bribery, trading in influence, embezzlement, abuse of power, illicit enrichment, money laundering, and false accounting;

- the establishment of independent and adequately resourced entities to fight corruption;

- the establishment of improved investigative powers, such as surveillance, and the seizure of bank and commercial records;

- the prosecution and punishment of offenders, including confiscation of assets, disqualification from holding office, annulment of contracts, and payment of compensation;

- an obligation to report corruption to the authorities;

- international co-operation and extradition;

- measures to ensure that bank secrecy cannot prevent investigations into corruption, and requirements for banks to increase scrutiny so as to improve the detection of illicitly acquired assets; and

- measures to improve accounting vigilance so as to prevent corrupt transactions.

4. A list of publications from 1990 to 1998 can be found in Rose-Ackerman (1999, pp. 230-252). For most recent list of publications, see Thai (forthcoming).

5. This study was funded by the US. Agency for International Development, under a contract with ARC, Inc. The author was asked to interpret the survey data and provide recommendations. The research design and methodology were conducted by a team of consultants from ARC.

6. With World Bank support, the Uganda government conducted an audit of actual enrollments and funding flows in schools. Funds actually received by the schools were compared to the amounts dispersed by central government plus the amounts collected from fees assessed at the local level. The audit discovered major leakages of money. For example, only 13% of funds allocated for non-salary items like textbooks and supplies reached the schools. To promote transparency and fix the problem, all fund transfers to district education offices were published in the newspapers and broadcast on radio. Each primary school was required to post a public notice of all inflows of funds to the schools. Results were impressive. Within three years, 90% of non-salary funds provided by the central government were reaching the schools (David Chapman, 2002).

7. These percentages were used, based on SDU II's fiscal decentralization study.

8. Direct losses is much lower than real losses as there are other imponderables that need to be considered and for which there is

insufficient data to be able to correlate. If for instance a corrupt payment meant that a contractor was not able to build to standard and the development investment was lost in a shorter time than expected (e.g., the building only had a life of 2 years instead of ten years) as a consequence, then the loss to the corrupt activity was the lost value of 8 years of building life plus the replacement costs. These figures must be regarded as irreducible minimums and not maximum figures.

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