

Enhancing the Tendering and Evaluation Process for Sustainable Procurement in Public Sector of Bangladesh

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Declaration

It is hereby declared that

1. The thesis submitted is my 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 have acknowledged all main sources of help.

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Ethics Statement

This research followed the standard ethical requirements for academic studies. Before taking part, all respondents were informed about the purpose of the research and how their responses would be used. Their participation was entirely voluntary and they had the right to withdraw at any point without giving a reason. To protect privacy, no names or identifying details were recorded and all data were kept strictly confidential and stored securely.

Abstract/Executive Summary

This study explores how sustainability can be integrated into the tendering and evaluation processes of Bangladesh's public procurement system. Guided by six objectives, it assessed current practices, officials' knowledge, attitudes and practices (KAP), regulatory gaps in the Public Procurement Rules (2008), barriers to implementation, capacity needs and reforms to enhance evaluation. Using a pragmatic mixed-methods design, data were collected from 19 procurement officials through questionnaires. Quantitative analysis summarized awareness, training and practices, while qualitative responses were thematically coded. Findings show that although officials hold positive attitudes toward Sustainable Public Procurement (SPP) 84% support embedding it in PPR 2008 actual application is limited, with environmental criteria more common than social or economic. Key barriers include lack of training, unclear guidelines, budget constraints and supplier capacity. The study recommends updating PPR 2008, upgrading the e-GP system, capacity-building for officials, supplier development and pilot projects in high-impact sectors.

Keywords: Sustainable Public Procurement (SPP), Public Procurement Rules (PPR 2008), e-Government Procurement (e-GP), Knowledge-Attitude-Practice (KAP), Life-cycle Costing, Bangladesh, Capacity Building.

Dedication

I dedicate this thesis to my parents and family for their unwavering support and to my teachers and mentors whose guidance and encouragement have shaped my academic journey.

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Table of Contents

Declaration.....	i
Approval	ii
Ethics Statement.....	iii
Abstract/Executive Summary	iv
Dedication	v
Acknowledgement	vi
Table of Contents	vii
List of Tables	xi
List of Figures.....	xii
List of Acronyms	xiii
Glossary	xiv
Chapter 1: Introduction	1
1.1 Background of the Study.....	1
1.3 Research Objectives.....	3
1.4 Scope and Limitations of the Study	4
1.4.1 Scope of the Study	4
1.4.2 Limitations of the Study.....	5
1.5 Significance of the Study	6
Chapter 2: Literature Review.....	8
2.1 Introduction.....	8
2.2 Conceptual Foundations of Sustainable Public Procurement	8
2.2.1 Definitions and Scope	8

2.2.2 Theoretical Underpinnings.....	9
2.2.3 Evaluation Approaches	9
2.2.4 Critical Debates.....	10
2.3 Global Experiences with Sustainable Procurement	10
2.3.1 Developed Countries.....	10
2.3.2 Recent Global Trends	11
2.3.3 Critical Insights.....	11
2.4 Sustainable Procurement in Developing Countries	11
2.5 Public Procurement and Sustainability in Bangladesh	11
2.5.1 Legal and Institutional Framework.....	11
2.5.2 Gaps in Sustainability Integration.....	12
2.5.3 SPP Policy 2023.....	12
2.5.4 Empirical Reports	12
2.6 Barriers to Sustainable Procurement.....	13
2.6.1 Institutional/Regulatory Barriers	13
2.6.2 Technical/Capacity Barriers.....	13
2.6.3 Economic/Market Barriers.....	13
2.6.4 Political/Cultural Barriers	13
2.6.5 Monitoring Barriers	13
2.7 Research Gaps Identified	14
2.8 Conceptual Framework.....	14
2.9 Summary	15
Chapter 3: Methodology.....	16
3.1 Introduction.....	16
3.2 Research Philosophy and Approach	16
3.3 Research Design.....	17
3.4 Population, Sampling and Sample Size	17

3.5 Research Instrument Development	18
3.6 Data Collection Procedure	18
3.7 Data Collection and Analysis.....	19
3.8 Reliability and Validity.....	20
3.9 Ethical Considerations	20
3.10 Limitations	21
3.11 Conclusion	21
Chapter 4: Findings and Analysis	22
4.1 Respondent Profile.....	22
4.2 Awareness, Policies and Parameters of Sustainable Procurement.....	24
4.3 e-GP Training and SPP Awareness among Respondents	27
4.4 Attitudes Toward Sustainable Procurement.....	30
4.5 Current Practices of Sustainable Procurement.....	31
4.6 Institutional and Regulatory Gaps (PPR 2008).....	33
4.7 Barriers to Implementation of SPP	36
4.8 Capacity and Training Needs.....	37
4.9 Synthesis of the Knowledge-Attitude-Practice (KAP) Gap.....	38
Chapter 5: Discussion and Recommendations	41
5.1 Introduction.....	41
5.2 Rationale for SPP Reforms	41
5.3 Priority Sectors and Pilot Projects	41
5.4 Strengthening the Tendering and Evaluation Process	42
5.5 Policy and Leadership Recommendations	42
5.6 Capacity-Building and Supplier Development	43
5.7 Alignment with Research Objectives.....	43
5.8 Conclusion	44
Chapter 6: Conclusion.....	45

6.1 Introduction.....	45
6.2 Restating the Research Purpose and Objectives	45
6.3 Summary of Key Findings	45
6.4 Contributions of the Study	46
6.5 Policy and Practical Implications.....	46
6.6 Limitations of the Study.....	47
6.7 Suggestions for Future Research	47
6.8 Conclusion	47
References	49
Appendix: Questionnaire on Dissertation	52

List of Tables

Table 2. 1: Selected Definitions and Frameworks of SPP	9
Table 2. 2: Global Best Practices in SPP	10
Table 2. 3: Comparison of PPR 2008 and International SPP Frameworks	12
Table 2. 4: Barriers to SPP Implementation	13
Table 4. 1: Profile of Respondents by Experience, Organization Type and e-GP Training.....	22
Table 4. 2: Awareness of SPP, Organizational Policies and Sustainability Parameters.....	24
Table 4. 3: e-GP Training and Awareness of SPP (Cross-tabulation).....	26
Table 4. 4: Years of Experience vs. Awareness of SPP.....	27
Table 4. 5: e-GP Training and Awareness of SPP	28
Table 4. 6: Cross-Tabulation of e-GP Training and SPP Awareness	29
Table 4. 7: Officials Attitudes Toward Sustainable procurement.....	30
Table 4. 8: Frequency of Applying Sustainability Criteria in Procurement	31
Table 4. 9: Gap between attitudes and practices of SPP	33
Table 4. 10: Officials perceptions of sustainability coverage and identified gaps in PPR 2008	34
Table 4. 11: Reported Barriers to Implementing Sustainable Procurement	36
Table 4. 12: Reported training and capacity-building needs of officials	37
Table 4. 13: Knowledge-Attitude-Practice (KAP) gap in sustainable procurement.....	39

List of Figures

Figure 2. 1: Conceptual Framework	14
Figure 4. 1: Distribution of respondents by years of experience and by type of organization (Bar chart).....	22
Figure 4. 2: Training in e-GP among Respondents (Pie chart).....	23
Figure 4. 3: Existence of Organizational Policy and Sources of Knowledge on SPP (Bar Chart)	25
Figure 4. 4: Sustainability Parameters Followed (Pie Chart)	25
Figure 4. 5: e-GP training among respondents (Bar Chart)	28
Figure 4. 6: Awareness of sustainable public procurement among respondents (Pie chart) ...	28
Figure 4. 7: Distribution of Officials Attitudes Toward SPP (Bar Chart)	30
Figure 4. 8: Practices of SPP across environmental, social, and economic dimensions (Pie Chart)	32
Figure 4. 9: Identified Sustainability Gaps (Bar Chart)	34
Figure 4. 10: Perceptions of PPR 2008 (Pie Chart)	34
Figure 4. 11: Barriers to Implementing SPP (Bar Chart).....	36
Figure 4. 12: Training and Capacity Needs of Officials (Bar Chart).....	38

List of Acronyms

Acronym	Full Form
ADP	Annual Development Programme
CPTU	Central Procurement Technical Unit
BPPA	Bangladesh Public Procurement Authority
e-GP	Electronic Government Procurement
EU	European Union
GPP	Green Public Procurement
ICT	Information and Communication Technology
ISO	International Organization for Standardization
KAP	Knowledge, Attitude and Practice
LCC	Life-Cycle Costing
NGO	Non-Governmental Organization
OECD	Organization for Economic Co-operation and Development
PPA	Public Procurement Act
PPR	Public Procurement Rules
SDG	Sustainable Development Goal
SME	Small and Medium Enterprise
SOE	State-Owned Enterprise
SPP	Sustainable Public Procurement
UNEP	United Nations Environment Programme

Glossary

Sustainable Public Procurement (SPP)	A process where public entities meet their needs for goods, works and services in a way that achieves value for money and generates environmental, social and economic benefits.
Public Procurement Act (PPA) 2006	The main legislation governing all public procurement activities in Bangladesh aims to ensure transparency and accountability.
Public Procurement Rules (PPR) 2008	The implementing rules under the PPA 2006 outline detailed procedures for procurement processes.
Electronic Government Procurement (e-GP)	A digital platform used for managing public tenders and contracts, improving efficiency and transparency.
Tendering	The process of inviting, receiving and evaluating tenders to select the best supplier based on set criteria.
Evaluation	The systematic assessment of bids or proposals to determine the most advantageous tender considering cost, quality and sustainability.
Life-Cycle Costing (LCC)	A method of evaluating the total cost of ownership of a product or service over its lifetime, including purchase, operation and disposal.
Environmental Sustainability	Practices that minimize environmental harm, such as reducing emissions, conserving energy and preventing pollution.
Social Sustainability	Ensuring procurement supports fair labor practices, gender inclusion, SME participation and community welfare.
Economic Sustainability	Achieving long-term value for money through cost efficiency, innovation and resource optimization.
Knowledge-Attitude-Practice (KAP) Framework	A model used in this study to analyze officials' understanding, mindset and implementation of SPP.
Capacity Building	The process of improving officials' knowledge, skills, and institutional readiness to implement sustainable procurement.
Central Procurement Technical Unit (CPTU)/BPPA	The government agency responsible for policy, monitoring, and improvement of public procurement in Bangladesh.

Most Advantageous Tender (MAT)	A procurement approach that selects tenders offering the best balance between price, quality and sustainability, not just the lowest cost.
Sustainable Development Goals (SDGs)	Global objectives set by the United Nations to promote inclusive economic growth, social well-being and environmental protection by 2030.

Chapter 1: Introduction

1.1 Background of the Study

Public procurement plays a key role in government that is not just about the delivery of goods, works and services, but it also forms part of national policy. Procurement in many nations is a tool to advance social inclusion, environmental protection and long-term growth (Thai 2001). Since public procurement constitutes a significant portion of the national budget and is very important for infrastructure development, service delivery and governance in Bangladesh. The system is informed by the Public Procurement Act (PPA) 2006 and Public Procurement Rules (PPR) 2008, which have contributed to enhanced transparency, accountability and efficiency. (World Bank, 2017; CPTU, 2021).

However, the implementation of Sustainable Public Procurement (SPP) that consider environmental, social and economic aspects for decision-making purposes has not developed substantially. At a global level, SPP has been identified as one of the principal enablers for advancing the United Nations Sustainable Development Goals (SDGs), such as SDG 12 on responsible consumption and production, SDG 13 on climate action and SDG 8 on decent work and economic growth (UNEP, 2012; OECD, 2015). Guidance such as ISO 20400 and the European Commission Green Public Procurement (GPP) handbook add evidence to support the practical means available for integrating sustainability in procurement (ISO, 2017; European Commission, 2021). Nevertheless, the PPR 2008 has no clear principles on making sustainability part of the tendering and evaluation to enable procurement decisions tend to heavily cost-led in Bangladesh (Hoque & Ahmed, 2020).

Public organizations are also becoming more aware of sustainability, but practical implementation is constrained by insufficient policy guidance, limited institutional capacity, the absence of technical tools and a low level of prioritization at top levels (Ahmed & Faroque 2021). Many procurement officers find it challenging to evaluate the lifecycle costs, carbon emissions, labor standards or social safeguards when determining tenders. Thus, traditional lowest evaluated cost still rules the roost in award decisions with sustainability being hardly recognized as a contributor to evaluation.

It is in this context that the need for transforming Bangladesh's procurement system to be competent enough to achieve cost, quality and sustainability balance. This shift entails the need to re-visit legal regimes, improve evaluation mechanisms as well as provide procurers with adequate knowledge and tools.

The following concepts introduced in this study are:

1. **Sustainable Public Procurement (SPP):** Addressing procurement requirements professionally in order to provide best value for money, and that contributes to the construction of an economically, socially and environmentally sustainable society (UNEP, 2012).
2. **Tendering:** The part of the procurement process in which tenders are requested, evaluated and accepted according to predetermined criteria.
3. **Sustainable:** Environmental and social considerations such as life-cycle analysis or other environmental performance, socio-economic aspects (WTO, 2012); Criteria to evaluate tenders based on the concept of sustainable are related to environment (e.g. energy efficiency, emissions), or social (e.g., labor standards, inclusivity) value creation and cost savings over long term period of use including costs for maintenance etc., with reference in particular to criteria defined by (ESA), including environmentally friendly process or method used in production" (OECD, 2015).
4. **Lifecycle Costing (LCC):** Evaluation of the total cost throughout a product or service's life cycle, from acquisition to disposal, encompassing purchase price, installation costs, operating expenditure, maintenance and upgrading issues as well as disposal at the end of its useful life (European Commission 2021).

1.2 Statement of the Problem

In Bangladesh, public procurement constitutes a significant portion of government expenditure and serves as a critical tool for achieving national development goals. Governed by the Public Procurement Act 2006 and the Public Procurement Rules (PPR) 2008, the country's procurement system has seen notable improvements in terms of transparency, efficiency and compliance. However, despite these reforms, the procurement framework continues to operate primarily on the principle of "lowest evaluated cost," with limited attention to environmental, social and long-term economic considerations.

Symptoms. Procurement in Bangladesh remains heavily cost-focused, with awards typically determined by lowest evaluated price. Sustainability dimensions- environmental, social and long-term economic are rarely addressed systematically (Hoque & Ahmed, 2020).

Causes. The PPR 2008 does not contain explicit clauses or templates for sustainability in tendering or evaluation. Many officials lack training and institutional support (Ahmed & Faroque, 2021). The e-GP system provides limited space for uploading or evaluating sustainability-related documents (World Bank, 2022). Moreover, political and organizational prioritization of SPP is still weak (Hasan & Shamsul, 2019).

Consequences. Overreliance on short-term cost savings can result in higher lifecycle costs, environmental degradation, and negative social impacts. These practices undermine Bangladesh's progress toward the SDGs, its Vision 2041 development agenda and the Delta Plan 2100 (General Economics Division, 2018; Government of Bangladesh, 2020).

Problem Statement. Bangladesh's public procurement system, though strengthened by reforms in efficiency and transparency, does not systematically integrate sustainability criteria into tendering and evaluation. This regulatory, institutional and technical gap limits the ability of procurement to contribute to national and global sustainability objectives.

1.3 Research Objectives

The overarching goal of this study is to explore how sustainability principles can be effectively integrated into the tendering and evaluation stages of public procurement in Bangladesh. Given the increasing national and global emphasis on sustainable development and the pivotal role of procurement in delivering public goods, works and services, this research seeks to identify the barriers, opportunities and practical strategies for operationalizing Sustainable Public Procurement (SPP) within the framework of Bangladesh's current procurement system governed by the Public Procurement Rules (PPR) 2008.

Specifically, the study is guided by the following detailed objectives:

1. To assess the current state of sustainable procurement practices in Bangladesh's public sector;
2. To examine the knowledge, attitudes and capacities of procurement officials regarding sustainable procurement;

3. To identify the gaps and limitations in the Public Procurement Rules (PPR) 2008 with respect to sustainability integration;
4. To explore how sustainability criteria (environmental, social and economic) can be embedded in the tendering and evaluation process;
5. To identify key institutional, technical and political barriers to implementing sustainable procurement practices in the public sector;
6. To provide policy and practice-oriented recommendations for enhancing the integration of sustainable procurement in Bangladesh.

By addressing these objectives, the study contributes to strengthening the alignment of Bangladesh's public procurement system with its national development agenda (Vision 2041, 8th Five-Year Plan) and international commitments, including the Sustainable Development Goals (SDGs) and the Paris Climate Agreement.

1.4 Scope and Limitations of the Study

1.4.1 Scope of the Study

The study sets in an objective to investigating of sustainability's consideration for procurement and evaluation processes that deliberates at public procurement system by Bangladesh. The research centers around the way in which environmental, social and economic aspects are (or can be) incorporated into public sector procurement with a focus on embedding appropriate policies that achieve the long-term aspirations of 'Sustainable Public Procurement' (SPP).

Scope of study this research was conducted within the specific framework of public procurement as carried out within the legislative and institutional context provided by the Public Procurement Act 2006 and Public Procurement Rules 2008. The study specifically focuses on government procurement officials and decision makers of various departments who are involved in the preparations as well evaluation of tender documents.

Empirical data are collected through questionnaires for procurement professionals in the selected ministries, departments and agencies. Data gathered help to evaluate present procurement practices, determine existing capabilities gaps and analyze viable approaches for integrating sustainability into the bidding and assessment stages.

This paper adds to the increasing body of knowledge around sustainability in public governance and seeks policy recommendations based on how SPP practices can be institutionalized in

Bangladesh's procurement system, resonating with its development aspirations (Vision 2041), Sustainable Development Goals (SDGs), and commitments made under the Paris Accord on climate.

1.4.2 Limitations of the Study

Even if the study is highly relevant and important there are a few limitations to mention below:

1. **Scope of the study:** The scope of the study is limited to selected government organizations situated in urban areas, mostly urban Dhaka. This means that procurement practices in rural or non-centralized authorities may not be well captured.
2. **Sample Size and Representativeness:** Given the time and limited resources, the sales-purchasing relationships that were included (i.e., sampled) are likely to represent only a small portion of decision makers. Although they provide informative insights, the results may not necessarily be generalizable to all levels of government, given variations in practice.
3. **Tendering and Evaluation Only:** The research is limited to tendering and evaluation stages in the procurement process. Other important phases such as contract management, supplier performance evaluation, or post-contract sustainability effects are outside the scope of this study.
4. **Limitation of Self-reported Information:** Most of the primary information was obtained through questionnaire surveying, they are based on subjective perspectives from respondents. This opens the way to respondent bias or over/under-estimation of existing capabilities and practice.
5. **Longitudinal Data Absence:** The study is of a cross-sectional design which reflects prevailing procurement practices at a given point of time. It does not follow the development or transformation in sustainable procurement over time.
6. **The Contexts of Regulatory Stiffness:** The study is performed in the current context of PPR 2008, which has not been updated to explicitly disclose the last socially responsible principles. As a result, the applicability of the recommendations for immediate policy use may be limited by statutory and legislative requirements.

In acknowledging these weaknesses, the research has maintained its academic objectivity and provides an honest assessment of the results it produced. However, it is anticipated that the findings will provide an understanding to policy reform and capacity development initiatives

in Bangladesh's public procurement sector for more sustainable and responsible governance practice.

1.5 Significance of the Study

Socio-economic development has a significant impact of public procurement, particularly in the context of developing countries such as Bangladesh where government plays a predominant role in the procurement sector and becomes an engine of the economy. With roughly 70% of the Annual Development Programme (ADP) implemented through public procurement, the sector represents huge potential to become a strategic instrument for advancing sustainability. Nevertheless, despite progressive changes through the Public Procurement Act 2006 and the Public Procurement Rules 2008, mainstreaming sustainability into procurement is still limited and underdeveloped.

This study holds significant value in multiple dimensions:

1. Contribution to Policy Development: The study contributes significantly to the debate on how sustainability (environmental, social and economic) can be successfully integrated into tendering and evaluation. This is especially pertinent as Bangladesh is working towards reforming and updating its procurement laws to be in accordance with international best practices and national development needs. The results of the study may help inform evidence-based policy changes to PPR 2008 or other procurement reforms by CPTU (at present name as BPPA) and other associated institutions.

2. Alignment with National and Global Development Agendas: By providing support operationalization of the SDGs number 12, 13 and 8 in Bangladesh (Responsible Consumption and Production; Climate Action; Decent Work and Economic Growth). As the study suggests Practical Steps how to integrate sustainability with procurement practices, it is worth noting that this research is in alignment with national vision such as Vision 2041 and Delta Plan 2100 and Country's commitment towards Paris Climate Agreement.

3. Practical Value for Public Sector Institutions: Procurement staff or government agencies can utilize this work to apply a practical model with real context of how sustainability considerations (e.g., carbon reduction, fair labor and lifecycle costing) are able to be embedded in the tendering and evaluation phases. The above may assist procurement professionals to

transcend price centric procurement and engage in forward looking strategic value based decision making.

4. Capacity Building and Institutional Strengthening: The knowledge and capacity deficit of those responsible for purchasing highlighted in the paper shows that that public procurement is a fertile ground to grow sustainable development. By recognizing training requirements and institutional deficiencies, the study can guide the development of capacity-building programs, technical guides and toolkits to educate procurement officials and enhance their preparedness to adopt sustainable procurement practices.

5. Academic and Research Relevance: Academic wise, it is one of the rare parallel with empirical research in case of Sustainable Public Procurement (SPP) within South Asian including Bangladeshi condition that will contribute to the relatively scarce number of such work. It provides a basis for further research and comparisons in governance, public administration and sustainable development.

Finally, the paper fills a vitally important policy and implementation void by determining how sustainability can be systematically integrated within Bangladesh's public procurement system. The learning, recommendations and results are intended to be useful for policy makers, practitioners, researchers and development partners for achieving a more inclusive, efficient and sustainable procurement system in Bangladesh.

Chapter 2: Literature Review

2.1 Introduction

A literature review provides the theoretical and empirical foundation for any research study. In this thesis, it serves to examine the global, regional, and national scholarship on Sustainable Public Procurement (SPP), with emphasis on how sustainability criteria can be integrated into tendering and evaluation stages. The review highlights conceptual definitions, theoretical lenses, global practices, developing country experiences, and Bangladesh's current procurement framework. It also identifies barriers, gaps, and lessons that inform the study's empirical investigation through surveys and interviews.

This chapter is organized as follows. Section 2.2 explores conceptual foundations of SPP and associated theories. Section 2.3 reviews global experiences, while Section 2.4 examines practices in developing countries. Section 2.5 situates the discussion in Bangladesh, with attention to PPA 2006, PPR 2008, the e-GP system and the 2023 SPP Policy. Section 2.6 discusses barriers to SPP, Section 2.7 identifies research gaps, and Section 2.8 presents the conceptual framework that guides this study.

2.2 Conceptual Foundations of Sustainable Public Procurement

2.2.1 Definitions and Scope

SPP has been defined by the United Nations Environment Programme (UNEP, 2012) as a process where public sector entities are supported to meet their needs for goods, services, works and utilities in a way that achieves better value for money on a lifecycle basis and generates benefits not only for the society but also for economy while minimizing damage to the environment. The International Organization for Standardization (2017) upholds SPP as the inclusion of sustainability into procurement, and taking the entire life cycle into account within both purchasing processes and purchasing decisions. In addition, the Organisation for Economic Co-operation and Development (OECD, 2015) places a strong emphasis on SPP as a demand side policy instrument to attain sustainable consumption and production.

These definitions coincide with three primary dimensions: environmental sustainability (e.g., resource efficiency, emission reduction), social sustainability (e.g. labor and gender standards) and economic sustainability (e.g. lifecycle cost efficiency and local economic development).

Source	Definition/Focus	Core Dimensions
UNEP (2012)	Meet needs while minimizing environmental harm	Environment, Social and Economy
OECD (2015)	SPP as tool for sustainable consumption and production	Policy tool, Market impact
ISO 20400 (2017)	Integration of sustainability across procurement lifecycle	Lifecycle costing, Environment and Social
EU (2021)	Green Public Procurement handbook	Environment, Lifecycle analysis

Table 2. 1: Selected Definitions and Frameworks of SPP

2.2.2 Theoretical Underpinnings

Several theories guide analysis of SPP:

- **Triple Bottom Line (Elkington, 1998):** Argues that organizations must measure success not only in profit but also in terms of people and planet. This underpins the integration of environmental and social factors in procurement decisions.
- **Institutional Theory:** Suggests organizations adopt practices in response to regulatory, normative and cultural pressures. This explains why clear legal frameworks (e.g., EU directives) often determine whether sustainability criteria are applied.
- **Stakeholder Theory:** Procurement involves multiple stakeholders-government, suppliers, communities, NGOs each influencing the inclusion of sustainability.
- **Public Value Theory:** Public procurement should create value beyond cost savings, contributing to broader developmental and sustainability goals.

2.2.3 Evaluation Approaches

Embedding sustainability in evaluation requires tools beyond lowest cost:

- **Lifecycle Costing (LCC):** Calculates costs over the product or service's lifespan, capturing operation, maintenance and disposal (European Commission, 2021).
- **Multi-Criteria Decision Analysis (MCDA):** Uses weighted scoring or analytic hierarchy process to balance price with sustainability criteria.

- **Environmental and Social Safeguards:** Inclusion of indicators such as carbon footprint, energy efficiency, labor rights and inclusivity.

These methods are directly relevant to the survey items in this study that assess evaluation practices.

2.2.4 Critical Debates

The literature shows tension between the traditional procurement principle of “lowest evaluated cost” and the broader goal of sustainability. While cost minimization ensures fiscal discipline, it often excludes environmental externalities and social impacts (Testa et al., 2016). The challenge is balancing efficiency with sustainability, an issue at the heart of Bangladesh’s procurement reforms.

2.3 Global Experiences with Sustainable Procurement

2.3.1 Developed Countries

The European Union has established Green Public Procurement (GPP) as a policy tool since the early 2000s, mandating sustainability criteria in sectors such as construction, energy and transport (European Commission, 2021). The United Kingdom’s Public Services (Social Value) Act 2012 requires public bodies to consider economic, social and environmental well-being in procurement (McCrudden, 2004). Sweden pioneered renewable energy procurement, while South Korea institutionalized eco-label requirements for public tenders (OECD, 2015).

Country/Region	Policy/Instrument	Key Focus	Outcomes
EU	GPP Directives	Environment, lifecycle	Reduced emissions, market shift
UK	Social Value Act	Social, economic, environment	Greater SME inclusion
Sweden	Renewable energy procurement	Environment	High share of renewables
South Korea	Eco-label procurement	Environment	Supplier compliance

Table 2. 2: Global Best Practices in SPP

2.3.2 Recent Global Trends

The Sustainable Procurement Barometer 2024 (EcoVadis & Accenture) shows that while more organizations integrate ESG data, only a minority find these measures “very effective,” due to technology and data integration gaps. Similarly, Yeboah et al. (2024) found that in higher education, leadership and supplier engagement are critical to effective SPP.

2.3.3 Critical Insights

These experiences demonstrate that regulation, standardized tools and political will are decisive. Voluntary approaches often fail to achieve systemic change (Brammer & Walker, 2011).

2.4 Sustainable Procurement in Developing Countries

Developing countries face persistent implementation challenges despite policy reforms:

- **Africa:** Ghana and Kenya introduced green procurement but struggled with enforcement and supplier readiness (Ameyaw et al., 2012; Watermeyer, 2011). South Africa linked procurement to socio-economic development, but sustainability outcomes were uneven.
- **Asia:** India incorporated energy efficiency in procurement, while China piloted green purchasing programs. Sri Lanka and Nepal explored pilot projects with donor support.
- **Latin America:** Chile’s “Chile Compra” integrated sustainability indicators but required significant capacity building.

Common challenges: weak institutions, lack of capacity, supplier limitations, and higher upfront costs.

Lesson: gradual adoption, donor support and phased enforcement are more effective than abrupt mandates.

2.5 Public Procurement and Sustainability in Bangladesh

2.5.1 Legal and Institutional Framework

The PPA 2006 and PPR 2008 modernized Bangladesh’s procurement, improving transparency and efficiency (World Bank, 2017; CPTU, 2021). The introduction of the Electronic

Government Procurement (e-GP) system expanded dramatically, covering - 80% of procurement expenditure by 2022 (World Bank, 2023).

2.5.2 Gaps in Sustainability Integration

Despite these achievements, procurement remains focused on “lowest evaluated cost” (Hoque & Ahmed, 2020). Sustainability criteria are not explicitly required in tendering or evaluation, and e-GP lacks built-in modules for sustainability scoring.

2.5.3 SPP Policy 2023

In 2023, the government adopted a Sustainable Public Procurement Policy anchored in three pillars: environmental, social and economic. It promotes participation of women-owned and SME enterprises, emphasizes life-cycle costing and encourages awarding contracts based on “most advantageous tender” rather than only cost (CPTU, 2023). SWITCH-Asia (2023) notes this as a significant step forward but highlights capacity and monitoring gaps.

2.5.4 Empirical Reports

- The **World Bank (2023)** notes that while e-GP reduced lead times and increased competition, sustainability criteria are still underdeveloped.
- **SWITCH-Asia (2023)** assessment emphasizes the need for sector-specific guidelines, especially in infrastructure procurement.
- **Policy briefs** recommend integrating climate resilience, inclusivity and lifecycle costing into evaluation criteria.

Criteria	PPR 2008	ISO 20400 / EU GPP	Gap
Sustainability clauses	Absent	Explicit	Major
Lifecycle costing	Not required	Mandatory in EU	Gap
Social inclusion	Not explicit	Strong emphasis	Gap
Monitoring	Weak	Regular audits	Gap

Table 2. 3: Comparison of PPR 2008 and International SPP Frameworks

This directly connects with survey questions on current policies, sustainability parameters, evaluation methods and rules.

2.6 Barriers to Sustainable Procurement

2.6.1 Institutional/Regulatory Barriers

- PPR 2008 lacks explicit sustainability provisions.
- Weak enforcement and absence of standardized templates.

2.6.2 Technical/Capacity Barriers

- Limited training and expertise in lifecycle costing.
- Lack of sustainability indicators and data systems.
- e-GP not configured to assess sustainability.

2.6.3 Economic/Market Barriers

- Suppliers face higher upfront costs for compliance.
- Many SMEs lack capacity to meet environmental or social standards.

2.6.4 Political/Cultural Barriers

- Weak political will and resistance among officials.
- Risk aversion and preference for traditional cost-focused procurement.

2.6.5 Monitoring Barriers

- Inadequate audit mechanisms and accountability structures.

Category	Examples	Sources
Institutional	Absence of clauses in PPR 2008	Hoque & Ahmed (2020)
Technical	Lack of training, tools	Ahmed & Faroque (2021)
Economic	Supplier cost constraints	Testa et al. (2016)
Political	Weak prioritization, resistance	Hasan & Shamsul (2019)

Table 2. 4: Barriers to SPP Implementation

2.7 Research Gaps Identified

The review highlights critical gaps:

1. Limited empirical data on procurement officials' knowledge, attitudes and practices (KAP);
2. No structured gap analysis of PPR 2008 against ISO 20400 and EU GPP;
3. Lack of tested evaluation templates for sustainability criteria;
4. Underexplored role of e-GP in supporting SPP;
5. Minimal research on gender and SME inclusion.

These gaps align with survey questions on training, evaluation methods, barriers and support mechanisms.

2.8 Conceptual Framework

The conceptual framework proposes that the adoption of SPP in tendering and evaluation is influenced by five independent variables: knowledge, attitudes, training and capacity, institutional support, and e-GP functionality. Moderating these relationships are political will, resistance to change and supplier readiness. The dependent variable is the integration of sustainability into tendering and evaluation decisions.

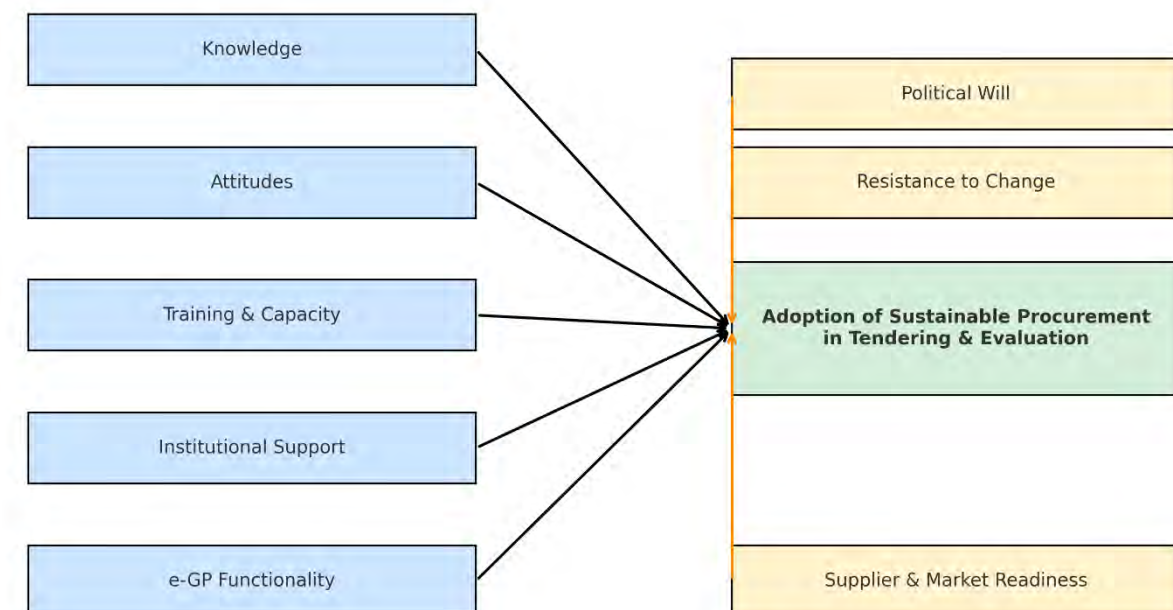


Figure 2. 1: Conceptual Framework

- **Independent Variables:** Knowledge, Attitudes, Training & Capacity, Institutional Support, e-GP Functionality.
- **Dependent Variable:** Adoption of Sustainable Procurement in Tendering & Evaluation.
- **Moderators:** Political Will, Resistance to Change, Supplier&Market Readiness.

Arrows flow from the independent variables to the dependent variable, with moderators shaping the strength of these relationships.

2.9 Summary

This chapter reviewed the conceptual, global and national literature on SPP. It showed that while SPP frameworks are well developed internationally, developing countries-including Bangladesh-face institutional, technical, economic and political challenges. Bangladesh has made progress with procurement reforms and the 2023 SPP Policy, but gaps remain in embedding sustainability into tendering and evaluation.

The review identified research gaps in empirical knowledge, legal provisions, evaluation methods, e-GP integration, and social inclusion. These gaps provide the rationale for this study's objectives and guide the research design. The conceptual framework developed here serves as the foundation for the methodology described in Chapter 3.

Chapter 3: Methodology

3.1 Introduction

This chapter addresses the methodology used to examine how sustainability can be mainstreamed in Bangladesh's public procurement tender and evaluation process. This research will evaluate the practice, limitations and barriers of Public Procurement Rules 2008, as well identify openings for mainstreaming sustainable (environmental, social and economic) procurement into purchasing activities. To meet these objectives, the chapter discusses research philosophy, design and population and sampling procedures instrument development and data collection process as well as analytical procedure among others. It also addresses validity and reliability, ethical issues, and limitations of the study. The methodological approach was developed to provide both empirical evidence and policy relevant learnings, offering a robust and transparent structure on which the research questions could be addressed.

3.2 Research Philosophy and Approach

The study is grounded in a pragmatic research philosophy, which emphasizes practical solutions to real-world challenges and allows for the use of multiple methods. Pragmatism was considered appropriate for this research because the integration of sustainability into procurement is not only a theoretical issue but also a policy and practice concern requiring actionable recommendations.

The research primarily follows a deductive approach, drawing on established theories and international frameworks of Sustainable Public Procurement (SPP) to anticipate relationships between knowledge, training, institutional support, digital platforms and adoption of sustainability criteria. For example, literature suggests that procurement officials with higher levels of training and institutional guidance are more likely to integrate sustainability into tender evaluations. At the same time, the study incorporates an inductive element, particularly through open-ended questions and interviews, which capture new ideas, policy gaps, and reform opportunities specific to the Bangladeshi context. This combination of deductive and inductive reasoning ensures both theoretical grounding and contextual sensitivity.

3.3 Research Design

A convergent mixed-methods design was adopted to capture both measurable patterns and deeper insights. Quantitative survey data provided evidence on the prevalence of sustainability practices, levels of awareness and barriers. Qualitative data from open-ended responses and interviews explained why certain practices are followed or neglected and captured recommendations for institutional reforms and digital innovations. The study is descriptive in documenting current practices and explanatory in interpreting factors that influence or obstruct the adoption of sustainability. A sector-focused case orientation was used, emphasizing ministries, departments and agencies with substantial procurement (notably in fisheries and livestock), while drawing implications for the broader public sector.

3.4 Population, Sampling and Sample Size

The population for this study consists of public officials directly involved in procurement within Ministries, Departments, Autonomous organizations, and State-Owned enterprises. This includes Project Directors, Executive Engineers, Sr.Procurement Officers and officials responsible for tender preparation, evaluation and approval.

A purposive sampling strategy was applied to identify relevant ministries and agencies with significant procurement responsibilities. Within these organizations, judgmental sampling was used to select officials actively engaged in tendering and evaluation. To expand coverage, snowball sampling was employed, whereby initial respondents recommended additional colleagues with relevant experience. This approach ensured that the sample included individuals with practical involvement in decision-making.

The effective sub-population of procurement officials directly involved in tendering and evaluation was approximately 50. Using Yamane's (1967) formula at a 95% confidence level and a 5% margin of error yields a required sample of about 44 respondents.

$$n = \frac{N}{1 + N(e^2)} = \frac{50}{1 + 50(0.05^2)} = \frac{50}{1 + 0.125} = \frac{50}{1.125} = 44$$

Where:

- n = required sample size
- N = population size
- e = margin of error (level of precision, usually 0.05)

Due to practical constraints, the achieved sample was smaller; however, purposive/judgmental sampling targeted officials in relevant roles across diverse organizations, providing sufficient variation to identify consistent patterns. In line with qualitative case-study logic, the responses were adequate to reach thematic saturation, meaning additional cases were unlikely to produce substantially new themes (Guest, Bunce, & Johnson, 2006; Yin, 2018).

3.5 Research Instrument Development

The primary data collection instrument was a structured questionnaire, developed based on literature, international procurement frameworks and the Public Procurement Rules (2008). The questionnaire was designed to align directly with the research objectives and covered six major areas:

1. **Demographics and Organizational Information:** including role, years of experience and type of organization.
2. **Awareness and Training:** measuring familiarity with SPP concepts, exposure to e-GP and training received.
3. **Current Practices:** focusing on evaluation methods, presence of sustainability criteria in tenders and existing organizational policies.
4. **Barriers to Implementation:** capturing institutional, technical, financial and political challenges.
5. **Institutional and Digital Support:** assessing the role of the e-GP system, its current features and recommended enhancements.
6. **Attitudes and Recommendations:** examining officials' views on making SPP mandatory, supporting pilot projects, priority sectors and policy reforms.

The questionnaire combined closed-ended items, measured on five-point Likert scales, with open-ended questions that allowed respondents to elaborate on challenges and solutions. Content validity was ensured through expert review and the questionnaire was pilot tested with a small group of respondents to refine clarity, sequencing, and cultural appropriateness.

3.6 Data Collection Procedure

The data were obtained using a multimodal data collection method to reach as many respondents as possible. In-person surveys were conducted of officials in field offices and

project sites and online surveys among office-based staff within ministries. Semi-structured interviews were also carried out with some high-ranking officials in order to obtain a deeper understanding of the recommendations for policy, institutional, and measurements while integrating sustainability within the procurement systems.

Prior to participation, the participants were informed about the research process and procedure, concerns regarding the informed consent task at the beginning of each session were addressed, and confidentiality was ensured. Participation was voluntary and could be withdrawn at any time.

3.7 Data Collection and Analysis

Data analysis followed a convergent mixed-methods strategy: quantitative and qualitative data were analyzed separately and then integrated during interpretation.

- **Quantitative analysis:** Descriptive statistics (frequencies, percentages) summarized awareness, training, practices and barriers. Cross-tabulations explored relationships of substantive interest (e.g., e-GP training $\times$ SPP awareness; organization type $\times$ policy presence; attitudes $\times$ practice). Given the small sample size ($n=19$), inferential tests were limited and are not emphasized. Where applicable, internal consistency for multi-item groupings was checked using Cronbach's alpha; results are reported in the appendix.
- **Qualitative analysis:** Open-ended responses and interview notes were analyzed thematically following Braun and Clarke's (2006) six-step process. Codes were grouped into higher-order themes such as policy gaps, institutional barriers, political will, market readiness and digital innovations. These themes contextualized the quantitative patterns.
- **Integration and coding transparency.** To improve comparability, closely related raw categories (e.g., "lack of training," "lack of awareness") were combined into broader analytical codes (e.g., lack of awareness and training). Likewise, general "Yes" responses about the adequacy of PPR 2008 were disaggregated into adequately covers vs. partially covers based on clarifying comments. All raw data were retained; thematic groupings were applied transparently to reflect broader patterns rather than isolated responses.

This coding process ensured that the findings presented in Chapter 4 are both faithful to the raw survey data and analytically meaningful for the study's objectives. All raw data were retained, and thematic groupings were applied transparently to reflect broader patterns rather than isolated responses.

3.8 Reliability and Validity

To ensure reliability, the questionnaire was pilot-tested with a small group of public procurement officials to refine wording and confirm ease of understanding. Internal consistency of survey items, particularly those measuring barriers and knowledge-attitude-practice (KAP) dimensions, was checked using Cronbach's alpha. Standardized procedures were followed in administering the questionnaire and conducting interviews, which minimized variations in data collection. An audit trail of coding and analysis decisions was maintained to support dependability.

For validity, multiple strategies were adopted. Face and content validity were ensured through expert review by academics and practitioners in public procurement, who confirmed that the questionnaire adequately covered sustainability-related issues within the tendering and evaluation process. Construct validity was demonstrated through factor analysis of barrier items, which grouped into meaningful categories such as institutional, technical, financial and regulatory constraints. Triangulation across survey data, semi-structured interviews and document reviews further strengthened validity by allowing findings from one method to be cross-checked against the others. These measures collectively enhanced the credibility and policy relevance of the study's findings.

3.9 Ethical Considerations

The research adhered to ethical standards throughout the process. Informed consent was obtained from all respondents, who were assured that their responses would remain confidential and used exclusively for academic purposes. No personally identifying information was disclosed in reporting. Participation was voluntary, with respondents retaining the right to withdraw at any stage. Ethical clearance for the study was secured from the relevant university research ethics committee before data collection commenced.

3.10 Limitations

The study acknowledges certain limitations. First, it cannot be generalized outside of the Ministries of fisheries and livestock procurement sector. Second, the self-reported nature of the data sample increases susceptibility to response bias. Third, the research employed a cross-sectional design, which reflects practices and attitudes at a single point in time, without considering subsequent developments. Limitations were addressed through sampling a variety of organization types, using multiple data sources and describing the study scope clearly.

3.11 Conclusion

In conclusion, this chapter has outlined the methodological framework adopted for investigating sustainable procurement in Bangladesh's public sector. Guided by a pragmatic philosophy and a mixed-methods design, the study integrated quantitative and qualitative approaches to capture both the breadth and depth of the issue. Rigorous sampling, carefully designed instruments, systematic data collection, and robust analytical techniques were applied to ensure reliability and validity. Ethical safeguards and transparent reporting further enhance the credibility of the study. This methodology provides a sound foundation for the subsequent presentation and discussion of findings.

This methodological design directly supported the study's six objectives by enabling the collection of data on current practices, officials' knowledge and attitudes, institutional and regulatory gaps, barriers, capacity-building needs and recommendations for enhancing tendering and evaluation processes.

Chapter 4: Findings and Analysis

The findings below are based on the validated methods outlined in Chapter 3, which employ convergent mixed methods to integrate quantitative results with qualitative insights.

4.1 Respondent Profile

The survey captured responses from 19 procurement officials across Ministries, Agencies, Autonomous Bodies, and State-Owned Enterprises, offering a diverse representation of the public sector.

Group	Category	Frequency (n)	Percentage (%)
Years of Experience	1–3 years	3	15.8
	4–7 years	6	31.6
	More than 7 years	10	52.6
Type of Organization	Ministry/Department/Agency	13	68.4
	Autonomous Body	4	21.1
	State-Owned Enterprise	2	10.5
Training in e-GP	Trained in e-GP	12	63.2
	Not Trained in e-GP	7	36.8
	Total Respondents	19	100.0

Table 4. 1: Profile of Respondents by Experience, Organization Type and e-GP Training

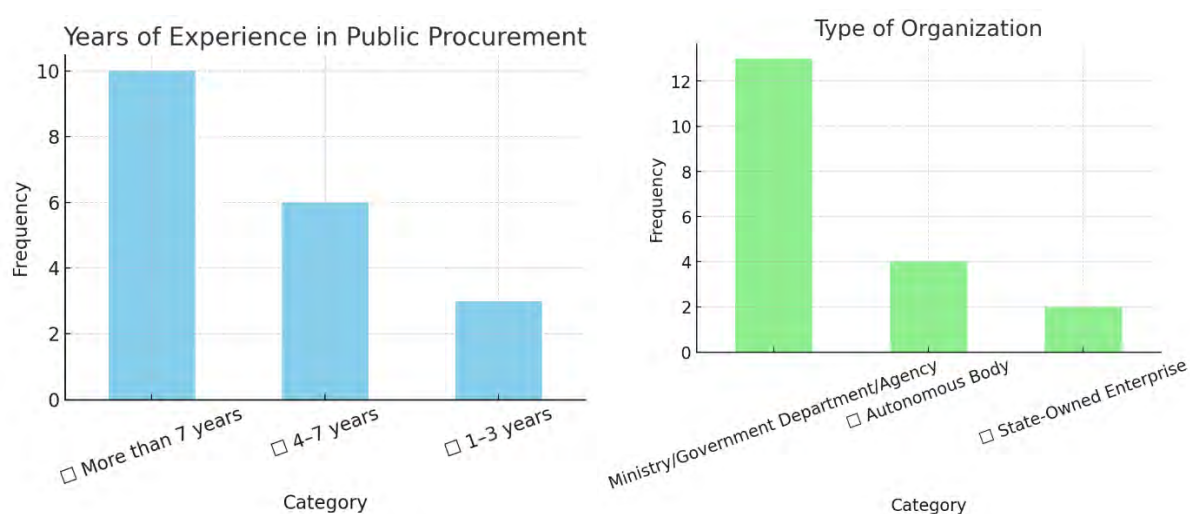


Figure 4. 1: Distribution of respondents by years of experience and by type of organization (Bar chart)

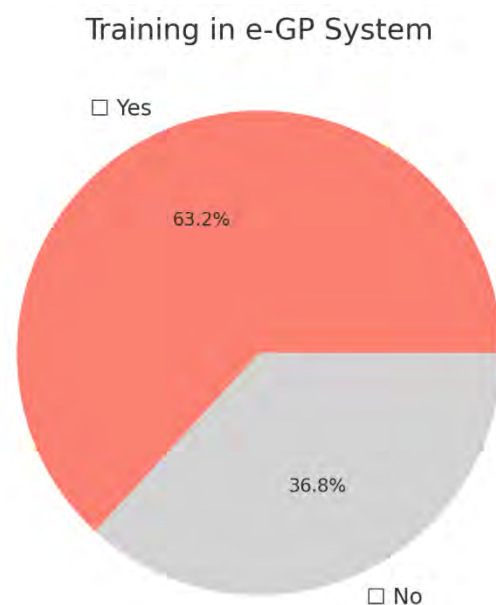


Figure 4. 2: Training in e-GP among Respondents (Pie chart)

In terms of experience, the majority of respondents (53%) had more than seven years of involvement in public procurement, while 32% had between four and seven years, and only a small proportion (15%) fell within the one-to-three-year category. This indicates that the data largely reflects the perspectives of senior and mid-career officials with substantial procurement experience. Their insights are particularly valuable, as these individuals are more likely to be directly engaged in decision-making and evaluation processes.

Regarding the type of organization, more than two-thirds (68%) of respondents were affiliated with ministries or government departments/agencies, while 21% represented autonomous bodies and 11% came from state-owned enterprises. The dominance of ministry-level responses suggests that the findings are strongly rooted in the central public sector where the majority of high-value procurement occurs.

In terms of technical readiness, around 63% of respondents reported having received training in the electronic Government Procurement (e-GP) system, while 37% had not. This demonstrates that while a majority are familiar with the digital procurement platform, there remains a significant segment of officials who lack adequate training. Given that e-GP is the cornerstone of procurement reform in Bangladesh, this finding highlights a capacity gap that may affect the integration of sustainability considerations into digital platforms.

Overall, the respondent profile demonstrates that the study draws on informed perspectives from experienced officials situated within key institutions. At the same time, the uneven distribution of e-GP training points to institutional weaknesses that must be addressed to enable sustainable procurement reforms.

4.2 Awareness, Policies and Parameters of Sustainable Procurement

Category	Response Option	Frequency	Percentage
Source of Knowledge on SPP (Total = 18)	Official training	9	50.0%
	Self-study	4	22.2%
	Unfamiliar with the concept	2	11.1%
	Seminar/workshop	2	11.1%
	Mixed sources (multiple)	1	5.6%
Organizational Sustainability Policy (Total = 19)	Yes, formal policy exists	10	52.6%
	Not sure	6	31.6%
	Policy is under development	2	10.5%
	No	1	5.3%
Sustainability Parameters Followed (Total = 17)	Environmental + Social + Economic	4	23.5%
	Long-term cost-effectiveness only	3	17.6%
	Environmental + Social mix	3	17.6%
	Environmental only	3	17.6%
	Others (unspecified)	2	11.8%
	Environmental + Economic	1	5.9%
	Environmental + Others	1	5.9%

Table 4. 2: Awareness of SPP, Organizational Policies and Sustainability Parameters

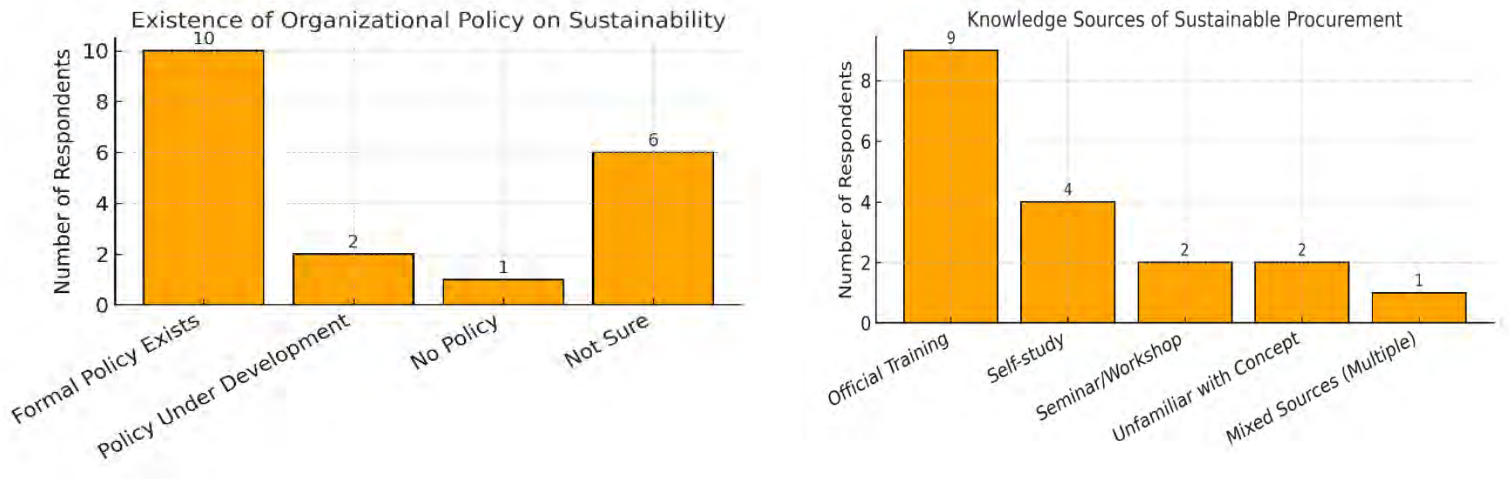


Figure 4. 3: Existence of Organizational Policy and Sources of Knowledge on SPP (Bar Chart)

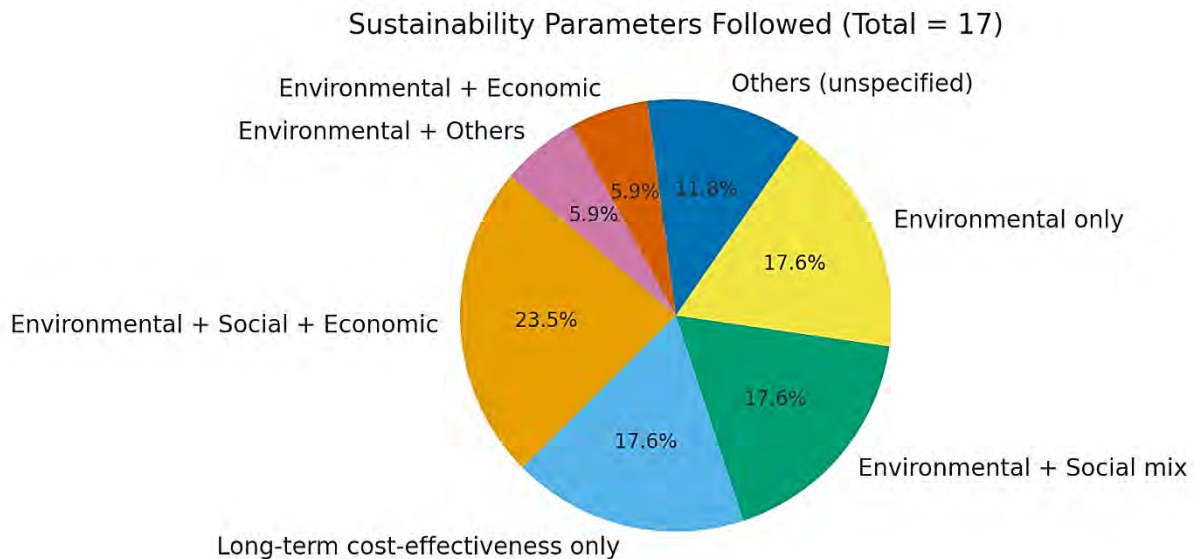


Figure 4. 4: Sustainability Parameters Followed (Pie Chart)

The survey results indicate that awareness of sustainable public procurement (SPP) varies significantly among respondents. About half of them (50%) first encountered the idea through official training, while around one in five (22%) reported learning about it on their own initiative, primarily through self-study. A few mentioned hearings about it in seminars or workshops (11%), and a similar number (11%) admitted that they were not familiar with the concept at all. One person mentioned learning about SPP from several different sources. Overall, this suggests that while training and learning opportunities are available, a portion of officials still have a limited understanding of sustainability in procurement. This highlights the

need for more consistent awareness and capacity-building initiatives within government agencies.

When asked whether their organizations follow a sustainability policy, just over half of the respondents (around 53%) said yes, a formal policy or guideline exists. A small group (approximately 11%) noted that such a policy is in the process of being developed, while roughly a third (32%) stated they were not sure. Only one respondent (5%) reported that no policy exists at all. This uneven distribution suggests that some organizations are taking sustainability seriously, but many still lack clear direction or formal commitment. Without consistent policy guidance, it becomes challenging to integrate sustainability into a standard part of procurement decisions.

When it comes to actual practice, environmental factors appear to get the most attention. Nearly one in four respondents (23.5%) said they try to balance all three aspects, environmental, social, and economic, in their procurement decisions. However, most tend to focus on specific aspects of sustainability: approximately 18% mentioned considering long-term cost-effectiveness, another 18% combine environmental and social aspects, and a similar proportion look only at environmental impacts. A few others listed different or mixed criteria. In short, while environmental sustainability is being recognized, the social and economic sides are still not getting equal weight. This shows that Bangladesh's public procurement practices are moving in the right direction, but still have a way to go before they fully embrace a balanced sustainability approach.

The presence of sustainability policies varied across types of organizations, as shown in the table below.

Organization Type	Formal Policy Exists	Policy Under Development / Not sure	No Policy	Total
Ministry/Dept./Agency (n=13)	8 (61.5%)	4 (30.8%)	1 (7.7%)	13
Autonomous Body (n=4)	1 (25.0%)	2 (50.0%)	1 (25.0%)	4
State-Owned Enterprise (n=2)	1 (50.0%)	0	1 (50.0%)	2
Total	10 (52.6%)	6 (31.6%)	3 (15.8%)	19

Table 4. 3: e-GP Training and Awareness of SPP (Cross-tabulation)

Ministries and departments reported the highest rate of sustainability policy adoption (about 62%), compared with only 25% among autonomous bodies and 50% among state-owned enterprises. This pattern suggests that central government agencies are leading the integration of sustainability considerations into procurement policy. However, the uneven distribution across organizational types indicates that sustainability frameworks are not yet fully institutionalized throughout the public sector. Strengthening policy consistency and extending guidance to semi-autonomous and state-owned entities would help ensure a more uniform approach to sustainable procurement in Bangladesh.

Awareness of SPP was also analyzed in relation to years of procurement experience.

Years of Experience	Aware of SPP	Unfamiliar with SPP	Total
1–3 years (n=3)	2 (66.7%)	1 (33.3%)	3
4–7 years (n=6)	5 (83.3%)	1 (16.7%)	6
>7 years (n=10)	8 (80.0%)	2 (20.0%)	10
Total	15 (78.9%)	4 (21.1%)	19

Table 4. 4: Years of Experience vs. Awareness of SPP

Officials with more than seven years of experience showed the highest level of awareness of sustainable public procurement (80%), compared to 67% among those with one to three years of experience and 83% among those with four to seven years. Although awareness tends to increase with professional experience, even some senior officials reported limited familiarity with the concept. This suggests that experience alone does not guarantee adequate knowledge of sustainability principles, highlighting the importance of structured and continuous training programs to strengthen understanding across all levels of public procurement personnel.

4.3 e-GP Training and SPP Awareness among Respondents

Category	Response	Count (n)	Percentage (%)
e-GP Training	Yes	12	63.2
	No	7	36.8
SPP Awareness	Official training	9	47.4
	Self-study	4	21.1

	Seminar/workshop	2	10.5
	Unfamiliar with the concept	2	10.5
	Mixed sources (multiple)	1	5.3

Note: e-GP training based on 19 responses; SPP awareness based on 18 valid responses.

Table 4. 5: e-GP Training and Awareness of SPP

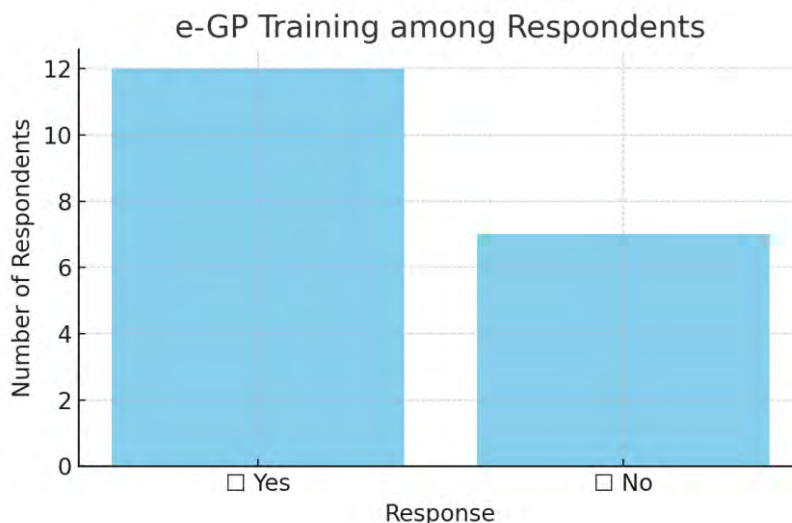


Figure 4. 5: e-GP training among respondents (Bar Chart)

Awareness of Sustainable Public Procurement (SPP) — (Percentages base: N=19)

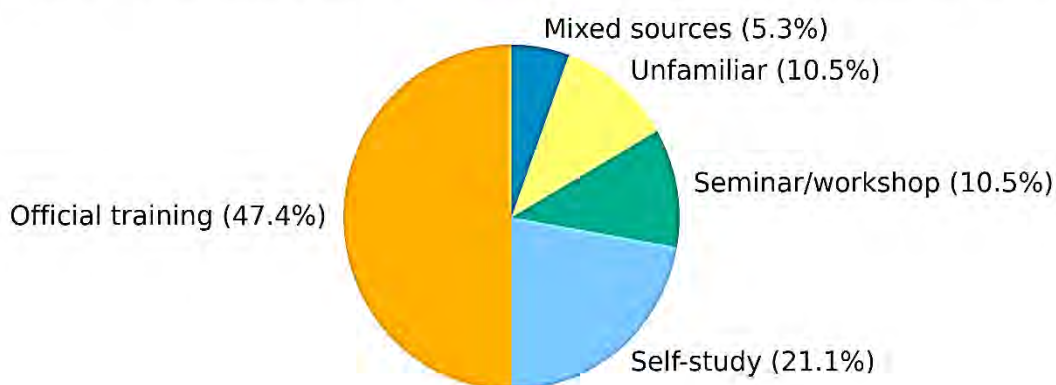


Figure 4. 6: Awareness of sustainable public procurement among respondents (Pie chart)

The survey results highlight a mixed level of capacity and awareness among respondents regarding sustainable procurement in Bangladesh.

- **Training in the e-GP system:** A significant majority of respondents (63.2%) reported receiving training in the Electronic Government Procurement (e-GP) system, while

36.8% had not undergone such training. This indicates that although e-GP training has reached a large proportion of procurement officials, there remains a considerable group without formal exposure, potentially limiting uniform implementation of digital procurement processes.

- **Awareness of Sustainable Public Procurement (SPP):** In terms of awareness, almost half of the respondents (47.4 %) stated that they had learned about SPP through official training, while 21.1% gained knowledge through self-study. Only 10.5% reported being unfamiliar with the concept of SPP altogether, while 10.5% indicated seminars/workshops, and 5.3% mentioned mixed/other sources. This finding reveals a knowledge gap, but smaller than initially reported, as only a minority remain unfamiliar with SPP.

Together, these findings point to a capacity-building challenge: while digital procurement skills (e-GP) are being gradually mainstreamed, awareness and structured training on SPP remain inadequate. Without improving awareness and integrating sustainability concepts into training programs, public procurement officials may struggle to translate policy goals into practice.

The survey results therefore indicate moderate digital capacity alongside uneven sustainability awareness. A majority (63.2%) reported receiving e-GP training, while 36.8% had not. Regarding SPP awareness, most respondents learned through formal training or self-study; unfamiliarity was only 10.5% (2 of 18 valid responses), indicating that while most have some exposure, awareness is not yet comprehensive.

To examine whether technical readiness influences sustainability awareness, a cross-tabulation was conducted between e-GP training and SPP familiarity.

e-GP Training	Aware of SPP (Official/Self-study/Seminar)	Unfamiliar with SPP	Total
Yes (n=12)	10 (83.3%)	2 (16.7%)	12
No (n=7)	5 (71.4%)	2 (28.6%)	7
Total	15 (78.9%)	4 (21.1%)	19

Table 4. 6: Cross-Tabulation of e-GP Training and SPP Awareness

Officials trained in e-GP were more likely to be aware of SPP (83%) compared to those without training (71%). While the difference is not large, it suggests that structured training may

indirectly increase exposure to sustainability concepts. However, awareness gaps persist in both groups, underscoring the need to integrate sustainability modules into e-GP training.

4.4 Attitudes Toward Sustainable Procurement

The findings reveal that procurement officials generally hold positive attitudes toward sustainable public procurement (SPP), though with varying degrees across the environmental, social, and economic dimensions.

Statement (Total = 19)	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
SPP helps reduce negative environmental impact	9 (47.4%)	7 (36.8%)	3 (15.8%)	0	0
SPP can improve social welfare and labor rights	8 (42.1%)	6 (31.6%)	4 (21.1%)	1 (5.3%)	0
SPP ensures better long-term cost-effectiveness	7 (36.8%)	7 (36.8%)	3 (15.8%)	2 (10.5%)	0
SPP should be formally embedded in PPR 2008	10 (52.6%)	6 (31.6%)	3 (15.8%)	0	0

Note: Responses on attitudes were compiled from multiple Likert-scale items in the questionnaire. In some cases, categories such as Neutral or Disagree appeared in related attitude questions, and these were retained in the analysis to reflect the full range of views across environmental, social and economic dimensions.

Table 4. 7: Officials Attitudes Toward Sustainable procurement

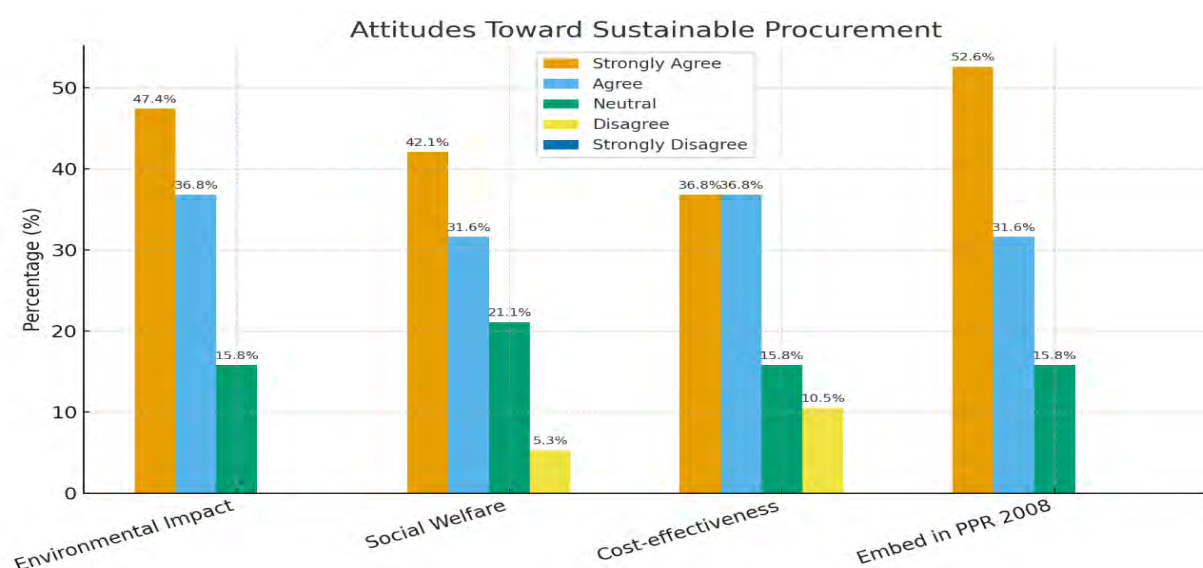


Figure 4. 7: Distribution of Officials Attitudes Toward SPP (Bar Chart)

- **Environmental benefits** received the strongest endorsement, with 84% (Agree + Strongly Agree) recognizing the importance of SPP in reducing negative environmental impacts. This aligns with global trends where environmental sustainability often receives the earliest attention.
- **Social welfare and labor rights** were also valued, with 74% in agreement. However, a notable 21% remained neutral, suggesting limited understanding of how procurement directly influences social outcomes.
- **Economic sustainability** (long-term cost-effectiveness) showed mixed perceptions: 74% agreed, but 10% disagreed and 16% were neutral. This indicates lingering skepticism about whether sustainability measures increase or reduce overall costs.
- Importantly, over 84% of respondents agreed that SPP should be formally embedded in PPR 2008, reflecting strong institutional support for regulatory reform.

Overall, these results suggest that while awareness is uneven, attitudes are largely supportive of mainstreaming sustainability into public procurement. The key challenge is converting this positive outlook into actual practice, which depends on stronger policy frameworks and capacity building.

4.5 Current Practices of Sustainable Procurement

The survey findings highlight a significant gap between attitudes and practices of sustainable procurement among officials:

Criteria Practiced (Total = 19)	Frequently Applied	Sometimes Applied	Rarely Applied	Never Applied
Environmental (eco-friendly materials, waste reduction)	7 (36.8%)	6 (31.6%)	4 (21.1%)	2 (10.5%)
Social (labor standards, SME participation, gender inclusion)	4 (21.1%)	7 (36.8%)	5 (26.3%)	3 (15.8%)
Economic (life-cycle costing, long-term value for money)	3 (15.8%)	6 (31.6%)	6 (31.6%)	4 (21.1%)

Note: Practice frequency was reconstructed from responses to multiple items (Q12 and open-ended comments) and coded into environmental, social, and economic dimensions.

Table 4. 8: Frequency of Applying Sustainability Criteria in Procurement

- **Environmental criteria** are the most commonly integrated, with 68% of respondents reporting that they at least sometimes apply eco-friendly requirements. However, only 37% do so frequently, suggesting that green practices are not yet systematic.
- **Social criteria** are less consistently applied: while over half reported some use, only 21% frequently consider labor standards, SME participation, or gender inclusion. This reflects limited institutional emphasis on social sustainability.
- **Economic criteria (life-cycle costing)** are the least adopted: only 16% frequently apply them, while more than half admit they rarely or never do so. This suggests that traditional focus on lowest tender price continues to dominate procurement decisions.

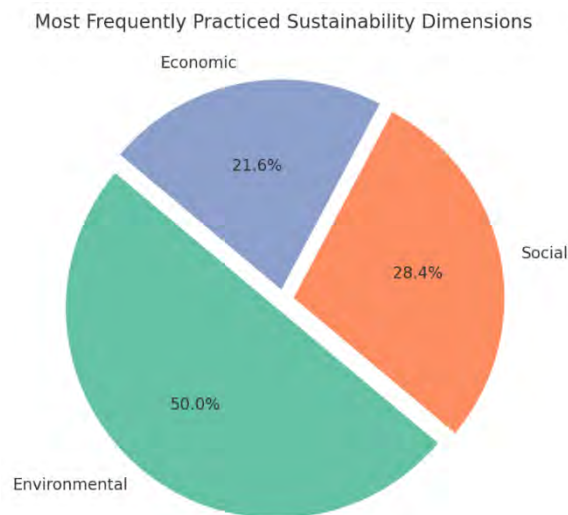


Figure 4. 8: Practices of SPP across environmental, social and economic dimensions (Pie Chart)

Note: Percentages are calculated based on respondents who frequently applied sustainability criteria, to show the relative emphasis among environmental, social and economic dimensions.

Figure 4.8 illustrates the sustainability dimensions that are most frequently practiced in public procurement. Among officials who reported regularly applying sustainability criteria, environmental considerations accounted for half (50%) of all frequent practices, followed by social aspects (28.4%) and economic factors (21.6%). This indicates that environmental sustainability remains the most established focus in current procurement activities, while social and economic dimensions are comparatively less emphasized. The findings suggest that, although awareness of sustainability is broad, actual implementation continues to prioritize environmental outcomes over a balanced integration of all three pillars.

A comparison of officials' attitudes and their reported practices illustrates the knowledge-attitude-practice gap.

Dimension	% Agree SPP Important	% Frequently Applied in Practice	Gap (Attitude – Practice)
Environmental	84%	37%	47%
Social	74%	21%	53%
Economic	74%	16%	58%

Table 4. 9: Gap between attitudes and practices of SPP

Percentages for “Agree SPP Important” are based on the combined share of “Agree” and “Strongly Agree” responses.

The gap represents the difference between positive attitudes and frequent practical application. While most officials agree on the importance of sustainability, actual application is much lower. The largest gap appears in the economic dimension, where 74% recognize its importance but only 16% apply it frequently. This highlights the persistence of lowest-tender practices and the limited integration of life-cycle costing.

Overall, while officials display positive attitudes toward SPP, actual practice remains fragmented and uneven, with environmental sustainability receiving more attention than social and economic dimensions. This mismatch underscores the need for clear guidelines, monitoring, and capacity building to embed sustainability into procurement processes consistently.

4.6 Institutional and Regulatory Gaps (PPR 2008)

The survey findings reveal that procurement officials hold mixed perceptions about the adequacy of PPR 2008 in addressing sustainability.

Aspect	Category	Frequency	Percentage
Overall Perception of PPR 2008	Adequately covers sustainability	3	15.8%
	Partially covers sustainability	6	31.6%
	Does not cover sustainability	7	36.8%

	Don't know / Not sure	3	15.8%
Sustainability Gaps Identified	Environmental (green standards, eco-labels)	10	52.6%
	Social (labor rights, gender inclusion, SME participation)	12	63.2%
	Economic (life-cycle costing, long-term value for money)	8	42.1%

Note: Responses originally marked only as “Yes” were subdivided into “adequate” and “partial” categories based on further clarifications. This reclassification provides more analytical insight into officials’ perceptions of the rules.

Table 4. 10: Officials perceptions of sustainability coverage and identified gaps in PPR 2008

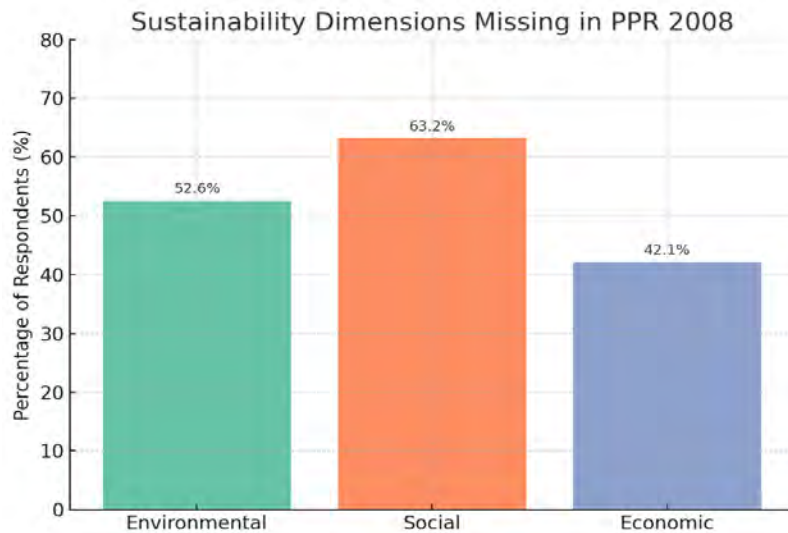


Figure 4. 9: Identified Sustainability Gaps (Bar Chart)

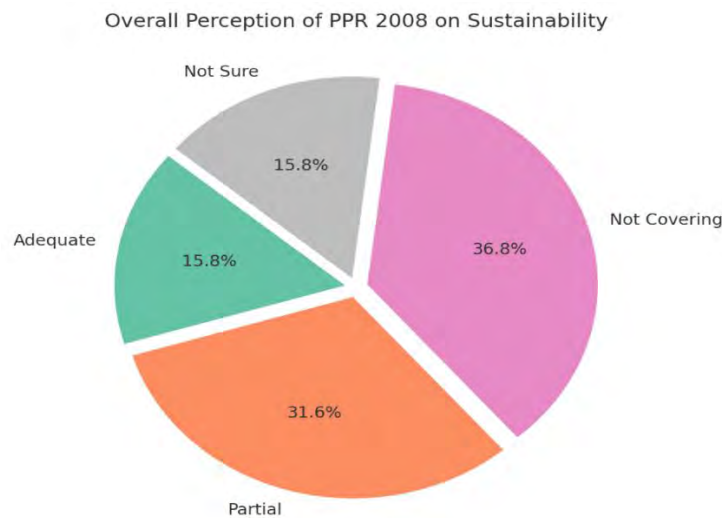


Figure 4. 10: Perceptions of PPR 2008 (Pie Chart)

Opinions regarding the adequacy of PPR 2008 were divided. 15.8% agreed with the statement that the rules are sufficient regarding sustainability, 31.6% had a partial view that relates to coverage, 36.8% did not agree that they cover sustainability, and 15.8% had no opinion on this issue. Such a distribution suggests that there is little confidence in the regulatory regime to ensure the success of SPP. Identified gaps were primarily on social sustainability (63.2%; labour rights, gender inclusion, involvement of SMEs) and environmental components (52.6%; eco-labels, green standards), followed by economic sustainability factors (42.1%; life-cycle costing, long-term value for money). As for which specific dimension is most lacking, the most common answer was social sustainability, provided by 63.2% of the officials asked. This is indicative of weak consideration given to labour standards, gender inclusivity, and SME participation in extant procurement regulations. The environmental section was not thorough enough; 52.6% stated that what was missing were such eco-labels, as well as green product standards. At the same time, there remains an opportunity for 42.1% of the respondents to further integrate economic sustainability specifically life cycle costing and long-term value-for-money with other aspects of their procurement processes.

Altogether, these results suggest that PPR 2008 is not fully integrated with all three dimensions of sustainability. Although there may be individual clauses, it is not enough to promote the systematic implementation of SPP. The findings emphasize the necessity of strengthening through regulatory reform, procurement rules that explicitly define sustainability criteria and are supported by enforcement. Without such changes, the bright attitudes that are held by an elite of leaders are not implemented on a large scale.

The aggregated results demonstrate a distinct knowledge-practice-regulation gap in the field of sustainable public procurement (SPP). The attitude of the authorities in principle is positive to sustainability, especially with respect to environmental advantages and the incorporation of SPP into PPR 2008. Yet, such positive attitudes fail to be translated into practice: Indeed, only a minority regularly utilize environmental or socially based criteria of any kind and economic factors like life-cycle costing are largely absent. This deficiency is exacerbated by scholars who consider that PPR 2008 remains insufficient to deal with sustainability or only partly addresses sustainability, particularly in social and economic aspects. In other words, although the sentiment and consciousness exist, a lack of a strong regulatory force and well-organised policy enforcement means these values are not integrated into the routine procurement practices of local politicians.

4.7 Barriers to Implementation of SPP

The survey findings indicate that capacity and regulatory limitations are the most significant barriers to sustainable procurement in Bangladesh.

Barrier (Total = 19)	Frequency	Percentage
Lack of awareness and training	11	57.9%
Absence of clear sustainability guidelines in PPR 2008	10	52.6%
Budget constraints / higher initial costs	9	47.4%
Limited supplier capacity to meet sustainability standards	8	42.1%
Political influence / pressure in procurement decisions	6	31.6%
Lack of monitoring and enforcement mechanisms	7	36.8%

Note: Overlapping responses such as “lack of training” and “lack of awareness” were grouped into a single category. Similarly, related items were consolidated to highlight broader themes. These themes were derived through systematic coding of open-ended responses.

Table 4. 11: Reported Barriers to Implementing Sustainable Procurement

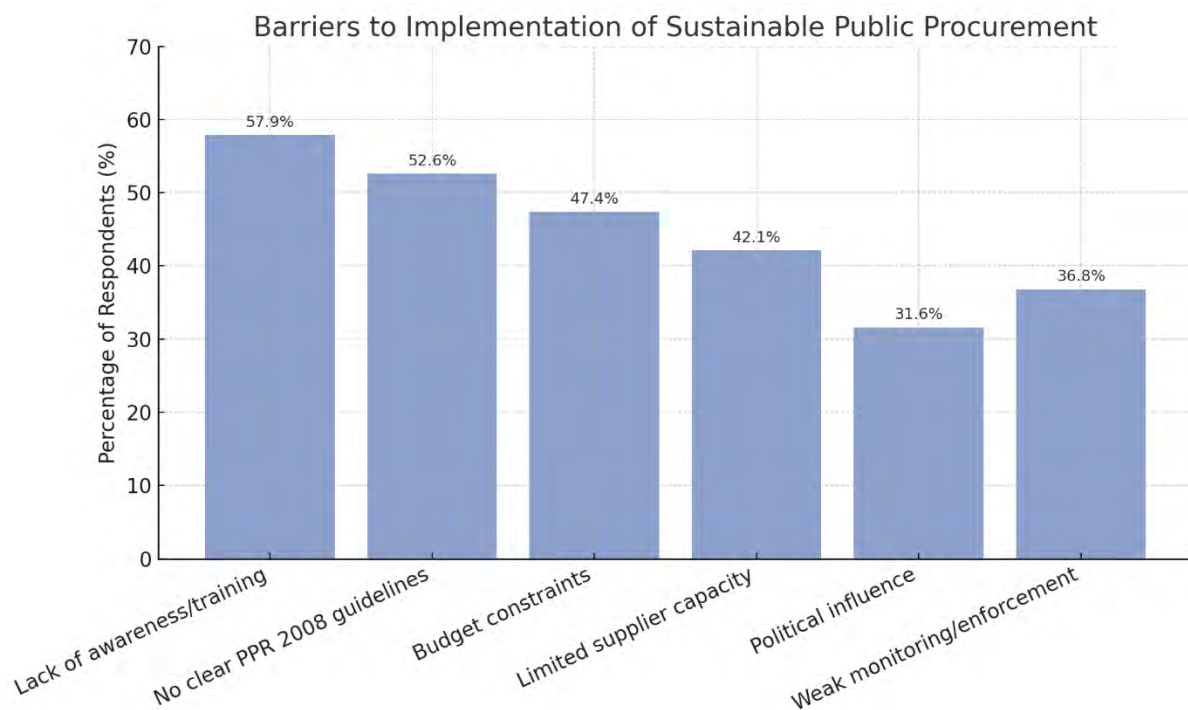


Figure 4. 11: Barriers to Implementing SPP (Bar Chart)

More than half of respondents (57.9%) cited lack of awareness and training as the leading constraint, emphasizing the need for targeted capacity-building initiatives. Similarly, 52.6% highlighted the absence of clear sustainability guidelines in PPR 2008, reinforcing the regulatory gap identified earlier.

Budgetary concerns were another prominent obstacle, with 47.4% of officials noting that higher upfront costs of sustainable goods and services discourage adoption. On the supply side, 42.1% reported that vendors often lack the capacity or certification to meet sustainability standards, limiting the feasibility of enforcing SPP. Institutional challenges were also evident: 36.8% pointed to the absence of monitoring and enforcement mechanisms, while 31.6% flagged political influence as a factor undermining transparency and sustainability goals.

Overall, these findings suggest that barriers to SPP are multifaceted, combining institutional, financial, regulatory and political challenges. Addressing them will require a holistic approach involving regulatory reform, supplier development, budget adjustments and stronger oversight.

4.8 Capacity and Training Needs

The findings highlight a strong demand for structured capacity-building programs to enable the practical implementation of sustainable procurement. These insights were captured from open-ended responses and coded into broad categories for comparability.

Training Area (Total = 19)	Frequency	Percentage
SPP Guidelines and Policies	12	63.2%
Life-cycle costing and value-for-money analysis	10	52.6%
Environmental standards and eco-labels	9	47.4%
Supplier evaluation on sustainability criteria	8	42.1%
Monitoring and reporting of SPP outcomes	7	36.8%
Social inclusion (labor rights, gender, SME participation)	6	31.6%

Note: Respondents could mention multiple training areas; therefore, total frequencies exceed N =19. Open-ended responses were thematically coded into major categories to capture recurring capacity-building priorities.

Table 4. 12: Reported training and capacity-building needs of officials



Figure 4. 12: Training and Capacity Needs of Officials (Bar Chart)

The most frequently cited need was training on SPP guidelines and policies, selected by 63.2% of respondents, indicating a lack of clarity on the regulatory framework and its application. Training in life-cycle costing and value-for-money analysis was the second highest priority (52.6%), reflecting the current gap in applying economic sustainability principles.

Close to half of the officials (47.4%) stressed the importance of learning about environmental standards and eco-labels, suggesting growing recognition of green procurement practices. Meanwhile, 42.1% called for training on supplier evaluation, underscoring the challenge of assessing vendors' compliance with sustainability standards. Lower, but still significant, proportions emphasized training needs in monitoring/reporting of SPP outcomes (36.8%) and social inclusion aspects (31.6%).

Overall, the results confirm that procurement officials are willing to adopt SPP but lack adequate technical and regulatory knowledge. Structured, targeted training addressing these priority areas could significantly reduce the knowledge-practice gap identified earlier.

4.9 Synthesis of the Knowledge-Attitude-Practice (KAP) Gap

The findings reveal a clear disjunction between knowledge, attitudes and practices (KAP) of procurement officials in Bangladesh. While attitudes are overwhelmingly positive with strong recognition of environmental, social and economic benefits, knowledge and practice lag

significantly behind. Roughly one in four officials remain unfamiliar with SPP and most who are aware have gained knowledge through fragmented training or self-study rather than systematic programs. Supporting evidence from open-ended responses was thematically analyzed.

Dimension	Key Findings	Implications
Knowledge	About one in four respondents were either unfamiliar with SPP (10.5%) or uncertain about related policies (31.6%). Most others relied on training or self-study for awareness.	Reveals significant gaps in both basic awareness and institutional clarity, underscoring the need for systematic training.
Attitude	Strongly positive toward environmental, social, and economic benefits of SPP; 84% want PPR 2008 updated.	Officials are willing to adopt sustainability if enabling conditions exist.
Practice	Environmental measures applied more often (37% frequently), social (21%), economic (16%) least practiced.	Shows mismatch between positive attitudes and weak real-world application.
Regulatory Framework	Most respondents believe PPR 2008 does not adequately address sustainability; social and economic gaps most critical.	Legal and institutional reforms needed.
Barriers & Capacity	Top barriers: lack of awareness/training (58%), unclear PPR rules (53%), budget constraints (47%). Training priorities: guidelines (63%), life-cycle costing (53%).	Without capacity-building and clear guidance, practice will remain limited.

Table 4. 13: Knowledge-Attitude-Practice (KAP) gap in sustainable procurement

This gap is most visible in practice: although officials express willingness to adopt sustainability, implementation remains concentrated in environmental aspects, while social and economic dimensions are rarely addressed. The persistence of lowest-tender selection and the absence of life-cycle costing illustrate the difficulty of translating positive intentions into outcomes.

At the institutional level, PPR 2008 is widely viewed as inadequate, with respondents highlighting missing provisions on labor rights, gender inclusion, SME support and eco-labeling standards. This regulatory vacuum, combined with limited capacity and supplier

constraints, prevents the systematic integration of sustainability criteria into tenders and evaluations.

Overall, the findings point to a positive mindset but a weak enabling environment. Bridging this KAP gap requires policy reform (updating PPR 2008), targeted training, supplier development and effective monitoring mechanisms. Without these, sustainable public procurement will remain more aspirational than practical.

In summary, this chapter directly addresses the study's objectives. It assessed the current status of SPP practices through officials' knowledge, attitudes and practices, identified gaps in PPR 2008 and highlighted barriers such as capacity deficits, budget constraints and supplier readiness. It also established training priorities, laying the foundation for the recommendations presented in the next chapter.

Chapter 5: Discussion and Recommendations

5.1 Introduction

This chapter interprets the findings presented in Chapter 4 and develops recommendations for enhancing the tendering and evaluation process for Sustainable Public Procurement (SPP) in the public sector of Bangladesh. The discussion links survey results with global best practices, while the recommendations are grounded in both quantitative evidence and qualitative insights from procurement officials.

The chapter is organized into five sections: (i) Rationale for SPP reforms, (ii) Priority sectors and pilot projects, (iii) Strengthening the tendering and evaluation process, (iv) Policy and leadership recommendations, and (v) Capacity-building and supplier development needs.

5.2 Rationale for SPP Reforms

Procurement officials broadly acknowledged the importance of SPP. Many respondents highlighted its role in protecting the environment, ensuring transparency in government spending and delivering long-term cost savings. Others emphasized the relevance of SPP in aligning Bangladesh with the Sustainable Development Goals (SDGs) and international sustainability standards.

This confirms the attitudinal findings in Chapter 4, where officials strongly supported embedding sustainability into procurement regulations. These perspectives directly reinforce Objective 1 and Objective 2, which sought to assess current practices and examine knowledge, attitudes and practices (KAP) of officials. They demonstrate that while officials value sustainability, awareness and application remain inconsistent, underscoring the urgency of reform.

5.3 Priority Sectors and Pilot Projects

Respondents suggested that SPP implementation should begin with high-spending and high-impact sectors rather than attempting an across-the-board rollout. Sectors most frequently identified included construction and infrastructure projects, energy-efficient appliances, ICT equipment and eco-friendly office supplies.

In addition, respondents proposed pilot projects such as eco-friendly building designs, renewable energy procurement for government offices and paperless procurement systems.

These suggestions align with international experiences, where construction, energy and ICT sectors are often prioritized due to their environmental and financial impact.

Such recommendations are consistent with Objective 6, which focuses on reforms to tendering and evaluation. A phased or sectoral approach would allow lessons to be learned and capacity to be built before SPP is scaled nationally.

5.4 Strengthening the Tendering and Evaluation Process

A key gap identified in Chapter 4 was the limited use of life-cycle costing and non-price criteria, with most evaluations still dominated by the lowest tender price. Respondents stressed that reforms to the electronic Government Procurement (e-GP) platform are essential for embedding sustainability into tendering and evaluation. Suggested improvements included:

- Adding dedicated fields for sustainability criteria in tender documents;
- Introducing checklists and scoring modules for environmental, social, and economic standards;
- Allowing life-cycle costing and value-for-money assessments to be applied consistently.

These proposals directly address Objective 6. They highlight how the evaluation process can be improved to move beyond lowest-price selection and align procurement with sustainability objectives.

5.5 Policy and Leadership Recommendations

As noted in Chapter 4, most officials felt that PPR 2008 does not adequately address sustainability. Respondents emphasized the importance of clear policy direction and leadership commitment to bridge this gap. Common recommendations included:

- Amending PPR 2008 to explicitly integrate sustainability criteria;
- Issuing detailed guidelines to ensure consistent application across agencies;
- Strengthening political will and accountability for sustainability in procurement;
- Supporting local suppliers to meet sustainability standards, reducing the risk of exclusion.

These policy and leadership recommendations correspond with Objective 3 and Objective 4, which aimed to identify institutional gaps in PPR 2008 and barriers to implementation. They reflect the need for reforms at both regulatory and leadership levels to create an enabling environment for SPP.

5.6 Capacity-Building and Supplier Development

The most frequently cited barrier to SPP implementation was lack of awareness and training. Respondents also pointed to a shortage of technical expertise in areas such as life-cycle costing, eco-labeling and supplier evaluation.

To address these gaps, the following measures are recommended:

1. **Structured training programs** for procurement officials on SPP guidelines, economic analysis and evaluation techniques.
2. **Integration of sustainability modules into e-GP training** ensuring that all officials receive exposure to digital and sustainability competencies together.
3. **Supplier development programs** including awareness campaigns and certification support, to help vendors meet sustainability requirements.
4. Establishing **monitoring and reporting mechanisms** to track the outcomes of sustainable procurement initiatives.

These measures align with objective 5, which sought to identify the capacity and training needs of procurement officials. Without capacity-building and supplier readiness, even well-designed policies will struggle to be implemented effectively.

5.7 Alignment with Research Objectives

The recommendations presented above directly respond to the study's objectives:

- **Objective 1 (Assess the current status of SPP):** Addressed through an evaluation of officials' practices and identification of the KAP gap.
- **Objective 2 (Examine officials' knowledge, attitudes and practices):** Findings confirmed positive attitudes but revealed uneven knowledge and weak practice.
- **Objective 3 (Identify gaps in PPR 2008):** Reforms recommended to address missing social, environmental and economic provisions.

- **Objective 4 (Identify barriers to implementation):** Recommendations address barriers such as training gaps, regulatory ambiguity and supplier limitations.
- **Objective 5 (Identify capacity and training needs):** Recommendations focus on structured training, integration into e-GP and supplier support.
- **Objective 6 (Propose reforms for tendering and evaluation):** Suggestions include life-cycle costing, sustainability checklists and upgrades to e-GP.

This mapping demonstrates that the recommendations are not arbitrary but directly stem from both empirical evidence and the research objectives.

5.8 Conclusion

This chapter has discussed the findings in light of the study's objectives and international best practices and proposed recommendations for strengthening SPP in Bangladesh. The evidence suggests that while procurement officials support sustainability, institutional, regulatory and capacity barriers prevent consistent practice. Addressing these challenges will require:

- Revisions to PPR 2008 to embed sustainability;
- Enhancements to the e-GP system to integrate sustainability criteria;
- Capacity-building programs for officials and suppliers;
- Pilot projects in high-impact sectors to demonstrate feasibility.

Taken together, these steps provide a roadmap for bridging the knowledge-attitude-practice gap identified in Chapter 4 and advancing sustainable procurement in Bangladesh. The next chapter will present the overall conclusion of the study, summarizing the key findings, contributions and areas for further research.

Chapter 6: Conclusion

6.1 Introduction

This chapter concludes the study by summarizing the research objectives, key findings and their implications. It also highlights the contributions of the study to knowledge and practice, offers recommendations for policymakers and identifies directions for future research.

6.2 Restating the Research Purpose and Objectives

The aim of this study was to enhance the tendering and evaluation process for sustainable procurement in the public sector of Bangladesh. To achieve this, six objectives were set:

1. Assess the current status of SPP practices in Bangladesh;
2. Examine procurement officials' knowledge, attitudes and practices (KAP) on SPP;
3. Identify institutional and regulatory gaps in PPR 2008 regarding sustainability;
4. Identify barriers to implementing SPP in public procurement;
5. Identify capacity and training needs of procurement officials for SPP;
6. Propose recommendations for enhancing tendering and evaluation processes.

The findings and recommendations discussed in Chapters 4 and 5 directly addressed these objectives.

6.3 Summary of Key Findings

- **Respondent Profile:** The survey included 19 officials from ministries, agencies, autonomous bodies and state-owned enterprises. Most had more than seven years of procurement experience and about two-thirds had received e-GP training.
- **Knowledge and Awareness:** While many respondents were familiar with SPP through training or self-study, nearly one-fourth were unfamiliar with the concept. Awareness was stronger for environmental issues than for social or economic dimensions.
- **Attitudes:** Officials expressed strongly positive attitudes toward SPP, especially regarding its environmental benefits. Most agreed that sustainability should be embedded in PPR 2008. However, a minority were skeptical about its economic benefits.

- **Practices:** Actual implementation was limited. Environmental criteria were sometimes applied, but social and economic considerations were rarely used. This revealed a clear knowledge-attitude-practice (KAP) gap.
- **Regulatory Framework:** Most respondents believed PPR 2008 does not adequately address sustainability, particularly in relation to social and economic aspects.
- **Barriers:** The most frequently cited obstacles were lack of awareness and training, unclear guidelines in PPR 2008, budget constraints, supplier capacity limitations, weak monitoring and political influence.
- **Capacity Needs:** Officials identified strong needs for training in guidelines, life-cycle costing, eco-labels, supplier evaluation, monitoring and social inclusion.

These findings show that while the intent and attitudes for sustainable procurement exist, the enabling environment in terms of policy, training and practice remains weak.

6.4 Contributions of the Study

This research makes several contributions:

- **Theoretical Contribution:** It applies the Knowledge-Attitude-Practice (KAP) framework to analyze sustainable procurement in the Bangladeshi context, highlighting the gap between intent and action.
- **Empirical Contribution:** It provides one of the few evidence-based assessments of procurement officials' awareness, attitudes, practices and perceptions of PPR 2008 in Bangladesh.
- **Practical Contribution:** It identifies concrete barriers and training needs, offering actionable recommendations for reforms in tendering, evaluation and capacity-building.

6.5 Policy and Practical Implications

- **Policy Reform:** Updating PPR 2008 to explicitly include sustainability criteria is essential to ensure systematic adoption.
- **Tendering and Evaluation:** e-GP should be upgraded with fields, checklists and modules to support sustainability-based evaluation, including life-cycle costing.

- **Capacity-Building:** Structured training for officials and supplier development programs are critical for translating policy into practice.
- **Pilot Projects:** Initial implementation in high-impact sectors such as construction, ICT, and energy can demonstrate feasibility and build momentum.
- **Leadership Commitment:** Strong political will and clear guidelines are necessary to overcome institutional resistance and ensure consistent enforcement.

6.6 Limitations of the Study

This study has some limitations. Generalization was limited by the relatively small sample size (19 subjects). The study was based on self-reported data, which can be biased. The focus was also placed on the procurement side rather than the supplier's point of view. However, the study offers considerable insight into the current status of SPP in Bangladesh.

6.7 Suggestions for Future Research

Future studies could:

1. Expand the sample size to include a broader range of officials and agencies;
2. Explore suppliers' perspectives on sustainable procurement readiness;
3. Conduct comparative studies with other countries in South Asia to benchmark progress;
4. Examine the effectiveness of pilot projects once implemented;
5. Use mixed methods (surveys + interviews) for deeper insights into barriers and solutions.

6.8 Conclusion

This study set out to explore how Bangladesh can enhance the tendering and evaluation process for sustainable public procurement. The findings revealed that while officials have positive attitudes and recognize the importance of sustainability, actual practice is limited due to regulatory, institutional and capacity barriers.

By addressing gaps in PPR 2008, upgrading e-GP, investing in training and launching pilot projects in priority sectors, Bangladesh can gradually move toward embedding sustainability in its procurement system. The study contributes to both academic understanding and practical

policymaking, offering a roadmap for bridging the gap between intent and practice in sustainable public procurement.

References

1. Ahmed, M., & Faroque, O. (2021). Sustainable procurement in Bangladesh: Challenges and opportunities. *Journal of Public Procurement and Policy*, 21(3), 145–162.
2. Ameyaw, C., Mensah, S., & Osei-Tutu, E. (2012). Public procurement in Ghana: The implementation challenges to the Sustainable Procurement Policy. *International Journal of Construction Supply Chain Management*, 2(2), 55–65.
3. Brammer, S., & Walker, H. (2011). Sustainable procurement in the public sector: An international comparative study. *International Journal of Operations & Production Management*, 31(4), 452–476. <https://doi.org/10.1108/01443571111119551>
4. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
5. Central Procurement Technical Unit (CPTU). (2021). Annual report 2021 on public procurement in Bangladesh. Ministry of Planning, Government of Bangladesh.
6. Central Procurement Technical Unit (CPTU). (2023). Sustainable Public Procurement Policy 2023. Ministry of Planning, Government of Bangladesh.
7. EcoVadis, & Accenture. (2024). Sustainable Procurement Barometer 2024. EcoVadis.
8. Elkington, J. (1998). *Cannibals with forks: The triple bottom line of 21st century business*. New Society Publishers.
9. European Commission. (2021). *Buying green! A handbook on green public procurement* (3rd ed.). Publications Office of the European Union.
10. General Economics Division. (2018). *Bangladesh Delta Plan 2100*. Planning Commission, Government of Bangladesh.
11. Government of Bangladesh. (2020). *Perspective Plan of Bangladesh 2021–2041: Making vision 2041 a reality*. Ministry of Planning.
12. Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59–82. <https://doi.org/10.1177/1525822X05279903>
13. Hasan, M., & Shamsul, A. (2019). Challenges of adopting sustainable procurement in Bangladesh. *Asian Journal of Public Administration and Policy*, 12(2), 34–49.

14. Hoque, M., & Ahmed, S. (2020). Public procurement and sustainability: Assessing the gaps in Bangladesh's PPR 2008. *South Asian Journal of Policy and Governance*, 43(1), 25–40.
15. International Organization for Standardization (ISO). (2017). ISO 20400: Sustainable procurement - Guidance. ISO.
16. Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE Publications.
17. McCrudden, C. (2004). Using public procurement to achieve social outcomes. *Natural Resources Forum*, 28(4), 257–267. <https://doi.org/10.1111/j.1477-8947.2004.00101.x>
18. Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.
- Organisation for Economic Co-operation and Development (OECD). (2015). *Going green: Best practices for sustainable procurement*. OECD Publishing.
19. SWITCH-Asia. (2023). *Assessment report on sustainable public procurement in Bangladesh*. SWITCH-Asia Programme, European Union.
20. Testa, F., Annunziata, E., Iraldo, F., & Frey, M. (2016). Drawbacks and opportunities of green public procurement: An effective tool for sustainable production. *Journal of Cleaner Production*, 112, 1893–1900. <https://doi.org/10.1016/j.jclepro.2014.09.092>
21. Thai, K. V. (2001). Public procurement re-examined. *Journal of Public Procurement*, 1(1), 9–50. <https://doi.org/10.1108/JOPP-01-01-2001-B001>
22. United Nations Environment Programme (UNEP). (2012). *Sustainable public procurement implementation guidelines*. UNEP.
23. Watermeyer, R. (2011). Regulating public procurement in Southern Africa through international and national standards. *Public Procurement Law Review*, 20(2), 67–86.
24. World Bank. (2017). *Bangladesh public procurement reforms: An independent assessment*. World Bank Group.
25. World Bank. (2022). *Bangladesh electronic government procurement (e-GP) assessment*. World Bank Group.
26. Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper & Row.
27. Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications.

28. Public Procurement Act 2006
29. Public Procurement Rules 2008
30. World Bank. (2023). Bangladesh: Electronic government procurement impact assessment 2023. World Bank Group.
31. e-Government Procurement (e-GP) Guidelines (Revised), 2025
32. Bangladesh Public Procurement Authority (BPPA).
33. Yeboah, A., Mensah, J., & Adomako, S. (2024). Drivers of sustainable procurement in higher education institutions. *International Journal of Sustainability in Higher Education*, 25(3), 456–475. <https://doi.org/10.1108/IJSHE-09-2023-0371>
34. Sustainable Public Procurement (SPP) policy 2023.
35. Sustainable Public Procurement (SPP) Guide.

Appendix: Questionnaire on Dissertation

I am conducting a survey title on “Enhancing the Tendering and Evaluation Process for Sustainable Procurement in Public Sector of Bangladesh” as part of my academic research work which requirement partial fulfilment of the degree Masters in Procurement and Supply Management (MPSM) offered by BRAC Institute of Governance and Development (BIGD) of BRAC University. Your valuable insights and experience will significantly contribute to the quality and reliability of this study. You are kindly requested to participate by filling out the following questionnaire .The questionnaire is not too long and it will take just few minutes. Your thoughtful and sincere response is valuable for the research. I assure that the information given by you will be kept strictly confidential and used solely for research purposes.

Section A: Respondent Profile

1. Name (Optional):
2. Organization/Project Name:
3. Position/Designation:
4. Years of Experience in Public Procurement:
 - ☐ Less than 1 year
 - ☐ 1–3 years
 - ☐ 4–7 years
 - ☐ More than 7 years
5. Type of Organization:
 - ☐ Ministry/Government Department/Agency
 - ☐ Autonomous Body
 - ☐ State-Owned Enterprise
 - ☐ Local Government Institution
 - ☐ Other....(Please specify)
6. Have you received training in the e-GP (Electronic Government Procurement) system?
 - ☐ Yes
 - ☐ No

If yes, please mention duration and type of training, e.g., PE, Approving authority, etc.

Section B: General Understanding of Sustainable Procurement

7. Where did you first learn about the concept of Sustainable Public Procurement (SPP)?
 - ☐ Official training
 - ☐ Self-study

- ☐ Seminar/workshop
- ☐ Other source
- ☐ Unfamiliar with the concept

8. Does your organization/project currently follow any sustainability policy or guideline in procurement?

- ☐ Yes, formal policy exists
- ☐ Policy is under development
- ☐ No
- ☐ Not sure

9. In your opinion, what are the three key aspects of sustainable procurement?

- ☐ Environmental impact reduction
- ☐ Social welfare & labor rights
- ☐ Long-term cost-effectiveness
- ☐ Political transparency
- ☐ Others:

10. Do you think sustainable procurement is relevant to the public sector in Bangladesh?
Why or why not?
(Open-ended)

Section C: Current Tendering and Evaluation Practices

11. What is the basic method used for evaluating Tender in your organization?

- ☐ Lowest Price Only
- ☐ Quality and Cost Based Selection
- ☐ Life Cycle Costing (LCC)
- ☐ other (please specify):

12. Are environmental or social criteria currently used in your tender evaluations?

- ☐ Yes
- ☐ No
- ☐ Occasionally

If yes, what types of sustainability criteria are included?

- ☐ Energy efficiency
- ☐ Local supplier preference
- ☐ Recycled or eco-certified materials
- ☐ Fair labor practices
- ☐ Other: ...(please specify)

13. What are the main reasons why sustainability aspects are often not included in tender notices?

- ☐ Lack of official policy
- ☐ Lack of awareness
- ☐ Budget constraints
- ☐ Political or administrative influence
- ☐ Weak monitoring

14. Do you believe it should be mandatory to include sustainability indicators in public tenders?

- ☐ Yes
- ☐ No
- ☐ Undecided

15. What are the main challenges you face when including sustainability in procurement decisions?

(Open-ended)

Section D: Capacity and Institutional Readiness

16. Has your organization provided training on sustainable procurement?

- ☐ Yes
- ☐ No

What kind of support do you think is necessary for effective implementation of sustainable procurement?

- ☐ Clear policy guidelines
- ☐ Staff training
- ☐ Supplier development programs
- ☐ Budget allocations for sustainability initiatives
- ☐ Tools and templates
- ☐ Others (please specify):.....

17. Do you think existing procurement rules in Bangladesh (PPA 2006 & PPR 2008) allow for the integration of sustainability?

- ☐ Yes
- ☐ No
- ☐ Not sure

18. What institutional changes would you suggest to support sustainable procurement?
(Open-ended)

Section E: Role of e-GP and Technology

19. How often do you or your organization use the Electronic Government Procurement (e-GP) system?

- ☐ Frequently
- ☐ Occasionally
- ☐ Never

20. Does the e-GP system allow for submission or evaluation of sustainability-related documents?

- ☐ Yes
- ☐ No
- ☐ Not sure

21. What features would you recommend adding to the e-GP system to support sustainable procurement?
(Open-ended)

Section F: Policy and Implementation

22. Which sectors do you think should prioritize sustainable procurement?

- ☐ Construction
- ☐ Transportation
- ☐ Education and Health
- ☐ Fisheries and Livestock
- ☐ ICT and Equipment
- ☐ All of the above

23. What is your level of agreement with the following statement?

“Sustainable procurement should be mandatory in all government tenders. ”

- ☐ Strongly Agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly Disagree

24. Would you support pilot projects that include mandatory sustainability evaluation in public tenders?

- ☐ Yes
- ☐ No
- ☐ depends on project type

25. Please share any final thoughts or recommendations on improving tendering and evaluation processes for sustainable procurement in Bangladesh.
(Open-ended)

Section G: Barriers to Sustainable Procurement

26. What do you believe are the TOP THREE barriers to implementing sustainable procurement in Bangladesh?

- ☐ Lack of policy/legal framework
- ☐ Lack of knowledge/training among procurement staff
- ☐ Lack of supplier capacity
- ☐ Political or institutional resistance
- ☐ Budget constraints
- ☐ Lack of tools/methodologies
- ☐ Lack of awareness
- ☐ Others (please specify):

27. To what extent do you agree that political will is a critical factor in driving sustainable procurement?

- ☐ Strongly Agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly Disagree

28. Is there resistance among colleagues or institutions when sustainability criteria are introduced into tenders?

- ☐ Yes, often
- ☐ Sometimes
- ☐ Rarely
- ☐ No resistance observed

Section H: Digital Procurement and Innovation

29. How can digital technologies improve sustainable procurement?
(Open-ended)

30. Do you think a mobile-based procurement app would help in managing sustainability data?

- ☐ Yes
- ☐ No
- ☐ Maybe

Section I: International Perspectives and Benchmarks

31. Are you aware of sustainable procurement models in other countries (e.g., India, UK, South Korea and Sweden)?

☐ Yes

☐ No

If yes, which country's model do you think Bangladesh could learn most from and why?
(Open-ended)

32. Would international collaboration (e.g., training, twinning programs, donor support) help Bangladesh adopt sustainable procurement more effectively?

☐ Yes

☐ No

☐ Not sure

Section J: Final Suggestions and Perspectives

33. What types of goods or services do you think are most suitable for green procurement in Bangladesh's context?

☐ Construction materials

☐ Energy-efficient appliances

☐ Renewable energy systems

☐ Public transport/vehicles

☐ Sanitation and waste management

☐ Other:....

34. If you were asked to design a pilot project for sustainable procurement in your organization, what would be your focus area and why?
(Open-ended)

35. What is your opinion that the government leaders may follow about enhancing the procurement process for sustainability?
(Open-ended)

Thanks for your participation.