

**TENDERING AND EVALUATION PROCESS
ENHANCEMENT FOR SUSTAINABLE PROCUREMENT
IN PUBLIC SECTOR OF BANGLADESH**

By
Md Jayanal Abdin
Student ID: 20382005

A thesis submitted to the Department of BRAC Institute of Governance and
Development in partial fulfillment of the requirements for the degree of
Masters in Procurement and Supply Management

BRAC Institute of Governance and Development
Brac University
April 2022

© 2022. Md Jayanal Abdin
All rights reserved.

Declaration

It is hereby declared that

1. The thesis submitted is my/our own original work while completing degree at Brac University.
2. The thesis does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The thesis does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I/We have acknowledged all main sources of help.
5. I would like to request the embargo of my thesis for 3M/6M/12M/24M from the submission date due to <Please mention the compelling reasons for restricting access to it here> [This point is optional. Please remove Point 5 if do not want any embargo. This embargo will apply for both hard copy & electronic.]

Student's Full Name & Signature:

Md. Jayanal Abdin

ID: 20382005

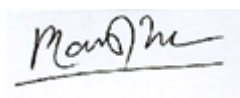
Approval

The thesis/project titled “Tendering and Evaluation Process Enhancement For Sustainable Procurement In Public Sector Of Bangladesh” submitted by

1. [Md. Jayanal Abdin (ID: 20382005)]

of Summer, 2022 has been accepted as satisfactory in partial fulfillment of the requirement for the degree of Masters in Procurement and Supply Management on [Date-of-Defense].

Examining Committee:



Supervisor:
(Member)

Masud Akhter Khan, MCIPS, PMP.
Director (Joint Secretary): Rules and Policy,
Central Procurement Technical Unit (CPTU),



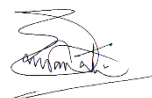
Program Coordinator:
(Member)

Mohammad Sirajul Islam
Coordinator (academic and training programmes)
BIGD, Brac University



External Expert Examiner:
(Member)

Hasan Maksud Chowdhury
Assistant Professor
Brac Business School, BracU



Departmental Head:
(Chair)

Dr. Imran Matin
Executive Director

Ethics Statement

The research for this thesis was carried out in accordance with the standard rules and procedures for research that have been developed at the BRAC Institute of Governance and Development. The study was carried out by a face-to-face survey of participants from relevant disciplines who expressed a strong interest in the research issue in general. As an academic researcher, I was exclusively responsible for the specifics of the discussion and explanations to participants on the study findings. Participants were given a "thesis information sheet," which describes the research's objectives, the stakeholders who were engaged, and the policy for data collection, use, and dissemination. Participants were only engaged because they gave their voluntary permission, and all required contact information has been supplied in the event that they choose to retract information or withdraw from participation.

Abstract/ Executive Summary

Bangladesh's public procurement framework is well-documented and arranged hierarchically, with clearly defined precedence, in accordance with international standards. However, sustainable public procurement has not yet made its way into public procurement legislation or practices in tendering and its evaluation process.

Therefore, this research has been conducted with a view to attain a better perception of how sustainable public procurement can be enhanced tender document and evaluation process in sustainable issues like environmental, social, and economic considerations in public procurement. This research also intends to figure out how government organizations prepared the tender document and evaluate the tender in public procurement. In order to assess the tender document and its evaluation criteria, the study conducted ten interviews with the procurement officers from various government organizations through semi-structured questionnaire survey. The findings revealed that 80% respondents felt that they have enough training & capability to conduct public procurement activity, however 30% officials agreed that they no clear concept about economic and environmental aspect of sustainability and 20% of total participants have no idea about social sustainability. The results also finds that 50% respondents rarely use CO2 reduction and 30% of the participants never use alternative energies: e.g.: solar, wind etc. as a sustainable procurement practice in their division. On the other hand, 30% of respondents always use fair trade, Fair pay and labor law protections indicators. Among the numerous challenges, lack of expertise and absence of effective organizational policy framework & practice are identified as the highest barriers to sustainability practices (80% of the respondents) followed by the Inadequate political will and lack of awareness (70% of the respondents). Finally, the findings and suggestions of the study can be guidelines for the practitioners and policymakers in terms of procurement sector.

Keywords: Public Procurement; Sustainable Procurement; Tendering; Evaluation Process.

Acknowledgement

I warmly acknowledge that several persons and organizations have generously offered their assistance and guidance in the completion of my dissertation study. I owe gratitude to everyone who helped me prepare and finish my research project, whether directly or indirectly. Special thanks go to the researchers, writers, and academics whose contributions may be considered the dissertation's cornerstone. Mr. Masud Akhter Khan, Senior Trainer, Brac Institute of Governance and Development (BIGD), BRAC University, who truly helped me in the conduct of this study and the completion of research work, deserves my deepest and sincerest appreciation.

The author also especially like to thank Engr. Taqsem A Khan, Managing Director and CEO of the Dhaka Water Supply and Sewerage Authority, for his genuine cooperation in granting permission to pursue this degree.

The author is grateful to the colleagues and course mates for their companionship and sincere co-operation extended to him during this study. The author wants to convey his heartfelt gratitude to government officials from various organizations for their enthusiastic participation in the interview/questionnaire survey.

I also like to extend gratitude to my son and my daughter, especially to my beloved wife Dr. Neegar Sultana, Associate Professor, Jagannath University for her continuous support, encouragement and inspiration during the span of my research.

Finally, I thank to all of my friends and well-wishers who directly or indirectly helped and inspired me in completing my research work.

Table of Contents

| | |
|---|-------------|
| Declaration | ii |
| Approval | iii |
| Ethics Statement | iv |
| Abstract/ Executive Summary | v |
| Acknowledgement | vi |
| List of Tables | x |
| List of Figures | xii |
| List of Acronyms | xiii |
| Glossary | xv |
| Chapter One: Introduction | 18 |
| 1.1 Background of the Study | 18 |
| 1.2 Statement of the Problem..... | 19 |
| 1.3 Research Objectives..... | 19 |
| 1.4 Research Questions..... | 19 |
| 1.5 Scopes and Limitations of the Study | 20 |
| 1.6 Organization of the Report..... | 20 |
| Chapter Two: Literature Review | 22 |
| 2.1 Tender and Relevant Concept..... | 22 |
| 2.1.1 Definition of Tender | 22 |
| 2.1.2 Request for Tender or Tender Document:..... | 22 |
| 2.1.3 Tender Process..... | 24 |
| 2.1.4 Tender Evaluation | 24 |
| 2.2 Concept of Public Procurement | 25 |

| | | |
|--|--|-----------|
| 2.2.1 | General Principles of Procurement..... | 25 |
| 2.2.2 | Processes of Public Procurement in Bangladesh | 26 |
| 2.3 | Legal Framework of Public Procurement in Bangladesh | 30 |
| 2.3.1 | The Developments towards the Public Procurement Act 2006 | 30 |
| 2.3.2 | The Public Procurement Regime in Bangladesh..... | 32 |
| 2.4 | Sustainable Procurement..... | 33 |
| 2.4.1 | Importance of Sustainable Procurement..... | 33 |
| 2.4.2 | Sustainability in procurement..... | 36 |
| 2.4.3 | Sustainability and Public Procurement..... | 37 |
| 2.4.4 | Sustainability addressed in Public Procurement Documents | 38 |
| 2.4.5 | Potential Drivers for Sustainable Procurement | 47 |
| 2.4.6 | Barriers to Sustainable Public Procurement..... | 49 |
| 2.4.7 | Representative KPIs For Sustainable Procurement..... | 53 |
| Chapter Three: Methodology | | 55 |
| 3.1 | Indicators Selection..... | 55 |
| 3.1.1 | Economic Indicators | 55 |
| 3.1.2 | Environmental Indicators or Green Procurement..... | 55 |
| 3.1.3 | Social Indicators | 56 |
| 3.2 | Data Sources | 56 |
| 3.3 | Data Collection Tools and Techniques | 56 |
| 3.4 | Data Analysis Techniques..... | 57 |
| Chapter Four: Results and Discussion..... | | 59 |
| 4.1 | Stakeholders Perception regarding Public Procurement..... | 59 |
| 4.2 | Importance of Sustainable Procurement in Public Procurement Division..... | 60 |
| 4.3 | Stakeholders Perception regarding the Dimensions of Sustainable Public Procurement | 61 |
| 4.3.1 | Respondents Understanding about Economic Sustainability..... | 61 |
| 4.3.2 | Respondents Understanding about Social Sustainability..... | 62 |

| | |
|--|-----------|
| 4.3.3 Respondents Understanding about Environmental Sustainability | 63 |
| 4.4 Preparedness regarding Sustainable Public Procurement | 64 |
| 4.5 Sustainability Practices in Public Procurement | 66 |
| 4.6 Frequency of Using Sustainable Procurement Indicators in Public Procurement Division..... | 68 |
| 4.7 Sustainable Procurement Practices in Public Procurement | 71 |
| 4.8 Feasible Way for Addressing Sustainability in Procurement Decisions | 72 |
| 4.9 Barriers of Integrating Sustainability in Procurement Process | 72 |
| Chapter Five: Conclusion and Recommendation | 75 |
| 5.1 Conclusion | 75 |
| 5.2 Recommendation | 78 |
| References..... | 80 |
| Appendix A..... | 82 |

List of Tables

| | | |
|------------|--|----|
| Table 2.1 | Three Pillars of Sustainable Procurement..... | 35 |
| Table 2.2 | Sustainability issues in the public procurement Rules and Standard tender documents | 38 |
| Table 2.3 | Past Performance Evaluation Matrix | 43 |
| Table 2.4 | General external drivers for sustainable procurement | 47 |
| Table 2.5 | General internal drivers for sustainable procurement..... | 49 |
| Table 2.6 | Barriers to Sustainable Procurement..... | 49 |
| Table 2.7 | Barriers to sustainable procurement in the public sector | 52 |
| Table 2.8 | KPIs for Sustainable Procurement | 53 |
| Table 4.1 | Sustainable Procurement..... | 60 |
| Table 4.2 | Importance of Sustainable Procurement Practice in Procurement Division | 60 |
| Table 4.3 | Respondents Understanding about Economic Sustainability | 61 |
| Table 4.4 | Respondents Understanding about Social Sustainability..... | 62 |
| Table 4.5 | Respondents Understanding about Environmental Sustainability..... | 63 |
| Table 4.6 | Preparedness regarding Sustainable Public Procurement | 65 |
| Table 4.7 | Sustainability Practices in Public Procurement | 67 |
| Table 4.8 | Frequency of Using Sustainable Procurement Indicators in Public Procurement Division | 69 |
| Table 4.9 | Sustainable Procurement Practices within Individual Division, Organization and Public Sector | 71 |
| Table 4.10 | Most Feasible Way of Addressing Sustainability in Procurement Decision (Score 1-10 on the basis of Suitability)..... | 73 |

Table 4.11 Barriers of Integrating Sustainability in Procurement Process (Score 1-10 on the basis of Suitability)73

List of Figures

| | | |
|------------|--|----|
| Figure 4.1 | Definition of Public Procurement | 59 |
| Figure 4.2 | Importance of Sustainable Procurement in Procurement Division..... | 61 |
| Figure 4.3 | Respondents Understanding about Economic Sustainability | 62 |
| Figure 4.4 | Respondents Understanding about Social Sustainability..... | 63 |
| Figure 4.5 | Respondents Understanding about Social Sustainability..... | 64 |
| Figure 4.6 | Sustainable Procurement Practices within Individual Division, Organization and Public Sector | 72 |

List of Acronyms

| | |
|-----------------|--|
| BOQ | Bill of Quantities |
| BPDB | Bangladesh Power Development Board |
| BWDB | Bangladesh Water Development Board |
| CGFR | Compilation of General Financial Rules |
| CIPS | Chartered Institute of Procurement & Supply |
| Co ₂ | Carbon dioxide |
| CPTU | Central Procurement Technical Unit |
| CWASA | Chattogram Water Supply & Sewerage Authority |
| DoFP | Delegation of Financial Power |
| DPHE | Department of Public Health Engineering |
| DPM | Direct Procurement Method |
| DWASA | Dhaka Water Supply & Sewerage Authority |
| e-GP | e-Government Procurement |
| EMS | Environmental Management System |
| GCC | General Conditions of Contract |
| GDP | Gross Domestic Product |
| GHG | Greenhouse Gas |
| IFE | Invitations for Enlistment |
| IFPQ | Invitations for Pre-Qualification |
| IFT | Invitations for Tender |
| IGS | Institute of Governance Studies |
| ITT | Instruction to Tenderer |
| JV | Joint Venture |
| LTM | limited Tendering Method |
| OECD | Organization for Economic Co-operation and Development |
| OSTETM | One Stage Two Envelope Tendering Method |
| OTM | Open Tendering Method |
| PPA | Public Procurement Act |
| PPPA | Public Procurement Processing and Approval Procedures |
| PPR | Public Procurement Rules |
| PQ | Pre-Qualification |
| PWD | Public Works Department |

| | |
|--------|--|
| REI | Request for Expressions of Interest |
| RFP | Request for Proposal |
| RFQ | Request for Quotation |
| RFT | Request for Tender |
| RWASA | Rajshahi Water Supply & Sewerage Authority |
| SDGs | Sustainable Development Goals |
| SME | Small and Medium Enterprise |
| SP | Sustainable Procurement |
| STD | Stranded Tender Document |
| TEC | Tender Evaluation Committee |
| TOC | Tender Opening Committee |
| TSTETM | Two Stage Tendering Method |
| WLC | Whole Life Costing |

Glossary

| | |
|----------------------------------|---|
| Corporate Social Responsibility: | Generally speaking, corporate social responsibility (CSR) is an organization's duty for the consequences of its choices, actions, and operations on society and the environment, as shown via transparent and ethical conduct. |
| Child Labor: | It is often understood that child labor is work that robs children of the enjoyment of childhood as well as of their potential and dignity, as well as work that is hazardous to their physical and mental development. In accordance with International Labor Organization (ILO) Convention 138, younger children should not be engaged in full-time employment until they have reached a defined minimum age of 15 years. |
| Circular Economy: | A "circular economy" is a way of thinking about how to make things that don't get wasted, keep things and materials in use, and keep nature healthy. When a product is made, it should be made with recycled and reused materials as much as possible. It should also be used and thrown away as little as possible when it is done being used and thrown away. |
| Carbon Emissions | Greenhouse gas (GHG) emissions that are part of the Kyoto Treaty are called "Kyoto emissions." It's carbon dioxide that is the most common GHG, and other gases can be measured in terms of how much of them they make (see CO ₂ e). In general, the less it costs to run, the better for the environment it will be. |
| Certificate of origin (COO): | Customs officials need this document to make sure that the goods they're importing came from the right place. It shows the country of origin of the goods and is signed by an official from the country where the goods came from. |
| Flexible Framework | Organizations may track and quantify their progress toward sustainable procurement using a widely used self- |

| | |
|---------------------------------------|---|
| | assessment instrument established by the business-led Sustainable Procurement Task Force. |
| Greenhouse Gas (GHG): | A gas in our atmosphere that takes and gives off radiation in the thermal infrared range. There are naturally occurring greenhouse gases in our atmosphere that keep the temperature of the surface of the earth in a range that is good for life. However, since the industrial revolution, anthropogenic sources of GHGs have grown hugely, which has led to a 40% rise in the concentration of carbon dioxide in the atmosphere. Climate change is a result of this. Surface temperatures are rising and this is the main reason for it. There are seven GHGs covered by the Kyoto Treaty, but the three that are most important to the public sector are carbon dioxide (CO ₂), methane (CH ₄), and nitrous oxide (N ₂ O), and these three need to be cut down on. |
| Key performance indicator (KPI): | Valuables that may be assessed or tracked in order to determine degrees of accomplishment |
| Life-cycle cost: | Total price, inbound delivery and handling expenses; storage; packaging and preparation; dispatch costs; insurance; and overheads are all included in the overall cost of inventory goods. |
| Sustainable Procurement: | Purchasing goods, services, and works that do not harm the environment is known as sustainable procurement. the use of environmentally friendly business methods that creates a balance between long-term sourcing and socially responsible sourcing |
| Sustainable Development Goals (SDG) : | The United Nations General Assembly established 17 objectives to help the world achieve a brighter and more sustainable future for all people. |
| Total cost of ownership: | A systematic way to determining the total expenses involved with purchasing and utilizing an asset or acquisition throughout the course of the asset's entire useful life. |

Whole-life costing:

Whole-Life Cost (WLC) is an investment assessment and management tool that determines the total cost of an asset throughout the course of the asset's whole operational lifecycle. It takes into consideration the original capital cost, as well as ongoing operating, maintenance, repair, upgrade, and ultimate disposal expenses, among other factors.

Chapter One: Introduction

1.1 Background of the Study

Procurement effectiveness is a major element for government organizations owing to the participation of a large quantity of tax payer money in purchasing goods, works and services from external suppliers/service providers through competitive bidding procedure. As a procurer, the government must assure the quantity, timeliness, and quality of such goods, works, and services while obtaining them at the lowest feasible cost. The above-mentioned requirements must be met in order to offer value for money. The amount of government procurement is growing, and goods are changing in terms of design and quality. As a result, it is not sufficient for procurers to examine simply the tendering process; they must also act in the supply chain in order to get the most effective goods and services from bidders in both international and domestic bidding. As a result, under the new procurement process, the notion of sustainability in public procurement is becoming a major problem.

Buying organizations express their commitment to procuring goods, works, and services that adhere to sustainability criteria in product design, development, supply operation and maintenance, reuse, and suppliers' ability to address these outcomes throughout the supply chain through sustainable procurement.

Sustainable procurement takes into account not just the initial purchase price and short-term expenditures, but also the total cost of ownership across the whole life cycle of the product. In this procurement strategy, the long-term consequences of each purchase are also taken into account.

The practice of calculating how much money will be spent on an asset throughout the duration of its useful life, also known as life cycle costing or entire life costing, is known as life cycle costing. Purchasing, using, maintaining, and disposing of an asset are all included in this cost range. In this context, effective tender document and evaluation process is crucial for ensuring sustainable procurement. However, the organization are still unable to implement the sustainable procurement criteria in tender evaluation process as well as in public procurement. Therefore, it is imperative to assess the tender evaluation process in public procurement in order to ensure sustainable procurement.

1.2 Statement of the Problem

Bangladesh's public procurement framework (PPA 2006, PPR 2008, e-GP Guidelines, and DoFP) is well-documented and arranged hierarchically, with clearly defined precedence, in accordance with international standards. It encompasses a wide range of goods, works, and services, including consulting services, among others. No exceptions are made, and it applies to all procurement entities in the nation that use public money. This includes all government and semi-government institutions as well as autonomous bodies, corporations, state-owned firms, and public authorities. Sustainable public procurement, on the other hand, has not yet made its way into public procurement legislation or practices.

This research has been conducted with a view to attain a better perception of how sustainable public procurement can be enhanced tender document and evaluation process in sustainable issues like environmental, social and economic considerations in public procurement. This research also intends to figure out how government organizations prepared the tender document and evaluate the tender in public procurement.

1.3 Research Objectives

The study aims to enhance the sustainable procurement criteria in tender documents and evaluation process. Hence, the specific objectives of this research are:

- a. **To assess the tender document and evaluation process in public procurement;**
- b. **To identify the existing gaps in tender document and evaluation process for implementing sustainable public procurement; and**
- c. **To find out the way to enhance the sustainable procurement system through effective tender document and evaluation process.**

1.4 Research Questions

Based on above research objectives, the study is based on the following research questions:

- a. **What are the steps in the public procurement tendering and evaluation process?**

- b. What are the gaps in the tender document and evaluation process that need to be addressed in order to undertake sustainable public procurement?**
- c. How can an effective tender document and assessment process contribute to enhance a sustainable procurement system?**

1.5 Scope and Limitations of the Study

The procurement of goods and services by the government will continue to be the primary focus of this research. Among the scope of the current research, an attempt will be made to give a complete insight into the condition of sustainable procurement practice within public sector organizations in Bangladesh. A critical need exists to shed more light on the use of public funds and the incorporation of green aspects into public procurement, given the scarcity of prior research on public procurement, its scope, and relevance, particularly in relation to sustainability issues in public procurement.

This study topic is concerned with procurement entities and procurement-related issues involving several departments of the government. The most significant restriction of this research is a lack of time. The responses came from various of organizations in various locations of the country, making it difficult to perform the survey in a timely manner. Due to time constraints, only ten people were questioned for this poll, which was conducted in this research. One thing that should be emphasized is that due to government restrictions and regulations, not all material will be readily available or exhibitable.

1.6 Organization of the Report

This research report has four chapters. Below, we'll have a look at them:

Chapter one describes the research background, statement of the research problem, research objectives and research questions. This chapter also explains the scope and limitations of the research. Finally, the introduction chapter conclude with the structure of the report.

Chapter two is the overview of the previous literatures. This chapter explains all the relevant concepts such as tender, tender documents, tender evaluation process, public procurement, public procurement process in Bangladesh, sustainable procurement including its opportunities and barriers.

Chapter three is all about methods and materials used in this study. The chapter also explains about sampling and sampling techniques.

Chapter four explains the results and discussion of the study.

Chapter five presents the conclusion and recommendations about the study.

Chapter Two: Literature Review

2.1 Tender and Relevant Concept

2.1.1 Definition of Tender

An offer or invitation to bid on a project or accept a formal offer such as a takeover bid is what a tender is in its most basic definition. This word often refers to the procedure through which the government and financial organizations submit invitation bids for large-scale construction projects to the public. These bids must be filed by a certain date and time period. The phrase tender or tendering is also used when stockholders submit their shares or securities in response to a takeover bid, which is known as a tender offer.

When a tender is submitted in writing, it refers to the offer made by the tenderer for the delivery of a procurement object that is provided to a purchasing organization in response to tender papers. Tender, depending on the context, refers to a bid filed by a tenderer in response to an Invitation for Tender for the supply of goods and related services to the Procuring Entity. Thus, an invitation to tender document is a written request that is delivered to possible suppliers in response to the request. This form requests information from the buyer that will be used to assess and pick a preferred provider later on.

Submitted offers are sent to shareholders, and are regarded as public solicitations to all shareholders, in which they are asked to tender their stocks for sale at a given price within a defined time period. This tender offer often surpasses the current market value of the shares in an attempt to persuade the shareholders to release a particular number of shares from their holdings.

2.1.2 Request for Tender or Tender Document:

A Request for Tender (RFT), on the other hand, is a formal request or invitation to suppliers, in which they are asked to submit competitive bids for the provision of goods, services, and raw materials to a particular organization. In the business sector, the Request for Tenders (also known as RFT) is most often referred to as a Request for Proposal (also known as RFP). These inquiries provide prospective bidders the opportunity to reply to the issuer's requirements.

Both tender and RFT may seem to be quite similar, and it may be difficult to tell the difference between the two at times. However, if you grasp each of these phrases independently, it may be a bit simpler to comprehend the whole thing. As a result, an RFT, also known as a request for tender, is a document that the buyer issues in order to ask suppliers to submit answers. As a whole, the RFT contains numerous documents such as the conditions of tender, which contains rules for the tendering process and response, form of tender, which contains schedules and details that the supplier must include in their response, scope of tender, which contains details about the goods and services that are required by the buyer, evaluation criteria, which describes how the buyer evaluates the responses provided by the supplier, and conditions of contract, which contain terms and conditions that apply to any contract between a buyer and a supplier. However, the term "tender document" refers to the materials that are handed to tenderers by a procuring organization as a foundation for the production of their bids. Consequently, a tender document serves as the foundation for a tendering process, which assists buyers in selecting qualified and interested providers based on certain contract requirements. In general, this refers to price paperwork as well as quality requirements.

Tenders, as opposed to requests for tenders, are documents that are presented by suppliers in response to a request for tender or request for proposal. As a result, a tender is essentially an offer to provide products and services to a customer based on their specifications. An offer to do a certain work or provide items at a pre-determined and fixed price rate is, in this case, referred to as a tender. Contracting firms are requested to submit sealed bids for a construction project or for the provision of products and services at a predetermined fee for an agreed-upon time period during the earliest stages of the tendering process.

As a result, the following are the essential characteristics of a tender:

- Tender is a term that refers to the procedure through which governments and financial organizations request bids for significant projects that must be completed within a certain time frame.
- An offer to purchase stock in a company is made public and sent to all shareholders, with the request that they tender their shares for sale at a set price within a specified time period.

- The term "request for tender" refers to a formal and organized call to suppliers to submit competitive bids for the provision of raw materials, finished goods, or services.
- Alternatively, the word tender may refer to the procedure through which stockholders submit their shares or securities in response to a takeover bid.
- A competitive tender process is used by large institutional investors to purchase government securities; while, a non-competitive tender process is used by smaller institutional investors to purchase government assets.

2.1.3 Tender Process

It is an invitation to submit a proposal for a project or accept a formal offer, such as one for the acquisition of a company by another company. Governments and financial organizations often use the term "tendering" to refer to the procedure through which they request bids for significant projects that must be completed within a certain timeframe. It also refers to the procedure by which shareholders respond to a takeover offer by submitting their shares or securities to the acquirer.

In most cases, a tender process is comprised of a number of processes that are interconnected. The planning and defining phase (which includes a needs assessment), followed by planning and budgeting, the definition of requirements and specifications, and the selection of processes, are all steps in the process. Next comes the process of identifying potential service providers, which involves pre-qualification, inviting or soliciting bids, evaluating or assessing the proposals received, and awarding contracts. Contract administration, order processing, and payment are all examples of post-award activities. The last step involves the administration of the contract, including the management and monitoring of the contract, as well as the administration of payments as and when they become due.

2.1.4 Tender Evaluation

This section outlines the procedure for reviewing bids submitted for a tender. The lowest response offer submitted by a responsible bidder is determined by the tender evaluation process. It is possible that the assessment may reveal flaws, irregularities, and omissions in the bids. The assessment may also identify flaws in the bid or contract papers, as well as inappropriate bidding procedures on the part of bidders, among other things.

In general, a tender assessment procedure based on weighted criteria should be used to decide which tender provides the greatest value for the money spent. To compare tenders and find the tenderer with the best performance record in terms of time, cost, and value for money, a method of weighting the selection criteria is used to compare tenders and identify the tenderer with the best performance record in terms of time, cost, and value for money.

2.2 Concept of Public Procurement

Public procurement refers to the purchase by governments and state-owned enterprises of goods, services and works. The public procurement process is a series of actions that begins with the evaluation of requirements and continues through awarding contracts, contract management, and ultimate payment to the government. Because of the volume of financial transactions involved, public procurement continues to be the government operation that is most subject to waste, fraud, and corruption.

Due to the fact that public procurement accounts for a significant portion of taxpayers' money (approximately 12 percent of GDP and 29 percent of government expenditure in OECD member countries), governments are expected to conduct it efficiently and with high standards of conduct in order to ensure high quality service delivery and protect the public interest.

2.2.1 General Principles of Procurement

The Public Procurement Act (PPA 2006) and the Public Procurement Rules (PPR 2008) give broad rules for the procurement process. In addition, it calls for the publication of procurement documents and related papers, the issuance of standard documents, and the formulation of an annual acquisitions plan for procurements under the development budget and a separate annual procurement plan for procurements under the revenue budget, respectively.

The procurement policy in Bangladesh is based on the idea of non-discrimination in the allocation of contracts. The purchasing body is under a responsibility not to prohibit any tenderer from participating in procurement procedures on the basis of race, color, sexual orientation, or any other basis, as defined by the RFQ. The purchasing organization has a duty to foster competition by making all essential papers, assessment criteria, and the procedure for evaluation of tenders/proposals, among other things, accessible to all parties involved in the procurement. In order to encourage competition, the procuring organization must disclose well in advance the requisite qualification or performance requirements that it may demand the

tender to hold and show in order to be considered. It is important to note that the applicant/tenderer/contractor must be given a minimum amount of time to reply.

There is also a general rule that a single purchase should not be divided into many packages unless it is really necessary and inevitable. It also stipulates that the 'validity period' of the procurement process/tender, which refers to the timeframe within which the entire process, from the advertisement to the awarding of the contract, should be reasonable in order for the procuring entity to obtain all necessary approvals and for the contract to be awarded. As part of this requirement, it is also necessary to clearly specify the regulations for depositing security money as well as the rate of service costs and if any security money thus placed would be subsequently deducted or rejected in the event of a successful bid. A procurement body has a legal obligation to safeguard the secrecy of the procurement process throughout the whole process, from the opening of bids through the awarding of a contract.

Furthermore, any effort by a person to influence the process will result in the rejection of his or her pre-qualification, tender, or submission. It is possible, however, that the winning tenderer will have access to required information concerning his application after the contract has been signed with the tenderer. Any other tenderer may inquire as to the reasons for the rejection of his or her application or tender. a. The procurement organization is required to keep accurate records and to administer the contract issued in an efficient manner, as well as to undertake a post-procurement evaluation within nine months of the beginning of each fiscal year.

2.2.2 Processes of Public Procurement in Bangladesh

The public procurement process in Bangladesh is divided into four stages:

- i.** The advertisement of the invitations for tenders/quotations,
- ii.** The evaluation of the bids/quotations,
- iii.** Opening of Tenders, and
- iv.** The awarding of the contract or awarding of the contract.

Generally, the first step for a procuring entity is to advertise Invitations for Pre-Qualification (IFPQ), Invitations for Enlistment (IFE), Invitations for Tender (IFT), and Request for Expressions of Interest (REI) pertaining to the procurement of goods or services as well as works or intellectual services.

The advertising, which must adhere to the defined forms and be published within the specified period, must be published in at least two widely circulated daily news publications, the selection of which should be made using 'sound judgment' by the organization. The fact that all invites will be publicized on the procurement entity's website, if one exists, is also vital to remember. This implies that having a website is still not a legal requirement.

Second, the purchasing organization may elect to invite only pre-qualified candidates, in which case a list of pre-qualified applicants is made up in accordance with the applicable rules and regulations. In the case of big and complicated procurements such as construction works, maintenance works, design and build infrastructure, and other similar projects, procuring organizations may choose to do pre-qualification first. A purchasing body, on the other hand, has a responsibility to carefully assess the advantages and disadvantages of pre-qualification before commencing the Pre-Qualification process for the purchase of goods or services. PQ applications are opened by the Tender Opening Committee (TOC), after which they are examined by the Tender Evaluation Committee (TEC), which may be assisted by a Technical Sub-committee, which is appointed by the Head of the purchasing organization, before being awarded.

The opening of tenders will be the next phase in the process. Each procurement organization has a committee responsible for the launching of tenders and proposals. Following the deadline for submitting proposals, the purchasing organization calls a meeting to begin the process of opening the tenders. Tenders must be opened quickly and openly at the time and location stated in the IFT, and they must be opened in a public forum.

Following that, the bids are evaluated by the evaluation committee of the procuring organization on the basis of pre-disclosed criteria and technical specificities, as well as in accordance with the norms and principles of public procurement. It is necessary for the members of the assessment committee, which must be appointed fairly and openly, to sign a statement of neutrality, and the committee is responsible for certifying that the review was conducted in compliance with the requirements of the Act. The TEC submits its report to the Approving Authority, along with recommendations, and the Approving Authority is responsible for making the final decision on who will be awarded the contract. In general, the successful offer is the lowest-evaluated tender that is also the 'responsible tender,' which is defined as the tender that does not materially modify or diverge from the technical specifications, characteristics, and commercial terms and conditions set forth in the Tender

Document. An award notice is sent to the winning tenderer within one week of the award being approved by the Approving Authority, and the contract with complete terms and conditions is included to the notification of award. In addition to this, the powers of the authorizing authorities are restricted in terms of the amount of the contract to be granted, that is, the value of the works, commodities, and services to be bought. This is significant because a document known as a delegation of financial powers clearly outlines which authority may sanction the acquisition of which value and which method of procurement, as well as the value and method of procurement that can be used. When a project or job involves more than taka 500 million, it is possible to acquire products worth taka 15,000 directly, rather than via the quote procedure.

2.2.3 Methods of Public Procurement

A variety of procurement methods are provided for by the Public Procurement Act (PPA 2006) and Public Procurement Rules (PPR 2008), which also prescribe rules for determining prequalification of potential/participating bidders, if applicable, leverages for competitive bidding among tenders, and stages of the procurement process. The Act splits the procurement process into two categories: domestic and international. When it comes to domestic procurement of products, associated services, and construction projects, the open tendering technique is the preferable option suggested (OTM). However, procurement techniques other than the OTM are permitted with the authorization of the head of the purchasing authority and on the basis of technical and economic considerations as well. Alternative approaches include the Limited Tendering Method (LTM), Direct Procurement Method (DPM), One Stage Two Envelope Tendering Method (OSTETM), Two Stage Tendering Method (TSTM), and the Request for Quotation Method (RFQ).

There are a number of prerequisites that must be completed before attempting to use any of these alternate approaches. Examples of LTM include situations in which there are a limited number of suppliers of products or services, or where the time and expense necessary to collect and assess offers would exceed the value of the contract. When only one tender is available due to technical constraints, the direct method may be used for additional procurement of goods or services from the original supplier/contract, or for the procurement of goods, services, and works that are of an extremely urgent and essential nature, the direct method may be used. It is possible to utilize the Request for Quotation approach to buy low-value off-the-shelf items or physical components that are readily accessible on the market, or to procure goods for urgent repairs or maintenance needs. It is conceivable to use two-stage

tendering procedures for complicated and big projects, or when comprehensive technical requirements are not achievable at one time, or when alternative options are accessible in quickly expanding sectors.

The Act mandates the use of similar processes (such as open tendering, limited tendering, the quotation method, and the two-stage tendering method) and requirements for international procurements, with some significant differences to ensure that standards and competition are maintained in international procurements. For example, in an international procurement conducted using the open tendering procedure, technical requirements should be developed in a manner that is consistent with international norms. Furthermore, in the event of international procurement, joint ventures between foreign suppliers/contractors and local partners may be promoted, but they should not be mandated as a term of the contract.

In addition, it is required that provisions for alternative dispute resolution be included in the contract, according to the law. It should be emphasized that the legislation provides a significant amount of flexibility in deciding whether to acquire locally or via an international procurement process. Moreover, while the legislation stipulates those certain criteria must be satisfied before any procurement technique can be considered compliant with the law, the decision to choose one method over another ultimately rests with the purchasing authority. This is something that needs to be clarified. A condition prior to using a 'restricted tendering technique', for example, has been established if and only if the subject subjects, due to their specialized character, are accessible from a limited number of suppliers/contractors, either locally or internationally, as the case may be. As a result, despite the availability of administrative control mechanisms, there is a potential for abuse by procuring entities of their discretion to choose one technique over another despite the presence of administrative control systems in place.

Furthermore, a provision for 'emergency flexible buying' is included in the statute. A national emergency or catastrophic event is defined in Section 68 of the PPA as a situation in which the government must procure goods or services on a short notice in the public interest and with the recommendation of the Cabinet Committee on Economic Affairs. The government may procure goods or services on a short notice by using the direct purchase method or any other method as provided in section 68 of the ACT. It should be stressed that the government retains the authority to exclude procurements from the application of the PPA 2006 when doing so is in the national security and defense interests. In spite of the fact that defense acquisitions

in Bangladesh are likewise subject to the PPA and PPR, as well as internal audit at the Defense Services, there is little information available about them in general, and concerning large and complicated defense procurements in particular. When considering improvements to the public procurement system, it is important to take this gap in legal supervision of defense procurements into consideration.

2.3 Legal Framework of Public Procurement in Bangladesh

Several goals of procurement systems are shared by everybody, including value for money, fair treatment, non-discrimination, honesty, as well as the advancement of social and industrial growth (Arrowsmith, 2004: 18). To attain these goals, competition and openness are commonly recognized as the two most important principles that must be adhered to in order to succeed. The procurement rules of Bangladesh are no exception when it comes to putting these concepts into practice. The Preamble to the Public Procurement Act 2006, for example, states that the goal of this law is to establish procedures to be followed in order to ensure transparency and accountability in the procurement of goods, works, and services using public funds, as well as to ensure equal treatment and a free and fair competition among all persons wishing to participate in public procurements. While the government's five departments are granted a great deal of latitude when it comes to purchasing and contracting, accountability remains at the heart of the country's public procurement legal environment, as the preamble to the Procurement Act demonstrates. A widely defined definition of procurement is included in the Act of 2006, and it includes the purchase or hiring of products, as well as acquiring items by a combination of renting or buying them, the execution of works, and the performance of services by any contractual methods. Government, semi-government, and statutory public bodies, as well as other procuring entities that use public funds, and even companies that procure by using public funds, are all included in the Act's expanded scope, as is any procurement conducted in connection with loan, grant, or credit agreements with development partners.

2.3.1 The Developments towards the Public Procurement Act 2006

The Public Procurement Act 2006 (PPA) and the Public Procurement Rules 2008 (PPR) are the two most important legislative tools for dealing with public procurement (PPR). In Bangladesh, the legal framework for public procurement was based on processes and practices that date back to the British colonial period until the passage of the Public Procurement Act in 2006. Consider the Compilation of General Financial Rules (CGFR), initially established during British rule and outlining the general principles that govern government contracts,

which has continued to serve as the principal legal basis for government contracts and procurements (World Bank, 2002). Building on the concepts of the CGFR, a number of government departments, autonomous public organizations, and companies adopted their own norms and codes of practice for public contracts and handouts to adhere to in their own jurisdictions. Interestingly, international development organizations and banks such as the World Bank had a significant effect on the formulation of these laws, which was partially due to the fact that Bangladeshi governmental procurements tended to be heavily reliant on foreign assistance.

Despite the fact that the major purpose of the legislative instruments in place before to 1996 was to promote openness and transparency in the public procurement system, the procurement procedure that was in place in reality was everything but satisfying. Poor advertisement, insufficient bidding period, poor specifications, nondisclosure of selection/competition criteria, award of contract by lottery without having developed the tools to attract quality bidders, conclusion of one-sided contract documents, negotiation with all bidders, re-bidding without adequate grounds, corruption, and outside influences were all widely regarded as contributing to the then tardy and dilatory procurement system at the time. The so-called poor performance of Bangladesh's public procurement process, which was discovered, aroused the attention of many, including, as previously said, foreign organizations. A World Bank-led study of the current public procurement policy, legal frameworks, and institutions came to the conclusion that the procurement process had the shortcomings previously noted in the procurement process. The government implemented a slew of changes to enhance the country's public procurement system in response to growing concerns over simplifying the country's government procurement system. The reform effort finally resulted in the creation and publication of the Public Procurement Regulations in 2003, which established a single procurement processing system across the country. It was supplemented by the Public Procurement Processing and Approval Procedures (PPPA), a revised Delegation of Financial Powers (DoFP), and several Standard Tender Documents (STD) and Standard Request for Proposal Documents for the procurement of goods, works, and services, all of which were adopted by the Government of Bangladesh. Later, in order to accelerate the reform efforts in the public procurement system, the House of Representatives passed the long-awaited Public Procurement Act 2006, which was much anticipated. The Public Procurement Rules 2008 were drafted and released in accordance with the Public Procurement Act 2006, which superseded the Public Procurement Regulations 2003, which had been in force up to that point.

2.3.2 The Public Procurement Regime in Bangladesh

The Constitution of the People's Republic of Bangladesh does not include any specific provisions relating to public procurement in any kind. A right to honest and transparent government is also not specifically stated in the Constitution. The Constitution, on the other hand, has explicitly enshrined such fundamental ideals as the rule of law, democracy, and fairness, which might be viewed as the basis of the public responsibility of integrity in the conduct of official operations. It is possible to argue that the institutional and legal frameworks for public procurement in Bangladesh, which are relatively new and have drawn their legitimacy from the Bangladesh Constitution despite the lack of clear constitutional requirements. The Prime Minister is vested with the executive powers of the Republic by the Constitution, and he receives help and advice from a Cabinet in the fulfillment of his governing responsibilities. The Constitution, on the other hand, stipulates that all powers of the state must be exercised on behalf of the people and only in accordance with the authority granted to the state by the Constitution itself. So, the executive branch of the government has the constitutional authority to enter into and award public contracts for the purpose of buying goods and services on behalf of the state. The above articles of the Constitution, as well as the nation's founding ideals, demonstrate that good governance (or rule of law) imperatives are constitutionally inherent, and that they unquestionably bind the public procurement system in the United Kingdom.

The Right to Information Act 2009, which was recently passed and mandates the establishment of an information delivery system in government departments while also protecting citizens' rights to know about their entitlements, can also be considered a significant step forward in the establishment of an open and transparent public procurement regime. It is important to note that the public procurement system in Bangladesh is decentralized. The Ministry of Finance and the Ministry of Planning, although every department has the authority to acquire services or commodities, have certain specific obligations in the area of public procurement, while every other department does not. For example, the Central Procurement Technical Unit has been in operation since 2002, with the goal of facilitating an effective and transparent public procurement system in Bangladesh. This unit provides, among other things, information and technical know-how essential in public procurements. However, the Ministry of Finance releases instructions from time to time about the financial rights that public organizations may exert in the procurement of goods and services, which may be seen here.

2.4 Sustainable Procurement

Sustainable procurement is the practice of incorporating social, economic, and environmental issues into a company's procurement processes and procedures, in addition to the traditional price and quality considerations. It is also known as social sourcing.

Standard sustainable procurement practices include observing environmental regulations and goals, removing hazardous products and trash from the supply chain, and thoroughly verifying vendors to ensure that they adhere to ethical working conditions and labor laws. Sustainable procurement and sourcing should truly benefit the business of the organization and help it achieve its long-term goals in the future.

2.4.1 Importance of Sustainable Procurement

Achieving effective sustainable procurement is important because it demonstrates that a company is committed to its mission statement and is building a positive reputation and trust among its target customers and partners. In general, the advantages of sustainable procurement may be broken down into four categories.

- **Risk and Reputation** - A supplier affiliation with a company that engages in unethical business practices such as child labor or pollution may have a negative financial impact on the company's bottom line and the value of its brand.
- **Cost Reduction** - Environmentally friendly procurement partners should take steps to avoid cost increases caused by the transfer of ownership as well as the use of energy expenses. Cost savings enable for reinvestment back into a company's operations.
- **Revenue Growth** - Consumers who believe in sustainability can help businesses improve their financial performance while also increasing brand equity and loyalty. Using sustainable procurement partners may also result in financial savings for an organization.
- **Future Proofing** – When an organization develops sustainable procurement practices, it is able to future-proof itself against shortage of supply as well as changes in social, economic, and environmental aspects.

In other words, there are several justifications for engaging in sustainable procurement. They are comprised of the five major business drivers listed below:

- a. Financial:** Reduce overall operating expenses by buying more efficient and environmentally friendly goods, works, or services that provide the following things:
- Increase the market's capacity to deliver sustainable solutions.
 - Increase demand for sustainable solutions, which in turn increases market competitiveness.
 - Strive for more innovative and more sustainable outcomes.
 - Cost savings on a long-term basis through the application of life-cycle costing; and
 - Minimize the environmental and social impacts of products at the end of their useful lives.
- b. Risk management:** Participate in the mapping of economic, legal, environmental, and social sustainability challenges and possibilities, as well as the development of management strategies.
- c. Commitments and goals:** In compliance with appropriate rules, reflect the buying agency's company culture, beliefs, and ethics. This might include creating long-term procurement policies that are in line with a country's overall strategy; commitments and priorities should be expressed clearly in the policy, and operational execution should be reflected in procurement practices.
- d. Responses to increasing stakeholder expectations:** It is important to consider problems of social responsibility and sustainability. Beyond the standards specified by the Bank in its other policies (e.g., environmental and social), they may be increased further by using sustainable procurement methods.
- e. Attractiveness:** The image of a Borrower or project in terms of social responsibility and sustainability may be impacted, enhancing competitiveness and providing businesses with a competitive advantage. Sustainable procurement may attract more financial investors, strengthen labor markets, attract the best bidders, and help to promote development objectives.

Furthermore, what is made and how it is created are heavily influenced by the preferences of buyers. The customer is basically "electing" or "voting" for the firm that has delivered the goods with each purchase of that product. By purchasing items from firms that are unethically responsible, such as corporations that abuse their employees or companies that destroy the environment via their operations, consumers are encouraging these organizations to continue with their unsustainable business methods. As a result, the government's largest

buying power should be utilized to encourage businesses that make environmentally friendly goods. To this end, government procurement must take into account environmental and social sustainability concerns since this is the only way to ensure that it provides true value for money over the long term without jeopardizing environmental and social obligations. In this way, it would be possible to fulfill development goals via the purchase of products, works, and services while minimizing negative consequences for society and the environment. By taking into account these concerns, sustainable procurement aspires to have a long-term influence on economic, social and environmental challenges by assisting in the following:

Table 2.1 Three Pillars of Sustainable Procurement

| Pillar | Examples |
|---------------|--|
| Economic | Economic regeneration |
| | Sustainable economic development |
| | Emerging markets |
| | Development of SMEs |
| | Total cost of ownership and life cycle costing |
| | Value for money |
| | Poverty reduction |
| Environmental | Environmental resource management |
| | Urban planning |
| | CO ₂ reduction |
| | Alternative energies: e.g.: solar, wind |
| | Water management |
| | Sustainable agriculture |
| | Marine resources management |
| | Protection of ecosystems |
| | Pollution and waste management |
| Social | Human rights |
| | Clean drinking water |
| | Food security |
| | Fair pay and labor law protections |
| | Anti-child labor and forced labor laws |
| | Fair trade |

| | |
|--|---|
| | Health and safety |
| | Gender equality including universal education |
| | Child mortality and maternal health |
| | Healthy lives and well-being for all |

Source: Procurement Guidance of Sustainable Procurement by the World Bank

2.4.2 Sustainability in procurement

Achieving value for money in terms of benefits to the organization, society, and economy while minimizing damage to the environment is what sustainable procurement is all about. It means meeting the needs for goods, services, works, and utilities in a way that provides value for money in terms of benefits to the organization, society, and the economy while minimizing environmental damage. In order to do this, one must be aware of the economic, social, and environmental implications of the purchases that are made. For this, information on the items' manufacturing and transportation, as well as an understanding of the manufacturer's social and environmental situations, are required of the manufacturer.

The practice of circular procurement might be achieved by incorporating the ideas of circular economy into the procurement process. Following the three Rs (reduce, reuse, recycle) is one way to go about solving the problem. Listed below are waste-hierarchy measures that may be followed in terms of both materials and energy in order to limit the quantity of garbage that ends up in landfills as well as the amount of carbon footprint created.

- i. **Reduce:** First, one must determine whether or not the purchase is really essential. If this is the case, it is necessary to investigate the option of obtaining a lesser quantity or a variety with a longer lifespan. This would avoid emissions associated with the production and transportation of products, waste in the form of packaging on the items, as well as the waste that the commodities would become at the end of their useful lives.
- ii. **Reuse:** Second, attempts are made to repurpose equipment rather than acquiring new ones as an alternative to purchasing new ones. This may be accomplished via the purchase of secondhand appliances, the repair or upgrading of defective or obsolete products, and the disassembly of equipment that is no longer in use so that components can be reused in other applications.

- iii. **Recycle:** Last but not least, one might make use of recycled materials wherever feasible, so reducing the quantity of garbage that ends up in landfills even more.

2.4.3 Sustainability and Public Procurement

Concerns about the environment have been high on the world agenda for many decades, with both the public and private sectors expressing worry about their respective roles in these problems. Recent years have seen the emphasis shift from specific themes to wider issues such as sustainability. Sustainable procurement activities, on the other hand, are prevalent in many rich nations, although knowledge of and implementation of sustainable procurement practices is still low in most developing countries.

The procurement of goods, works, and services by public sector organizations is concerned with how tax payers' money is spent on things, works, and services. For people and tax payers alike, public procurement is driven by the values of openness, accountability, and delivering the best possible value for money. A significant portion of public sector spending is accounted for by the fact that government is often the single largest customer within a nation, and the government may potentially utilize this buying power to influence the conduct of private sector firms.

The public has particular justification for demanding higher levels of sustainability from its supply chain because it is directly and explicitly responsible for ensuring that public funds spent on goods, works, and services are applied in such a way as to maximize benefits to society from the goods, works, and services. Sustainable procurement is significantly influenced by public procurement objectives across the globe, and it is often seen as a public sector endeavor. However, as legal and financial forces increase the importance of corporate social responsibility in the private sector, the public's perception of the issue is gradually shifting. In summary, it can be concluded that sustainable procurement adds a new dimension to the work of procurement specialists, who are used to making purchasing choices based largely on price, quality, and delivery time. When an institution engages in sustainable procurement, it not only examines its own interests, but it also analyzes the interests of the broader community, taking into account economic, environmental, and social aspects in its decision-making. Given that public procurement accounts for a significant portion of every country's economy, public procurement is an appealing policy tool for bringing about good

changes in the larger economy. It is possible, for example, to utilize public procurement to encourage the manufacture of new and environmentally friendly goods.

2.4.4 Sustainability addressed in Public Procurement Documents

This section discusses the sustainability concerns that are handled under the present public procurement system, as well as the ones that are not addressed. The Public Procurement Act, 2006, and the Public Procurement Rules, 2008, are the primary legal instruments that govern public procurement in Bangladesh at the current time. In addition to this, the CPTU has created a variety of Standard Tender Documents (STDs) for commodities and works, as well as Standard Request for Proposals (SRFPs) for services, depending on the size or volume of the procurement being conducted. The sustainability criteria that have been addressed in public procurement papers are shown in Table 2.2.

Table 2.2 Sustainability issues in the public procurement Rules and Standard tender documents

| Area of Performance | Relevant points in the procurement documents |
|----------------------|---|
| Economic performance | <ul style="list-style-type: none"> • The Procuring Entity shall take into account the following when determining the method of Procurement and consolidating of Goods packages: <ul style="list-style-type: none"> (a) Availability of the relevant Goods in the local market; (b) Quality, sources and brand of the Goods available in the local market; (c) Price levels of the designated Goods; (d) Risks related to supply in the local and international markets. (e) Capacity of local Suppliers to supply the required quantities; (f) Capacity of the national industry and quality of its products; (g) Market conditions and expected competition <p style="text-align: center;">[Rule 15(2), PPR, 2008]</p> |

| | |
|---------------------------|---|
| | <ul style="list-style-type: none"> • In the case of determining the method of Procurement for Works, the Procuring Entity shall consider the following: <ul style="list-style-type: none"> (a) The prevalent conditions of the contracting industry; (b) Expected competition; (c) Capacity of local Contractors; <p>[Rule 15(7), PPR, 2008]</p> • Technical Specifications prepared by Procuring Entities shall, where appropriate, be- <ul style="list-style-type: none"> (a) expressed in terms of performance or output requirements, rather than specifications linked directly to design or descriptive characteristics which may tend to limit competition; <p>[Rule 29(2), PPR, 2008]</p> • There shall be no reference, in technical specification of Goods, to a particular trade mark or trade name, patent, design or type, named country of origin, producer or service Supplier <p>[Rule 29(3), PPR, 2008]</p> |
| Environmental performance | <ul style="list-style-type: none"> • The Contractor shall throughout the execution and completion of the Works and the remedying of any defects therein: <ul style="list-style-type: none"> (a) take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of the Contractors methods of operation. |

| | |
|------------------------------------|---|
| | <p>[GCC 27.1, STD-PW3]</p> <ul style="list-style-type: none"> The Contractor, in particular, shall provide proper accommodation to his or her laborer’s and arrange proper water supply, conservancy and sanitation arrangements at the site for all necessary hygienic requirements and for the prevention of epidemics in accordance with relevant regulations, rules and orders of the government. <p>[GCC 29.2, STD-PW3]</p> |
| <p>Social/ Ethical performance</p> | <ul style="list-style-type: none"> The Procuring Entity shall take into account the following when determining the method of Procurement and consolidating of Goods packages: <ul style="list-style-type: none"> (a) capacity of local Suppliers to supply the required quantities; (b) capacity of the national industry and quality of its products; (c) market conditions and expected competition; <p>[Rule 15(2), PPR, 2008]</p> In the case of determining the method of Procurement for Works, the Procuring Entity shall consider the following: – <ul style="list-style-type: none"> (a) capacity of local Contractors; <p>[Rule 15(7), PPR, 2008]</p> Procuring Entities shall, where possible, prepare the specifications in close cooperation with the concerned user or beneficiary of the Goods or Works or Service <p>[Rule 29(5), PPR, 2008]</p> The Tender Document may allow for a domestic preference as defined in Schedule II. I to provide local manufacturers, Suppliers and Contractors with a price advantage over their |

international competitors for the purpose of promoting domestic products or industries.

[Rule 83(1)(e), PPR, 2008]

- The Contractor shall throughout the execution and completion of the Works and the remedying of any defects therein:

(a) take all reasonable steps to safeguard the health and safety of all workers working on the Site and other persons entitled to be on it, and to keep the Site in an orderly state;

[GCC 27.1, STD-PW3]

- The Contractor shall not perform any work on the Site on the weekly holidays, or during the night or outside the normal working hours, or on any religious or public holiday, without the prior written approval of the Project Manager.

[GCC 28.1, STD-PW3]

- The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's personnel relating to their employment, health, safety, welfare, immigration and shall allow them all their legal rights.

[GCC 29.1, STD-PW3]

- The Contractor, further in particular, shall pay reasonable wages to his or her labourers, and pay them in time. In the event of delay in payment the Procuring Entity may effect payments to the labourers and recover the cost from the Contractor.

| | |
|--|---|
| | <p>[GCC 29.3, STD-PW3]</p> <ul style="list-style-type: none"> The Contractor shall not employ any child to perform any work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development in compliance with the applicable labor laws and other relevant treaties ratified by the government. <p>[GCC 30.1, STD-PW3]</p> <ul style="list-style-type: none"> The Contractor shall provide, in the joint names of the Procuring Entity and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles specified in the PCC for the following events which are due to the Contractor's risks: <p>(a) Personal injury or death.</p> <p>[GCC 37.1, STD-PW3]</p> |
|--|---|

Evaluation Process

- TEC may consider a Tender as responsive in the Evaluation, only if it is submitted in compliance with the mandatory requirements set out in the Tender Document. The evaluation process should begin immediately after Tender opening following four steps:
 - Preliminary examination
 - Technical examination and responsiveness
 - Financial evaluation and price comparison
 - Post-qualification of the Tender.
- In case of tie for the evaluated price, the tenderer shall be selected based on the "Past Performance Evaluation and rating matrix for different aspects" to be used in assessing the Tenderer's quality as stated below:

Table 2.3 Past Performance Evaluation Matrix

| Aspect No. | Aspect | Point | Score | Note |
|------------|---|-------|---|--|
| 1 | Total Number of Works Contract successfully completed within only PE's organization during last 5 years | 140 | $\text{Score 1} = \frac{A}{B} \times 140$ <p>A= Number of Completed Contracts of the Tenderer B= Highest Number of Completed Contracts among the Tenderers</p> | Tenderers shall submit a list of Successfully Completed Contracts (in Form-PW3-5.1) during the last 5 years under the Procuring Entity's organization inviting tender, supported by Completion Certificates. A Contract not supported by Completion Certificate shall not be taken into evaluation. TEC shall determine the Total Number and Total Value of Contracts from the List as provided by the Tenderers for which the Contract Value of each Contract is up to +75% of the Official Cost Estimate of the proposed Work. |
| 2 | Total Value of Works Contract successfully completed within only PE's organization during last 5 years | 100 | $\text{Score 2} = \frac{C}{D} \times 100$ <p>C= Value of Completed Contracts of the Tenderer D= Highest Value of Completed Contracts among the Tenderers</p> | |
| 3 | Total Value of On-going works and Current Commitment under all PEs Organization as shown in Tender Capacity Formula | 60 | $\text{Score 3} = \frac{E}{F} \times 60$ <p>E= Value of On-Going Works and Current Commitments of the Tenderer F= Highest Value of On-Going Works and Current Commitments among the Tenderers</p> | Tenderers shall submit a list of On-going Contracts and Current Commitments (in Form-PW3-5.1) under any government organization supported by Contract Agreement / Notice to Proceed A Contract not supported by Contract Agreement / Notice to Proceed shall not be taken into consideration. |
| | Total Point | 300 | Total Score =Score 1+Score 2+Score 3 | |

- In case of the Tenderer is a JV, the business share of the JV Partners of this Tender shall be applied in determining the JV Total Contract Numbers and Values.
- If the total score of all the Tenderers become 0.00 (zero), the Tender shall be rejected for Re-Tendering.

In very rare case of highest equal Total Scores, Winner shall be selected according to Score 1, if Score 1 is same then Winner shall be selected according to Score 2. Otherwise Tender shall be rejected for Re-Tendering.

Preliminary Examination

- TEC shall examine the Tenders to confirm that all documentation as stated under ITT Clause 24 has been provided, to determine the completeness of each document submitted.
- TEC shall confirm that the following documents and information have been provided in the Tender. If any of these documents or information is missing, the Tender shall be considered rejected.
 - (a) Tender Submission Letter;
 - (b) Priced Bill of Quantities;
 - (c) Written confirmation authorizing the signatory of the Tender to commit the Tenderer; and Valid Tender Security

Technical Responsiveness and Technical Evaluation

- TEC's determination of a Tender's responsiveness is to be based on the contents of the Tender itself without recourse to extrinsic evidence.
- A responsive Tender is one that conforms in all respects to the requirements of the Tender Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:
 - (a) affects in any substantial way the scope, quality, or performance of the Works and physical services specified in the Contract; or
 - (b) limits in any substantial way, or is inconsistent with the Tender Documents, the Procuring Entity's rights or the Tenderer's obligations under the Contract; or
 - (c) if rectified would unfairly affect the competitive position of other Tenderers presenting responsive Tenders.

During the evaluation of Tenders, the following definitions shall apply:

“Deviation” is a departure from the requirements specified in the Tender Document;

“Reservation” is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Tender Document; and

- **“Omission”** is the failure to submit part or all of the information or documentation required in the Tender Document.
- If a Tender is not responsive to the mandatory requirements set out in the Tender Document, shall not subsequently be made responsive by the Tenderer by correction of the material deviation, reservation, or omission.
- There shall be no requirement as to the minimum number of responsive Tenders.
- There shall be no automatic exclusion of Tenders which are above or below the official estimate except ITT sub-Clause 49.3.
- TEC shall evaluate the aspects of the Tender submitted as stated under ITT Clauses 29, 30,31 and 32 and, to confirm that all requirements specified in Section 7: General Specifications and Section 8: Particular Specifications of the Tender Document have been met without any material deviation, reservation or omission.
- Provided that a Tender is responsive, TEC may request that the Tenderer submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Tender related to documentation requirements. Such omission shall not be related to any aspect of the rates of the Tender reflected in the Priced BOQ or any mandatory criteria. Failure of the Tenderer to comply with the request may result in the consideration of its Tender as non-responsive.
- TEC may regard a Tender as responsive even if it contains;
 - (a) minor or insignificant deviations which do not meaningfully alter or depart from the technical specifications, characteristics and commercial terms and, conditions or other mandatory requirements set out in the Tender Document; or
 - (b) errors or oversights, that if corrected, would not alter the key aspects of the Tender.

Financial Evaluation

- TEC will evaluate each Tender that has been determined, up to this stage of the evaluation, to be responsive to the requirements set out in the Tender Document.
- To evaluate a Tender, the TEC will consider the following:
 - (a) the Tender price, excluding Provisional Sums and the provision, if any, for contingencies in the priced BOQ, but including Daywork items;

- (b) adjustments for correction of arithmetical errors, as stated under ITT Sub Clause 55.1;
- (c) adjustments in order to take into consideration the unconditional discounts as stated under ITT Sub Clause 27.5 and 27.6, if any.
- Variations, deviations, alternatives and other factors which are in excess of the requirements of the Tender Document or otherwise result in unsolicited benefits for the Procuring Entity will not be taken into account in Tender evaluation.
- The estimated effect of any price adjustment provisions under GCC Clause 71, applied over the period of execution of the Contract, will not be taken into account in Tender evaluation.
- If so indicated in the ITT Sub Clause 1.1 the Procuring Entity may award one or multiple lots to one Tenderer following the methodology specified in ITT Sub Clause 56.6.
- To determine the lowest-evaluated lot/package the TEC will take into account:
 - (a) the lowest-evaluated Tender for each lot;
 - (b) the resources sufficient to meet the qualifying criteria for the individual lot or aggregate of the qualifying criteria for the multiple lots;
 - (c) the price reduction on account of discount per lot/package as offered by the Tenderer in its Tender; and
 - (d) the Contract-award sequence that provides the optimum economic combination on the basis of least overall cost of the total Contract package taking into account any limitations due to constraints in Works or execution capacity determined in accordance with the tender capacity as stated in ITT Sub Clause 15.1 (d) and post-qualification criteria as stated under ITT Clause 59.
- TEC may recommend to increase the amount of the Performance Security above the amounts as stated under ITT Sub Clause 65.1 but not exceeding twenty-five (25) percent of the Contract Price, if in the opinion of TEC, it is found that the Tender is significantly below the updated official estimated cost or unbalanced as a result of front loading.

Price Comparison

- TEC shall compare all responsive Tenders to determine the lowest-evaluated Tender, as stated under ITT Clause 56.
- In the extremely unlikely event that there is a tie for the lowest evaluated price, the Tenderer with the superior past performance as stated in ITT sub-clause 50.2 shall be selected.
- In the event that there is a tie for the lowest price and none of the Tenderers has the record of past performance with the Procuring Entity as stated under ITT Sub Clause 57.2, then the Tenderer shall be selected, subject to firm confirmation through the Post-qualification process, after consideration as to whether the Tenderer has demonstrated in its Tender superior past performance with the other Procuring Entities or a more efficient work programme and work methodology.
- The successful Tenderer as stated under ITT Sub Clause 57.1, 57.2 and 57.3 shall not be selected through lottery under any circumstances.

2.4.5 Potential Drivers for Sustainable Procurement

The elements that motivate activities in support of sustainable procurement are referred to as drivers. Organizational measures for sustainability are likely to be driven by variables like as resource scarcity, law, reputational risk/opportunity, shareholder pressure, and so on. Drivers are considered prior to the implementation of a sustainability program, since they are a contributing element to it. The external and internal drivers of sustainable procurement may be divided into two categories. A few of the most important broad external and internal factors for sustainable procurement are shown in **Table 2.4** and **Table 2.5**.

Table 2.4 General external drivers for sustainable procurement

| Drivers | Indicators of the drivers |
|-------------------|---|
| Political factors | Policy, objectives, and standards, as well as incentives and punishments, are all set by the government. As a buyer, supplier, and employer, the government follows best practices. |
| Economic factors | Market demand for unsustainable products and services is dwindling, while market demand for sustainable products and services is increasing. |

| | |
|------------------------------|---|
| Social/ Ethical factors | Changing social attitudes and values are resulting in increased media coverage, public, labor, and consumer pressure for environmentally friendly practices, the emergence of social justice and ethical issues (e.g. corporate governance, citizenship, corruption, trading ethics, fair trade, human and labor rights), and the establishment of industry/professional codes of ethical practice. |
| Technological factors | Innovation and uptake of sustainable technologies (new products, materials, and processes) by competitors and markets, as well as the exposure of unsustainable technologies (e.g., resource use and waste), as well as possibilities in new sustainable technology marketplaces (eg alternative energy). |
| Legal factors | Local and international regulation on issues such as sustainability (or the danger of it), waste management and pollution control; employment rights; health and safety; consumer rights; corporate governance; public sector procurement; and many other topics. |
| Environmental factors | Environmental degradation and costs (particularly energy costs), issues of concern to key stakeholders (for example, climate change, greenhouse gas emissions, deforestation, water resource management, conservation of biodiversity and ecosystems (biodiversity conservation), pollution and waste reduction), national targets under international agreements |
| External stakeholder factors | Interest and pressure in any or all of the elements listed above, which creates both dangers and possibilities for the organization in terms of gaining resources and collaborating with other organizations (eg customers, labor, investors, pressure group activism, potential for cause-related marketing). |

Source: Sustainable Procurement, the official CIPS course book in partnership with PROFEX publishing

The fact that some of these elements would be more immediately relevant and important in certain areas than others should come as no surprise. As a result, public sector organizations must determine which factors they can most effectively utilize as leverage to advocate for a sustainable procurement program in their respective areas.

Table 2.5 General internal drivers for sustainable procurement

| Drivers | Indicators of the drivers |
|------------------------|--|
| Corporate Goals | Corporate vision, mission and objectives including sustainability values and aspirations. |
| Organizational status | Existing CSR and/ or corporate citizenship objectives/ policies |
| Top level buy-in | Senior management visionaries, champions and supporters of sustainability. |
| Business factors | Business case arguments for sustainability, enhanced reputation, brand strength and sales revenue, cost/ waste reduction (eco-efficiencies), enhanced supply chain innovation and efficiency, reduced regulatory burden. |
| Accountability factors | Accountability mechanisms, which demonstrate seriousness, and make reward contingent on sustainability progress/ performance. |
| Risk awareness | Priority given to risk management, perception of business, reputational and supply risk from non-sustainability, reputational damage. |
| Stakeholder factors | Internal stakeholder demand for sustainability (eg need to attract and retain quality managers, employees, investors and supply chain partners). |

Source: Sustainable Procurement, the official CIPS course book in partnership with PROFEX publishing

2.4.6 Barriers to Sustainable Public Procurement

In addition to the motivations, there are also hurdles to achieving long-term public procurement sustainability. Those variables that may impede an organization's progress toward sustainable procurement, or the advancement of the sustainable procurement agenda in general, are referred to as barriers. Some of the difficulties are summarized in **Table 2.6**.

Table 2.6 Barriers to Sustainable Procurement

| Barriers | Forms of the barriers |
|-----------------|--|
| | <p>Sustainable option may be more expensive because</p> <ul style="list-style-type: none"> • They may involve the purchase of products and services which are innovative, based on new technologies or new to the market. |

| | |
|-------------------------|---|
| Cost | <ul style="list-style-type: none"> • They may involve more labor and management intensive process. • They may involve additional risks. • They may prevent the organization to have the best available price. • They may require the development of new processes and capabilities, and the plant, equipment and systems associated with them. • They may generally involve significant change within the organization and its supply chain – which also requires investment of resources, possible loss of productivity, investment in training and development, audits and reviews, and so on. • They may require the organization to engage in carbon offsetting or compensatory investment in sustainability projects. |
| Stakeholder attitudes | <ul style="list-style-type: none"> • The attitudes, expectations and influence of stakeholder groups can act as barrier. • Particular group of stakeholders may be indifferent to sustainability or even actively resistant to it. |
| Cultural barriers | <ul style="list-style-type: none"> • Different nations and cultural groups may have significantly different norms, values and assumptions, which influence how they do business and manage people, and how consumers develop product/ service preferences and buying patterns. National, ethnic and religious beliefs, values and behavioral norms can support sustainability – create a barrier to it. • Organizational and management culture may also act as a barrier because the sustainable procurement is likely to be shaped by: the mission and value expressed by senior management and the mottos, slogans and stories promoted within the organization; the types of people required and promoted within the organization; the behaviors celebrated and rewarded within the organization; the behaviors and values modelled by management, and so on. |
| Macro-economic barriers | <ul style="list-style-type: none"> • Economic growth can present a barrier to sustainability by encouraging over-consumption, excessive resource use, wastes and environmental impacts of economic development activities, investment risk-taking, over- |

| | |
|------------------|--|
| | <p>staffing and demand pull inflation. On the other hand, economic decline, downturn and recession create barriers to sustainable procurement by: placing the priority on cost reduction and profitability for business survival, eroding business confidence, leading to reduced investment in projects with long or uncertain payback periods, increasing unemployment, creating and budget deficit which put pressure on public sector procurement to secure short-term cost-reductions, and so on.</p> <ul style="list-style-type: none"> • Protectionism, the policy of protecting domestic industry from the effects of outside competition, by imposing barriers to international trades, tariffs, and non-tariff factors, may present a support for sustainability, but may also present a barrier to it, to the extent that international trade contributes to the prosperity of developing nations, peaceful international relations and so on. |
| Policy conflicts | <ul style="list-style-type: none"> • Any policy broadly supports economic growth which can ensure better standard of living for the population as a whole: one of the aims of sustainable development. However, economic growth has some disadvantages including faster usage of scarce and non-renewable resources and more pollution and waste products. • Another trend in international policy is the stimulation of free trade and market globalization. However, this can act as a barrier by: encouraging the exploitation of low cost labour in the developing countries, eroding local cultures, exploiting developing markets, encouraging unsustainable environmental practices, creating unemployment in the local labour market etc. • Open tendering procedures for public procurement is intended to ensure open competition, but may also restrict a public authority's ability to impose sustainability criteria that are not directly related to the purchase – such as supplier diversity information. |

Source: Sustainable Procurement, the official CIPS course book in partnership with PROFEX publishing

Additional to these barriers, the Sustainable Procurement National Action Plan in the United Kingdom cites a number of internal roadblocks to sustainable procurement in the public

sector, which are mostly administrative in nature. **Table 2.7** outlines the obstacles that must be overcome.

Table 2.7 Barriers to sustainable procurement in the public sector

| Area | Identified barriers |
|--|--|
| Leadership, clarity and ownership | <ul style="list-style-type: none"> • Lack of leadership and commitment • Confusion about ownership • Poor incentive systems • Mixed messages to suppliers |
| Clarity on policy priorities | <ul style="list-style-type: none"> • Lack of clarity and proliferation of priorities. • Lack of cross-government buy-in • ‘One size fit all’ approach • Guidance overload. |
| Need to meet minimum standards now, while setting challenging future goals | <ul style="list-style-type: none"> • Lack of prioritization • Lack of enforcement of mandatory standards • Failure to signal future trends to the market • Failure to manage supply chain risk. |
| Developing capabilities | <ul style="list-style-type: none"> • Lack of helpful information, training and accountability • Ignorance of sustainability • Suspicion about benefits • Confusion arising from mixed messages. |
| Ensuring budgetary mechanisms enable and support sustainable procurement | <ul style="list-style-type: none"> • Failure to apply rules on whole life costing (WLC) • Focus on short-term efficiency saving at the expense of long-term benefits • Concerns regarding affordability, cost • Inability to offset WLC savings against short-term budget limits • Uncertainty on how to account for non-monetary benefits. |
| Smarter engagement with the market to stimulate innovation | <ul style="list-style-type: none"> • Supply chain management falling below good private sector practice • Resistance to innovative supplier solutions • Risk aversion |

| | |
|--|---|
| | <ul style="list-style-type: none"> • Risk of delivering poor value to taxpayers. |
|--|---|

Source: Sustainable Procurement, the official CIPS course book in partnership with PROFEX publishing

2.4.7 Representative KPIs For Sustainable Procurement

To monitor the success of a unit or organization, Key Performance Indicators (KPIs) are agreed-upon, particular measurements of performance, against which progress and performance may be evaluated. In order to be relevant, clear, and unambiguous, Key Performance Indicators (KPIs) must be capable of direct and consistent measurement at the operational level. **Table 2.8** lists some of the most typical Key Performance Indicators (KPIs) for sustainable procurement.

Table 2.8 KPIs for Sustainable Procurement

| Area of Performance | Procurement KPIs |
|---------------------------|---|
| Economic performance | <ul style="list-style-type: none"> • Cost (e.g., procurement costs as a percentage of spend) or cost savings (annual cost savings as a percentage of spend) • Productivity (e.g., cost per procurement cycle, time taken per procurement cycle) • Supplier leverage (e.g., percentage of suppliers providing 80% or more of annual spend) • Customer satisfaction (e.g., percentage of deliveries received on time in full) |
| Environmental performance | <ul style="list-style-type: none"> • Percentage reduction in energy, water purchase • Percentage reduction in supplier (or logistics or procurement), GHG emissions. • Percentage reduction in supplier water and energy usage. • Percentage purchase of recycled materials • Percentage of vehicle fleet which is hybrid • Volume of waste to landfill (buyer and supplier) |

| | |
|-----------------------------|--|
| | <ul style="list-style-type: none"> • Percentage of spend with suppliers who report on environmental impacts, or operate Environmental Management System (EMS). |
| Social/ Ethical performance | <ul style="list-style-type: none"> • Diversity and equal opportunity among procurement staff • Training/ development opportunity (and percentage of take- up) • Compliance with workplace law and standards, ethical sourcing and trading standards/ objectives. • Reduction in health and safety incidents, grievance proceedings etc. • Supplier diversity (number of women-owned, minority- owned, small suppliers) • Percentage supply chain monitored and managed for compliance • Supply chain compliance |

Source: Sustainable Procurement, the official CIPS course book in partnership with PROFEX publishing

Chapter Three: Methodology

This chapter describes the methods and materials used for improving the sustainability criteria in tender documents and the evaluation system in public procurement. In order to attain the above-mentioned research goals, the first step will be to conduct a review of relevant literature in order to build the knowledge base necessary to continue with the assignment.

3.1 Indicators Selection

It has already been said that sustainable procurement comprises three elements, namely, the economic, environmental, and social components of the purchasing process. This section contains the operational definitions of the three variables of sustainable procurement (Economic, environmental and social indicator):

3.1.1 Economic Indicators

It is preferable that economic variables be variables that are concerned with the bottom line and the flow of money. This analysis may include income or expenditures, business environment considerations, employment, and elements relating to company diversification. Best value for money, pricing, quality, availability, and functioning of the products or services are some of the ways in which this element may be handled in procurement. In addition to job development, employment dispersion, involvement of local enterprises, and other factors, public procurement should take into consideration.

3.1.2 Environmental Indicators or Green Procurement

Climate and environmental factors should be taken into consideration when measuring natural resources and reflecting possible threats to their survival. There are several environmental elements to consider, including air and water quality, energy consumption, natural resource depletion, solid and hazardous waste, land use/land cover, and other factors. To the greatest extent possible, having long-term trends available for each of the environmental factors would aid organizations in determining the effects that a project or policy would have on the surrounding region. The purchase choices should be made after taking into account the potential environmental implications that the product and/or service may have over the course

of its entire lifespan. These may include the discharge of pollutants into the environment, the use of power, the consumption of fossil fuels, the formation of solid/hazardous waste, and the change in land use or land cover, among other things.

3.1.3 Social Indicators

Social variables relate to the social characteristics of a community or area, and they might include measures of education, equality and access to social services, health and well-being, quality of life, and social capital, among other things. Unemployment rate, female labor force participation rate, relative poverty, and other social variables are examples of variables that may be measured. It is possible to handle this component in public procurement by taking into account the implications of procurement choices on topics such as poverty eradication, equality in the allocation of resources, labor conditions, and human rights, among other things.

3.2 Data Sources

The goal of the research is to improve the sustainability criteria in tender documents and the evaluation system. Hence, the initial data source is the Central Procurement Technical Unit (CPTU) that provides all the relevant rules and regulations of public procurement in Bangladesh. Before conducting the sample survey, the author reviewed all the rules and regulations of tendering and evaluation process for public procurement including the guidelines for sustainable procurement. Additionally, an extensive literature has been reviewed for identifying the current research gap in sustainable procurement domain that also aids to define the methodological framework of the research. Finally, a comprehensive sample survey has been conducted to answer the research questions.

3.3 Data Collection Tools and Techniques

For this study, a thorough interview was conducted in order to get a better awareness of the usage of sustainable procurement in Bangladesh's public sector and to gain a better grasp of the issues surrounding it. In order to do this, a schedule of interviews has been developed that addresses the three pillars of sustainable procurement described before. Following that, ten government officials who are directly engaged in significant procurements have been interviewed in accordance with the interview schedule that had been established. A semi-structured questionnaire was used to conduct the interviews. A diverse range of public procurement organizations, including the Public Works Department (PWD), Dhaka Water

Supply & Sewerage Authority (DWASA), Chattogram Water Supply & Sewerage Authority (CWASA), Rajshahi Water Supply & Sewerage Authority (RWASA), Bangladesh Power Development Board (BPDB), Bangladesh Water Development Board (BWDB) and Department of Public Health Engineering (DPHE) were considered for the interviews. Additional interviews were conducted with procurement experts from a variety of levels of hierarchy in order to provide a more comprehensive picture of the sustainability problem in the public sector.

In order to acquire the necessary information for the purpose of arranging the interview schedule, both open ended and close ended questions were included in the questionnaire. During the interviews, it was requested that information be provided on departmental procurement expenditures and proportional expenditures on the acquisition of products, works, and services. The preparation and practice of the companies were the primary focus of the interviews, which addressed the three dimensions of sustainable procurement, namely the economic, environmental, and social aspects of the procurement process. Aside from that, information on the factors that may act as a driver or barrier to sustainable procurement, as perceived by the respondents, who are procurement professionals with operational experience working in the field of procurement in the public sector, was gathered during the interviews in order to have a field level preparedness for sustainable procurement. At the conclusion of the interviews, recommendations or comments were solicited from the participants in order to get a comprehensive understanding of how public sector organizations saw the problem of sustainability in general.

3.4 Data Analysis Techniques

The data gathered from the sample survey has been processed and evaluated through SPSS software. Each of the questions has been subjected to a thorough examination that will aid in the development of a comprehensive picture of the situation. In this study, the majority of the analysis was conducted via perception-based interviews with the respondents. However, certain quantitative analyses have been carried out on the basis of the information provided by the respondents. Various analytical and presentation techniques, such as tables, figures, and pie charts, have been used to convey the data and the comprehensive analysis, amongst other things.

The whole research work has been conducted under the supervision of an academic supervisor. The research outcome has been revealed through the production of a dissertation paper which was prepared under the guidance of the supervisor and as per the instructions given by the Institute of Governance Studies (IGS), BRAC University.

Chapter Four: Results and Discussion

4.1 Stakeholders Perception regarding Public Procurement

The study primarily emphasizes on the perception of the respondents regarding public procurement and sustainable procurement. All the respondents initially asked about the definition of the public procurement and sustainable procurement. According to the results, all the respondents (10 out of 10) define public procurement as the procurement of goods, services and works on behalf of a public authority, such as a government agency, as shown in **Figure 4.1**. The Figure 4.1, the public authority simultaneously procures the goods, works and services, not individually.

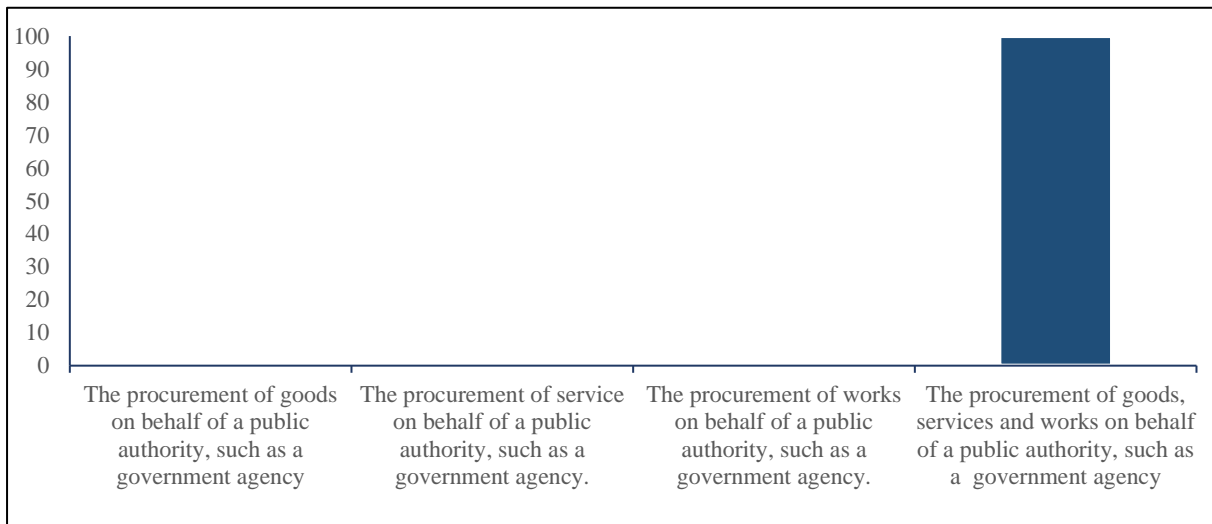


Figure 4.1 Definition of Public Procurement

Source: Field Study, 2022

On the other hand, **Table 4.1** reflects about the way of sustainable procurement according to the respondents. The results show that all the respondents (10 out of 10) mentioned about the definition of sustainable procurement as making sure that the products and services they buy are as sustainable as possible, with the lowest environmental impact and most positive social results. The respondents also mentioned that they do not only emphasize on the lowest possible cost on the efficient and effective procurement process, however they highly emphasize on the way to sustainable procurement criteria of goods and services with lowest prices.

Table 4.1 Sustainable Procurement

| Indicators | Frequency | Percentage |
|--|------------------|-------------------|
| Ensure that procurement is done at the lowest possible cost | 0 | 0 |
| Products & services we buy are as sustainable as possible, with the lowest | 10 | 100 |
| Managing the procurement process efficiently and effectively | 0 | 0 |

Source: Field Study, 2022

4.2 Importance of Sustainable Procurement in Public Procurement Division

Table 4.2 and **Figure 4.2** reflects that how sustainable procurement practice is essential in procurement division. The respondents gave their rating on 5-point Likert scale (1= Not Important at all, 2= Somewhat Important, 3= Important, 4= Very Important and 5= Extremely Important) regarding the Importance of Sustainable Procurement in Public Procurement Division. The results shows that 70 percent (7 out of 10) thinks that sustainable procurement is very important” whereas 30 percent (3 out of 10) respondents mentioned that sustainable procurement is “extremely important” in procurement division.

Table 4.2 Importance of Sustainable Procurement Practice in Procurement Division

| Indicators | Frequency | Percentage |
|----------------------|------------------|-------------------|
| Not Important at all | 0 | 0 |
| Somewhat Important | 0 | 0 |
| Important | 0 | 0 |
| Very Important | 7 | 70 |
| Extremely Important | 3 | 30 |

Source: Field Study, 2022

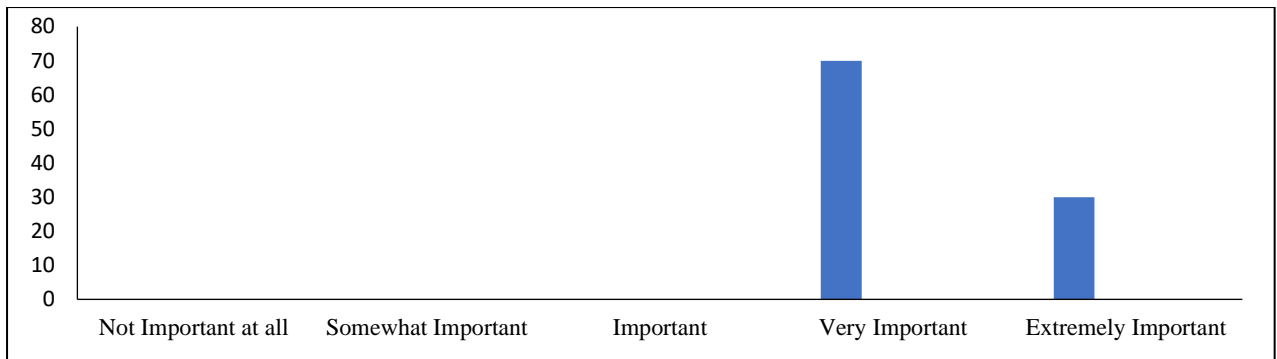


Figure 4.2 Importance of Sustainable Procurement in Procurement Division

Source: Field Study, 2022

4.3 Stakeholders Perception regarding the Dimensions of Sustainable Public Procurement

During the interview session, the perception and knowledge of the procurement officials were assessed under three main dimensions of sustainable procurement (economic, environmental and social). The participants were asked about the meaning of economic, social and environmental sustainability in order to perceive their understanding regarding sustainable procurement.

4.3.1 Respondents Understanding about Economic Sustainability

The concept of economic sustainability among the participants, as shown in **Table 4.3** and **Figure 4.3**, was not consistent. The table shows that 70 percent officials define economic sustainability as the ‘justification of value for money’. However, 30 percent respondents gave different opinion. Twenty percent respondents mentioned that economic sustainability refers to ‘consider whole life costing of an activity’. On the other hand, 10 percent respondent (1 out of 10) defines economic sustainability is the ‘justification of best value for money with enrolment impact’.

Table 4.3 Respondents Understanding about Economic Sustainability

| Indicators | Frequency | Percentage |
|---|-----------|------------|
| Organizational Profitability | 0 | 0 |
| Justification of best value for money | 7 | 70 |
| Considering whole life costing of an activity | 2 | 20 |
| Justification of best value for money with enrolment impact | 1 | 10 |

Source: Field Study, 2022

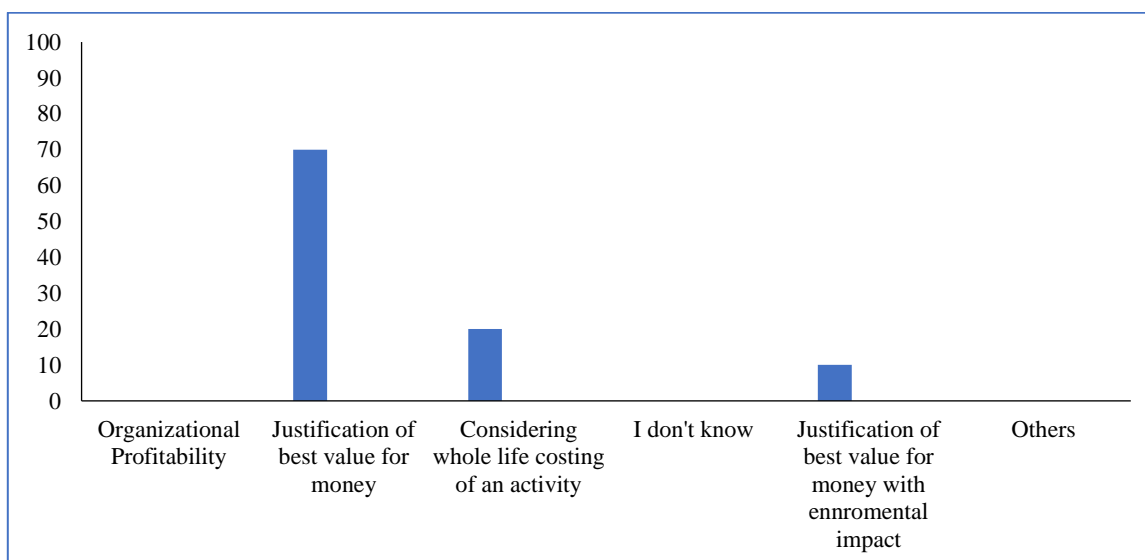


Figure 4.3 Respondents Understanding about Economic Sustainability

Source: Field Study, 2022

4.3.2 Respondents Understanding about Social Sustainability

The **Table 4.4** and **Figure 4.4** shows the respondents understanding regarding social sustainability. The results show that almost 80 percent respondents mentioned that social sustainability is the combination of three major issues (i.e., addressing ethical issues; addressing labor aspects like workplace safety, fair wages, equality & diversity etc.; and addressing community benefit & promoting SME). However, one official thought that social sustainability can be ensured by addressing labor aspects like workplace safety, fair wages, equality & diversity etc. However, one participant emphasizes on addressing community benefit & promoting SME for ensuring social sustainability.

Table 4.4 Respondents Understanding about Social Sustainability

| Indicators | Frequency | Percentage |
|---|-----------|------------|
| Addressing ethical issues | 0 | 0 |
| Addressing labor aspects like workplace safety, fair wages, equality & diversity etc. | 1 | 10 |
| Addressing community benefit & promoting SME. | 1 | 10 |
| All above | 8 | 80 |

Source: Field Survey, 2022

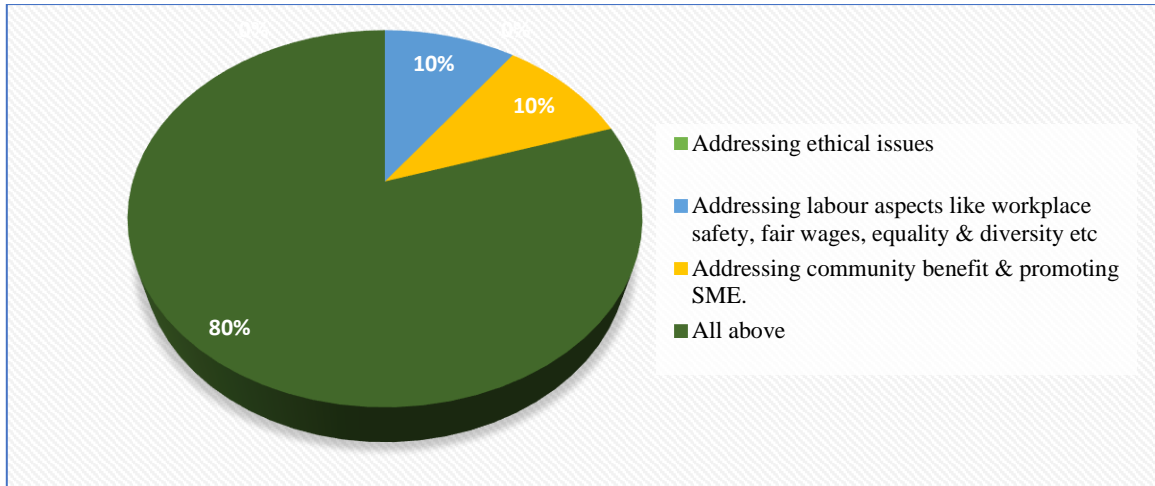


Figure 4.4 Respondents Understanding about Social Sustainability
Source: Field Study, 2022

4.3.3 Respondents Understanding about Environmental Sustainability

The **Table 4.5** and **Figure 4.5** shows the respondents understanding regarding environmental sustainability. The results show that almost 80 percent respondents mentioned that environmental sustainability is the combination of three major issues (i.e., take care of planet; extracting natural resources without degrading environment and carrying out development activity in such a way that environmental pollution is minimum). However, one official thought that environmental sustainability can be ensured by extracting natural resources without degrading environment. However, one participant emphasizes on carrying out development activity in such a way that environmental pollution is minimum.

Table 4.5 Respondents Understanding about Environmental Sustainability

| Indicators | Frequency | Percentage |
|---|-----------|------------|
| Take care of planet | 0 | 0 |
| Extracting natural resources without degrading environment | 1 | 10 |
| Carrying out development activity in such a way that environmental pollution is minimum | 1 | 10 |
| All of above | 8 | 80 |

Source: Field Study, 2022

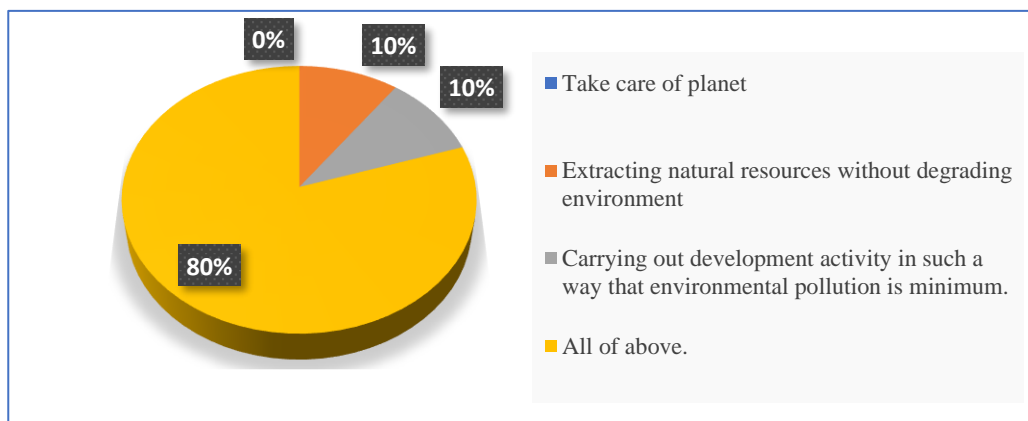


Figure 4.5 Respondents Understanding about Social Sustainability

Source: Field Study, 2022

4.4 Preparedness regarding Sustainable Public Procurement

Table 4.6 shows the preparedness level of the respondents regarding sustainable public procurement. According to the results, 80% respondents felt that they have enough training & capability to conduct public procurement activity, however 10% respondents thought that they are not compatible in these issues and 10% became neutral. The percentage is as same as for the sustainable public procurement activity.

In terms of different dimensions of sustainable procurement, only 40% respondents have clear concept about economic aspect of sustainability, 30% officials agreed that they no clear concept about economic aspect of sustainability and 30% participants responded as neutral. In terms of social aspects of sustainability, 40% respondents claimed that they have clear concept about social aspect of sustainability whereas 20% of total participants have no idea about social sustainability, however 40% respondents were indifference about this aspect. On the other hand, 40% respondents claimed that they have clear concept about environmental aspect of sustainability whereas 30% of total participants have no idea about environmental sustainability, however 30% respondents were indifference about this aspect.

Regarding the importance of sustainability consideration in public procurement process in developing economies like Bangladesh, all the respondents (10 out of 10) agreed that it is essential to address sustainability in public procurement process especially in Bangladesh. However, 60% respondents highly emphasize on these issues. Following these questions, 50% respondents agreed that PPA-06 & PPR-08 have addressed sustainability in procurement process properly, whereas 10% disagreed with this statement and 40% respond as neutral. In terms of different dimensions of sustainability, 40% officials agreed that PPA-06 & PPR-08 have addressed social sustainability in procurement process and the percentage is 50% for environmental sustainability in procurement process.

Table 4.6 Preparedness regarding Sustainable Public Procurement

| Indicators regarding Preparedness for Sustainable Procurement | Strongly Disagree | | Disagree | | Neutral | | Agree | | Strongly Agree | |
|--|-------------------|---|----------|----|----------|----|----------|----|----------------|----|
| | <i>f</i> | % | <i>f</i> | % | <i>f</i> | % | <i>f</i> | % | <i>f</i> | % |
| I have enough training & I am capable to conduct Public Procurement activity | 0 | 0 | 1 | 10 | 1 | 10 | 3 | 30 | 5 | 50 |
| I have enough training & I am capable to conduct Sustainable Public Procurement activity | 0 | 0 | 1 | 10 | 1 | 10 | 5 | 50 | 3 | 30 |
| I have clear concept about economic aspect of sustainability | 0 | 0 | 3 | 30 | 3 | 30 | 3 | 30 | 1 | 10 |
| I have clear concept about social aspect of sustainability | 0 | 0 | 2 | 20 | 4 | 40 | 3 | 30 | 1 | 10 |
| I have clear concept about Environmental aspect of sustainability | 0 | 0 | 3 | 30 | 3 | 30 | 3 | 30 | 1 | 10 |
| Sustainability consideration in public procurement process is very important in developing economies like Bangladesh | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 40 | 6 | 60 |
| I think PPA-06 & PPR-08 have addressed sustainability in procurement process properly | 0 | 0 | 1 | 10 | 4 | 40 | 5 | 50 | 0 | 0 |
| I think PPA-06 & PPR-08 have addressed social sustainability in procurement process | 0 | 0 | 2 | 20 | 4 | 40 | 4 | 40 | 0 | 0 |
| I think PPA-06 & PPR-08 have addressed environmental sustainability in procurement process | 0 | 0 | 1 | 10 | 4 | 40 | 5 | 50 | 0 | 0 |

Source: Field Study, 2022

4.5 Sustainability Practices in Public Procurement

Table 4.7 shows that the sustainability practice in procurements by the participants. According to the results, 40% officials can mention sections/articles from PPA-2006/PPR-08/STD that are addressing sustainability in procurement, whereas 50% participants can mention measures that we are practicing in our procurement process to ensure economic sustainability. On the other hand, 40% respondents can mention measures that we are practicing in our procurement process to ensure social sustainability and the percentage is same for mentioning measures that we are practicing in our procurement process to ensure environmental sustainability (40%). However, only 30% respondents put criteria deliberately in the tender documents to encourage participation of local SME firms; 40% respondents put criteria deliberately in tender document to enhance supplier's/ contractors' environmental performance such as less carbon emission, less material consumption; and 40% participants put requirement for contractors in tender document to have & practice Environmental Management System (EMS).

Additionally, 80% officials claimed that they always practiced E-procurement in our procurement process to ensure transparency, promoting competitiveness & achieving value for money and 60% participants appealed that they visit their suppliers/ contractor's Plant/factory/workshop/office to verify the reality of child labor/ force labor/ unfair wage/ Human right violation.

Table 4.7 Sustainability Practices in Public Procurement

| Indicators | Yes | | No | |
|---|----------|----|----------|----|
| | <i>f</i> | % | <i>f</i> | % |
| I can mention sections/articles from PPA-2006/PPR-08/STD that are addressing sustainability in procurement | 4 | 40 | 6 | 60 |
| I can mention measures that we are practicing in our procurement process to ensure economic sustainability. | 5 | 50 | 5 | 50 |
| I can mention measures that we are practicing in our procurement process to ensure social sustainability | 4 | 40 | 6 | 60 |
| I can mention measures that we are practicing in our procurement process to ensure environmental sustainability | 4 | 40 | 6 | 60 |
| I put criteria deliberately in the tender documents to encourage participation of local SME firms | 3 | 30 | 7 | 70 |
| I put criteria deliberately in tender document to enhance supplier's/ contractors' environmental performance such as less carbon emission, less material consumption. | 4 | 40 | 6 | 60 |
| I put requirement for contractors in tender document to have & practice Environmental Management System (EMS) | 4 | 40 | 6 | 60 |
| I am practicing E-procurement in our procurement process to ensure transparency, promoting competitiveness & achieving value for money | 8 | 80 | 2 | 20 |
| I visit our suppliers/ contractor's Plant/factory/workshop/office to verify the reality of child labor/ force labor/ unfair wage/ Human right violation | 6 | 60 | 4 | 40 |

Source: Field Survey, 2022

4.6 Frequency of Using Sustainable Procurement Indicators in Public Procurement Division

Table 4.8 shows the frequency of Using Sustainable Procurement Indicators in Public Procurement Division. According to the survey results, all the respondents use different indicators of economic sustainability i.e., economic regeneration, sustainable economic development, development of SMEs, emerging markets, total cost of ownership and life cycle costing, value for money and poverty reduction. Among those, 40% respondents often used economic regeneration, development of SMEs, and total cost of ownership and life cycle costing. On the other hand, 60% and 50% respondents often use sustainable economic development and value for money respectively. However, 10% respondents always use economic regeneration, sustainable economic development, total cost of ownership and life cycle costing and poverty reduction.

The findings also revealed that environmental resource management, urban planning, CO₂ reduction, alternative energies: e.g.: solar, wind, water management, sustainable agriculture, marine resources management, protection of ecosystems and pollution and waste management are the main environmental indicators of sustainability that are always by at least 10% procurement officers. However, 50% respondents rarely use CO₂ reduction and 30% of the participants never use alternative energies: e.g.: solar, wind etc.

According to the results, social indicators are highly practiced by the respondents in the organization. All the social indicators (such as Human rights, Food security, clean drinking, Fair pay and labor law protections, Anti-child labor and forced labor laws, Fair trade, Health and safety, Gender equality including universal education, Child mortality and maternal health and Healthy lives and well-being for all) are often practiced by at least 40% of the respondents. On the other hand, 30% of respondents always use fair trade, Fair pay and labor law protections indicators.

Table 4.8 Frequency of Using Sustainable Procurement Indicators in Public Procurement Division

| Dimensions | Indicators | Never | | Rarely | | Sometimes | | Often | | Always | |
|---------------|--|----------|----------|----------|-----------|-----------|-----------|----------|-----------|----------|-----------|
| | | <i>f</i> | % | <i>f</i> | % | <i>f</i> | % | <i>f</i> | % | <i>f</i> | % |
| Economic | Economic regeneration | 1 | 10 | 2 | 20 | 2 | 20 | 4 | 40 | 1 | 10 |
| | Sustainable economic development | 0 | 0 | 10 | 10 | 2 | 20 | 6 | 60 | 1 | 10 |
| | Development of SMEs | 0 | 0 | 3 | 30 | 3 | 30 | 4 | 40 | 0 | 0 |
| | Emerging markets | 1 | 10 | 2 | 20 | 3 | 30 | 4 | 40 | 0 | 0 |
| | Total cost of ownership and life cycle costing | 1 | 10 | 1 | 10 | 3 | 30 | 4 | 40 | 1 | 10 |
| | Value for money | 0 | 0 | 2 | 20 | 1 | 10 | 5 | 50 | 2 | 20 |
| | Poverty reduction | 0 | 0 | 4 | 40 | 3 | 30 | 2 | 20 | 1 | 10 |
| Environmental | Environmental resource management | 0 | 0 | 1 | 10 | 6 | 60 | 2 | 20 | 1 | 10 |
| | Urban planning | 0 | 0 | 3 | 30 | 3 | 30 | 2 | 20 | 2 | 20 |
| | CO ₂ reduction | 0 | 0 | 5 | 50 | 3 | 30 | 1 | 10 | 1 | 10 |
| | Alternative energies: e.g.: solar, wind | 3 | 30 | 3 | 30 | 1 | 10 | 1 | 10 | 2 | 20 |
| | Water management | 1 | 10 | 1 | 10 | 2 | 20 | 5 | 50 | 1 | 10 |
| | Sustainable agriculture | 2 | 20 | 5 | 50 | 1 | 10 | 1 | 10 | 1 | 10 |
| | Marine resources management | 1 | 10 | 6 | 60 | 1 | 10 | 1 | 10 | 1 | 10 |
| | Protection of ecosystems | 0 | 0 | 3 | 30 | 4 | 40 | 2 | 20 | 1 | 10 |
| | Pollution and waste management | 0 | 0 | 1 | 10 | 2 | 20 | 5 | 50 | 2 | 20 |
| | Human rights | <u>0</u> | <u>0</u> | <u>2</u> | <u>20</u> | <u>3</u> | <u>30</u> | <u>4</u> | <u>40</u> | <u>1</u> | <u>10</u> |
| | Food security | 0 | 0 | 2 | 20 | 1 | 10 | 5 | 50 | 2 | 20 |

| | | | | | | | | | | | |
|--------|---|---|----|---|----|---|----|---|----|---|----|
| Social | Clean drinking | 0 | 0 | 1 | 10 | 3 | 30 | 5 | 50 | 1 | 10 |
| | Fair pay and labor law protections | 0 | 0 | 1 | 10 | 1 | 10 | 5 | 50 | 3 | 30 |
| | Anti-child labor and forced labor laws | 1 | 10 | 0 | 0 | 2 | 20 | 5 | 50 | 2 | 20 |
| | Fair trade | 0 | 0 | 1 | 10 | 1 | 10 | 5 | 50 | 3 | 30 |
| | Health and safety | 1 | 10 | 0 | 0 | 2 | 20 | 5 | 50 | 2 | 20 |
| | Gender equality including universal education | 0 | 0 | 2 | 20 | 2 | 20 | 4 | 40 | 2 | 20 |
| | Child mortality and maternal health | 2 | 20 | 0 | 0 | 2 | 20 | 4 | 40 | 2 | 20 |
| | Healthy lives and well-being for all | 1 | 10 | 2 | 20 | 1 | 10 | 4 | 40 | 1 | 10 |

Source: Field Survey, 2022

4.7 Sustainable Procurement Practices in Public Procurement

Respondents were asked to rate the Sustainable Procurement Practices in Public Procurement, as shown in **Table 4.9** and **Figure 4.6**. At first, the respondents ranked the sustainable procurements practice in their division and 40% respondents ranked as good and 30% respondent respond as very good and average.

Secondly, respondents gave their opinion regarding Sustainable Procurement Practices in their organization and the results show that 50% claimed that the rate is average whereas 30% claimed very good. When it comes about the public sector, 2% ranked it as very good and 40% mentioned that its very good.

Table 4.9 Sustainable Procurement Practices within Individual Division, Organization and Public Sector

| Sector-wise Ranking | Ranking | Frequency | Percentage |
|---------------------|---------------|-----------|------------|
| Individual Division | Very good | 3 | 30 |
| | Good | 4 | 40 |
| | Average | 3 | 30 |
| | Below average | 0 | 0 |
| | Very low | 0 | 0 |
| Within Organization | Very good | 3 | 30 |
| | Good | 2 | 20 |
| | Average | 5 | 50 |
| | Below average | 0 | 0 |
| | Very low | 0 | 0 |
| In Public Sectors | Very good | 2 | 20 |
| | Good | 3 | 30 |
| | Average | 4 | 40 |
| | Below average | 1 | 10 |
| | Very low | 0 | 0 |

Source: Field Survey, 2022

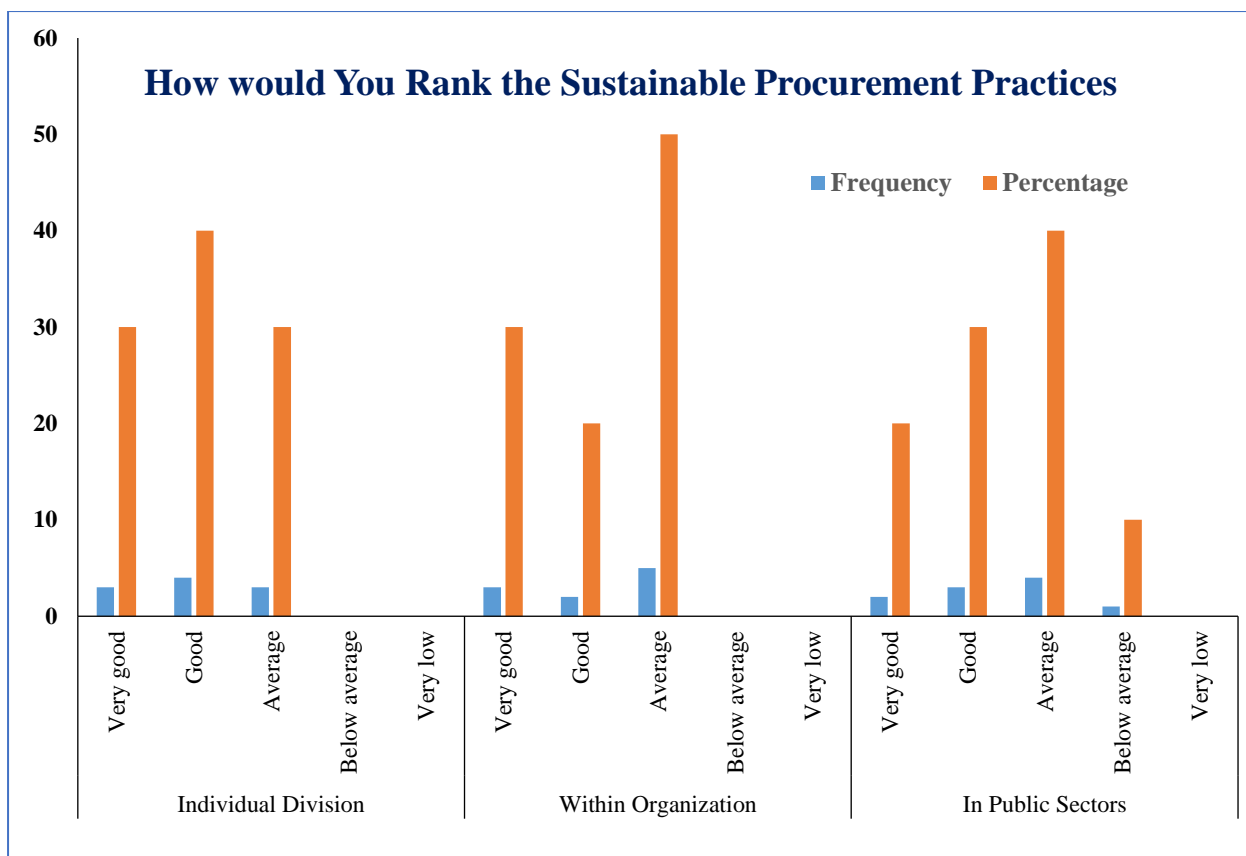


Figure 4.6 Sustainable Procurement Practices within Individual Division, Organization and Public Sector
Source: Field Survey, 2022

4.8 Feasible Way for Addressing Sustainability in Procurement Decisions

Table 4.10 reflects the most feasible way of addressing sustainability in procurements according to the participants. According to 50% respondents, award criteria is the best feasible way for addressing sustainability in procurement decisions, whereas 30% respondents strongly agreed that Technical Specification, Pre-qualification criteria and Contract clauses are the best way to address sustainability in procurement decisions.

4.9 Barriers of Integrating Sustainability in Procurement Process

Table 4.11 categorizes the challenges faced by the respondents while integrating sustainability in procurement process. Among the numerous challenges, lack of expertise and absence of effective organizational policy framework & practice are identified as the highest barriers to sustainability practices (80% of the respondents) followed by the Inadequate political will and lack of awareness (70% of the respondents).

Table 4.10 Most Feasible Way of Addressing Sustainability in Procurement Decision (Score 1-10 on the basis of Suitability)

| Indicators | Very Strongly Disagree | Strongly Disagree | Disagree | Mostly Disagree | Slightly Disagree | Slightly Agree | Mostly Agree | Agree | Strongly Agree | Very strongly Agree |
|--------------------------------------|------------------------|-------------------|----------|-----------------|-------------------|----------------|--------------|-------|----------------|---------------------|
| Rigorous need assessment formulation | 0 | 1 | 0 | 1 | 1 | 1 | 2 | 2 | 0 | 2 |
| Technical Specification | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 3 | 3 |
| Pre-qualification criteria | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 1 | 2 | 3 |
| Award criteria | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 5 |
| Contract clauses | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 1 | 3 |
| Negotiation | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 2 | 1 | 2 |

Source: Field Survey, 2022

Table 4.11 Barriers of Integrating Sustainability in Procurement Process (Score 1-10 on the basis of Suitability)

| Indicators | Very Strongly Disagree | Strongly Disagree | Disagree | Mostly Disagree | Slightly Disagree | Slightly Agree | Mostly Agree | Agree | Strongly Agree | Very Strongly Agree |
|---|------------------------|-------------------|----------|-----------------|-------------------|----------------|--------------|-------|----------------|---------------------|
| Inadequate political will/commitment | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 2 | 1 | 2 |
| Poor Social drive/awareness | 0 | 2 | 0 | 0 | 1 | 1 | 1 | 3 | 0 | 2 |
| Absence of effective organizational Policy framework & practice | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 4 | 1 |
| Lack of expertise/ training of procurement professionals | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 4 | 0 | 2 |
| Insufficient capacity of local suppliers | 1 | 0 | 1 | 0 | 1 | 3 | 3 | 1 | 0 | 0 |

| | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|
| Product Unavailability or lack of sustainable alternatives | 1 | 0 | 2 | 1 | 1 | 3 | 1 | 1 | 0 | 0 |
| Avoiding tendency of Procurement professionals | 0 | 1 | 2 | 1 | 1 | 0 | 1 | 3 | 1 | 0 |
| PPA & PPR is inadequate to incorporate sustainability in procurement | 1 | 0 | 0 | 1 | 1 | 1 | 2 | 3 | 1 | 0 |

Source: Field Survey, 2022

Chapter Five: Conclusion and Recommendation

5.1 Conclusion

In order to build a better future, we must prioritize sustainability, and that is our shared aim. The sustainable development goals (SDGs) have been set by the United Nations for 2030. It is impossible to carry out development work without some kind of procurement. We frequently don't pay enough attention to it, which is why we don't obtain the results we want and our initiatives fail. A successful project relies heavily on efficient buying. To ensure that public procurement is sustainable, we must adhere to all applicable laws and regulations. In any nation, the government is the major purchaser. As a result, it is critical that government purchases be made in a way that takes into account the 3Ps (People Planet and Profit).

Historically, economic considerations have been the most essential aspect in governmental procurement. The procurement mechanism has long ignored environmental and social considerations. Nevertheless, as the notion of sustainable development has spread over the globe, non-economic elements have grown greatly in relevance when it comes to public procurement.

Procurement and acquiring goods, works, and services by governments has a substantial impact on both their capacity to provide sustainable development and on their credibility with their development partners. In order to influence suppliers and increase production of more environmentally and socially responsible products and services, consumers may use their market power to demand that businesses prioritize environmentally and socially responsible products and services. To get true value for money over the long run without sacrificing environmental or social obligations, public procurement must consequently take sustainability problems seriously. As a result, societal well-being and the environment would be protected while achieving development goals via purchase of commodities, works, and services.

Sustainable procurement indicators *Economic* (Economic regeneration, Sustainable economic development, Emerging markets, Development of SMEs, Total cost of ownership and life cycle costing, Value for money, Poverty reduction); *Environmental* (Environmental resource management, Urban planning, CO2 reduction, Alternative

energies: e.g.: solar, wind, Water management , Sustainable agriculture, Marine resources management, Protection of ecosystems, Pollution and waste management); *Social* (Human rights, Clean drinking water, Food security, Fair pay and labor, law protections, Anti-child labor and forced labor laws, Fair trade, Health and safety, Gender equality including universal education, Child mortality and maternal health) criteria should be address in Public Procurement.

Considering the above context, this study emphasizes on the enhancement of the sustainable procurement in tendering and its evaluation system considering three sustainable procurement criteria (economic, environment, and social). Therefore, the findings revealed the tendering and evaluation process in public procurement. Additionally, the results identify the gaps between public procurement and sustainable procurement in tender document and tender evaluation process.

The scope of sustainable procurement within the present framework of public procurement was the first part of the study questions. Using existing procurement papers, it has been determined that sustainable procurement in Bangladesh is not feasible under the present public procurement system, in answer to the first part of the study questions. According to procurement professionals in the public sector, sustainability considerations are not properly integrated into existing procurement practices. The key findings are mentioned below:

- The lowest pricing method is still the basis of our tendering procedure. In addition to economic concerns, quality is also taken into account while drawing up requirements. In public sector enterprises, environmental and social concerns are seldom employed explicitly in specifications, and the whole life costing method is rarely applied. Local engagement is sometimes overlooked while putting together large-scale projects.
- The CPTU's standard tender papers must be followed by all public sector procurement bodies, and these documents do not contain any criteria for promoting local enterprises to participate in national competitive bidding. However, in international competitive bidding, a concept known as 'domestic preference' is used to encourage local enterprises to participate.

- Environmental management systems are rare in public sector enterprises. Environmental Impact Assessments (EIAs) seem to be employed in certain big procurement contracts, although responders have pointed out that environmental concerns in public procurement are problematic in the vast majority of them. According to the findings of the research, our public procurement system has essentially no mechanism for verifying the environmental performance of contractors and suppliers.
- With the exception of a few notable exceptions, public sector firms do not seem to be taking environmental measures in their procurements, according to the respondents. There is relatively little possibility for procurement organizations in the public sector employing environmental criteria in the tender document to improve the environmental performance of the contractor or supplier. In the same way, no system exists to ensure that contractors or suppliers meet the bare minimum environmental standards required by law.
- Products or works acquired by public sector entities are now disposed of according to a few vague standards. The most typical method of disposing of items or works is to either store them or sell them at auction. However, in the procurement of works, specific requirements are put in place so that the contractor is responsible for collecting and disposing of the trash that is generated during the building process.
- Public procurement promotes equitable opportunity for everyone in the social component of sustainability. The ideal technique is the Open Tendering Method (OTM), which guarantees that all interested suppliers have the chance to participate via adequate advertising. All possible suppliers/contractors are treated equally while developing specifications. Forbidding specification that excludes any suppliers or contractors is prohibited under the Public Procurement Rules, 2008. It is against the law to make any reference of a product's brand or place of origin in order to maintain a level playing field for everybody. This does, however, serve as a reminder of the need of having a qualified and experienced specification writer on staff.
- Another concern related to the social component of sustainability is ethical labor practice, which is prevalent in the procurement system, but to a lesser level. For example, certain points have been raised in the procurement documents in regards

to health and safety of all employees, prohibition of working during holidays, compliance with applicable labor laws, wages of laborers, prohibition on the employment of child laborers, and insurance in the event of personal injury or death, among other things. The participation of women in the labor force is not guaranteed by the contract conditions in the public sector's procurement processes. However, suppliers or contractors may sometimes use female labor force, particularly in the context of a work contract, mostly due to the low cost and availability of female labor force.

- While the breadth of sustainable procurement practice is quite restricted, certain normative patterns towards sustainable procurement in the public sector may be recognized despite the fact that this activity is relatively new. Economic, environmental, and social variables are becoming more significant in public sector procurement, according to the conclusions of this research. The shifting perspectives of procurement experts in the public sector will assist to provide the groundwork for the government of Bangladesh to become more equipped to implement sustainability in its procurement practices.

In addition, the procurement specialists who participated in the interviews revealed a variety of impediments to long-term procurement success. There seems to be the greatest potential hurdle to implementing any kind of sustainable procurement strategy, which is a lack of high-level political commitment and support. Aside from financial considerations, organizational features, especially senior management support, are the most significant impediments to long-term procurement success in most cases. In addition to a lack of political will and awareness among procurement professionals, bureaucratic culture, a lack of education and contemporary knowledge among many contractors, a lack of knowledge of sustainable procurement, the use of lowest price as the primary selection criteria, traditional procurement practices, a lack of professional commitment to sustainable procurement and the belief that sustainable procurement is elitist were all mentioned as potential barriers by interviewees.

5.2 Recommendation

The study revealed that sustainable procurement criteria (economic, environmental and social) are not properly addressed in tendering and evaluation process. However, the

enhancement of tendering and evaluation process, it is imperative to address sustainable procurement criteria effectively. Considering these issues, the study suggests that:

- Sustainable procurement is a process by which public authorities or private corporations seek an appropriate balance of financial, environmental, and social considerations when procuring goods, services, or works at all stages of the value transformation cycle, while taking into account the total cost of ownership. These concerns include the compliance to basic labor and safety regulations throughout the production process, as well as the energy efficiency and innovative aspects of the purchased items.
- In order to be sustainable, procurement procedures should be connected with ethical standards (e.g., social accountability, occupational health and safety assessment), and vendor evaluation criteria should be integrated with these ethical standards (e.g., price, quality compliance, delivery time).
- Choosing environmentally and socially responsible suppliers requires a collaborative effort on the part of various stakeholders throughout the supply chain, as well as an acceptance of a certain level of tolerance in order to facilitate buyers and suppliers in the co-creation of indicators and benchmarks for sustainability.
- Public pressure to support environmentally and socially responsible businesses is having a negative impact on their brand reputation, there public opinion should be a strong selection criterion for businesses. Buying goods from—or doing business with—socially responsible businesses should be an important consideration.
- While demonstrating compliance with environmental and ethical standards may be beneficial to international trade participants, it can also place extra administrative costs on cross-border suppliers, especially Micro Small and Medium-sized Enterprises (MSME). As a result, it is important to help these small businesses comply with environmental regulations.
- In order to establish a quantifiable and quantitative supplier evaluation process, indicators (Use of refurbished parts or products, Recyclability, Establishing minimum environmental or social performance standards for commodities, use of certified recyclers for e-waste, transparency and avoidance of forced labor or child labor etc.) must link environmental and social aspects to corresponding cost components that buying departments may evaluate when reviewing supplier bids.

References

1. <https://openknowledge.worldbank.org/bitstream/handle/10986/33882/Assessment-of-Bangladesh-Public-Procurement-System.pdf?sequence=1&isAllowed=y>
2. Sustainable Procurement, An introduction for practitioners to sustainable procurement in World Bank IPF projects, April 2019 by The World Bank.
3. https://ec.europa.eu/environment/gpp/versus_en.htm
4. <https://ec.europa.eu/environment/gpp/lcc.htm>
5. <https://ec.europa.eu/environment/gpp/pdf/Buying-Green-Handbook-3rd-Edition.pdf>
6. https://repository.up.ac.za/bitstream/handle/2263/58120/Mantzaris_Public_2014.pdf?sequence=1&isAllowed=y
7. <https://www.emerald.com/insight/content/doi/10.1108/JOPP-12-01-2012-B002/full/html>
8. <https://www.purchasing.tas.gov.au/Documents/Guidelines-on-Tender-Evaluation-using-Weighted-Criteria-for-Building-Works-and-Services.pdf>
9. <https://www.investopedia.com/terms/p/procurement.asp>
10. <https://www.netsuite.com/portal/resource/articles/accounting/procurement.shtml>
11. https://ec.europa.eu/growth/single-market/public-procurement_en
12. <http://ippa.org/images/PROCEEDINGS/IPPC4/01ComparativeProcurement/Paper1-7.pdf>
13. <https://www.manutan.com/blog/en/procurement-strategy/sustainable-procurement-the-14-indicators-that-everyone-can-agree-on>
14. <https://www.ungm.org/Shared/KnowledgeCenter/Pages/SustainableProcurementIndicatorProject>
15. <https://www.cips.org/>
16. <https://dqs-cfs.com/2016/07/sustainable-procurement-need-know-new-iso-20400-standard/>
17. <https://openknowledge.worldbank.org/bitstream/handle/10986/33882/Assessment-of-Bangladesh-Public-Procurement-System.pdf?sequence=1&isAllowed=y>

18. <https://cptu.gov.bd/standard-documents/standard-tender-document.html>
19. <https://cptu.gov.bd/about-cptu/central-procurement-technical-unit.html>
20. Public Procurement Act 2006
21. Public Procurement Act 2006

Appendix A

Questionnaire on Dissertation

[This survey questionnaire is intended to perform academic research on **Tendering and Evaluation Process Enhancement for Sustainable Procurement in Public Sector of Bangladesh**. It is a requirement of partial fulfillment of the degree ‘Masters in Procurement and Supply Management’ offered by Bangladesh Institute of Governance and Development (BIGD) of BRAC University. Your thoughtful and sincere response is valuable for the research. The researcher does assure that the information given by you will be kept confidential & be used in an aggregated manner for academic purpose only]

Section-A: General Information

1. Name:
2. Designation.....
3. Office Address.....
4. Email:
5. Mobile no:
6. Organization:
7. The total number of years of experience in the procurement activities: Years
8. Last fiscal year procurement budget of your division/ office: Taka (lac)
9. Last fiscal year procurement expenditure of your division/ office: Taka (lac)
10. Segregation of your procurement portfolio:

| | Procurement expenditure (Tk. In Lac) | Percentage of Total expenditure |
|---------|--------------------------------------|---------------------------------|
| Goods | Tk. |% |
| Works | Tk. |% |
| Service | Tk. |% |

Section- B: Perception regarding Sustainable Procurement

11. Public Procurement means:
 - a) the procurement of goods on behalf of a public authority, such as a government agency.
 - b) the procurement of service on behalf of a public authority, such as a government agency.
 - c) the procurement of works on behalf of a public authority, such as a government agency.
 - d) the procurement of goods, services and works on behalf of a public authority, such as a government agency.
12. Sustainable Procurement means:
 - a) Ensure that procurement is done at the lowest possible cost.

- b) Sustainable procurement means making sure that the products and services we buy are as sustainable as possible, with the lowest environmental impact and most positive social results.
 - c) Managing the procurement process efficiently and effectively.
 - d) Others (please specify)
-

13. Do you think, sustainable procurement practice is essential in procurement division?

- a) Not Important at all
- b) Somewhat Important
- c) Important
- d) Very Important
- e) Extremely Important

14. Economic Sustainability means:

- a) Organizational Profitability
- b) Justification of best value for money
- c) Considering whole life costing of an activity
- d) Others_____
- e) I don't Know

15. Social Sustainability means:

- a) Addressing ethical issues.
- b) Addressing labour aspects like workplace safety, fair wages, equality & diversity etc.
- c) Addressing community benefit & promoting SME.
- d) All above.
- e) I don't Know

16. Environmental Sustainability means:

- a) Take care of planet
- b) Extracting natural resources without degrading environment
- c) Carrying out development activity in such a way that environmental pollution is minimum.
- d) All of above.

Section -C: Preparedness

17. Please indicate your degree of agreement for the following statements (Strongly Agree = 5, Agree= 4, Neutral=3, Disagree=2, Strongly disagree=1)

| Statements | Score |
|--|-------|
| I have enough training & I am capable to conduct Public Procurement activity | |
| I have enough training & I am capable to conduct Sustainable Public Procurement activity | |
| I have clear concept about economic aspect of sustainability | |

| | |
|--|--|
| I have clear concept about social aspect of sustainability | |
| I have clear concept about Environmental aspect of sustainability | |
| Sustainability consideration in public procurement process is very important in developing economies like Bangladesh | |
| I think PPA-06 & PPR-08 have addressed sustainability in procurement process properly | |
| I think PPA-06 & PPR-08 have addressed social sustainability in procurement process | |
| I think PPA-06 & PPR-08 have addressed environmental sustainability in procurement process. | |

Section -D: Sustainability Practice in Procurement

18. Please respond to the following Statements:

| Statements | Yes | No | If yes, please specify | Remarks, if any |
|---|-----|----|------------------------|-----------------|
| I can mention sections/articles from PPA-2006/PPR-08/STD that are addressing sustainability in procurement- | | | | |
| I can mention measures that we are practicing in our procurement process to ensure economic sustainability. | | | | |
| I can mention measures that we are practicing in our procurement process to ensure social sustainability. | | | | |
| I can mention measures that we are practicing in our procurement process to ensure environmental sustainability. | | | | |
| I put criteria deliberately in the tender documents to encourage participation of local SME firms. | | | | |
| I put criteria deliberately in tender document to enhance supplier's/contractors environmental performance such as less carbon emission, less material consumption. | | | | |
| I put requirement for contractors in tender document to have & practice Environmental Management System (EMS). | | | | |
| I am practicing E-procurement in our procurement process to ensure transparency, promoting competitiveness & achieving value for money? | | | | |
| I visit our suppliers/contractor's Plant/factory/workshop/office to verify the reality of child labor/ force labor/ unfair wage/ Human right violation. | | | | |

19. How often do you use the following sustainable procurement indicators in your procurement division?

(Always = 5, Often= 4, Sometimes = 3, Rarely= 2, Never =1)

| Dimensions of Sustainable Procurement | Indicators | Scores | If the score is 1, then why? If the score is 5, then how? |
|---------------------------------------|-----------------------|--------|--|
| Economic | Economic regeneration | | |

| | | | |
|---------------|--|--|--|
| | Sustainable economic development | | |
| | Development of SMEs | | |
| | Emerging markets | | |
| | Total cost of ownership and life cycle costing | | |
| | Value for money | | |
| | Poverty reduction | | |
| Environmental | Environmental resource management | | |
| | Urban planning | | |
| | CO2 reduction | | |
| | Alternative energies: e.g.: solar, wind | | |
| | Water management | | |
| | Sustainable agriculture | | |
| | Marine resources management | | |
| | Protection of ecosystems | | |
| | Pollution and waste management | | |
| Social | Human rights | | |
| | Food security | | |
| | Clean drinking | | |
| | Fair pay and labor law protections | | |
| | Anti-child labor and forced labor laws | | |
| | Fair trade | | |
| | Health and safety | | |
| | Gender equality including universal education | | |
| | Child mortality and maternal health | | |
| | Healthy lives and well-being for all | | |

20. How would you rank the sustainable procurement practices in your division?

- a. Very Good
- b. Good
- c. Average
- d. Below Average
- e. Very low

21. How would you rank the sustainable procurement practices in your organization?

- a. Very Good
- b. Good
- c. Average
- d. Below Average
- e. Very low

22. How would you rank the sustainable procurement practices in public sector?
- Very Good
 - Good
 - Average
 - Below Average
 - Very low

Section E: Challenges and Suggestions

23. How will you rate as the most feasible way of addressing sustainability in procurement decision? (Score 0-10 on the basis of suitability)

| | |
|--------------------------------------|--|
| Rigorous need assessment formulation | |
| Technical Specification | |
| Pre-qualification criteria | |
| Award criteria | |
| Contract clauses | |
| Negotiation | |
| Any other | |

24. How will you rate as the barriers of integrating sustainability in procurement process? (Score 0-10 on the basis of suitability)

| | |
|--|--|
| Inadequate political will/commitment | |
| Poor Social drive/awareness | |
| Absence of effective organizational Policy framework & practice. | |
| Lack of expertise/ training of procurement professionals. | |
| Insufficient capacity of local suppliers. | |
| Product Unavailability or lack of sustainable alternatives | |
| Avoiding tendency of Procurement professionals | |
| PPA & PPR is inadequate to incorporate sustainability in procurement | |

25. Do you have any suggestions to implement sustainable procurement effectively in tendering and evaluation process?

Thanks for your participation