Issues paper World Bank Procurement Guidelines

A contribution to the consultations in the Netherlands
within the framework of the World Bank Procurement review

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Note:
The opinions expressed in this paper do not reflect official positions of either the Dutch government or the World Bank. They are the sole responsibility of the authors.

Executive summary

The World Bank (WB) conducts a comprehensive procurement review in order to ensure that its policies remain relevant to the changing internal and external demands the Bank faces. The review includes a consultation meeting in the Netherlands in June 2012. This paper was originally written as a contribution to that consultation; the current version is an elaborated version of the original paper.

Today's developments call for new objectives and principles upon which the WB procurement policy framework can be grounded in order to attain the larger goal of improving development effectiveness. Major principles that assist in ensuring attainment of development effectiveness are (1) value for money, (2) anti-corruption and (3) sustainability. Each of these principles may be enforced in several phases of the procurement process. This paper discusses the phases of publication, specification, selection method and bid evaluation. Combined with the three principles this creates a 12-cell framework that is used to analyse the current WB guidelines and identify opportunities.

Principle \ Phase	1. Publication	2. Specification	3. Selection method	4. Bid evaluation
Value for money	√	√	√	√
Anti-corruption	√		√	√
Sustainability		√	√	

The analysis leads to a number of recommendations expected to further promote value for money, anti-corruption and/or sustainability and as a consequence contributing to a policy framework that enhances development effectiveness. The table above indicates our recommendations in the framework, illustrating that principles can be enforced in multiple phases of the procurement process.

Recommendations:

- Specify both a minimum timeframe between a notification (specific procurement notice) and the publication of the bidding documents, and a minimum timeframe between publication of the bidding documents and the bid submission deadline.
- Specify minimum required contents for a procurement notice. These should include a description of the assignment, the selection method used, the bid evaluation procedures and the time schedule for publishing documents.
- Use functional specifications as the preferred method of specification
- Promote sustainability elements in both the specifications and the award criteria.
- Prescribe selection methods aimed at the economically most advantageous tender (EMAT) as the preferred method in all guidelines (goods, works, non-consulting and consulting services). Especially encourage selection methods which are conducive to incorporating a wide range of relevant quality related evaluation factors/criteria, including factors which are less easily expressed in monetary terms.
- Include technical / quality / sustainability factors as award criteria
- Consider the application of a method called Awarding on Value as the standard supplier selection and bid evaluation method.
- Prohibit scoring methods that use relative scores, such as the price scoring formulas that are inversely proportional to the lowest price.

1. Introduction and framework

The World Bank adapts to its changing role in the world, aligning with its broader modernization and Investment Lending reform agenda and commitments to enhance development effectiveness. As part of the Bank's reform agenda a comprehensive review of the Bank's procurement policies and procedures under Bank-financed operations is being undertaken. Major underpinnings of the review are to incorporate worldwide best practices, support the Bank's borrowers in carrying out their own procurement strengthening and building capacity, simplify whenever possible, and enhance flexibility (World Bank, 2012a). The goal of the review is to ensure that the Bank's procurement policies remain relevant to a wide range of clients with different capacities and needs, a wide range of risks, a wide range of instruments, delivery mechanisms, and ways of doing business, and a large set of diverse transactions (World Bank, 2012b).

When the Bank's guidelines where introduced in 1964 they were based on four main considerations: the need for economy and efficiency, the interest in ensuring that all eligible bidders have equal opportunity to compete, the desire to encourage the development of domestic industries, and the importance of having a transparent procurement process (World Bank, 2012a). While these factors are still important today, the trends that have emerged since then call for different emphases in the new policy framework. Especially, we believe the larger goal of improving development effectiveness can be attained if procurement practices and standards are grounded upon three principles: value for money, anti-corruption and sustainability. These principles are defined in this paper as follows:

Value for money is a term that is often used, but yet has no uniformly accepted definition (even though 'acquiring more for less' is used regularly). A (more) useful definition of value for money is to ensure the best results possible are obtained from the money spent.

Anti-corruption obviously refers to reducing the opportunities for corruption. Zhai (2010) defines corruption in general as: 'the abuse of power for personal gains'. In the context of procurement corruption will be defined as 'any procurement decision influenced in any way for personal gains'. Specific attention will be given to reducing corruption by increasing *transparency;* the degree to which procurement decisions are open to examination by relevant stakeholders.

Sustainability or sustainable development is the concept of striving towards a proper balance between economic, social and environmental factors. Brammer et al. (2007) define sustainable procurement as 'procurement that is consistent with the principles of sustainable development, such as ensuring a strong, healthy and just society, living within environmental limits, and promoting good governance'.

These principles could form (part of) a set of principles defined in the new WB procurement framework upon which more specific procedures and guidelines can be built. The principles can be recognized in the successive stages of Public Procurement development (Telgen, Harland, Knight, 2007), depending on the focus of public procurement:

1. Serving the organisation: making sure the required goods and services are obtained
2. Process concerns: making sure the applicable rules are being followed
3. Commercial orientation: incorporate pricing considerations
4. Accountability: document and explain what and according to which rules the procurement was made
5. Value for money: consider value instead of costs of the goods and services
6. Supporter of policy delivery: e.g. sustainability
7. Main instrument for policy delivery

Each stage usually covers the focus of all of the previous stages as well. The wording of these stages may be somewhat controversial as the distinction between e.g. the commercial orientation and value for money is a matter of interpretation. Also it is not imperative or better in any objective sense to strive for stages 6 or 7: the circumstances in which borrowers operate and their policy decisions may well indicate differently. The principles we mentioned cover both the basics of Public Procurement development (anti-corruption is in both stages 2 and 4), further development (value for money covers stages 3 and 5) and even more advanced development (sustainability appears in stages 6 and 7).

As a general observation, the current WB procurement guidelines focus on stages 2, 3 and 4 of the above development model. This is obviously connected to the general development stage of the Bank's borrowers. New guidelines should not impose stage 6 or 7 practices upon its users, but they should provide opportunities and guidance to act according to the development stage that seems desirable and realistic.

Outline of the paper

Each of the principles we discuss may be enforced in several phases of the procurement process. In this paper, we distinguish between four phases of the procurement process: publication, specification, selection method and bid evaluation. We refer to them as phases as they are usually executed consecutively. Though this obviously does not cover all aspects of the procurement process, we believe these four phases allow to illustrate the effects of various suggestions on the principles. Figure 1 shows the framework that is used for the analysis in this paper.

Principle \ Phase	1. Publication	2. Specification	3. Selection method	4. Bid evaluation
Value for money				
Anti-corruption				
Sustainability				

Figure 1: Analysis framework

The second chapter explores the procurement consequences of the three principles, while the third chapter describes an analysis of the WB guidelines against these principles. The analysis is supported by examples regarding WB tenders from organisations (potential suppliers), consultants and auditors that were interviewed for this purpose.

2. Procurement principles

This chapter explores characteristics of procurement procedures that support the principles that form the basis of this paper. For each principle separately, available knowledge is synthesised.
Note: the entire chapter is focussed on supporting principles by means of policies and regulations. Other measures, like staff training, capacity building and promoting values (like honesty and trust) – even though they may be important in their own right – are therefore not included.

2.1 Public procurement that delivers value for money

'Value for money' is defined in this paper as ensuring the best results possible are obtained from the money spent. In order to make such a decision many authors have suggested (advanced) tools and methods. They include, but are not limited to, weighted linear models, analytic hierarchy processes, total cost of ownership methods and outranking methods (Wu et al., 2007). Though each author advocates his own approach, there seems to be consensus on two important observations: the choice of the method used has a large influence on the quality of the decisions it produces (Mateus et al., 2010) and there does not exist one method that fits all purchasing situations (De Boer et al. 1998; Csáki et al. 2005; Wu et al. 2007).
All methods are designed to make an optimal choice when considering multiple, often conflicting criteria. Each criterion reflects one aspect of a product that may be desirable to the buyer, such as quality, (life cycle) cost and sustainability. De Boer et al. (1998) argue that purchasing is 'increasingly seen as a strategic issue' and that this 'strategic approach towards purchasing may further emphasize the need to consider multiple criteria'. The inclusion of all factors that are relevant to the buyer is a prerequisite to obtaining value for money.

> *The head of the procurement department of the Ethiopian civil service university told us he had been involved in many WB-financed tenders, both for goods, works and non-consulting services, as for consulting services. He finds that evaluating on both cost and quality is essential to prevent unacceptable low quality or unaffordable high prices. When procuring works, the lack of attention for quality results often in suppliers using very cheap, inferior materials. It's not uncommon, he argues, for WB-financed schools that were build in the rural areas of Ethiopia to collapse after only three years. Repairing or rebuilding these schools represents major costs that could have been avoided if quality had been given more weight in the tender procedure.*

Better decisions may be expected when the method used is better tailored towards the tender it is used for. It is therefore essential for buyers to have a range of high-quality methods to choose from (a menu of options) when engaging in a new supplier selection process. However, two issues need to be taken in consideration. First, complex tendering procedures produce relatively much overhead and administration costs. For small purchases, these costs may not offset the benefits of the better decisions complex models generate (Parikh et al., 2005). Second, De Boer et al. (2003) argue that 'the overall cost of implementing and maintaining a set of methods' will rise 'as the number of different methods used increases'. A balance needs to be found between having a specially tailored method for every different purchasing situation and implementing and maintaining those methods at a reasonable cost.

Another important remark mentioned in several papers is that the method used should be flexible enough to allow the buyer to use his own experience when selecting a supplier. For instance, de Boer et al. (1998) state that a method should provide structure and guide the decision making process, but that 'experience, feel and subjective estimates should determine the method instead of the method forcing a rigid format upon the decision maker'. Even though it may be argued that this degree of flexibility provides opportunities for corruption, it is also often argued that too strict regulations no longer reduce corruption, but only add 'a

further layer of bureaucracy and/or control which unnecessarily hinders the efficiency of the procurement function' (Trepte, 2005).

Mateus et al. (2010) claim that value for money can be enforced by providing complete information to the tenderers. The specifications of the products that are to be purchased, as well as the exact procedures that will be used in the tender evaluation should be clearly described in the bidding documents. Their argument is simple; with a better understanding of where a buyer wishes to go, more tenderers can make better tenders to help the buyer get there.

2.2 Anti-corruption

Zhai (2010) defines corruption as 'abuse of power for personal gains'. The opportunities to introduce personal gains primarily arise when one person is able to control the entire procurement process. Therefore, Zhai argues that it's essential to decompose the functions of purchasing 'in accordance with the principles of mutual supervision, mutual restriction and mutual separation'. An example he gives in relation to supplier selection is the drafting of bidding documents; the purchasing department should write the documents, while the user department is responsible for the technical requirements. Afterwards, representatives of various related departments should review, modify and approve the documents (Zhai, 2010).

Csáki et al. (2005) argue that rigorous decision support methodologies can reduce opportunities to indulge in corruption. Their views are based on 'the assumption that both the issuer and the bidders should have a clear and precise idea of the content of the contract specifications and the means by which offers will be evaluated'. In this situation, especially 'the level of professionalism and the quality of content during the procurement activity' are effective means to limit the possibilities for corruption.

> *A Rwandan public procurement consultant mentioned he was hired both in 2009 and 2010 to conduct an audit for World Bank tenders issued by the National Aids Commission in Malawi. He found that the procurement method 'shopping' was used for 24% of all procurement. In order to stay below the threshold for the shopping method, large projects were broken down into several smaller projects. As there are few regulations for the shopping method, the procurement officers organising the tender procedure could invite suppliers of their choice to bid for each tender, rather than announce it publicly and create competition. This implied projects were awarded to a very limited number of suppliers.*

Lorentziades (2010) argues that the lowest price criterion - which is based on using price as the only evaluation factor for all bids that comply with some minimum requirements – results in an incomplete comparison. Important factors such as 'technical merits, quality, experience, extent and length of guarantees, maintenance cost, after sale service and life-cycle cost' should also be incorporated. However, when multiple factors are considered, weights have to be introduced. And it is because these weights are chosen subjectively, Lorentziades claims, that opportunities for corruption arise. To preserve the integrity of the supplier selection process, all subjective choices should be publicly announced in advance and uniformly applied to all bidders.

Csáki et al. (2005) agree with Lorentziades on the point of publicly announcing all (possible subjective) choices before the bidding starts. Their research – which purely concerns reducing corruption by reforming regulations - results in three important conclusions. First, simplification of the regulations merely 'for the sake of having easy to follow regulations' should be avoided. Second, the regulations should not prescribe just one method, but instead 'allow for a scale of techniques that can be fit to the type and complexity of individual procurement projects'. And third, they note that 'even the simplest methodology has to adhere to

some expressed basic rules to avoid the possibility of corruption'. These basic rules should at least assure that the following two conditions are met: every different expert area should be represented both while preparing documents and while evaluating bids and criteria and weights should be defined in advance and they should reflect the preferences of the buyer.

Transparency

Transparency is an essential element to combat corruption. According to Mateus et al. (2010), effective transparency implies that procurement regulations 'do not confer an unrestricted freedom of choice' on procuring entities. Simply put, a supplier selection process is 100% transparent if the *supplier* is able, based on the tender documents, to calculate the final score of his own proposal. Two conditions need to be met to make this possible: 1) the evaluation criteria, their weights and the scoring rules used for the criteria are published in the tender documents and 2) the scores do not depend on features submitted in other tenders (no relative scoring). The transparency achieved in this manner will reduce the opportunity of fraudulent practices, make evaluating the bids more straightforward and it will allow suppliers to better tailor their tenders to the buyer's needs.

A focus on transparency could lead to an (large) increase in the number of guidelines and regulations. Lennerfors (2007) warns for this threat of overregulating, claiming that its disadvantage is that buyers strive to meet the regulations rather than to award contracts to the most beneficial supplier. For instance, transparency, which he thinks of as a means to an end, 'has become an end in itself'. This argument is similar to that of Casartelli et al. (2007), in their study on the effectiveness of WB consultant selection, where they find that 'compliance with the Bank's many rules is becoming an independent objective to which efficient contract award is sacrificed'. Finally, Nwabuzor (2005) adds that the absence of economic freedom encourages organizations to avoid or circumvent regulations, maybe even crossing the line to corruption. 'There is no doubt', he claims, 'that making their economies freer is one of the ways that nations like Venezuela and Nigeria can reduce the scourge of corruption in their economies'.

E-procurement

Carayannis et al. (2005) propose to reduce corruption and increase transparency by promoting the use of e-procurement. E-procurement could be used to make the selection of bidders, the tendering procedures and the award of contracts open to public examination and review. E-procurement means that (some parts of) the procurement process is (are) supported by information technology. A very simple form of e-procurement might be to announce public procurements on an internet site. More advanced systems allow for electronic bid submission, full electronic processing and even post-bid contract management. Obviously, both the gains (in terms of transparency) and the costs of e-procurement depend on which procurement activities are to be included in the e-procurement system.

Liao et al. (2002) studied electronic tendering in Taiwan and drew the same conclusion as Carayannis et al.: e-procurement establishes an open, transparent and therefore fair environment for public procurement. Moreover, their study acknowledges the possibility of merely using information technology for some (instead of all) activities in the procurement process as well. Liao et al. (2002) mention another benefit of e-procurement: the various steps in the process can be (re)viewed digitally, decreasing the possibility of fraudulent practices. Pasupathinathan et al. (2008) argue that there is a need for a secure and fair system for the awarding of contracts and that 'e-tendering has the potential to deliver such a system in a convenient and transparent manner'. Each e-procurement systems should at least meet two conditions: 1) buyers should treat all submitted bids in exactly the same way and 2) both the buyer and competing suppliers are not allowed, before the submission deadline, to view the contents of a bid.

2.3 Sustainability

Brammer et al. (2007) conducted an international comparative study on sustainable procurement practices in the public sector, asking respondents for barriers to and facilitators of sustainable procurement (SP). They found that government/legislative support for SP is among the most frequently cited facilitators of SP. Importantly, they conclude that 'where concrete policy and legislation exists with respect to aspects of sustainable procurement, it appears to be widely and successfully implemented. However, where directives are less concrete and more voluntary in character, competing necessities and priorities [such as economy and efficiency] often dominate'.

Bolton (2008) argues that sustainable considerations can be incorporated throughout the procurement process. In the tender procedure a distinction is made between the specifications, the suppliers' capability and the award criteria. The first option is to stipulate in the specifications that a sustainable product or service is required. Examples are electricity that must come (in part) from renewable sources, food that is organically grown or paper that has at least 50% recycled content. The second option is to add sustainability to the minimum qualifications a supplier should comply with. For example tender documents can state that a supplier should own or have access to essential technical equipment for environmental protection or that he is certified by an independent agency. Suppliers who fail to meet these minimum qualifications are excluded from the tender.

The third option is to include sustainability in the award criteria. That is, to give points to the sustainability performance of a bid and weigh these points against other criteria such as price and quality. Points can – for example - be awarded for the (absence of) chemical content in a product, the materials used in packaging or the energy consumed in production. Note that a tender may include only one or any combination of the three options.

Bolton (2008) conducted her research in South Africa, where the context is such that 'there may be few (especially emerging) contractors who may be able to comply with environmental criteria'. However, Bolton argues, 'this does not mean that organs of state should be barred from taking into account environmental considerations when awarding contracts'. When, for example, sustainability is used as an award criterion, such contractors could still win the tender. Moreover, sustainably should receive increasing attention in all countries – regardless of their current sustainability competence - if strong, healthy and just societies are to be achieved.

Tarantini et al. (2011) studied the use of Life Cycle Assessment in supporting criteria definition for green public procurement. Their LCA of a window details the exact emissions of CO^2, CFC and other gasses known to impact on the environment for different types of windows. They find that this information is insufficient to define useful environmental criteria based on maximum allowable emissions. They argue that often several strategies are possible to reduce the impacts of a product. For example increasing the amount of recycled content, using best practices for materials production or extending the service life are all suitable strategies for reducing energy consumption. Tarantini et al. (2011) recommend 'to leave to the manufacturers the possibility to choose the most suitable strategy, awarding additional points when such strategies are adopted'. This approach – an example of the third option described by Bolton - stimulates suppliers to offer the most effective strategy, as this will yield them more points and thus more chance to win the tender.

Melissen et al. (2012), who reviewed the Dutch Sustainable Public Procurement Programme (SPPP), make a similar remark, as they noticed that the SPPP primarily formulates sustainability criteria as minimum requirements. For example, a criterion for paper states that the production process should use chlorine-gas-free methods. These minimum requirements do not allow – and therefore do not stimulate – organisations to excel on sustainability. Though this approach does support sustainability, it 'does not stimulate the type of innovations that are needed for long-term sustainable development' (Melissen, 2012).

Melissen et al. (2012) also note that, while 'the interrelations and interdependence of ecological, social and economic systems are integral to the concept of sustainability', 'there is a clear deficit on incorporating the social component of sustainable development as well as on the amalgamation of all three sustainability imperatives'. In fact, the Dutch SPPP is one of only a few national action plans for sustainability to include social criteria at all, but only in the form of 'contract provisions and [therefore they] cannot be used to select suppliers'.

3. Analysis of World Bank procurement guidelines

In this chapter, all characteristics of procedures in support of the procurement principles identified in chapter 2 are compared to the World Bank guidelines. Specifically, the *'Guidelines: Procurement of goods, works, and non-consulting services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers'* and the *'Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers' a*re reviewed. The analysis is organized per procurement phase selected (publication, specification, selection method and bid evaluation) and treats them in consecutive order.

3.1 Publication

Publication not only is a means of communicating but also a means to involve suppliers and the general public in the struggle to achieve value for money and eradicate corruption. Publication is an important means towards transparency. Transparency in all phases of the procurement process involves many stakeholders in safeguarding the achievement of the goals of public procurement.

Timely and complete

As recognised in the guidelines on procurement for goods, works and non-consulting services, 'timely notification of bidding opportunities is essential in competitive bidding'. In fact, timely notifications contribute to creating equal opportunities for all bidders (as late notifications favour organisations close to the buyer), value for money (as more bids are expected to be submitted when notifications are timely) and transparency (as more organizations are aware of the upcoming tender).

The current guidelines (both for goods, works and non-consulting services and for the selection of consultants) require borrowers to publish ***General Procurement Notices*** that contain information on the amount and purpose of their loan and the scope of procurement. These notices announce the existence of a project, but the requirements on the scope definition may not be sufficient to alert the right suppliers. Details of the tender such as specifications, selection criteria and award criteria may be so general as to involve either too many or too few possible suppliers. As a consequence there might be some room for fraud and corruption.

Specific Procurement Notices are subsequently published to invite organisations to prequalify or to bid in a manner that gives prospective bidders 'sufficient' time. However, there is no defined minimum timeframe between a notification and the bid submission. In general, there should be six weeks between the notification or the date of availability of documents (whichever is later) and the bid submission deadline for goods, works and non-consulting services and four weeks for consulting services. This may be relatively short, especially if non-local bidders have to do on-site research before writing their proposals.

> *A Dutch consultancy firm said its focus has increasingly shifted from World Bank assignments towards European Commission assignments. As an important reason the firm mentioned that it's "much more transparent and predictable when tenders for EC projects will start" compared to WB projects. The European Commission publishes announcements for larger projects up to six months prior to publishing procurement notices, whereas the WB typically publishes general procurement notices - concerning loan agreements, not individual projects – but no specific procurement notices. When published the response time is quite often very short. This has led to the situation where the firm effectively only competes for tenders in countries where it already has other assignments or where it has a local office, because only then the firm is in a position to monitor upcoming assignments.*

As the example illustrates, the notification and advertising practices of WB tenders do not always provide potential suppliers with sufficient information in a timely manner. This may be due to a lack of regulations regarding the specific procurement notices; both a minimum timeframe and minimum contents are not stated in the guidelines. Setting a timeframe in the guidelines (e.g. specific procurement notices are to be published 2 months prior to submission of bid documents) could increase the number of bidders and contribute to achieving value for money. Specifying minimum contents for specific procurement notices (e.g. a description of the assignment, the selection method used, the bid evaluation procedures and a planning for publishing documents) could increase transparency and reduce opportunities for fraudulent practices.

The mere fact that the details have been published for everybody to see provides some safeguard against tampering with the details to favour some supplier.

> *In 2010, a tender for the construction of a road in East Africa was published, financed by the European Development Fund. A Dutch construction firm competed for the tender. At the bid opening, it appeared the firm had offered the lowest responsive price. Weeks later, the company was informed it had lost the assignment to a company that had been disqualified in an earlier stage. The reason behind this selection was not revealed. The firm requested information on the procedures used and subsequently complained when it was not provided, but the firm ultimately was unable to acquire information on the evaluation model or procedures used. Consequently, the firm is reluctant to compete for tenders in this area again.*

Professional procurement requires publication of details

The publication of the details of the selection and award mechanism is part of any professional procurement practice. Suppliers usually have the option to offer various approaches to the project and they would like to offer that option that best fits the demands of the buying organisation. But to do this the supplier should know the preferences of the buying organisation as detailed in the selection and award mechanism. Hence, these should always be disclosed (and published) to allow the suppliers to evaluate various options for their bid. Publication of details of selection and award mechanisms is part of professional procurement.

As an additional, but related issue we remark that a number of countries (e.g. USA, UK) have chosen to publish all of their spend data: for every invoice paid they publish the amount, the supplier, the project name, the commodity category and the budget holder that paid this amount. Note that these data do not reveal much commercially sensitive information that could harm the suppliers. The publication of these data by definition takes place after the invoice has been paid and therefore does not influence the procurement procedure itself, but it increases transparency on what is actually happening. Countries that have chosen to publish these data do this both to increase transparency and to drive efficiency. The drive for efficiency stems from the fact that citizens may ask questions about value for money on specific procurements. Transparency on spend data provides both citizens and competing suppliers with some basic data to check both value for money and the avoidance of corruption.

3.2 Specification

Specifications define what the buyer is purchasing and are of key importance to the entire process. The specifications should be complete, correct and should reflect the actual preference of the buyer in order for the buyer to make an optimal purchase.

Technical and functional specifications

Functional specifications describe what results the supplier has to achieve for the buyer. For instance, functional specification could describe what a product should be able to do, but not how it should do that.

Technical specifications, on the other hand, describe in a very detailed manner how a desired result should be achieved. Such specifications include dimensions, qualifications, standards and other characteristics that exactly define what a product looks like.

When highly detailed technical specifications are used, all offers will be identical except for their price (implying price will be highly important in the evaluation). In general, functional specifications provide suppliers with more freedom to offer alternatives. Suppliers can still submit the same offer they would have made using technical specifications, but they are not limited to it. Suppliers will submit their best possible offer: buyers may expect creative products, innovative solutions or designs they had not yet thought of. Evaluating these substantially different offers on both quality and price may result in value for money.

> *A Dutch construction firm wanted to compete for a World Bank-financed tender in Africa in 2012. The tender – which concerned the construction of a fuel unloading facility (jetty) - was specified using highly detailed technical specifications. Importantly, the jetty was to be supported by 2 piles every 15 meters. The firm's best offer was a jetty with larger spans supported by larger mono-piles every 30 meters. This alternative and economically more advantageous bid could only be considered in case the firm had the lowest price on the original specifications. As this was not achievable the alternative bid could not be submitted.*

In general it is advisable to use functional specifications to some degree. The usual argument against functional specifications is the absence of technical details in the contract to be checked against the execution or delivery. But it should be kept in mind that functional specifications can be checked as well (and sometimes even better than technical specifications): is the supplier delivering what he promised?

Another argument against functional specifications is the difficulty of supplier selection as two bids may not be comparable on the technical side. This argument points to the necessity to reconsider the supplier selection methods used. But reconsidering the supplier selection method used is also advisable for other reasons as indicated in the next section.

The guidelines for goods, works and non-consulting services already recognize several cases where it may be undesirable to prepare complete technical specifications. In those cases a two-stage approach can be used that allows functional (performance) specifications in the first stage. New WB guidelines could allow using functional specifications in all cases, enabling borrowers to choose which type of specifications is best suited.

3.3 Supplier selection method

Type of selection method

In general, there are two methods of selecting a supplier: choosing the supplier with the lowest cost that meets the requirements or evaluating multiple criteria and selecting the supplier with the best overall score. The first method is usually known as 'Lowest Cost', the second as 'Economically Most Advantageous Tender' (EMAT).

If Lowest Cost is used, an exceptional performance on other factors than cost (such as quality or sustainability) will not be rewarded. Suppliers will therefore submit a bid that matches (but does not exceed) the minimum requirements. For example, sustainability can be included in a tender as a minimum requirement, such as a minimum percentage of recycled materials that should be used in the production of the tendered product. Another example is the requirement of a maximum elapsed time before the job is finished. In these situations, suppliers have no reason to exceed the minimum requirements as this will not be rewarded, which implies they have no incentive to offer something of *better* quality or *more* sustainable. A more effective approach is to assign points for the degree of sustainability or the quality of a bid, challenging suppliers to offer their best solutions. Unlike the approach with minimum requirements, the result may be the (a series of) innovations that supports long-term sustainable development or better quality products.

This approach is only possible when the selection method used is EMAT, as it requires evaluating non-financial criteria. The WB guidelines for the selection of consultants describe several methods that accommodate this: QCBS, QBS, FBS and CQS.
Basically, international competitive bidding (ICB) – as described in the guidelines for goods, works and non-consulting services – can be used as an EMAT-method, as the definition of 'evaluated costs' allows for other factors in addition to price to be considered. The guidelines mention such factors as operating costs and maintenance costs. According to the guidelines: "If possible, these factors are to be expressed in monetary terms".
In practice this limits the application of ICB as an EMAT method: in the vast majority of cases we have seen ICB boils down to lowest costs and only in very few cases some 'life cycle cost elements' are included. ICB including non-monetary elements such as sustainability or quality is rare in practice. This is understandable as several factors that we argue should receive attention are not easily expressed in a monetary value. In practice, it's clear that as the difficulty of expressing a criterion in monetary terms increases, its usage in ICB-procurements decreases.

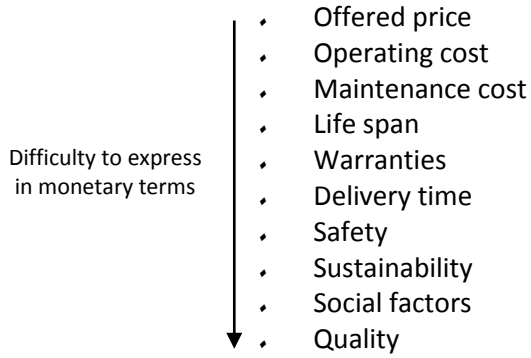

Figure 2: Criteria increasingly difficult to express in monetary terms

The Rwanda Public Procurement Authority (RPPA) conducts audits at Rwandan public entities. The director of the monitoring and audit unit informed us that, when auditing for World Bank tenders, he had never encountered a tender using international competitive bidding that included relevant factors in addition to price in the evaluation. Even tenders for cars and machines – where compatibility of equipment, training and environmental benefits may be considered important – did not include other factors than price. The director of the monitoring and audit unit explains that 'procurement officers do not know how other factors should be incorporated, as the guidelines do not describe this'. Consequently, procurement officers cannot evaluate the performance on other factors, even though they agree such factors are important in the selection the best bid.

The example illustrates that borrowers use international competitive bidding to select the supplier with the lowest cost, as it is considered too difficult to include other criteria.
Both of the principles of value for money and sustainability could be achieved to a far greater degree, when EMAT selection methods are used more frequently. This could be achieved by providing more guidance on how to incorporate other factors than price or by allowing methods such as QCBS and QBS for goods, works and non-consulting services as well as for consulting services.

> *The director of the monitoring and audit unit of the RPPA further mentioned that a problem often encountered is that of 'abnormally priced bids'. In case of an abnormally low bid, it is often a local supplier who offers a price that is far below the estimated value of the contract, in some cases just 60% of estimated value. Bidders offering such low prices usually do meet the requirements, which implies that the regulations of international competitive bidding oblige the procuring entity to award tenders to them. Especially works awarded to local suppliers in this manner, result in major problems; on many occasions suppliers told a procuring entity – after working on a project for 1 or 2 years – they were not able to finish the project. Some projects therefore remain unfinished, while others require additional funding making the project far more expensive than the offered price that was used to award the contract.*

Choice of selection method

A scale of high quality decision support techniques may be used to achieve value for money and to avoid the possibility of corruption (Csáki et al, 2005). The WB guidelines prescribe international competitive bidding for goods, works and non-consulting services and quality-and cost-based selection for the selection and employment of consultants as the 'default' method. Under predefined circumstances other bid selection methods are available (such as QBS, FBS, LCS and CQC for the selection of consultants). Casartelli et al. suggest, in their 2007-study on 120 Bank-funded procurements for consulting services, 'rephrasing the Guidelines to avoid indicating that one selection method is "recommended'. They suggest, more value for money may be achieved if buyers are free to choose from the five models mentioned, regardless of the circumstances'.
We have some reservations about the suggestion to allow for a range of supplier selection methods as a choice in supplier selection method may lead to some 'engineering' of the procedures and hence may not be the best option from an anti-corruption standpoint. If this approach (allowing for a free choice of selection method) is taken a strict condition should be the advance publication in each and every tender of which method is to be used.

If the approach of prescribing a specific supplier selection method per tender is adhered to a useful alternative may be a method called 'Awarding on Value' (AoV). This method is rapidly gaining support in various industries. AoV can be considered as an elaboration of the International Competitive Bidding (ICB) method. ICB is defined as comparing the 'evaluated cost' of bidders and selecting the bid with the lowest evaluated cost. AoV adds to this by providing a method to calculate the evaluated costs of various quality/ technical/ sustainability aspects. This way, other factors in addition to price and easily evaluated costs may be considered in the bid evaluation. The translation of other factors into monetary values is accomplished by providing the amounts (called delta values) the borrower is willing to pay extra for an offer that is superb on that factor as compared to an offer that is just meeting the minimum requirements. The delta value expresses the value of that aspect in monetary terms. Then the various bids can be scored on the factors ranging from 0 (just meeting minimum requirements to 100 (a superb offer on that factor). Multiplying these percentage scores with the delta value provides the value of the bid on that factor. If all factors are translated in monetary terms this way and subtracted from the price we have the AoV method.
A very low delta value for additional factors basically reduces this method to lowest cost. A very high value puts relatively more value on other factors.

3.4 Bid evaluation

Relative scores

Relative scoring functions define the score of a tender by comparing its performance with the performance of other tenders (e.g. the lowest price), 'which imply that assigning a tender's score is impossible without having knowledge of all other tenders' (Mateus et al., 2010).

Such a scoring method is mandatory in the WB guidelines on selection and employment of consultants. That states: 'The proposal with the lowest offered total price may be given a financial score of 100 (one hundred) and other proposals given financial scores that are inversely proportional to their prices'.

The main problem with such a scoring mechanism is that the overall ranking of any two suppliers may depend on the bid of a third supplier. The possibility for rank reversal is a consequence of relative scoring. The inclusion or exclusion of certain bids may thus have a devastating effect on the overall scoring and ranking. Consider the following example that is possible under WB guidelines:

A tender is put out for consulting services which will be evaluated on quality-and cost-based selection. The minimum technical score is 70, the weight for cost is 20 out of a 100 and the financial scores are calculated as: financial score = 100 * (best price / price). Four bids are received and the submitted prices, financial scores, technical scores and overall ranking are calculated as shown in table 2.

Supplier	Price	Financial score	Technical score	Overall score	Ranking
A	€ 50.000	100	70	76	4
B	€ 125.000	40	89	79.2	3
C	€ 156.250	32	92	80	2
D	€ 200.000	25	94	80.2	1

Table 2: Four bids are evaluated

If the bid of supplier A is considered non-responsive, ineligible or is withdrawn from the evaluation for another reason, the remaining suppliers will be evaluated as follows:

Supplier	Price	Financial score	Technical score	Overall score	Ranking
A	Bid withdrawn				
B	€ 125.000	100	90	92	1
C	€ 156.250	80	92	89,6	2
D	€ 200.000	62,5	94	87,7	3

Table 3: Three bids are evaluated

The ranking is completely reversed because supplier A's bid is withdrawn, while supplier A finished last in the original situation. Relative scoring allows a non-competitive bid to influence the final ranking; supplier A's bid is not interesting due to its low technical score, but it does influence who wins the tender.

Situations like this are open to 'bid rigging' and collusion: supplier B loses the tender if supplier A submits its offer and it is considered responsive, but wins the tender if supplier A's bid is withdrawn. Supplier A may be persuaded to withdraw its bid by supplier B, as A does not have a chance to win the tender in either situation. Alternatively, if supplier A did not submit a bid, he could be asked to participate by supplier D, who loses without a bid from A, but wins when A is persuaded to participate.

Double guarantees on quality

The quality-and cost-based selection method – that is used in the WB guidelines for the selection and employment of consultants – is based on the evaluation of both quality and cost. Both factors are evaluated on a 0-100 scale and then added using weights. The weight for cost should normally be twenty points out of a total score of 100, leaving 80 points for quality. The importance of cost to quality is therefore 1:4.

In addition, each bid should meet the minimum technical score that is stated in an RFP in order to be considered responsive. The indicative range for this minimum technical score is 70 to 85 on a scale of 1 to 100. This requirement is meant to assure the importance of quality in the evaluation model. However, it has a reverse effect. Consider the following example:

With 70 as minimum technical score, all bids evaluated below 70 will be considered nonresponsive. Hence, each bid that will be subject to the financial evaluation scored at least 70 points on quality and therefore cannot receive less than (70 * 80%) 56 points out of 100 for its total score (quality and cost combined). From the remaining 44 points, 24 points can be earned by scoring 100 points on quality and 20 points can be earned by the score on the financial proposals. Therefore quality is about equally important as cost (instead of a cost-to-quality ratio of 1:4). If 85 is chosen as minimum technical score, quality is even less important than cost in the final score!

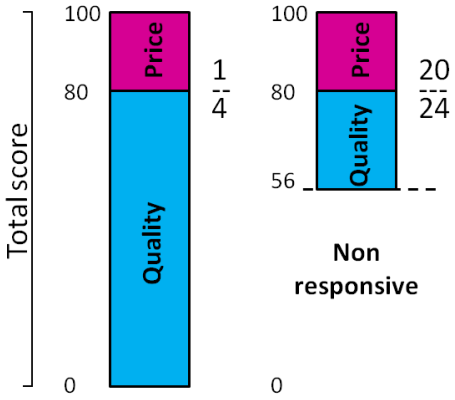

Figure 3: relative importance of cost

The WB guidelines – by prescribing both weights for quality and price and a minimum technical score – result in too much emphasis on price.

Alternatively, guidelines could prescribe to 'recalibrate' the range of technical scores after suppliers have been removed that do not meet the minimum technical score. The new range should be such that suppliers who exactly meet the minimum technical score receive zero points. For example, if the minimum technical score is 80, a score of 90 points on the original range would yield 50 points after recalibrating. Using this approach, the importance of cost to quality is restored to 1:4, which may result in better value for money.

Score graph for price

For quality and cost based selection, the WB guidelines describe how the submitted prices may be converted to a financial score: the proposal with the lowest offered total price is given a financial score of 100 points; the other proposals are given financial scores that are inversely proportional to their prices.

Inversely proportional implies the following formula: $Score(i) = 100 * \frac{Best\ price}{Price\ (i)}$

Such a formula results in the score graph that is shown in figure 3.

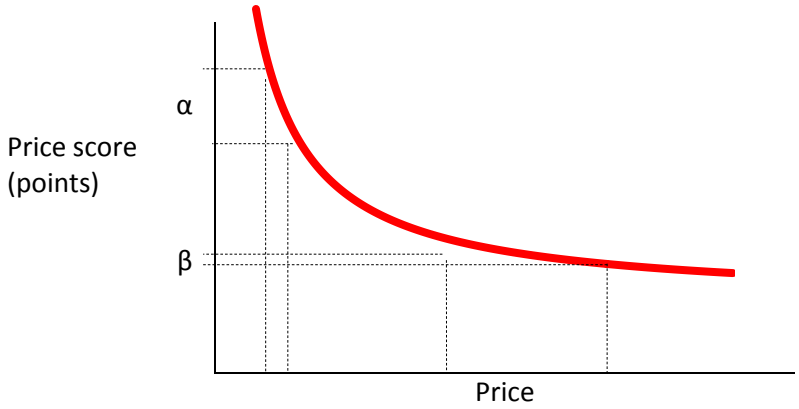

Figure 4: Score graph inversely proportional formula

The shape of the graph implies a large difference between the price scores of the lowest bid and a slightly more expensive bid (difference α) and a small difference between the scores of an expensive bid and a very expensive bid (difference β). Both these effects are undesirable in regard of value for money; both cheap bids should get approximately the same score (and thus be selected based on quality), while the very expensive bid should get far less points than the moderately expensive bid.

A better (and simpler) method of assigning financial scores is directly proportional, e.g. using a score graph that is a straight line. This gives the second lowest bidder more opportunity to win the tender from the lowest bidder based on quality and avoids that very expensive bidders outperform moderately expensive ones. This approach, therefore, results in better value for money.

4. Conclusion

We believe that the goal of improving development effectiveness is best supported by a new WB policy framework that is grounded upon the principles of value for money, anti-corruption and sustainability. We argued that each of these principles may be enforced in several phases of the procurement process. Therefore, we distinguished between publication, specification, selection method and bid evaluation. Combined with the four principles this creates a framework that has been used throughout this paper.

By exploring each principle and different ways of applying them and subsequently analysing the WB guidelines for each phase, we effectively treated each cell of the three-by-four framework. The result is a number of opportunities per phase to better apply one or several of the principles. Some opportunities require new guidelines to be introduced, while others could be attained by rephrasing current guidelines to avoid indicating a 'default' method. Figure 4 indicates the opportunities identified in the framework.

Principle \ Phase	1. Publication	2. Specification	3. Selection method	4. Bid evaluation
Value for money	√	√	√	√
Anti-corruption	√		√	√
Sustainability		√	√	

Figure 4: framework

5. Recommendations

Based on the conclusions, we propose the following recommendations:

- Specify both a minimum timeframe between a notification (specific procurement notice) and the publication of the bidding documents, and a minimum timeframe between publication of the bidding documents and the bid submission deadline.
- Specify minimum required contents for a procurement notice. These should include a description of the assignment, the selection method used, the bid evaluation procedures and the time schedule for publishing documents.
- Use functional specifications as the preferred method of specifying.
- Include sustainability elements in both the specifications and the award criteria.
- Prescribe selection methods aimed at the economically most advantageous tender (EMAT) as the preferred method in all guidelines (goods, works, non-consulting and consulting services). Especially encourage selection methods which are conducive to incorporating a wide range of relevant quality related evaluation factors/criteria, including factors which are less easily expressed in monetary terms.
- Include technical / quality / sustainability factors as award criteria
- Consider the application of a method called Awarding on Value as the standard supplier selection and bid evaluation method
- Prohibit scoring methods that use relative scores, such as the price scoring formulas that are inversely proportional to the lowest price.
- 'Recalibrate' the range of technical scores after suppliers have been removed that do not meet the minimum technical score such that suppliers who exactly meet the minimum technical score get zero points.

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