

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
KUMASI, GHANA

**Barriers to Environmentally Sustainable procurement of Goods at Kumasi
Metropolitan Assembly (KMA).**

by

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Built Environment, in partial fulfillment for the degree of

MASTER OF SCIENCE

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DECLARATION

I hereby declare that this submission is my own work towards MSc. Procurement Management and that, to the best of my knowledge ,it contains no material previously published by another person, nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text

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ABSTRACT

The study sought to examine the barriers limiting the adoption of environmentally sustainable procurement of goods at Kumasi Metropolitan Assembly (KMA). The researcher interviewed five (5) individuals identified with procurement function at KMA to collect data. The study established that environmentally sustainable procurement of goods was being practiced but faced a lot of barriers to get the full benefit of it. Procurement contracts of goods were being awarded taking into account the lowest evaluated bid and other considerations such as ecological elements were not included in tender evaluation. The study found out that, the absence of administration backing was a limiting factor in the adoption of environmental sustainable procurement of goods at KMA. Lack of knowledge about sustainable concept, the perception that sustainable goods are expensive especially at the initial stages added to the difficulties influencing the adoption of environmentally sustainable procurement. The study suggests that there ought to be thorough employee training to educate staffs on the need to adopt environmentally sustainable procurement of goods. Benefits of ecologically supportable procurement of goods should be the emphasis and the risks of non-sustainability should also be known. Additionally, motivating incentives ought to be given to suppliers to urge them to develop sustainable products. A sustainable procurement strategic policy ought to be put in place.

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DEDICATION

I dedicate this work to Almighty God by whose kindness I am alive, and for seeing me through every one of the difficulties I experienced amid the time of this research work. I additionally dedicate this dissertation to my dazzling little girl, Miss Elisa Nyirah Fosuah Frimpong who has endured my absence from home during this academic voyage.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF STUDY

"Sustainable procurement is the quest for practical improvement goals through the procurement and supply handle, and includes involves ecological, social and monetary targets" (Walker and Wendy, 2006). Sustainable procurement takes environmental issues into considerations as well as the people and on the social settings to deliver and receive the product and services.

Academicians and professionals have gotten to be enthused about how entities and their contractors or suppliers' exercises impact nature, society and the economy (Walker and Wendy, 2006). Because of the rising attention giving to sustainability issues, organizations are forced to observe environmental laws, manage costs by practicing whole life costing, and manage its supply chain which increases the organization's reputation in community. It is important that sustainable drivers are properly understood by players in the procurement industry. (Fitzsimmons and Fitzsimmons, 2011; Walker and Brammer, 2011).

Procurement and supply is playing strategic role in sustainable advancement significantly more now than some time as of late. These issues are fundamental to administrators, interested groups, clientele, regulatory agencies, NGO's furthermore staffs who are asking for that entity oversee and control ecological and societies which the organisation influences (Carter and Easton, 2011).

Procurement officials have imperative position to affect environment and social execution through goods specification, assessment and choice process, and evaluate the output of suppliers through developing key performance indicators which will be a means by which contract completion will be compared with. Organizations that practice

environmental sustainability have high reputation in the society and that controls greater market.(Walker and Brammer, 2011).Including low-carbon economy, sustainability, has become a matter of logical urgency. However, thoughtful idea of sustainability and how it makes a difference to the acquisition practice is still deficient particularly in the goods procurement in most emerging countries like Ghana.

1.2 PROBLEM STATEMENT

Some improvement is been achieved by Ghana in terms of women and child rights matters, and labour laws but environmentally sustainable matters are being excluded from procurement decisions at both private and public institution. Lowest evaluated tenders are the most important basis for contract award, without attaching much environmental considerations including child labour, health and working situation as well as pollution, which has great impact on the future generation. Goods, works and services are procured by both Public and private organizations, the impact that such procurement will have on the environment is not very much considered. Environmental sustainability procurement laws in Ghana are not clear cut and it makes the execution process a burdensome one. Ghana's Public Procurement Act (663) of 2003 for example, lacks sustainability matters to achieve green procurement. This has resulted in procurement market remaining devoid of environmental sustainable procurement elements. This has necessitated this research to be carried on the barriers to sustainable procurement in Ghana.

1.3 AIM

This research is aimed at exploring the practice of environmentally sustainable procurement of goods at Kumasi Metropolitan Assembly.

1.4 OBJECTIVES

1. To determine the level of understanding of environmentally sustainable procurement of goods at KMA;
2. To determine the extent to which procurement practices at KMA embrace sustainability considerations; and
3. To identify barriers to sustainable procurement at KMA.

1.5 RESEARCH QUESTIONS

1. What is the level of understanding of environmentally sustainable procurement at KMA?
2. To what extent does procurement practices embrace sustainability at KMA?
3. What is the nature of barriers to environmentally sustainable procurement of goods at KMA?

1.6 SCOPE OF STUDY

This research was conducted at Kumasi Metropolitan Assembly. Kumasi Metropolitan Assembly was selected not only because of nearness and easy access to primary data for the study but also due to the diverse developmental projects they undertake and their effects on the surroundings, wealth and society as a whole and as per the Public Procurement Act (663), 2003 and worldwide environmental sustainable procurement practices. This study covered the management of environmental sustainability procurement of goods at the assembly and how contract is awarded base on other factors including sustainable issues. Procurement is the acquisition of good, work or service and therefore this study looked at the activities carried out by the Assembly to manage its procurement contracts in the post contract award stage. Interviews were conducted with key personalities in charge of procurement (example Top management, procurement officers, requisitioners and project managers).

1.7 RESEARCH METHODOLOGY

Information would be collected relating to environmentally sustainable procurement of goods, potential benefits of sustainable procurements of goods and barriers to achieving sustainable procurement at KMA. Freely accessible data, for instance, writings, web sources, and country examples was utilized and supplemented by organized interviews aimed at sourcing expert views from key stakeholders. The tools utilized as a part of this research was face to face interviews with key actors, and analysis of potential barriers. Data gathered was analyzed and inferences made of them. The discoveries incorporated an overview of good sustainable procurement practices, overview of potential benefits, portfolio of hindrance and the identification of different ranges which require specific consideration. The findings were utilized to identify the prerequisites for environmentally sustainable procurement, suggest techniques and mechanisms to conquer the barriers, evaluate the thinking of top management about environmentally sustainable procurement of goods at KMA.

1.8 SIGNIFICANCE OF THE STUDY

This study is important because there is a research gap in the area of sustainable acquisition. The few study in the region of sustainable acquisition is more biased towards procurement of works and services. In the area of procurement of goods, not much study has gone into it as to how environmentally sustainable procurement of goods is practice. That is why this study looked into how sustainability can be included in the procurement of goods at KMA.

Also Ghana stands to achieve in the long-term if it starts implementing sustainable public procurement (now). The environment can greatly be saved if sustainability is used as way of looking for good governance goal of recognizing change that offers need to destitute individuals, propels women, underpins nature and makes required

employment opportunities available and distinctive livelihoods. One of the major means to achieve sustainable production and consumption is through procurement. (Adjei, 2006). Right and efficient environmental sustainable procurement drives a countries aims and objectives, which improves the country's effort to make available high quality goods which can stand the test of time for people and are based on value for money.

The study will assist policy makers and supplier, contractors and suppliers who are interested in the execution of the public procurement act with the required data on the adequacy of the act on monetary management. The incorporation of social and environmental factors will help eliminate ecological challenges and to help achieve some binding international standards. Social benefits, conformity with social and labor laws will raise the living standards of the people that public procurement officers seek to serve.

1.9 ORGANIZATION OF THE STUDY

The research is group into five chapters. Chapter one which includes introduction which detailed the background to the study, problem statement of the study, aims and objectives, research questions, scope, justification of the study as well as the significance of the study. The Chapter two discusses literatures on sustainable procurement. The chapter examined recognized authorities and researches previously carried out on the subject. Chapter three discussed methodology that was adopted for the study. The Fourth chapter involved presentation and discussing of the study findings, and the last chapter providing a summary of the findings including conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

This section concentrated on the literature review of prior research works on environmentally sustainable acquisition. The review assisted to answer inquiries brought up in the objectives. Furthermore it gave steady data that was vital for the study. The review lend much credence to books, articles and research works that cover the definition of procurement and the three fundamental measurements of Social, Environmental and Economic procurement that will help to eliminate the barriers to environmentally sustainable procurement of goods.

2.1 CHANGING ROLE IN PROCUREMENT

Previously, procurement was just interested in acquiring goods and services by sending request for quotations (RFQ) to potential suppliers. The lowest quoted, was the only means of awarding a contract to one of the suppliers (Crandall et al., 2010). Now, strategic success of an organization depends on procurement. Nowadays procurement function is presented at the board level unlike previously departmental duty. The customer demands trends, increasing competition and increasing environmental awareness has shifted the focus of procurement Bailey et al. (2008). The customer satisfaction is now prime focus and they should be satisfied beyond desires. It is necessary to think green issues as a business (Bailey et al., 2008). The procurement function is imparted by recycling, renewable raw materials, impacts of waste materials and by items, the utilization of reverse logistics and numerous different concerns. A firm builds greater status when the firm is linked with social, environmental and moral profile of the organization's expenditure and that makes procurement office to find responsible contractors to their list of working destinations as this serves to impacts the changing aspect of the procurement (Crandall et al., 2010).

2.2 THE NATURE OF SUSTAINABLE PROCUREMENT

The procedure where entities meet their necessities for products, services and works to attain value for money through the entire life cycle of the item in the area of achieving benefits to the organization, society and the economy as a whole, and at same time reducing environment destruction is seen as sustainable procurement (Aurora Energy, 2008; DEFRA, 2006).

Environmentally sustainable procurement as apply to both public and private is an investments and spending which is based on public policy. It is associated with the greater objective of achieving sustainable development.

In Ghana, public institutions acquisition of goods, works and service is controlled by the Public Procurement Act, Act 663. The act has not address environmentally sustainable procurement issues in totality. It is now not easy to include economic, social or environmental concerns in the procurement procedure, while still remaining fair and transparency to all. Environmentally sustainable procurement is a worldwide predicament and Ghana is no exception.

This dissertation seeks to find out how environmental sustainable procurement of goods is practice at KMA. Secondly, towards bringing out the barriers hindering environmental procurement practices at KMA, thus helping KMA to move towards achieving sustainable procurement. The concentration of sustainable procurement has been environmental protection. According Lamming and Hampson (1996), the supply chain management function is now pivotal role in the future plan of every business. This means that there should be policies in place to help implement the array of problem, many of which directly have an effect on the environment. Vachon and Klassen (2006), is particular about green supply chain system, which will include specific thematic areas

like examine the background for achieving environmental concerns in supply administration.

Sustainable procurement means incorporating broader concern for social and environmental effects to the procurement process by public sector bodies and the private institutions. (Preuss, 2009; Walker and Brammer, 2009). A lot of study has been done in the area of achieving sustainability through sustainable procurement, especially the procurement of works. Procurement processes and structure in the developing countries seems to be in place but face a lot of setbacks (Boomsma, 2008) and since Ghana is also a developing country it also face these same limitations. The setbacks cause insufficiencies in the ability to make sure sustainability is included in public procurement. Brammer and Walker (2011), study of sustainable procurement in the government organization revealed that, some sustainable procurement are obvious in public procurement, but degree and approach differs appreciably across regions. This research seeks to look at such practices specifically at KMA.

In many sectors of the economy, there has been an evaluation in management practices towards more sustainable modes of operation. This has involved all facets of business operation, from procurement and production through to marketing, sales, packaging and labeling. Climate change and cognizance of the greenhouse emissions generated in the process of production of goods and services will keep the focus on the environmental performance of businesses and government well into the future (Carlsen, 2009). The above illustrates the importance of climate and environment on sustainable procurement.

In a similar context, Carlsen, (2009) stated that, procurement is an essential component of environmental performance of business and government so much so that, some companies now have dedicated Environmental Management Strategies [EMS],

divisions, reporting processes and auditing programs built in to their organizational structure. Procurement can be used as the focal point to enhance environmental conservation and to move towards achieving economic viability, socially tolerable and environmentally accountable business practices.

2.3 SIGNIFICANCE OF SUSTAINABLE PROCUREMENT

Nowadays, there is growing demands from customers, building owners, government to put sustainable procurement into practice in both private and public sectors (Walker and Brammer, 2011). The 2002 World Summit on Sustainable Development expressed that pertinent authorities at all levels ought to: "advance public institution procurement policies that support improvement and promotes environmentally sound goods and services". Because of this, procurement experts have introduced policies and strategies embedding sustainable development concerns (McLennan, 2004; Bryde and Meehan, 2011); for instance the UK Strategy for Sustainable Consumption and Production. As a stage towards actualizing this system, the Government built up the Advisory Committee on Consumer Products and the Environment (DEFRA, 2007). Kalubanga (2012) research also reviewed studies in the EU – found in 2009, 80% of procurers started implementing sustainable procurement programmes in 2008, while 90% thought sustainable procurement are a critical issue for business survival(Kalubanga, 2012).

Organisations who practice sustainable procurement meet their requirements goods, works and services not only for short-term gains, but maximizing long term financial benefits the organization (Pennanen et al., 2005)Effective implementation of sustainable procurement can possibly reduce expenditure, reduce lead time, enhances partner connections, raise turnover, minimize risks, and enhance reputation and expands overall revenues. Kennard (2006) and Kalubanga (2012) demonstrated that advantages to an organisation in embracing a Sustainable Procurement Policy were to: control of

expenses by adopting a more extensive way to deal with entire life-cycle costing (The Facilities Society, 2012); improve standards both internal and external through performance assessments (Tucker and Pitt, 2009); comply with environmental and social legislations (DEFRA, 2007); the value of procurement of an organization can be seen in corporate image if sustainable procurement is exhibited by the organization (Lysons and Farrington, 2006). Waste in the system can largely be reduced as well as resource efficiency through costs minimization and processes when sustainable procurement practice (Thomson and Jackson, 2007). Businesses that practice sustainable procurement have lower degrees of business risk in some situation (Thomson and Jackson, 2007).

2.4 PUBLIC PROCUREMENT

As indicated by the United Nations Development Programme (UNDP, 2007), public procurement is acquisition of goods, works and services through an end to end identification of need to service contract to the useful life of the asset life. Public sector procurement started as far back as 2400 and 2800 BC. Written on a tablet of clay in Syria has ordered 50 jars of fragrant smooth oil for 600 small weights in grain (Coe, 1989).

In Ghana, public acquisition of goods and service is governed by the Public Procurement Act 2003, (Act 663). The Act came about because the public procurement reform programme proposal aimed at advancing national improvement, enhancing agreement inside other local and worldwide laws; cultivating competition, productivity, fairness and make people accountable for their actions; encouraging simplicity of procurement; and guaranteeing value for money (Ministry of Finance, 2001).

2.5 KEY CONCEPTS IN SUSTAINABLE PROCUREMENT

The following are the concepts and approaches that help to incorporate environmentally sustainable procurement to the procurement practice

2.5.1 Value for Money

The government of Australia sees value for money as the target of government procurement. Value for money is not just the price of the goods or services. There is the need to consider both financial and non-financial benefits before arriving at contractor or supplier. See the Commonwealth Procurement Rules paragraphs 4.1 to 4.5, pages 14 and 15 intended for extra discussions on value for money.

2.5.2 Sustainable Development

There is present satisfaction in sustainable development as well as the means for meeting future generation requirements

2.5.3 Wellbeing

This means economic advancement, community growth and environmental sustainability.

2.5.4 Sustainability

The ability to preserve and increase the wellbeing of people over time requires complete economic, social and natural capital maintenance for the future generations.

2.5.5 Environmental Management

This is the ability to decrease the environmental effect of an institution's activities. Right environmental administration structure connect all environmentally related factors of an entity into one management long term plan to include planning, implementing and reviewing efforts to decrease environmental effects. There is also the need to report the milestone achieved in environmental management and their impact. The Environment

Protection and Biodiversity Conservation Act 1999 make it obligatory for entities to report on the moves they have made to oversee and reduce environmental effects.

2.5.6 Environmental Purchasing

‘Green purchasing’ and ‘environmentally preferable purchasing’ seem to mean the same but there is clear distinction. Green purchasing only considers factors of the environment but environmentally preferable purchasing takes into account environmental, social and economic effects of procurement processes

2.5.7 Greenwash

The false, misleading and/or deceptive claims by an organization about its environmental practices are known as greenwash. Even though greenwash might be unintentional its claims may be vague, irrelevant, inaccurate and only a presentation to tell people stories about environmental sustainability. To abstain from being greenwashed, it necessary to know the ecological effects of any product being procure including whole life cycle consideration and to know eco-labels application and application of right standards. All these can be incorporated into the specs of the goods and services.

2.5.8 Supply Chain Assessment

Some goods or services which have long supply chain risk environmental protection. Also labour rights may not be upheld in a long supply chain. Example, some parts of the course of producing IT equipment could be sourced from developing countries where labour right may not be fully observed. Because of this, there is the need to assess the environmental and social record of suppliers to ascertain to see if they meet environmental and social requirements.

2.5.9 Life-cycle Thinking

Life-cycle thinking is a system of incorporating into the procurement process entire life cycle of a good or service to profit from the product. This takes into account, the total cost of owning the product and whole-of-life cost of the product. This can be achieved through life-cycle analysis. Whole-of-life costing most significant in a procurement environment. This includes the cost acquiring the product delivery or setting it up, coaching on how to use it, using the product, repairing it, looking after it, and discarding it toward the end of its life. For a few sorts of items, the initial capital expenditure may look like expensive but the overall running and maintenance my cheap which will make the cost of the product cheaper at the long run.

2.6 BARRIERS TO SUSTAINABLE PROCUREMENT

2.6.1 Community Social Responsibility (CSR) Policy

Every organization should have commitment towards the environment. The Corporate Social Responsibility of an organization should be towards the environment, society and cultural of its operations. Since neither private nor public organizations are run as charity institutions, business logic and bottom line results is in charge of the board rooms and therefore, the right arguments need to be brought forth in order to justify the undertaking. If arguments are not sound CSR may be rejected at the board level and that will hinder environmental sustainability (Blackburn, 2004).

2.6.1 Perceived Costs

There is a perception that products that meet sustainable requirements are often times expensive (Blair and Wrigh, 2012). According to the UN Procurement guide, the entire procurement procedure and results are seen to be costly and causes a lot of delay. This divergent view conflicts with the aim of acquiring goods at the lowest possible price (Lyons and Farrington, 2006). Procurement considers cost as an important part of its

decisions. Total cost of ownership is not observed by many public organisation. Because of that, there is the need to provide the necessary information and tools that will change the mindset of the people towards environmentally desirable products to overcome status quo (Sterner, 2002).

2.6.2 Senior Management Support

If senior management does not support environmental sustainable procurement, it becomes a barrier to the process. The culture and organisational structures, as well as its processes if in support, will help to achieve sustainable solutions. Senior management support is also paramount in environmentally sustainable procurement process. (Blair and Wrigh, 2012). According to Defra(2006) sustainable procurement task force should have clear course from top executives to convey sustainable progression goals through acquisition process as priority.

2.6.3 Structural and Organisational Change

Procurement activity been seen to be lower than in other functional departments, this is particular in the public sector (Uyarra, 2010). This perceived low function has caused general lack of commitment by senior management and political leaders to own the procurement strategies, as suggested by Morgan (2008).

2.6.4 Knowledge and Capacity

Barriers to procuring sustainably are diverse and knowledge and capacity is one of them. People with the requisite know how innovative environmentally sustainable procurement solutions can. But unfortunately, procurement decisions reside with individual who may not have capacity to procurer and the skills required for obtaining inventive solution. Rothwell and Zegveld(1981) noted that, if even relatively little capability is needed to procure off the-rack goods at the most minimal possible cost, there should be more capacity required to help suppliers to improve. Because

procurement activities are now more of strategic nature, commentators are now critical to examine to the expertise required of procurement professionals (Tassabehji and Moorhouse, 2008). Cousins et al. (2006) argue that purchasers who have capacity and knowledge improve the operational efficiency and financial performance of the organization. Case is quality change, design and lessening of lead times etc. They are able to distinguish between strategies, developed effective purchasing in accordance with strategic planning, procuring skills, procuring status and internal integration. As said by Defra, 2006, task force for the sustainable procurement concludes that a great deal of public sector needs proficient acquisition expertise. There is absence of thorough comprehension about sustainability and how it identifies with acquisition; issues raise is somewhat due to the understanding that environmental functionaries instead of procurement specialists convey practical acquirement direction. Because there is not much data, preparation and accountability, the barriers to including sustainable procurement is very difficult. Buyers become confuse about sustainability because there is not much and accurate information available. Sustainability training if it is lacking demotivates procurers on the delivery of sustainable procurement (Sustainable Procurement Taskforce).

2.6.5 Availability of Suppliers of Sustainable Assets or Services

Another barrier to sustainable procurement is lack of suppliers who deals in sustainable products. Some goods which are environmentally friendly are not readily available on the supply market. This makes it very difficult to meet specifications set and that may not achieve value for money. However, these items often perform far better than their less-green counterparts through efficient life-cycle costs (Sternier, 2002).

2.6.6 Empirical Literature

Mensah and Ameyaw (2005) conducted a study into the difficulties of sustainable acquisition in the Ghanaian construction industry. The researcher found out that

exclusive few individuals at the departments responsible for procurement understands sustainable procurement idea which is an embodiment of environment, economic and social aspects. They identified that there is no policy on sustainable procurement issues in the Ghanaian construction industry. The study concluded that absence of comprehension of the sustainable procurement as a concept and the initial costs which might be higher were identified as the challenges faced by the Ghanaian sustainable procurement landscape. The study recommended that institutions of education, NGO's and government agencies should play a leading role in regular education and creating vigorous awareness among interest groups on SP issues. The government should invest strategies and techniques needed to achieve SP. According to Brammer and Walker (2007) study on sustainable procurement practice in the public sector in the UK, Financial limitation, perceive cost of the product, senior management not showing support and lack of sustainable products on the market were some limitations seen to be associated with sustainable procurement. Brammer and Walker (2007) agreed with Mensah and Ameyaw (2005) on the high initial costs procuring sustainable products as one of the barriers. Brammer and Walker (2007) concluded that there should be a clear policy on sustainable procurement to facilitate observation of the legislative support for sustainable procurement is among organization. Lack of policy is the most frequently cited catalyst to achieve sustainable procurement. They argue that, the national and international policy on environments will determinant of the degree to which organisations participate in sustainable acquisition. As recommended by Brammer and Walker (2007) the governments should make available legislation and regulatory support for SP, and make available adequate budgetary allocations for organisations to investments into SP that may be beneficial in the long-run perspective.

2.7 STEPS TO SUCCESSFUL APPLICATION OF SUSTAINABLE PROCUREMENT

Adopt a sustainable procurement policy: there should be an established policy in place that will set out clearly the role of procurement officials and buyers. There policy should adopt the standards and targets that will show what will and will not be purchased and the agreed technique to be used (e.g. whole life costing, risk assessment).

Challenge current culture within the company: a Publish the sustainable procurement policy will help senior management to show commitment to the course and ensure that senior figures are seen to pursuing this policy and demonstrate their total commitment to real action to the change.

Develop a dialogue with suppliers: there should be constant discussion with suppliers on the possibility of sustainability into current procurement contracts (e.g. furniture with a higher recycled content). All fresh procurements should include sustainability at the specification stage (*Improvement and Development Agency, 2003*).

2.8 INCORPORATING SUSTAINABILITY IN PROCUREMENT

2.8.1 Beginning

Procurement can be linked with environmental sustainability to the general process of the acquisition as follows:



Figure 2.1: Complete Stages of Procurement

Source: Sustainable Procurement Guide 2013

2.8.2 Putting it into Practice

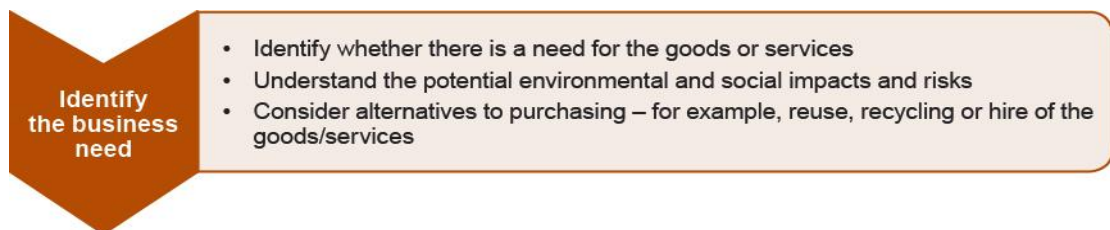


Figure 2.2 Business Need Analysis

Source: Sustainable Procurement Guide 2013

The requisitioner should prove beyond every doubt that the goods or service being requested for is indeed required and that the business need is genuine. It after this investigation that procurement process will commence.

Figure 2.2 demonstrate the connection that exist between the waste chain of command and procurement progressive system. Figure 2.2 is saying that when sustainability considered early in procurement process waste can be identified and avoided. There can also be reduction on consumption of certain class of goods and a more sustainable alternative. Specifications will be revised available to meet the sustainable alternative which will be consumed.

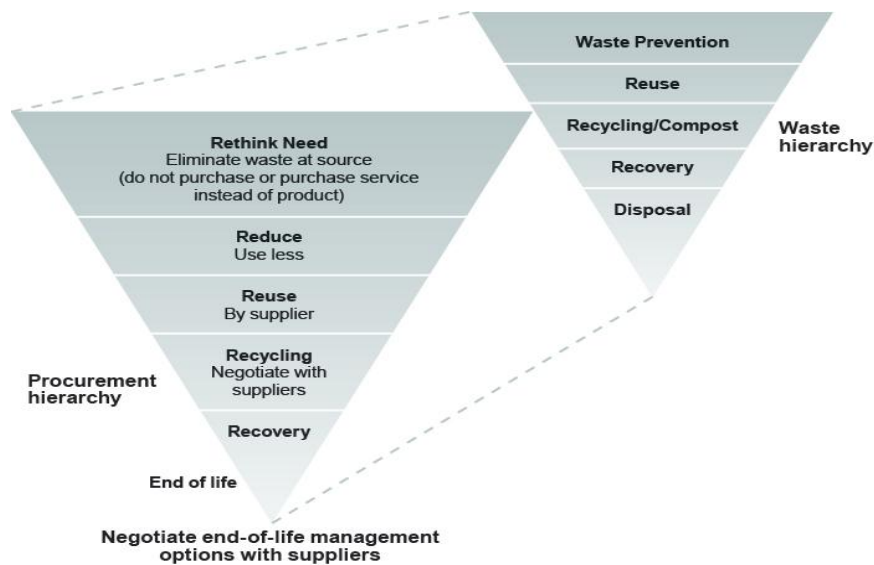


Figure 2.3: The Hierarchy of Waste Minimization in Procurement

Source: Sustainable Procurement Guide, (2013)

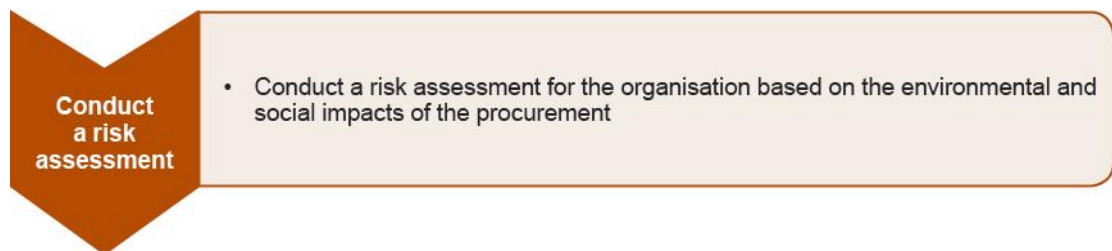


Figure 2.4: Risk assessment

Source: Sustainable Procurement Guide,(2013)

2.8.3 Carry out a Risk Evaluation

The ecology and societal effects of acquisition identified as an integral part of business need should be the focus where effort will be directed towards in risk evaluation for sustainability to match with the size, scope and recognized likely ecological impact of the purchase.

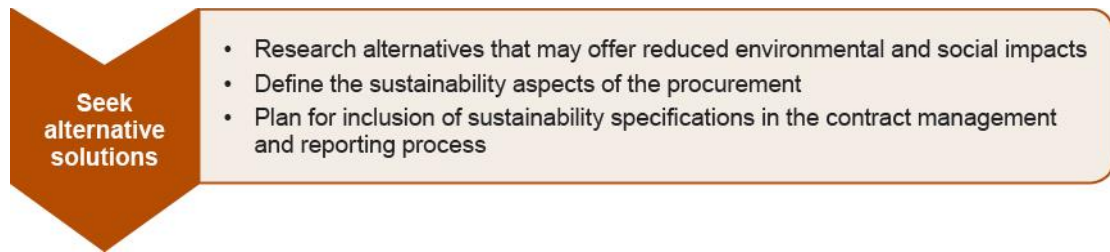


Figure 2.5 Substitute Solution

Source: Sustainable Procurement Guide,(2013)

2.8.4 Plan to Insert of Sustainable Condition in the Final Contract.

At this stage, there should be plans to identify which environmental sustainability conditions would be part final contract by which potential suppliers will be evaluated and also be part of the contract clauses and also to be used as key performance indicators. Legal advice should always be sort prior to writing and putting clauses associated to environmental specifications into a definite contract.

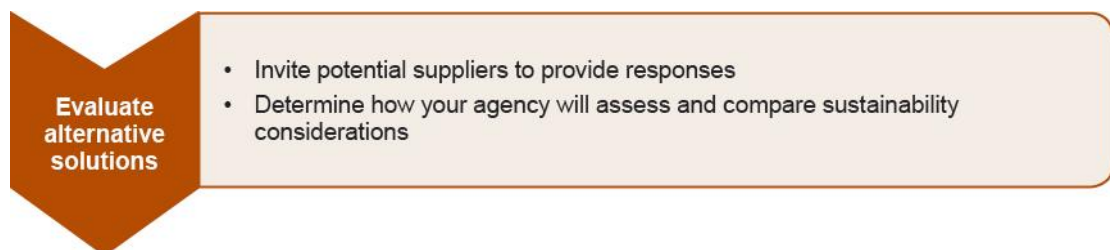


Figure 2.6 Evaluation of Alternative Solutions

Source: Sustainable Procurement Guide, (2013)

In incorporating sustainability procurement, there is always the need to factor the responses that have been received and assessed against requirements. Be clear about the key factors and the assessment procedures to help potential suppliers respond appropriately. Make environmental and social considerations a priority in evaluation. Make the environmental or social most important effects a priority to link to the acquisition of the goods or services.

2.8.5 Price Assessment

Tenders should be evaluated on whole-of-life costing basis. This ensures that, the price of the goods would include all up-front price, the running cost, cost of repairs and disposal assessed before a contract is awarded.

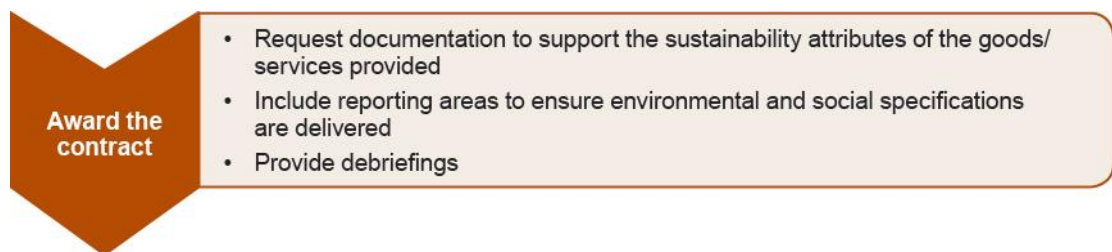


Figure 2.7: Contract Award

Source: Sustainable Procurement Guide, (2013).

All relevant supporting documents that specify sustainable aspects of the goods or services should be sought. All contract management packages should include end-of-life take-back of goods. Areas of delivery of environmental and social specifications, KPIs and reporting requirements determined at early stages in the procurement process. These requirements may include amount of green purchases made, the amount of recycled content used, the energy efficiency of the product, and/or progress the supplier has made to obtain certification.

2.8.6 Provide Debriefings to Tenderers

Unsuccessful tenderers should be debriefed on the areas where they fell short of the sustainability criteria. This can provide education in the supply market about sustainable procurement requirements and to help equip them for future tender responses. Education may also be giving to successful suppliers to provide feedback on, areas where they might improve.

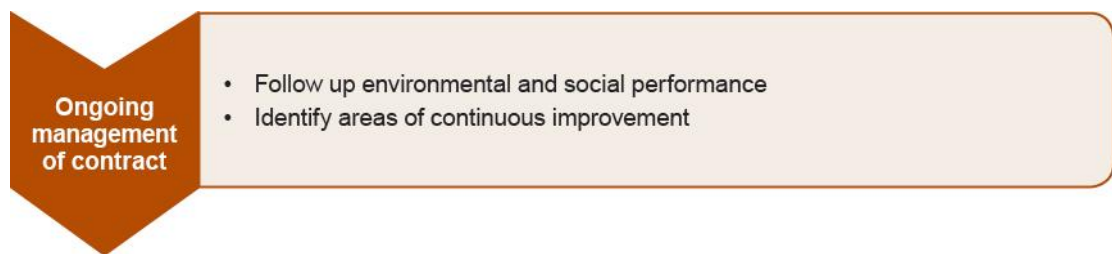


Figure 2.8: Contract Management

Source: Sustainable Procurement Guide, (2013).

The contract manager should do regular follow ups through regular meetings and updates on the environmental and social performance. Supplier should be assessed against KPIs indicated in the contract. During contract management, opportunity for all to raise any concerns or make suggestions about new areas that requires improvement in sustainability performance, as well as new ideas emanating from suppliers to include technologies and goods or services options to the process.

There should be continuous improvement and innovation for sustainability through the contract management process.

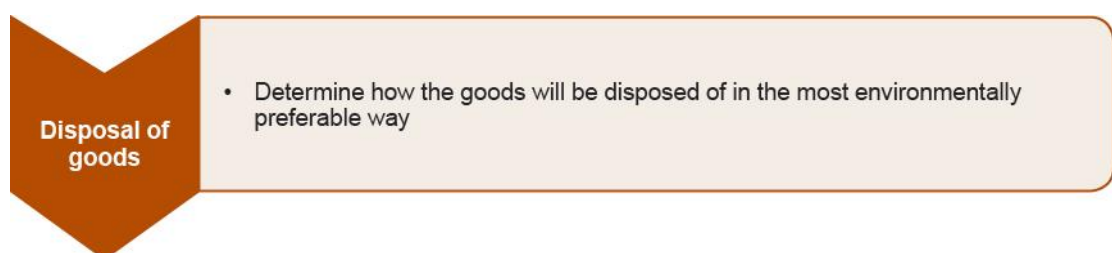


Figure 2.9: Disposal

Source: Sustainable Procurement Guide, (2013).

There is variety of ways that goods can be disposed off at the end of its useful life stage. Among all ways landfill is the least preferred option. Recycling is the most preferred option and it can be done through: kerb side collection, which is items that are recycleable – a case of electronic items should be taken to an electronic waste recycling plant, a items take-back system that will assure the items was recycled by the supplier.

2.9 SUSTAINABLE PROCUREMENT PRACTICES AT OTHER PLACES

2.9.1 Green Procurement

In 2002UN at the world summit on sustainable improvement in Johannesburg, the idea of sustainable procurement was introduced. Kisbi (2011) as cited in Jordan faces a lot challenges which is urban shift in developing countries in the Middle East which is one of the global worse water- drought nations. About 95% of its land is covered by desert and much of the rest is feared could become desert in future. This has made the e burden is placed on road infrastructure development very huge as well as services and the environment. Ali and AlNsairat (2009) agree Jordan's troubles which is rising energy demands and the increasing level of pollution. Ecological impacts reduction is seen as sustainability which preserves the environment for nest generations (Jones et al., 2010).The purchase of goods works and service which have minimal effect on the environment and human wellbeing contrasted with other contending items that fill the same need green procurement.

This assessment may well think about the source of crude materials, creation, fabricating, bundling, conveyance, potential for reuse and reusing, operation, support, or disposal of the item (Buy green, 2006).

They include:

- Energy-efficient and greenhouse friendly products;
- Products that uses less water;
- Products that has low health effects;
- Products using less packaging;
- Products that use fewer resources or in other ways create reduced environmental impacts throughout their life cycle;
- Products made from recycled materials, such as recycled road construction materials; and
- Recycled green organics and recycled plastic products.

2.9.2 Procurement Practice in Ghana

The Ghana public Procurement Act 2003, (ACT 663) was enacted to ensure modern buying was adopted to ensure sanity to local procurement system. (Osei-Tutu et al., 2010). Public procurement consumes about 50%-70% of Ghana's annual budget after emoluments; it takes about 14% of GDP and about 24% of imports. (World Bank, 2003).

Developing countries are now realizing the strategic nature of procurement functions(Knight et al. 2007). Developing countries reformed which are not limited to public procurement regulations alone are been developed by developing countries. These reforms included procurement methods, procurement structure and the workforce. Development associates including World Bank, International Trade Centre, WTO, and UNCTAD have led these reforms. Public procurement faces challenge including external variable environmental elements such as market places, legal matters, and political issues, institutional and socio-economic ecological factors. A number of departments act on their own without the due procurement process seven though there

are efforts to add value through the right procurement processes. (Schiele and McCue, 2006). This has necessitated the institutionalization of clear procurement processes and performance criteria. The standard set provides procurement section with balanced and objective data about performance of the procurement section (Knudsen, 1999).

To purge the national procurement sectors, empowering rivalry, transparency, proficiency and make sure of accountability, most countries have instituted public procurement reforms. The procurement reforms comes along with its set of challenges which includes poor distribution of the procurement law (Azeem, 2007), there is also lack of regular training for procurement officials (Forgor, 2007). According to Ghana Procurement Assessment Report of (2003) revealed that almost all Ministries, Departments and Agencies (MDAs) and District Assemblies (DAs) officials with the responsibility for purchases were not proficient, though there has been some training.

According to the report, there needs to give vigorous training and refresher course about the application of the Standard Tender and Contract Documents to officer charged with the duty of procurement.

The PPA started to organize training programs for procurement official 2007 nationwide with the aim to equip the procurement personnel. Building the capacity of service providers is key performance indicator of the public procurement reforms. Almost all tenderers lack of basic knowledge in the law, standard tender documents is not easily understandable, limited availability to bid data and lack of technical and managerial skills to go through the bidding procedure (ODPP, 2007). Procurement process normally suffer from political interference which a major setback to the execution procedure and public procurement reforms. A few legislators think they can interfere in the procurement procedures to favour their political agenda (World Bank, 2004b). The vague profession progression path and low pay rates paid to procurement

staffs conflict with procurement reform application (World Bank, 2003a).Records keeping are likewise is poor (World Bank, 2003a ODP, 2007) and compensation delays to contractors and suppliers is additionally known critical elements that makes procurement reforms application difficulties (Azeem, 2007).

2.9.3 Procurement Practices in the UK

The European Union (EU) procurement rules, Crown Commercial Service (2015), categorize the process of procurement into three stages, namely; specification stage, selection stage and the award stage. Selection of suppliers is either based on evidence of their overall suitability, economic and financial standing and technical capacity. Requirements are specified at the specification stage to include technical, performance and functional specifications. Award stage specifies criteria which the most economically advantageous tender is awarded the contract by the procurer or purchaser. According to Hughes et al. (2006), construction procurement in the United Kingdom (UK) helps project that procurement has been traditionally focused on low price as economically viable venture.

The economic, environmental and social factors should be balanced through procurement to achieve sustainability. This is the current trend in procurement. But over reliance on competitive bidding of the procurement process work against sustainable procurement in some respects. One common attribute of the procurement is that of price and contractor selection is a simultaneous process (Murdoch and Hughes, 2008). This means that a contractor who address price aspect of their tender wins the award to a large extend. The criteria for evaluation tenders still favour contractor's financial offer (Kwawu and Laryea, 2013). There is therefore little desire to achieve sustainability as criteria for evaluation. Contractors who intentionally bids lower to win an award most often are wiped out business.(Rooke et al., 2004).When such contractors are wipe out of

business, it have effect on economy because people will their jobs. Sure situation turns to affect well-being of affected families and that does not help of SP.

Furthermore, some resources that could have been used elsewhere to improve the organization resource base are oftentimes wasted when several companies follow one particular tendering process. This has also been made known in the UK Government Construction Strategy (2011). The amount of the wasted resource among the construction industry in the UK shows the amount of resource and money being wasted.

2.9.4 Procurement Practices in Australia

Green public procurement is a way of supporting positively environmental changes throughout the procurement process by preferences for green and considering green issues in selection criteria in the tender evaluation. Environmental issues adherence are taken seriously and so contractors who are concern with environmental issues might have preference in winning a contract (Uttam et al., 2012). This makes contractors go extra length to win contract by observing good environmental practices. Throughout the project, the public road authorities have a responsibility for reducing greenhouse gas emission (GHGe) (APCC, 2007). This is arrived at by method for a cognizant and competent procurement course and techniques to change sustainability strategies into practical initiatives and incentives. There are varying ways through which the governments adopt green procurement policies and practices throughout the world (Brammer and Walker, 2011).

Lehtiranta et al. (2012) mapped Australia's present GHGe reduction initiatives in the road construction sector procurement area in light of the country's five biggest road authorities. These organizations are in charge of 96 percent of the aggregate of AUD13 billion of annual national road construction and maintenance expenditure. Gaps were found in Australia's green procurement practices (Lehtiranta et al., 2012).Australian

Sustainable Built Environment National Research Centre (SBEnc) research team has furthered the work of (Lehtiranta et al., 2012). Finding an answer for the certainty frameworks set up to guarantee the interpretation of such objectives to proactive instruments appropriate to road construction projects, regardless of having created policies, systems and activities arranged incorporating GHGe reduction parts to various degrees. Be that as it may, it was found that road authorities who are core partners to the SBEnc are as of now creating feasible procurement guidelines and tendering requirements that will affect GHGe from development operations. As indicated by Tan et al. (2011), to guarantee viability of public guidelines and strategies it is important to decide management, communication of duties, procedures and assets expected to actualize sustainable administration frameworks. As per Broome (2002), a well-developed motivating system will help the way toward accomplishing customer GHGe purpose than a legally binding commitment alone would. To this end, procurement activities and motivators are being improved and tried to inspire temporary contractors to better perform with respect to their GHGe programs.

Numerous Australian road entities have responded unequivocally both to recommendations at the thought of non-cost criteria tending to sustainability in expression of interest (EOI) for significant contracts (Roads Australia, 2010a), and in addition to the incorporation of sustainability clauses in road contracts (Roads Australia, 2010b). Be that as it may, there remains an absence of devotion to top practices and organized methodologies and principles for GHGe assessment and decrease in Australia's road development industry (Lehtiranta et al., 2012). These outcomes in unpredictable use of green activities all through the state venture portfolio. The inquiry concerning what degree the recognized green procurement standard procedures are being tended to on all projects premise stays unanswered. A more profound comprehension of the contrasts between the complexities between standard methods and

undertaking particular practices will help road authorities with shutting the present gaps to ensure the effective translation of ecological change strategies into conceivable plausible delivery

2.9.5 Procurement Practices in North America-Nova Scotia

The Nova Scotia has an Act that confers the legislature to creating and executing a sustainable acquisition guideline by 2009, perceiving the vital part public procurement plays in making feasible sustainability thriving. Nova Scotia is ready to become a North American pioneer in sustainable procurement with the entry of this enactment. Jurisdictions over the globe have created and implemented environmentally preferable procurement policies. Canada, Manitoba has very much grown in ecological best acquisition process while Whistler, Calgary, and Vancouver have all likewise set out on reasonable acquisition activities. To Nova Scotia authorities, sustainable acquisition of goods suggests accepting full risk for the long haul impacts of its purchasing and usage choices. The activity to actualize a sustainable acquisition strategy game plan for the Province of Nova Scotia is being lead by Nova Scotia Economic Development (NSED) and Nova Scotia Environment and Labor (NSEL).

2.9.6 The Marrakech Process

The Marrakech Process is a worldwide multi-partner procedure to bolster the usage of Sustainable Consumption and Production. The process is aimed to develop a Global Framework for Action on Sustainable Consumption and Production for 10 years. The work on the ten Year Framework Programmes was revised by the Commission on Sustainable Development (CSD) in 2010. A choice on the usage of a ten Year Framework Programmes was expected in May 2011. The Process was in reacts to the call of the Johannesburg Plan of Implementation (World Summit on Sustainable Development, 2002) to bolster the territorial and national activities to quicken the movement towards Sustainable Consumption and Production designs, separate

monetary development from natural de-gradation. UNEP and UN DESA are the main offices of this worldwide procedure, with a dynamic interest of national governments, development organizations, business and industry, civil society and different partners. The initially meeting gave to creating the 10 YFP occurred in Marrakech, Morocco in June 2003, hence the name.

2.10 SUSTAINABLE PROCUREMENT PROCESS

As indicated by the United Nations Procurement Practitioner's Handbook (2006), the sustainable procurement procedure is not the same as the traditional procurement process. It consolidates sustainable interventions all through the different phases of the procurement process. Sustainable procurement goes through the accompanying stages;

2.10.1 Planning and Needs Assessment of a Procurement Activity

At preparation stage, what the procurement process is intended to accomplish is to drive decision making. Various investigations, for example, a sustainable risk evaluation, vender market examinations, stakeholder analyses, demand analyses, and so on are done relying upon the sustainability issue(s) that may be impacted by the acquisition activity.

2.10.1.1 Planning the Requirement

Procurement planning includes transforming expressed necessities or organizational goals into quantifiable exercises to be utilized to plan spending and deal with acquisition capacity inside the entity. This is not unique in relation to the traditional procurement process where acquisition arranging and anticipating is crucial to guarantee a successful, productive, deliberately reasonable and feasible outcome.

2.10.1.2 Requirement Definition

In developing specifications human/labour rights and ecological performance criteria ought to be included to meet particular requirements of predefined result, coveted by the procurement activity. This level is vital to a wide range of contracts. Thought is given to

available options, which are less environmentally and socially harming. Environmental and social integrity of suppliers are additionally are also looked at by way of their policies and practices.

Table 2.1: Sustainable Procurement in the Procurement Process

Criteria	Factors to consider
<i>Environmental</i>	
Fit for the reason and give value for money.	Ensure that the items you are thinking about does the job you need it to accomplish for every potential client, incorporating people with expert needs where appropriate
Biodegradability	A few items might be reasonable for treating the soil. Where that is the circumstance, guarantee that the materials can separate quickly and safely.
Design for dismantling	Exactly when things are included a substantial number of different sorts of materials, particularly plastics and metals, it helps if they are proposed to be easily taken isolated or disassembled so that the materials can be reused. This is particularly congruity to electronic and electrical things, for instance, coolers, TVs, PCs and printers.
Least utilization of virgin and non-renewable materials.	Wherever conceivable, the use of reused or re-used materials should be empowered, as these generally have a much lower influence on environment. A valid example is PC processor cases or road aggregate.
Resource, energy and water efficiency.	Running costs are much of the time overlooked while securing assets. Look for gear that is energy proficient, for instance, Energy Star evaluated things. Moreover watch that your thing does not have a 'thump on' effect of utilizing more resources, e.g. demonstrating paper towels over hand-driers may assemble the volume of paper you dispose of, which moreover has an expense.
fault controls to avert pointless waste	At the purpose of determining plant need, for instance, boilers, guarantee that you show metering and checking gear. Whilst it might expand costs it will caution you of inefficient utilize and engage you to diminish running costs, spills or waste issues.
Most extreme strength, reparability, reusability, recyclability and upgradeability	Fundamentally this is a quality issue. Search for long-life items, that will survive being manhandled, that can be repaired, reused and in the end reused. Importantly, search for things that empower you to upgrade them and improve execution after some time as opposed to purchasing new gear to do in like manner work.
Minimum packaging	Most things are acquired with pointless levels of packaging, either to incorporate corrective esteem, or enable the item to survive poor handling. Bundling must be disposed of once it has assumed out its part and as a rule the expense of disposal falls to the client, not the supplier.
Greatest utilization of postconsumer materials	There are various evaluations of reused materials. Where possible search for materials that have been utilize once and are being reused to play out a repeat or new limit, rather than materials that have been reused from an assembling procedure waste which has never been used by the client.

No (or lessened) polluting with least use of poisonous chemicals, ozone and different toxins.	These items lessen your environmental effect.
<i>Social Criteria</i>	
Health and safety standards	These should never be neglected and it is sensible to survey various items with a qualified wellbeing and security officer. Cases incorporate electrical hardware, vehicles, cleaning chemicals and furniture.
Local production	Sourcing your purchases from close-by suppliers suggests that the budgetary favorable circumstances can be felt in the society in which you live and work. This nearby sourcing can promise the persistent economic related sustainability of your neighborhood through employment creation.
Ethically sourced	You should hope to ensure that the product you buy are not manhandling children to work, or work and economies in the developing world and that you meet perceived reasonable exchange measures wherever conceivable.

Source: Purchasing for Sustainability, Forum of the Future as cited by the United Nations Procurement Practitioner's Handbook (2006).

2.10.2 Sourcing

Supplier sourcing and assessment system allows the obtainment capacity to address gender orientation and empowerment and poor people issues. This is refined by purchasing supplies from perceived minority groups and/or from specific geographic and demographic zones and ensuring nearby substance and representation in the offering system. Natural and social issues are considered in the midst of supplier pre-capability works out. In the event that evaluation demonstrates that the greater part of effects are in the crude materials arrange, the emphasis ought to be on the supplier's own particular ecological production network administration approaches. On the off chance that the impacts are in the generation stage, then the consideration should be on the supplier's ecological administration system for their business (United Nations Procurement Handbook, 2006).

2.10.3 Solicitation

Requesting documents ought to contain sustainability specifications and necessities laid out in the past stages. Potential suppliers ought to then have the ability to show they can meet those prerequisites (United Nations Procurement Handbook, 2006).

2.10.4 Evaluation and Contracting

According to United Nations Procurement Handbook, (2006), the assessment and contracting point makes use of the set standard assessment methods; in any case, it ought to place particular weight on criteria consolidating the particular execution criteria and determinations of specs that tackle sustainable procurement features. The assessment procedure ought to likewise incorporate a risk assessment, a cost assessment and modeling and a life cycle investigation (cradle to grave) especially if the procurement procedure includes environmental touchy issues. Sustainability assessment criteria are vital to activity exhaustive and reliable appraisals of sustainability execution of suppliers' offers and proposals. Some environmental assessment criteria to consider in tenders are:

2.10.4.1 Air pollution

To incorporate actions taken to decrease emissions, especially of major toxins, and taking a look at endeavors to surpass constitutional requirements.

2.10.4.2 Biodiversity and Habitats

To incorporate specific aspect of land use, measures taken to reduce emissions, especially of key toxins, and taking a look at endeavors to protect and enhance them.

2.10.4.3 Climate Change

Measures taken to guide and curtail greenhouse radiation ought to be highlighted in this rule.

2.10.4.4 Resource use and Intensity

To incorporate energy, factors of production as resource, and to concentrate on the productivity of their use connected to waste, air contamination and water contamination.

2.10.4.5 Transport

To consider measures that curtail general transport necessities, and to empower modes that shift from road transport (individuals and cargo).

2.10.4.6 Waste

To incorporate means to reduce, re-use and recycle wastes.

2.10.4.7 Water Quality

To incorporate means to lessen spillage, especially of key contaminant, and taking measures to endeavors to surpass statutory prerequisites, and compensating measures to meet water quality goals and targets.

2.10.5 Monitor and Control

This stage includes observing suppliers execution all through the contracting time frame, meeting delivery due dates and setting quality models and in addition establishment, after sales and guarantee plans. Where sustainability criteria have been set, these should be seen in the midst of this stage (United Nations Procurement Handbook, 2006).

2.10.5.1 Monitor and Assess the Desired ‘Outcome’ Achieved

The last phase of the sustainable acquisition procedure of goods, is determining the results against the outcome that was at first set. The outcomes and lessons gained ought to be incorporated again into stage one. The outcome may be difficult to gauge, or may be measured in between times over a particular period. Particular signs may likewise be developed to encourage significant measures.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter shows the research methods use by the researcher as a part of this study. The chapter starts by introducing the research design, source of data gathering, and data collection methods. The section ends with techniques used as a part of processing data and analysis for this study.

3.2 RESEARCH DESIGN

Research design, as indicated by Bhattacharjee (2012), is a wide plan for data gathering on a study topic. It is a framework for undertaking research that answers particular research question and includes no less than three processes: data collection, instrument development and sampling procedures. Research design depends on the research question, the availability of data and the skills and preference of the researcher (Gilbert, 2007). Kothari (2004) defines research design as a plan that identifies sources of data collection, strategy that describe the approach to gather and analyze data; and constraints for example time and budget to the research.

This study used a qualitative methodology in its data gathering and analysis. The qualitative design enabled the researcher to explore new phenomena in the area of public procurement. As indicated by Hancock (1998), Qualitative exploration is concerned with developing explanations of social phenomena. Therefore, this designed helped the researcher to understand environmental sustainable procurement in the perspective of experts in the field of procurement. The researcher used this approach or design to explore a detailed and explained understanding of the social world with reference to environmentally sustainable procurement of research participants by learning about their social and material circumstances, their experiences, perspectives,

and histories about their field of work. This study design also helped the researcher to use a small sample size of 5 participants in order to investigate the barriers to sustainable procurement at Kumasi Metropolitan Assembly. Green and Thorogood (2004) argued that qualitative designs ‘reach the parts that other (quantitative) methods can’t reach’. Fraser (2004) added that qualitative methods may be more appropriate in offering an explanation of causal relationships. This design was particularly valuable in evaluating the outcomes of social services where commissioners, professionals and people using services may all have differing interpretations and views on the study. In order to investigate the barriers to sustainable procurement at Kumasi Metropolitan Assembly, explanatory research will be used. The instrument was guided by these topics:

1. Governance/enabling environment;
2. Risk management;
3. Performance monitoring, evaluation and reporting;
4. Change management;
5. Financial;
6. Dispute management and resolution;
7. Contract close-out and lessons learned;
8. Information systems;
9. Human resources and capacity-building; and
10. Assurance systems and control.

3.3 SCOPE OF THE STUDY

The research was conducted at Kumasi Metropolitan Assembly in the Ashanti Region. The choice of Kumasi Metropolitan Assembly was because the assembly has a huge budget allocation for procurement purposes. Openness, financial issues and time

limitations, and in addition to the fact that all the districts assemblies are homogeneous in character; this metropolitan assembly is enough to make generalization. Also there are diverse projects that the assembly procurement that has the potential to adopt sustainable principles to help protect the environment and achieve value for money at the long run. It is hoped that this research findings would gives an indication of what sustainability means to the KMA and barriers to sustainability identified and addressed.

The study area comprised public procurement stakeholders within KMA. The KMA is one of the thirty (30) Districts in Ashanti Region of Ghana. Its capital is Kumasi. The Kumasi Metropolis is situated at the center of Ashanti Region of Ghana. Its exceptional central location makes it available from all sides of the country. It is the next greatest city in the country and the political capital of Ashanti region. It is a rapidly growing Metropolis with a population of about two million people and a yearly growth rate of around 5.4%. The Metropolis is around 254 kilometers; its physical formation is basically round with a central business zone. There are convergences of commercial activities in the city. The first and most indispensable zone is the Central Business District (CBD), which covers the Kejetia Lorry Park, the Central Market and the Adum Shopping Center. Alternate business centers join the Suame Magazine (Vehicle repair center) the Kaase/Asokwa Industrial Area and the Anloga Wood Market. Most organizations which are into Timber preparing, logging, Food processing and Soap making are amassed at the Kaase/Asokwa Industrial Area. There is moreover number of satellite markets in the city. These incorporate Asafo Market, Bantama Market, Oforikrom Market and Atonsu market. It is assessed that 48%, 46% and 60% of the Metropolis are urban, peri-urban and provincial individually, confirming the fast rate of urbanization.

3.4 SAMPLING PROCEDURE

The study used a non-probability sampling which is the purposive sampling technique as the sampling technique. According to Payles (2008), purposive sampling is virtually synonymous with qualitative research. Tashakkori and Teddlie (2003) argued that purposive sampling involves selecting respondents -based on a specific purpose rather than randomly. This technique was adopted because the topic limited the respondents to persons working in the procurement department or the entity tender committee. Also, the researcher needed some key information on environmentally sustainable procurement process and not all persons at KMA could give needed responses based on the objective of the study. According to Bernard (2002) purposive sampling is especially exemplified through the key informant technique.

The study recruited five (5) key informants for the study. They comprised both males and females who work at the KMA especially the procurement department or the procurement committee. These persons were used because they had the core knowledge on environmentally sustainable procurement practices or they were engaged in the procurement activities at the assembly.

3.5 SOURCES OF DATA

Both primary and secondary sources of data were sourced for the study. The primary data were acquired specifically from respondents through the interview meetings. The primary data gave dependable and precise firsthand data to the study. The secondary data were obtained from the library, web, diary articles, daily papers and research reports. The idea of secondary information is to gather the necessary data to direct the conduct of the study keeping in mind the end goal to affirm or dismiss primary data.

3.5.1 Primary Data Collection

The primary data was collected with a semi-structured interview guide. Qualitative researchers usually employ semi-structured interviews which involve a number of open ended questions based on the topic areas that the researcher wants to cover. The open ended nature of the questions posed defined the topic under investigation and provided opportunities for both researcher and interviewee to discuss the topic in more detail. The instrument so enabled the researcher to have the freedom to probe the respondents to elaborate on an original response or to follow a line of inquiry introduced by the researcher.

3.5.2 Secondary information

To be able to identify the barriers to sustainable procurement at KMA and activities involved to overcome these barriers, body of literature and theories on best practices to sustainable procurement were sourced. Books, online Journals, articles and other professional papers on sustainable procurement were searched through online and library.

3.6 METHOD OF DATA COLLECTION

The semi-structured interview guide was used in this study is to collect data on sustainable procurement practices at the Kumasi Metropolitan Assembly (KMA). The instrument helped the researcher to explore the processes and activities involved in sustainable procurement process. The instrument of data collection was administered by the researcher after the consents of the respondents were sought at the KMA. Because the instrument was semi-structured interview guide, there was no appropriation of time to each interview but an average of 30 minutes was used on each guide. The study used 7 days to gather the data needed from the respondents. The reason for this number of days was because some of the respondents were busy and so new dates had to be

scheduled. The study was done at the offices of the respondents, and the pen and notebook way of taking notes was used to write the responses of the respondents. Also, the data collection was guided with the principle of consent and confidentiality so the researcher made sure the information given by the respondent were kept purposely for the study.

3.7 DATA PROCESSING AND ANALYSIS

Analysis of data in a qualitative approach involves summarising the mass of data collected and presenting the results in a way that communicates the most important features. Therefore the researcher interested in discovering the big picture and for that matter collected data from the respondents were transcribed into themes and meanings drawn from them. This was done by grouping similar responses in an objective category into themes or contents. The overall meaning drawn from each category was used to interpret the results of the study.

3.8 ETHICAL CONSIDERATION

All research raises ethical issues so this study was not different and for that matter the researcher observed all necessary protocols to overcome ethical challenges. As indicated by Creswell (2013), researchers need to ensure that participants to their research are protected, build up a belief with them, advance the truthfulness of the study, safeguard against offenses and impropriety that might reflect their institution or establishment, and adapt to challenges. Therefore a letter of introduction was taken from the Department of Building Technology, Kwame Nkrumah University of Science and Technology to seek permission from the Municipal Chief Executive of the Kumasi Metropolitan Assembly before the study was conducted. Informed consent was sought from the participants and their confidentiality was assured. Any source documents used in the study were referenced at the end of the study. The Kwame Nkrumah University

for Science and Technology code of conduct for research was adhered to suit research objectives.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1. INTRODUCTION

This study is aimed at identifying barriers to environmentally sustainable procurement of goods at Kumasi Metropolitan Assembly. The study adopted a mixed design approach which included both qualitative and quantitative approaches to the study and to answer the research questions, 5 respondents were used as the key informants to the study. The data analysis was done by transcribing the responses on the interview guide into themes and meanings drawn from them.

4.2 ANALYSIS OF RESULTS

4.2.1 Nature of Barriers to Environmentally Sustainable Procurement of Goods at KMA

The researcher wanted to find out the nature of barriers to environmentally sustainable procurement of goods at KMA and for that matter questions were asked on this research question. According to the transcribed statements from the key informants, three key themes were built on the barriers to environmentally sustainable procurement of goods at KMA as follows:

- Time
- No clear policy
- Higher Prices
- In Adequate Education.

4.2.1.1 Time

Time was a barrier to environmentally sustainable procurement of goods at KMA. Environmentally sustainable procurement required that all necessary procedures are

adhered so as to overcome environmental challenges after the implementation of a particular project. On this theme, this is the narration from one of the key informants;

“to me, the most important barrier is time. There is always pressure on procurement to supply and so there not much of sustainability is that can be considered as that may delay the procurement process”

Time is a factor in the procurement process and so when there are delays in the procurement to supply; it became a barrier to the early implementation of a project.

4.2.1.2 No clear Policy

Having a clear policy on the procurement process improves the procurement process in an organisation and so some the respondents realised that environmentally sustainable procurement required easy policy requirements and so lack of a policy direction was a barrier to the successful implementation. On this account, these were the narrations of the some respondents;

“They complain that we have been receiving is that because of inclusion of sustainable issues in our procurement process, it makes the process cumbersome. Also prospective suppliers complain that our requirements are too high” ...“yes, a lot of them. I believe there should be clear cut policy for sustainable procurement so that it spells out the requirements that need to be met. Also because there is no clear policy, suppliers find it very difficult to understand what we expect of them”.

Environmentally sustainable procurement process requires a policy direction and so the inability of procurement process to give the right indicators to the suppliers hinders the supply of environmentally sustainable goods from the suppliers.

4.2.1.3 Higher Prices

According to Blair and Wrigh,(2012), sustainable procurement is hampered by perceived cost of sustainable items. The environment needs to be maintained and so the procurement process requires that environmentally sustainable good are low in prices however, the prices of these goods were higher. The higher prices in the environmentally sustainable procurement process were barriers as expressed by these respondents;

“top management are not too interested in the subject of sustainability and some also think that such high quality products are very expensive and that they consume all our budget”... “Some also see the prices of the goods that we procure as too expensive” ...“Oh yes, if you want the best you have to pay a premium which means such product have very high prices”

It could be deduced from the narrations that higher prices were barriers to the environmentally sustainable procurement process because sustainable goods were seen as expensive.

4.2.1.4 In Adequate Education

Cousins et al. (2006) argue that purchasers who have capacity and knowledge improve the operational efficiency and financial performance of the organization. The education of procurement officers on the environmentally sustainable procurement process was keen to the improvement of the procurement process. However, some officers had limited education on the environmentally sustainable procurement process and for that a barrier to this process. On this account, these were the narrations of some respondents;

“Also management does not really understand sustainability issues very well and it lack the needed support”... “I think there is enough education on sustainability which will bring out the pros and cons of practicing sustainable procurement to KMA”... “I think

not much has been said about sustainable procurement and so it will be difficult to say the staff really understands the concept”

The inability of procurement officers to understand environmentally sustainable procurement process was a barrier to its implementation.

4.2.2 The extent to which Procurement Practices Embraces Sustainability at KMA

Procurement practices that embrace environmentally sustainable procurement process ensure sustainability of projects when implemented. After the responses were transcribed, these themes were generalised;

- No training for staff
- No dedicated staff
- Standard Tender Document
- Coordination with departments

4.2.2.1 No Training for Staff

Rothwell and Zegveld(1981) noted that capability is required to help suppliers to improve and so there is the need for training. The training for the staff of KMA on issues of environmentally sustainable procurement process was to an extent embraces sustainability at the KMA. However, the staff was not trained and so this did not ensure KMA embraced sustainability issues. On this account, these were narrations from some respondents;

“No, not as I can remember. But we sometimes educate everyone on environmental safety. It is quiet general training”” Not much of training is giving to procurement staff in the area of sustainable procurement”“KMA has not done any such training for now. The little training we have is done by the environmental department which has nothing to do with procurement specifically”.

Training of officers on the environmentally sustainable procurement process to an extent embraces sustainability in the implementation of projects. Training of the staff of KMA on the procurement process ensured that they understood the relevant issues in the sustainability of projects. The staffs of KMA were not taught on how to embrace environmentally procurement process.

4.2.2.2 No dedicated Staff

Some top management did not ensure that the environmentally procurement process were embraced for the sustainability of projects. When staff are dedicated to procurement process that ensured sustainability, they embrace it to the fullest. However, it was realised that the top management of KMA were not dedicated to embracing environmentally procurement process. On this account, these were the responses from some the respondents;

“there is no dedicated officer to monitor the implementation of sustainable procurement of goods but the environmental department checks whatever items that are procure to see if they meet the environmental standards to see if they will not pollute the environment” ... “Staffs are less concern about sustainable procurement and that is not every day issue at KMA which everyone works to achieve”.

This means the staffs of KMA were not dedicated to embracing environmentally sustainable procurement process because the staffs of the assembly were not trained to embrace this procurement process.

4.2.2.3 Standard Tender Document

The standard document tender was issued by some of the staff to embrace environmentally sustainable procurement process. This Tender Documents (TD) have been put up by The Public Procurement Board for use by Procurement Entities as per

Public Procurement Act, 2003 Act (663) of the Republic of Ghana for the acquisition of products through Competitive Tender (CT). On this account, these were their responses;

“We do. The standard tender document factor sustainable issues into our procurements” “Our procurement here is based on the standard tender document prepared by the public procurement authority and it does not talk much about sustainability”.

It was revealed that some of the Staff of KMA embraced environmentally sustainable procurement process because they adhered to the usage of the standard tender document.

4.2.2.4 Coordination with Departments

Coordination involves the unification and integration of the efforts of group members so as to provide unity of action in the pursuit of the sustainability of projects. Management at the KMA sought to embrace environmentally procurement process by coordinating with departments especially the environmental department and supplies. These were the narrations of some the respondents;

“the procurement unit collaborates with the environmental department to ensure that items we procure do not become hazardous to the environment” “They only collaborate with the environmental department and procurement to draw up specifications which are environmentally friendly” “we do a lot of coordination with our suppliers to make sure that they deliver to the meet the environmental standard of KMA”.

Some staffs of the KMA who are in the procurement department embraced the environmentally sustainable procurement process by coordinating with other departments such as the environmental to ensure that planned projects met the sustainability criteria.

4.2.3 The Level of understanding of Environmentally Sustainable Procurement at KMA

Implementing environmentally sustainable procurement process and supply chain management has the potential to eliminate waste and generate cost savings, leading to a stronger bottom line. Sustainability is more than just reducing your impact on the environment. On the level of understanding of the KMA staff on environmentally sustainable procurement process, one theme was generated after transcribing the responses given by the respondents:

Low level of understanding;

4.2.3.1 Low Level of Understanding;

Mensah and Ameyaw (2005) found out that few individuals understand sustainable procurement idea which is an embodiment of environment, economic and social aspects. The understanding of environmentally sustainable procurement process was keen to the successful implementation of the procurement process but it was realized from the study that there was low level of understanding among respondents after the responses were transcribed and meaning made out of them. The staffs at KMA were of the opinion that they did not have better knowledge on this particular procurement process because some gave these responses;

”As I have said, the subject of sustainability is new to the staff here and their level of understanding is low in my opinion including even members of entity tender committee (ETC)”... “sustainability seems to be new to most people here including top management. Because of that they don’t really attached much importance to it because they don’t understand it very well”..... “Top level management doesn’t really appreciate the concept of sustainable procurement. All they know is to get the item at

affordable price without considering the consequences on the environment. But the procurement official somewhat appreciate it”.

The understanding of environmentally sustainable procurement process is an important factor that ensures the protection of the environment. However, it was revealed that the staffs of KMA who especially are in the procurement department had low level of understanding of this process which is due to the inability of top management to appreciate sustainable procurement or they do not understand the concept.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTIONS

This chapter gives the outcome of the study in view of the analysis and deliberations made in chapter four (4), the summary of the findings and the conclusion of the study taking into account the objective of the study. The conclusion of this study draws out the barriers to environmentally sustainable procurement of goods at Kumasi metropolitan assembly. Also, there have been recommendations to address these barriers.

5.2 SUMMARY OF FINDINGS

This study was to find out the barriers to environmentally sustainable procurement of goods at Kumasi metropolitan assembly .The research work was undertaken with the ultimate purpose of bringing to fulfillment the academic pursuit but also to establish the real barriers to environmentally sustainable procurement of goods at KMA so that policy makers can include sustainability issues in their procurement decisions.

After critical study of KMA procurement process, the following findings revealed;

The study revealed that, higher initial cost of green products, lack of suppliers with capacity to supply environmentally sustainable products and lack of top management interest as well as unplanned procurement, are main factors that are preventing achievement of environmentally sustainable procurement of goods.

The study also revealed that, KMA as a public institution is bound to comply with the public procurement Act (663), 2003 and so they are limited to use the standard tender document which does not give much room to amend the content of the document to include environmentally sustainable procurement practices. Even though KMA has procurement unit with the responsibility to manage procurement activities they are

however limited in application of sustainable procurement strategies in the procurement process.

The study found out that, there are a lot of 'rush' procurements. The procurement plan prepared for the year with dates for every process is not strictly followed. This is because there is almost always emergency need of goods for work which makes it very difficult for any sustainable issues to be included in the procurement process.

The current Public Procurement Act has succeeded in harmonizing entities. Most procurement entities followed the laid down procedure or the provision of the act which states that all procurement entities should prepare procurement plans. There are sustainability issues however, since the procurement act is not clear cut on green procurement elements.

According to the study, sustainability issues are generally considered at the specification stage. A greater percentage of people at KMA lack clear understanding of the concept of environmentally sustainable procurement and so the drive to enforce its implementation is lacking

5.3 CONCLUSION

The study was conducted through face to face interview with key people involve in procurement at KMA and the outcome of the interview was analyze. The study set out to identify the barriers to environmentally sustainable procurement of goods at KMA.

The procurement process all over the world has moved on from just clerical duty to key management function and many changes had occurred, including factoring sustainability into procurement. But procurement practices at KMA especially in the area of goods procurement is lacking behind in that regard. It is important we make our procurement processes environmentally friendly and climate neutral. Factors such as the

efficient use of energy and resources, recycling, re-use, reforestation, and eliminating wasteful practices that could lead to global warming and environmental pollution must be adopted. KMA needs to develop sustainable procurement guidelines which will establish the criteria that may be used by the procurement entity for the procurement of goods, works and services. Since section 2 of Public Procurement (Amendment) Act 2016, Act 914, now embraces sustainability requirements vigorous sensitization to make staffs, suppliers and the general public to be aware of the sustainability component of every procurement process should be undertaken. Monitoring and evaluation activities must be increased to cover more every procurement activity. Short/long term training must be organized to improve the capacity of the organisation, providers of service, and other key interest groups to operate efficiently and successfully in the procurement framework. Government must put in place effective processes that will help curb corruption and bureaucratic tendencies in the procurement process. This will help in the attainment of sustainable procurement at KMA.

5.4 RECOMMENDATIONS

The following recommendations were made to improve procurement activities in order to achieve environmentally sustainable procurement at Kumasi Metropolitan Assembly;

- i. According to Section 2 of Public Procurement (Amendment) Act 2016, Act 914, ‘The object of the Board is to harmonise the processes of public procurement in the public service to secure a judicious, economic and efficient use of state resources in public procurement and ensure that public procurement is carried out in a fair, transparent, non-discriminatory and environmentally and socially sustainable manner’. Since the amended act captured environmental and social sustainability as an objective of the board, it is recommended that, the current standard tender documents used by public entities for the procurement of goods should be amended

to include environmentally and socially sustainable requirements which will form part of the evaluation criteria for tenders.

- ii. Vigorous training about environmentally sustainable procurement of goods should be put in place so as to enhance the skills and knowledge for effective sustainable procurement practices and regular refresher courses should be organised especially for management, entity tender committee members and the procurement officers to sensitize them about the benefits of adopting environmentally friendly procurement. This will help boost interest by management in the subject area.
- iii. Whole life costing idea ought to be considered in the procurement choices. The cost of the good(s) from design to disposal ought to be considered. Environmentally sustainable products might be seen as costly however can procure later savings through its running expenses.
- iv. Finally, it is recommended that procurement staff should be giving procurement targets which includes environmentally sustainable procurement of goods against which performance will be measured and for which staff will be appraise for promotions.

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APPENDIX
INTERVIEW GUILD

SECTION A:

Respondent's Profile to establish the knowledge and experience on goods procurement

1. Which category of organization does KMA fall under?
2. Your role in your Organisation
3. What nature/type of goods KMA procure?
4. What is your role in the procurement exercise?
 - Bid Manager
 - Technical submission
 - Estimation and Costing

SECTION B

5. Does KMA practice Sustainable Procurement?

If 'Yes' how do you include sustainability into the procurement processes?

6. Who ensures that Sustainable Procurement is implemented within KMA and how do they ensure it is implemented?
7. How does KMA review and monitor implementation of Sustainable Procurement?
8. Has KMA encountered barriers with regards to implementing environmental Sustainable Procurement goods?

If so what are the nature of the barriers?

9. What is the general consensus within KMA towards Sustainable Procurement?
10. In your opinion, what is the level of understanding of environmentally sustainable procurement at KMA especially by the people involved in procurement?
11. To what extent does KMA offer environmentally sustainable procurement training to staff?

Which areas are the training focused:

- Specification writing ;
- Tender evaluation
- Avoiding purchasing
- Life cycle assessment
- Risk assessment

12. How have your supply chain reacted to Sustainable Procurement?

13. Do you agree that the current methods used by KMA on procurement would meet KMA's sustainability agenda on goods procurement?

14. What are the main aspects you consider in selecting a supplier?

15. Which is most important area of sustainability Ethical credential of supplier?

16. Can it be said that your current procurement method KMA would yield KMA's expectation on sustainability requirements?

Thank you very much for your time

THEMATIC ANALYSIS

(Transcribing the recorded interview)

1. What is the Nature of Barriers to Environmentally Sustainable Procurement of Goods at KMA?
 - a. Time
 - b. No clear policy
 - c. Higher Prices
 - d. In Adequate Education.
2. To what extent does Procurement Practices Embraces Sustainability at KMA?
 - a. No training for staff
 - b. No dedicated staff
 - c. Standard Tender Document
 - d. Coordination with departments
3. What is the Level of understanding of Environmentally Sustainable Procurement at KMA?
 - a. Low level of understanding.