

**SUSTAINABILITY PRACTICE IN LOCAL GOVERNMENT ENGINEERING
DEPARTMENT (LGED), BANGLADESH:
A CASE STUDY ON TONGIBARI UPAZILA, MUNSHIGANJ**

Dissertation

**Submitted in partial fulfillment of the requirements for the Degree of
Masters in Procurement and Supply Management**

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DECLARATION

I hereby declare that this dissertation is an original work and I write it in it's entirely.

I have duly acknowledged all the sources which have been used in this dissertation.

This dissertation has not been submitted for any degree in any university previously.

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CERTIFICATION

I take the pleasure to certify the dissertation entitled “SUSTAINABILITY PRACTICE IN LOCAL GOVERNMENT ENGINEERING DEPARTMENT (LGED), BANGLADESH: A CASE STUDY ON TONGIBARI UPAZILA, MUNSHIGANJ” is an original work of Md. Rasel Parvez, who completed the thesis under my guidance and supervision. To the best of my knowledge, the dissertation is an individual achievement of the candidate’s own efforts and not a conjoint work. I also certify that the dissertation is found satisfactory for submission to BRAC Institute of Governance and Development (BIGD), BRAC University, as a partial fulfillment of the requirements for the degree of Masters in Procurement and Supply Management.

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ABSTRACT

Sustainable procurement (SP) is a procurement method that is concerned with the principles of sustainable development, such as ensuring a healthy society, living within environmental limits, and promoting good governance incorporating with economic, environmental and social aspects of sustainability. Public procurement is concerned with how public sector organizations spend tax payers' money for development of country. Public procurement is guided by four principles: transparency, accountability, equity to all tenderers, and fair competition for all tenderers. Local Government Engineering Department (LGED) is one of the largest public sector organizations in Bangladesh entrusted for planning and implementation of local level, rural urban and small scale water resources infrastructure development programs who procures goods, works and services as a large scale. A case study is conducted with LGED officials addressing three aspects of sustainability to know the current scenario of sustainable procurement practice in the public sector in Tongibari upazila, Munshiganj. The case study concludes that officials have fair understanding on sustainability issues with little bit preparedness to implement it in their procurement process. Upazila procurement system still follows the lowest price approach rather than whole life costing approach to select contractor at upazila level. Upazila procurement systems follow all sustainability clauses which are mentioned in PPR-2008. Besides, there is no mechanism in upazila procurement system to check the environmental performance of contractors. Sustainability criteria should be embedded in procurement process with detailed sustainable procurement policy with the help of sustainable procurement champion and public procurement framework. A clear commitment is necessary between the top level of government and upazila level through proper channel. Adequate training on sustainable procurement for all stakeholders including procuring entities, suppliers and beneficiaries is necessary in order to increase knowledge for implementing sustainable procurement. Finally, there is scope to further study about the sustainability issues in public procurement at other upazila. Advanced research needs to be conducted in order to get a deeper insight into the sustainability issue in relation to the public procurement.

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LIST OF ABBREVIATIONS AND ACRONYMS

Addl.CE	Additional Chief Engineer
ADP	Annual Development Plan
AE	Assistant Engineer
ASEAN	Association of Southeast Asian Nations
BIP	Behavioral Intervention Plans
BoQ	Bill of Quantities
CE	Chief Engineer
CEO	Chief Executive Officer
CGFR	Compilation of General Financial Rules
CIPS	Chartered Institute of Procurement and supply
CPTU	Central Procurement Technical Unit
CSOS	Community Service Organization Selection
CSR	Corporate Social Responsibility
DCS	Design Contest Selection
DoFP	Delegation of Financial Powers
DPM	Direct Procurement Method
3E	Economic, Environmental, Equity
E-GP	Electronic Government Procurement
EMS	Environmental Management System
ERD	Economic Relations Division
FBS	Fixed Budget Selection
GCC	General Conditions of Contracts
GHG	Green House Gas
HRD	Human Resources Department
ICS	Individual Consultant Selection
ICT	Information and communication Technology
IMED	Implementation, Monitoring and Evaluation Division
IT	Information Technology
IWRM	Integrated Water Resources Management
KII	Key Informant Interviews
KPI	Key Performance Indicators
LCS	Least Cost Selection
LGED	Local Government Engineering Department
LGI	Local Government Institute
LTM	Limited Tendering Method
NAFTA	North American Free Trade Agreement
NCT	National Competitive Tender
QCBS	Quality and Cost Based Selection

OSTETM	One Stage Two Envelop Tendering Method
OTM	Open Tendering Method
PCC	Particular Conditions of Contracts
PEDP	Primary Education Development Program
PPA	Public Procurement Act
3P	People, Profit, Planet
PPPA	Public Procurement Processing and Approval
PPR	Public Procurement Rule
PW	Public Works
SAE	Sub-Assistant Engineer
SBCQ	Selection Based on Consultants Qualifications
SCP	Sustainable Consumption and production
SDGs	Sustainable Development Goals
SE	Superintending Engineer
SME	Small and Medium-sized Enterprise
SP	Sustainable Procurement
Sr.AE	Senior Assistant Engineer
SRFPs	Standard Request for Proposals
SSS	Single Source Selection
STDs	Standard Tender Documents
STEEPLE	Social, Technological, Economical, Environmental, Political, Legal, Ethical
SWOT	Strengths, Weaknesses, Opportunities and Threats
TBL	Triple Bottom Line
TEC	Tender Evaluation Committee
TOC	Tender Opening Committee
TSTM	Two Stage Tendering Method
4R	Reduce, Re-think, Re-use, Recycle
RFQM	Request for Quotation Method
UAE	Upazila Assistant Engineer
UE	Upazila Engineer
UEO	Upazila Education Engineer
UK	United Kingdom
UN	United Nations
VFM	Value for Money
WLC	Whole Life Costing
WTO	World Trade Organization
XEN	Executive Engineer

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CHAPTER ONE

INTRODUCTION

The Concept ‘Sustainability’ refers to the ability of an activity that can be sustained or kept up at a similar level into the future. In today’s context, it means ensuring that actions taken today do not limit or jeopardize quality of life in the future. Sustainable procurement (SP) is a procurement method that is concerned with the principles of sustainable development, such as ensuring a just and healthy society, living within environmental limits, and promoting good governance. According to Chartered Institute of Procurement and supply (CIPS), Sustainable procurement is called a process whereby organizations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole-life basis in terms of generating benefits not only to the organizations but also to society and economy, whilst minimizing damage to the environment. Through sustainable procurement, organizations use their own buying power to give a signal to the market in favor of sustainability and base their choice of goods, works and services on: **Economic aspects:** Securing value for money, Effective investment appraisal and capital purchasing, Cost management and budgetary control, Added value, Ethical trading, Sustainable pricing, Ethical tendering and negotiation, Payment on time. **Environmental aspects :** Green procurement, the impacts on the environment that the product and/or service has over its whole lifecycle; and **Social aspects:** social variables refer to social dimensions of a community or region that includes human rights, labour conditions, health and well-being, access to social resources, quality of life, fair and ethical trading etc.

Public procurement is mainly concerned with spend of tax payers’ money properly on goods, works and services for the development of tax payers and citizen of the country by the public sector organization. Public procurement is guided by four principles: transparency, accountability, equity to all tenderers and fair competition for all tenderers. Now-a-days sustainability issue is burning topic in all over the world. Today’s world is trying to cope up with environment addressing sustainability in every procurement process. But it is matter of regret that awareness and implementation of sustainable procurement is still comparatively low in most developing countries like Bangladesh.

1.1 Objectives of the research

The objective of this research is to gain a better understanding of how environmental, social and economic considerations can be advanced through public procurement. Efforts will also be made to analyze the possibilities and constraints for the integration and implementation of sustainability criteria into the public procurement process. The first objective of the study is to identify the level of understanding among the officials of Local Government Engineering Department (LGED) at Tongibari Upazila, Munshiganj about different sustainability issues in public procurement. The second objective is to evaluate the level of their preparedness about sustainability establishment in their public procurement process. The third objective is to assess the existing level of sustainability practice in their public procurement process.

1.2 Research Questions

Two key research questions proposed in the study are-

- i) What is the level of understanding & preparedness on sustainable practices in Public Procurement among the officials of Local Government Engineering Department (LGED), Tongibari Upazila, Munshiganj and
- ii) What is existing degree of practice in public procurement process of Local Government Engineering Department (LGED) in Tongibari Upazila, Munshiganj as regards as sustainability?

The paper has developed centering on these two key research questions and examines issues using appropriate methodologies that could answer them.

1.3 Scope of the study

The main focus of this case study will remain on public sector procurement. The case study will provide to know preparedness and existing degree of sustainability practice in public sector organization in Bangladesh in particularly Local Government Engineering Department (LGED), Tongibari Upazila, Munshiganj. Information gathered through an interview session with LGED officials of Tongibari Upazila, Munshiganj with a detailed questionnaire.

1.4 Organization of the report.

The study presented in six distinct chapters. **Chapter one** gives a general overview of the study including its overall objectives, key research questions and scope of the study. The introduction chapter presents the background of the study illustrating the chronological evolution of public procurement and Public Works Department. The chapter also offers the overall public procurement scenarios like general principles, procurement methods, and legal framework, inter alia, in Bangladesh. **Chapter two** offers detailed literature review introducing the concept of sustainability, sustainable development and sustainable procurement. It also summarizes existing literatures outlining general theories and empirical evidences on the study topic in order to give a broad theoretical overview on the study topic. The concepts of various sustainable procurement terminologies have also been elaborated in this chapter. In **Chapter three**, the detailed public procurement of Bangladesh and procurement activities in LGED are presented. The chapter elaborates history of procurement, history of public procurement in Bangladesh, sustainability addressed in public procurement of Bangladesh, LGED's central level and local level procurement activities. **Chapter four** presents the research area and methodology of the study. **Chapter five** presents the findings/ results of the study. Data and information collected through various means are thoroughly analyzed, reported, and discussed in this chapter. **Chapter six** concludes the paper with a set of recommendations for the policy makers. References and Appendices are placed at the end of the report to support the research work.

CHAPTER TWO

LITERATURE REVIEW

This chapter describes theoretical knowledge of sustainability, sustainable development and sustainable procurement. Chronological emergence of the phenomenon sustainability and its relationship with environment, development, procurement has been analyzed here. Some concepts relevant to sustainable procurement has also been described. The research works start with through and critical review of existing literature. Hence the concept of sustainable development, sustainable procurement in public sector, potential drivers & constraints of sustainable procurement has been analyzed. Different books, journals, publications & websites have been reviewed to get in depth knowledge in sustainable procurement. Public Procurement Act-2006 and Public Procurement Rules-2008 have also been reviewed to see its coverage on sustainable procurement. Different policy document & newspaper articles have also been reviewed to examine the current exposure of the issue.

2.1 The Emerging Concept of Sustainability

Sustainability means the ability of an activity to be maintained or sustained or kept up at a similar nature into the future. More specifically, in the present context, it means ensuring that actions taken today do not limit or jeopardize our plans or quality of life in the future. Sustainable Procurement Guide (BIP, 2203) of the British Standard Institution defines sustainability as a long-term view when making decisions; to ensure that meeting our own needs does not compromise the needs of others both today and for future generations.

The concept of sustainability arguably first emerged into mainstream discourse in 1972, during United Nations Conference on the Human Environment. At that time serious environmental concerns were beginning to be raised in relation to industrial development & its practices on issues such as deforestation, pollution and the use of toxic pesticides. Conference delegates were debating over which is more important: economic development or environmental protection? A series of high-profile environmental disasters such as Exxon Valdez oil spill and Chernobyl Nuclear Reactor explosion subsequently raised the public & political profile of environmental issues. At the same time issues of social justice also became a matter of

widespread concern especially in South Africa where apartheid and racial segregation was in acute condition.

Through continuous discussion, the UN had recognized that economic development & environmental protection are inextricably linked and mutually reinforcing. Economic development is required to raise living and working conditions to support investment in environmental conservation and viable technologies. At the same time, any attempt to improve human wellbeing that threatened the environment was doomed to failure in the long run due to the depletion resources, the degradation of environment and the pollution of air, water, soil would impact on the wellbeing and development potential of future generation.

UN therefore appointed a think-tank under chairmanship of Gro Harlem Brundtland to come up with strategies to enable continuing economic development without threatening the environment. The Brundtland Commission focused on the need to develop a stable relationship between human activity and the natural world which would not reduce the prospects of future generations to enjoy a quality of life at least as good as that of the present generation. The Brundtland commission published the report 'Our Common Future' in 1987 where sustainable development was defined as 'Development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.

These ideas were refined by the 1992 Rio Declaration on Environment and Development, in which social justice and human right issues such as peace, poverty, child labour, the role of women and the plight of indigenous were explicitly added to the mix. These three dimensional (economic, environmental & social) view of sustainability has been widely adopted. In 1997, the Term 'Triple Bottom Line' (TBL) was coined by John Elkington to highlight the needs for the nations & organizations to measure their performance in all three areas.

In recent years these three dimensions have formed a framework for a range of issues broadly related to business ethics and corporate social responsibility (CSR) including corporate governance, fair trade, labour relations, diversity, transparency along with an increasing number of existing and emerging environmental concerns like climate change, renewable energy, pollution, genetic modification etc.

Triple Bottom Line (TBL) can be variously expressed through 3P as Profit (economic performance), People (social sustainability) and Planet or through 3E as Economics, Environment and Equity (social justice) or through Resources (the wise use and management of

economic and natural resources) and Respect (for people and other living things) [1].

2.2 The Concept of Sustainable Development

Development is a shorthand term for a range of social, economic, industrial and technological activities with the broader aim of bettering conditions for human life. Sustainable development is therefore development activity that can be sustained or kept up over the long term that does not undermine or put at risk the conditions and resources required to preserve wellbeing into future. According to the Brundtland commission, criterion for sustainable development are long term decision making; interdependency among economic, environmental & social wellbeing; participatory & transparent decision making; equity between generations and among different groups; proactive prevention of problems and minimizing risks as the first course of action. William Blackburn in his book named as ‘The Sustainability Handbook’ argued that the aim of sustainability or sustainable development from an organization’s perspective is long term wellbeing for society as a whole as well as for itself. Meanwhile Human and social wellbeing supports organizational survival by maintaining the flow of skilled and willing labour, consumer spending and investment [4].

2.3 The Concept of Sustainable Consumption and Production

Demand (arising from consumption of goods and services) and Supply (arising from production of goods and services) are two basic process of economic system. For an industrialized society to be sustainable must therefore seek to attain the economic, environmental and social sustainability of both consumption (demand-side process) and production (supply-side process). ‘Sustainable Consumption and production’ (SCP) is a term used to describe this aspect of sustainable development.

The term production can be used to describe a wide range of activities undertaken in the process of transferring raw materials, resources and other inputs into finished goods and services including product & service design, procurement & supply, logistics, resource consumption, extraction, processing, manufacturing, assembly or service delivery, waste management, technology management, facilities management, human resource management, outsourcing & off

shoring etc. Each of these production activities has the potential to create negative environmental & social impact. Some key sustainability concerns of production process are-

- Minimize environmental pollution and degradation
- Manage waste products from production, packaging,
- Reduce GHG emission & carbon footprint
- Minimize the use of non-renewable resources
- Design products which are environment friendly.
- Design or adapt production processes those are environmentally clean.
- Minimize negative impact on communities and social amenities from business activity.
- Measure ethical & responsible treatment to labour.
- Build & manage sustainable production capacity.

Sustainable consumption is closely linked to sustainable production as because producers are themselves consumer of labour, materials, products, services etc. Thus sustainable production implies the sustainable procurement and use of the resources. Improving production efficiency means less consumption of resources. Sustainable consumption imposes responsibility on producers to think beyond the sustainability of their own input and processes, to how outputs will be used maintained & disposed of – So that sustainable production actively supports sustainable consumption by supporting recycling and safe end-of-life disposal. Some examples of sustainable consumption which can be applied by organizations are as following-

- “Buying energy efficient equipment and appliances and reducing energy consumption.
- Reducing unnecessary transport mileage, fuel usage and carbon emissions.
- Purchasing re-usable, recyclable and biodegradable product.
- Purchasing local, seasonal materials and produce.
- Carbon offsetting or compensating for domestic or corporate carbon emissions.
- Buying ethically sourced and produced goods.
- Using local, small and diverse suppliers where possible.
- Consuming less of resources” [1].

2.4 The Concept of Sustainable Procurement

Many bodies (including CIPS) have adopted the definition of sustainable procurement which is used by the UK Sustainable Procurement Task Force (procuring the future). As per them sustainable procurement is a process whereby organizations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole-life basis in terms of generating benefits not only to the organizations but also to society and the economy whilst minimizing damage to the environment. So it is an approach that takes economic, environmental and social sustainability into account when making purchasing decisions.

Here are some questions to ask about Sustainable procurement as following -

- Does procurement meet the present needs of the organization and its stakeholders without compromising the ability to continue to do so in future?
- Does procurement protect or enhance the economic security of the organization without negative environmental or social impacts?
- Does procurement comply with the organizations corporate social responsibility values and international standards in regard to ethical issues?

The British Standards Institution Sustainable Procurement Guide argues that for buyers: 'Purchasing goods, works & services efficiently with minimum risk and at the best possible value remain central element of a buyer's job. Even buyer must have to consider the impacts on the supply chain of how they buy and operate. For example shortening lead time and purchase price may seem like a good business strategy, but not at the expense of labour standard further down the supply chain or the risk to organizational reputation due to worker exploitation.'

This Guide also suggests four main aims for sustainable procurement as following.

- To minimize negative impacts of goods, works or services across their lifecycle and throughout the supply chain.
- To minimize demand for non-renewable resources.
- To ensure that fair contract prices and terms are applied and respected, at least meeting minimum ethical, human rights and employment standards.
- To promote diversity and equality in the organization and throughout the supply chain.

Table 2.4.1 Procurement's potential value-adding contributions in each area of sustainability are

as follows-

Table 2.4.1- Three Aspects of Sustainability

<p>Profit: adding economic value</p>	<ul style="list-style-type: none"> - Securing Value for money. - Effective investment appraisal and capital purchasing - Cost management and budgetary control. - Added value through sourcing efficiencies, supplier involvement, and quality improvement - Ethical trading to support the long-term financial viability of suppliers and supply markets (sustainable pricing, payment on time).
<p>Planet: adding environmental value</p>	<ul style="list-style-type: none"> - Input to design & specification of green product & services - Sourcing of green material & resources - Reducing waste of resources throughout the sourcing cycle. - Managing logistics to minimize waste, pollution, GHG emission & environmental impact. - Support 4R policy (Reduce, Re-think, Re-use, Recycle)
<p>People: adding social value</p>	<ul style="list-style-type: none"> - Encouraging diversity in the purchasing team & among suppliers. - Monitoring supplier practices to ensure observance of human right & labour standards (child labour, force labour, workplace safety, equal opportunity etc.) - Input to health & safety of products & services (design, specification, supplier quality management) - Fair & ethical trading (fair pricing, ethical use of power, ethical business practice) - Sourcing from local SME.

Source: Sustainability in Supply Chain (2012)

2.5 Potential Benefits of Sustainable Procurement

Milton Friedman and Elaine Sternberg famously took the view that ‘the social responsibility of business is profit maximization’ to give a return on shareholders’ investment. Society can be benefited immensely if sustainability is ensured in procurement. Normally buyers has a lot of power and control over what is manufactured and how is manufactured because buyer sets the specification of the product of his desire. Every time buyer purchasing the product is actually ‘voting’ the producer for his product. If products are purchased from companies those are ethically irresponsible i.e companies that exploit their workers, degrade the environment through their operation then these companies engaged in such unsustainable practice are being encouraged to continue. It should not be happen. So having biggest purchasing power government should support companies those produce sustainable products. Public procurement therefore needs to consider sustainability issues in their procurement process. This would ensure that development targets are achieved through the acquisition of goods, works, services without much damage to society and the environment. Sustainable Procurement has long term benefits on economic, social and environmental issues through-

- Compliance with law and regulation which impose certain social and environmental responsibilities on organizations give reputational, financial and operational benefits.
- Achieving value for money from whole life of the products.
- Improving ethical behavior of suppliers/contractors in their own responsibilities.
- Improving working conditions – e.g. health and safety, labour standards, minimum wage etc.
- Improving condition of disadvantaged groups in the country by giving importance to local suppliers and niche market.
- Reducing harmful emissions and waste generation when implementing works, delivering goods and services.
- Improving air, water, soil quality by the agreed sustainable procurement.
- Minimize business risk – discussed in greater detail in a later section.
- Provide cost savings – through focusing organizations to follow a whole life costing methodology when sourcing goods and services. This would include reducing use, re-using and recycling and ultimately reducing the amount of waste going to landfill.
- Enhance corporate image in the marketplace – by demonstrating purchasing and

supply management's value to the organization.

- Secure the supply of goods and services, in the light of increasingly environmental legislation.
- Reduce waste and improve resource efficiency [1].

2.6 Potential Drivers for Sustainable Procurement

We have already discussed the main reasons for increasing focus on sustainability, in terms of factors such as: growing awareness of the potential negative impacts of international supply chains; growing political, public and activist pressure for greater corporate responsibility and accountability; and growing awareness of the operational, financial and reputational risks of unsustainable practice. Drivers are forces which create pressure to develop and implement sustainable procurement strategies. General drivers for the focus on sustainability are values and awareness; accountability; stakeholder pressures; resource scarcity; financial pressures; marketing and competitive pressures; Government policy, law and regulation; reputational risk/opportunity, frameworks and initiatives etc. Drivers can be classified in two groups. Internal drivers, those are mainly from SWOT model and Porters five forces model and external drivers, those are mainly from STEEPLE model and

Internal drivers of sustainability are as following -

- “Corporate vision, mission and objectives including sustainability values and aspirations aligned with corporate strategy enabling the flow-down of sustainability to procurement objectives.
- Internal stakeholder (e.g. managers, employees, investors, supply chain partners) demand for sustainability.
- Senior management visionaries, champions and supporters of sustainability.
- The formulation of robust business case for sustainability.
- Existing CSR and/ or corporate citizenship objectives and policies.
- Accountability and performance management mechanisms enhancing sustainability progressive.
- Robust risk management processes, reputational and supply risks arising from non-sustainability activities.
- The availability of resources (e.g. labor, skills, finance) capacity and capability (e.g. in

innovation, supply chain management, reverse logistics) to implement sustainable procurement.

External drivers of sustainability are as following-

- Socio-cultural drivers- Social attitudes and values creating media, public, labour and consumer pressure for sustainable practices and emerging social justice.
- Technological drivers- Competitor/market innovation and take-up of sustainable technologies (e.g. new products, materials and processes), exposure of unsustainable technologies (e.g. resource usage, wastes), and opportunities in new sustainable technology markets (e.g. alternative energy).
- Environmental drivers- location of resources and commodities, resource depletion and costs (especially energy costs), issues of concern of environmental management standards (e.g. climate change, GHG emissions, deforestation, water management, conservation, biodiversity, pollution, waste reduction), national targets under international agreements.
- Economic drivers- increasing competition, micro-economic pressure, loss of market demand for unsustainable products/ services, rising market demand for sustainable products/services, country specific cost (e.g. labour costs, tax regimes, exchange rates and compliance costs).
- Political drivers- International trade organizations' policy, government policy, trading blocs and agreements (e.g. ASEAN, NAFTA), targets and standards, incentives and penalties, government practice as a buyer/supplier and employer.
- Legal drivers- National and international legislation on sustainability (or threat thereof), waste, pollution, emissions, employment rights, health and safety, consumer rights, corporate governance, public sector procurement etc.
- Ethical drivers- ethical issues (eg corporate governance, citizenship, corruption, trading ethics, fair trade, human and labour rights), industry/ professional codes of ethical practice" [1].

2.7 Barriers to Sustainable Procurement

Barriers are the factors those obstruct the organizations progress towards sustainable procurement. Barriers are mainly resistant to change. Main barriers are cost, stakeholder

attitude, cultural barrier, macroeconomic barrier, policy conflict etc. In addition to the above barriers, the Sustainable Procurement National Action Plan in the UK identifies a number of primarily internal barriers to sustainable procurement in the public sector. These barriers are as following-

- Lack of leadership and commitment, confusion about ownership, poor incentive systems and mixed messages to suppliers.
- Lack of clarity, proliferation of priorities and cross-government buy-in.
- Lack of prioritization and enforcement of mandatory standards.
- Failure to signal future trends to the market and manage supply chain risks.
- Lack of helpful information, training and accountability.
- Ignorance of sustainability and suspicion about its' benefits.
- Failure to apply rules on whole life costing (WLC) and inability to offset WLC savings against short-term budget limits.
- Resistance to innovative supplier solutions.
- Risk aversion and of delivering poor value to taxpayers.

From the above describing the drivers and barriers of sustainable procurement, we see that some of the factors are both drivers and barriers depending upon the situation or overall external and internal environment. For example, although economic growth supports better standard of living for the population as a whole, that one of the aims of sustainable development, but it can present a barrier to sustainability by encouraging over-consumption, excessive resource use, wastes and environmental impacts of economic development activities. Moreover, in spite of the sustainable procurement being expensive it should be supported in the public sector as the government is committed to the overall well-being of the society.

2.8 Sustainable Procurement Policy

A sustainable procurement policy will align with and support the organization's commitment to procure all goods, services and works in a sustainable manner. The aims are to integrate sustainability into all procurement activities, to ensure systems are in place to support and develop the policy, and to develop mechanism for measuring and reporting on performance. The broad objectives of a sustainable procurement policy may include the following.

- “To support and demonstrate an organization-wide commitment to sustainability issues throughout the organization.
- To promote sustainability issues throughout the supply network.
- To comply with sustainability legislation, regulation and standards.
- To define the potential contribution of procurement to sustainable product innovation, development and production.
- To ensure that sustainability factors are considered in making all purchasing decisions.
- To define how procurement will support and comply with organizational CSR policies in its dealings and relationships with suppliers and other stakeholders.

A simple general process for policy development may be outlined as follows.

- Define the vision for sustainable procurement.
- Identify and prioritize key issues and core processes.
- Identify and define opportunities for improvement in priority areas.
- Assess available resource for improvement.
- Identify key principles of sustainable procurement.
- Identify measurable objectives and targets (key performance indicators, KPIs) for achieving improvement in identified priority areas.
- Identify roles and responsibilities in the communication, implementation, operation, monitoring and review of the policy.
- Engage consultation on the draft policy.
- Document, launch, deploy and integrate the policy.
- Establish processes for ongoing management and review the policy’s acceptance by stakeholders” [1].

2.9 Key Performance Indicators for Sustainable Procurement

Key Performance indicator (KPI) is a ‘signal’ that alerts you to key factors in a situation: in performance terms, how things are going, and where you are ‘up to’ in relation to your goals and targets. KPIs are clear qualitative or quantitative statements which define adequate or desired performance in key areas (critical success factors), and against which progress and performance can be measured. KPIs should be such that they are relevant, clear

and unambiguous and capable of direct, consistent measurement at operational level. Table 2.9.1 shows some of the representative KPIs for sustainable procurement.

Table 2.9.1- KPIs for Sustainable Procurement

Sustainability areas	KPIs for sustainability from Procurement perspective
Economic Sustainability	<ul style="list-style-type: none"> • Cost (procurement costs as a percentage of spend) or cost savings (annual cost savings as a percentage of spend) • Productivity (cost per procurement cycle, time taken per procurement cycle) • Supplier leverage (percentage of suppliers providing 80% or more of his annual spend) • Customer satisfaction (percentage of deliveries received on time in full)
Environmental Sustainability	<ul style="list-style-type: none"> • Percentage reduction in energy & water consumption. • Percentage reduction in GHG emissions. • Percentage reduction in supplier's water and energy usage. • Percentage purchase of recycled materials. • Volume of waste to landfill (buyer and supplier). • Percentage of spend with suppliers who report on environmental impacts, or operate Environmental Management System (EMS).
Social and Ethical Sustainability	<ul style="list-style-type: none"> • Diversity and equal opportunity among procurement staff. • Training/ development opportunity. • Compliance with workplace law and standards, ethical sourcing and trading standards/ objectives. • Reduction in health and safety incidents, grievance proceedings etc. • Supplier diversity (number of women-owned, minority owned, small suppliers). • Percentage supply chain monitored and managed for compliance. • Supply chain compliance (e.g. year on year reduction in incidents of non-compliance).

Source: Sustainability in Supply Chain

2.10 Sustainability Considerations in Specification

The key considerations at the need identification and specification stage can be summarized as follows.

Economic Considerations: is there a genuine business need for the product or service? Can the need be met with less cost, resource use or variety? Can the need be met in a way that promotes greater operational efficiency? Can the need be met in a way that leverages available or emerging technology more effectively? Will the item as specified support or enhance beneficiaries' satisfaction with the end product or service?

Social and ethical considerations: Does the specification unfairly exclude small or diverse suppliers? Does the specification embody ethical and fair trade practices- and promote the in supply chain? Does it require minimum standards for human rights, labour standards and worker health and safety in supply chain? Will the item, as specified, contribute to or detract from the social responsibility of the end product or service, in terms of its production and consumption? Can the need be met in an alternative way that promotes any or all of these aims more effectively?

Environmental Considerations: Does the specification require specific minimum standards of environmental performance in terms or services specified? Does it promote the development of environmental management systems, capabilities and skills in supply chain? Have the whole life impacts of the end product been considered in the specification?

2.11 Sustainable Pricing and Payment

Fair and sustainable pricing is a mire issue of social and economic sustainability, because price leverage and minimization strategies by powerful buyers can result in squeezed profit margins for suppliers passed on down the supply chain and impacting disproportionately on the supply chain's most vulnerable members in terms of inadequate wages and working conditions. The sustainable price for a buyer to pay (purchasing price) will be as follows.

- “A price which the purchaser can afford: allowing it to control its costs of production and make a profit on sale of its own goods or services.
- A price which appears fair and reasonable, or represents value for money, for the total

package of benefits being purchased.

- A price which gives the purchaser a cost or quality advantage over its competitors, enabling it to compete more effectively in its own market.
- A price which supports security and sustainability of supply and reputational defence by protecting financial viability of suppliers and ensuring that adequate resources are available in the supply chain to pay living wages, maintain adequate working conditions and invest in sustainability improvements.

The sustainable price for the supplier or seller to charge (sales price) will be as follows.

- A price which ‘the market will bear’: that is a price that market or a particular buyer will be willing to pay.
- A price which allows the seller to win business in competition with other suppliers.
- A price which allows the seller at least to cover its costs and ideally to make a healthy profit which will allow it to survive in business, pay living wages to workers, maintain adequate working conditions and invest in sustainability improvements and to support profitability through its own supply chain” [1].

2.12 Sustainability and Public Procurement

Environmental issues have been on the international agenda for several decades, and both public and private sectors are concerned about the role they play in these matters. More recently, the focus has expanded to broader topics such as sustainability. However, while sustainable procurement activities are common in many developed countries, the awareness and implementation of sustainable procurement is still comparatively low in most developing countries.

Public procurement is concerned with how public sector organizations spend tax payers’ money on goods, works and services. Public procurement is guided by principles of transparency, accountability, and achieving value for money for citizens and tax payers. Public sector expenditure is substantial as government is often the single biggest customer within a country, and government can potentially use this purchasing power to influence the behavior of private sector organizations.

The public has particular reasons for demanding greater levels of sustainability from its

supply chain as it is directly and explicitly responsible for ensuring the public money spent on goods, works and services is applied in such a way as to maximize benefits to the society. Sustainable procurement worldwide is heavily driven by public procurement agendas, and is often viewed as a public sector initiative. However, the view is slowly changing as the legal and commercial pressures are raising the priority of corporate social responsibility in the private sector. In summary it can be said that sustainable procurement is a new dimension for the procurement professionals who generally base their procurement decisions primarily on price, quality and time. Through sustainable procurement, an organization not only considers the self-interest but also looks after the interests of the wider community by taking into account the economic, environmental and social considerations in their decision making. Public procurement accounts for a substantial part of the economy of any country, as such; public procurement is an attractive policy instrument for effecting positive changes in the broader economy. In particular, public procurement could be used to stimulate the production of innovative and sustainable products.

2.13 A Framework for Policy Development for Sustainability

A simple general process for policy development may be outlined as follows.

- “Define the vision for sustainable procurement and its fit within corporate sustainability and CSR strategies (if any).
- Identify and prioritize key issues and core processes as the initial focus of sustainable procurement policy with reference to the corporate mission, vision and strategies, critical success factors for the procurement function and existing and emerging sustainability issues and trends.
- Identify and define opportunities for improvement in priority areas on basis of risk assessment, benchmarking, supply chain and portfolio analysis and gap analysis.
- Assess available resources for improvement including information systems, management systems, budgetary constraints and the strengths, needs and capabilities of human resources to pursue sustainable procurement objectives.
- Identify key principles of sustainable procurement, setting out the procurement function’s key values and commitments in relation to economic, social and environmental

sustainability in its own activities and perhaps also its expectations of internal and external stakeholders. They will also need to be reviewed for consistency with corporate sustainability and CSR statements.

- Identify measurable objectives and targets for achieving improvement in identified priority areas with realistic timescales and budget estimates and built-in provisions for progress measurement and review.
- Identify roles and responsibilities in the communication, implementation, operation, monitoring and review of the policy.
- Engage in consultation on the draft policy and gain authorization for final version.
- Resource the policy. Staff and supplier training, communication, tools and resources, deployment and operation guidelines, procedure manuals, codes of practice and other measures may need to be planned and developed to support effective deployment of the policy.
- Document, launch, deploy and integrate the policy. At a certain point, the policy will ‘go live’ and adherence and ongoing management will become part of the responsibility of employees, suppliers and contractors.
- Establish processes for ongoing management and review of the policy’s acceptance by stakeholders, progress in implementation, effectiveness in achieving its goals and continuing relevance” [1].

2.14 Stakeholder Mapping and Consultation

Stakeholder ‘mapping’ is a tool for categorizing and prioritizing stakeholders in a project or supply chain, and identifying strategies to manage them. This is likely to be important in a responsible purchasing programme where stakeholder consultation and influencing is a key practice. The most used tool for stakeholder mapping is Aubery L Mendelow’s power/interest matrix:

Figure 2.14.1- Mendelow’s power/interest matrix

POWER	Low	A Minimal effort	B Keep informed
	High	C Keep satisfied	A Key players
		Low	High

INTEREST

The purpose of Mendelow matrix is basically to prioritize stakeholders according to their importance, measured in terms of (a) their power to influence the organization and its plans and (b) their interest in doing so, or the strength of their motivation to do so. This can support sustainable procurement in the following ways.

- “Identifying the stakeholders whose needs and expectations will define sustainable value and shape the sustainability agenda and priorities of the organization (e.g. green consumers, influential NGOs and government)
- Identifying the stakeholders whose interests will be most affected by an organizational decision or action and towards whom the organization may therefore recognize some moral or legal obligations (e.g. communities impacted by environmental damage or the withdrawal of services)
- Identifying the stakeholders who will need to be informed, consulted or actively involved in the design and implementation of sustainable procurement policies and programmes as suggested by the quadrants of the Mendelow matrix.
- Prioritizing stakeholder interests so that resources are not diluted or wasted by trying to be all things to all people which would be economically unsustainable” [1].

A sustainable procurement policy must be robust, feasible and supported by key stakeholders in its implementation and standing up to scrutiny from a wide range of interested parties and taking account of their particular needs, viewpoints and contributions. There is a strong argument for using a multi-disciplinary may also be used, such as: briefing and consultation meetings; circulation of draft policy documents; and one-to-one presentation of proposals to key stakeholders. Procurement will have a particularly important role in consulting with suppliers. It

will be helpful to know: what kind of treatment, communication and relationship

Suppliers define as ethical and sustainable whether the organization's expectations of suppliers are perceived as equitable, reasonable and feasible by suppliers and whether key suppliers will be willing to contribute to supply the organization under those policy requirements.

One of key points about consultation at the policy stage is that different stakeholder groups may well have divergent or conflicting objectives and interests which will create problems for subsequent buy-in and implementation if not openly addressed. Some suppliers who lack sustainable capabilities may lose out on contracts under the new policy and this will be an important sustainability consideration in itself (e.g. is the policy penalizes small, local or diverse suppliers). In addition, stakeholders may have legitimate concerns on grounds of feasibility which offer useful input to the decision-making process. They may also raise alternative priorities and ideas which may helpfully change the organization's thinking on policy issues, consultation and involvement can thus contribute to the quality of policy development decisions as well as to their acceptability and stakeholder buy-in.

CHAPTER THREE

PUBLIC PROCUREMENT OF BANGLADESH AND LGED

This chapter describes the general background of public procurement including its history and evolution. It provides a picture of public procurement scenario in Bangladesh by incorporating the legal framework, under which public procurement is done and regulated, the general principles and features of public procurement currently in practice. In the Public Procurement Act, 2006 (PPA 2006), the term ‘procurement’ has been defined as ‘the purchasing or hiring of goods, or acquisition of goods through purchasing and hiring, and the execution of works and performance of services by any contractual means’. Public procurement can broadly be defined as the purchasing, hiring or obtaining of goods, works or services by the public sector through any contractual means. Government procurement, or public procurement, is the procurement of goods, services or constructions on behalf of a public authority, such as a government agency. Governments all over the world have to ensure essential services, such as health, education, defense infrastructure etc. to the people. To be able to meet the demand for these services, governments purchase goods, works and services from the open market. Public procurement thus has both economic and political implications. Yet the subject of public procurement has received little attention by academic researchers and policy makers, because it has been considered merely as an administrative function of the government. The items involved in public procurement range from simple goods or services such as stationary or cleaning services to large commercial projects, such as the development of infrastructure, including road, power stations and airports etc. Procurement in the public sector differs from that in the private sector. The purpose of procurement in the private sector is basically straightforward whereas that in the public sector complex as it considers the economic development and welfare of the country rather than the commercial profits. Furthermore, unlike private procurement, public procurement needs to address the considerations of integrity, accountability, national interest and effectiveness.

3.1 History of procurement

Procurement is an old profession, yet it has attracted little attention from historians.

Certainly not nearly as much as another profession with the same name and with which it is sometimes confused! The historical development of procurement to the evolution of procurement began with the emergence of trade perhaps 5000 years ago. The need for some types of procurement policies and practices can be linked to the ensuing growth of organizations and their bureaucratic rules. These rules could also be linked to the need for standardized procedures and documents, the separation of owners and managers in private sector businesses and the requirement for transparency of public sector decisions and operations. In the earlier time, purchasing was regarded as primarily clerical job. During the World War I & II, purchasing function increased due to the importance of obtaining raw materials, supplies, and services required to keep the factories and mines operating. Gradually purchasing continued to gain importance as the techniques for performing the function became more refined and as the number of trained professionals increased. The function became more and more managerial rather than clerical. Besides this, with the introduction of major public bodies and intergovernmental organizations, such as the United Nations, World Bank, WTO procurement has become a well-recognized sector. In September 1983, Harvard Business Review published a ground-breaking article by Peter Kraljic on purchasing strategy that is widely cited today as the beginning of the transformation of the function from "purchasing," to something that is viewed as highly tactical as procurement or supply management, something that is viewed as very strategic to the business. Consequently, procurement starts to become more integrated into the overall corporate strategy. As a result, the status of procurement function has elevated significantly as the Chief Procurement Officers of Heads of Procurement are recognized as important business leaders having broader and strategic responsibility of an organization.

3.2 History of public procurement in Bangladesh

The public procurement procedures and practices have evolved over the years from the days of British and subsequently Pakistani rule. A *Compilation of General Financial Rules* (CGFR) originally issued under British rule was slightly revised in 1951 under Pakistani rule and was reissued in 1994 and again in June 1999 with very few changes. The CGFR, *inter alia*, outlines broad, general principles for government contracts to follow, leaving it to the departments to frame detailed rules and procedures for their respective procurements. It also

refers to the *Manual of Office Procedure (Purchase)* compiled by the Department of Supply and Inspection as the guide for the purchase of goods. Both date back to the 1930s and have not undergone any revision worthy of mention. The CGFR also refers to the Economic Relations Division (ERD) Guidelines issued in 1992, modeled on World Bank Procurement Guidelines at the time, for procurement in externally funded projects.. Since independence in 1971, the public procurement practices have been influenced by the World Bank, the Asian Development Bank, and other donors since the bulk of public procurement is externally funded. Some departments, autonomous boards, and public undertakings have drafted their own set of procedures or a manual. The public procurement procedures and practices have some unsatisfactory features as outlined in the Country Procurement Assessment Report prepared by the World Bank in 2002 including poor advertisement, a short bidding period, poor specifications, nondisclosure of selection criteria, award of contract by lottery, one-sided contract documents, negotiation with all bidders, rebidding without adequate grounds, other miscellaneous irregularities, corruption and outside influence etc. In order to address these issues, in August 1998, the World Bank Country Director wrote to the government urging it to streamline the procurement process and to make the process more efficient and effective. In the context of escalating concerns for streamlining the country's public procurement system, the government undertook an array of reforms in order to strengthen the public procurement regime. The reform process ultimately led to the formulation and issuance of Public Procurement Regulations in 2003, providing a unified procurement processing system. The PPR, 2003 was supplemented by Public Procurement Processing and Approval Procedures (PPPA), a revised Delegation of Financial Powers (DoFP) and several Standard Tender Documents (STDs) and Standard Request for Proposal Documents for the procurement of goods, works and services. In order to strengthen the legal basis of public procurement, the Public Procurement Act, 2006 (PPA, 2006) was passed by the Parliament, Under the Act, the Public Procurement Rules, 2008 (PPR, 2008) was issued, replacing the Public Procurement Regulations, 2003.

Public Procurement System is decentralized in Bangladesh. Different departments and directorates under various ministries carry out the actual procurement functions through their offices from national level to Upazila level following the PPR, 2008 and using the Standard Tender Documents and Standard Request for Proposals prepared by the CPTU. At the central level, the ministries handle very little procurement functions essentially food grains, printing,

and stationery. The major Government Departments, such as, LGED, RHD, Bangladesh Railway, T&T Board, EED, HED, DPHE etc carry out the substantial amount of procurement through their central to local offices, spread all over the country. Apart from the departments/directorates of ministries, as pointed out earlier, the corporations under the Ministries also undertake large scale procurement activities. The corporations like: BCIC, BPC, BSEC, BADC, PDB, BWDB, BJMC etc are some of the leading procurement agencies of the government.

3.3 Legal framework of public procurement in Bangladesh

In the CPAR, 2002, the World Bank made some recommendations with the objective of bringing the public procurement system in a broad legal framework. Some of the recommendations include:

- To create a Central Procurement Policy Unit that will be responsible for Public Procurement Policy, Public Procurement Rules and Procedures, and Standard Bidding and Contract Documents, as well as oversight of public procurement.
- To prepare and issue Public Procurement Rules and Procedures that should be a public document., covering procurement of goods, works and professional services that will apply to all ministries, departments and public bodies.
- To prepare and issue a set Standard Bidding and Contract Documents for goods, works, and professional services that are applicable to all public procurement, using the World Bank and other similar documents as models.
- To review and revise delegation of powers to public sector corporations and autonomous bodies, as well as to department heads, chief engineers, and project directors.
- To review and revise the layering in the approval process.

In response to the above recommendations, the Government of Bangladesh established the Central Procurement Technical Unit (CPTU) under IMED of the Ministry of Planning in 2002. Since then, the CPTU has been working for maintaining the public procurement rules, standard bidding documents and oversight of the overall public procurement in the country.

At present the legal regime of public procurement in Bangladesh is based on two principal legal instruments which are the Public Procurement Act, 2006 and the Public Procurement Rules,

2008. Besides these documents, the CPTU has worked for finalizing the Standard Tender Documents (STDs) for goods and works and the Standard Request for Proposals (SRFPs) for services.

The main principle of Public procurement that is outlined in the Public Procurement Act (PPA), 2006 as to provide for procedures to be followed for ensuring transparency and accountability in the procurement of goods, works and services using public funds and ensuring equal treatment and free and fair competition among all parties wishing to participate in such procurements. So it can be said that the common objectives of public procurement are integrity, transparency, equal opportunity for all, fair treatment, value for money, nondiscrimination, social and industrial development.

3.4 Methods of Public Procurement in Bangladesh

The Public Procurement Rules (PPR), 2008 prescribes several methods of procurement, dividing the procurement into national and international classes. For the national procurement, the preferred method is the Open Tendering Method (OTM) which ensures equal opportunity to all suppliers, open competition and proper advertisement. However, a number of procurement methods alternatives to the OTM are also allowed under certain circumstances. These methods must be justified on technical and economic grounds. These alternative methods for goods and works are-

- Limited Tendering Method (LTM)
- Two Stage Tendering Method (TSTM)
- Request for Quotation Method (RFQM) and
- Direct Procurement Method (DPM).
- One Stage Two Envelop Tendering Method (OSTETM).

However for consulting services procurement there are various types of tendering methods which are as follows.

- Quality and Cost Based Selection (QCBS).
- Fixed Budget Selection (FBS).
- Least Cost Selection (LCS).
- Single Source Selection (SSS).

- Community Service Organization Selection (CSOS).
- Individual Consultant Selection (ICS).
- Selection Based on Consultants Qualifications (SBCQ).
- Design Contest Selection (DCS).

There are some essential conditions that need to be considered when applying the alternative methods. The LTM can be used when suppliers are limited in number or the time and cost required to receive and evaluate tenders would outweigh the value of the contract or in an urgent situation. Two stage tendering method may be followed for complex and large projects or when preparing complete technical specifications is not possible at one stage or where alternative solutions may be available but not known to the procuring entity due to rapidly changing technology. The RFQM may be used for standardized, low value goods easily available in the market or low value works and physical services subject to the value being within the prescribed threshold value. However, for resisting the misuse of this method, the application of this method is strictly controlled by the head of procuring entity. Direct procurement method is allowed when, goods are procured from sole proprietor due to patent or copyrights, or additional goods or services are procured from the original supplier/manufacturer, or the goods are available only from the sole dealer or manufacturer, or a special type of good is procured from a local manufacturer, or for the procurement of goods, works or services of very urgent and essential nature For international procurement, the methods mentioned above are also applicable but with certain differences to maintain standards and competition. For example, in international procurement, specifications should be made conforming to the international standards; provisions for alternative dispute resolution should be incorporated in the contract etc.

3.5 Sustainability addressed in Public Procurement

This section addresses the sustainability issues those are addressed in the current public procurement framework in Bangladesh. At present the public procurement in Bangladesh is regulated by two principal documents which are the Public Procurement Act, 2006 and the Public Procurement Rules, 2008. Besides these CPTU has prepared a number of Standard Tender Documents (STDs) for goods and works and Standard Request for Proposals (SRFPs) for services depending upon the size or volume of procurement. The table 3.5.1 shows the

sustainability factors those have been addressed in public procurement documents-

Table 3.5.1- Sustainability addressed in Public Procurement.

Area of Performance	Article relevant to sustainable issue.
Economic Sustainability	<p>➤ [Rule 15(2), PPR-2008]</p> <p>The Procuring Entity shall take into account the following when determining the method of Procurement and consolidating of Goods packages:</p> <p>(c) availability of the relevant Goods in the local market;</p> <p>(d) quality, sources and brand of the Goods available in the local market;</p> <p>(e) price levels of the designated Goods;</p> <p>(k) Risks related to supply in the local and international markets.</p> <p>➤ [Rule 15(7), PPR-2008]</p> <p>In the case of determining the method of Procurement for Works, the Procuring Entity shall consider the following:</p> <p>(b) the prevalent conditions of the contracting industry;</p> <p>(c) capacity of local Contractors;</p> <p>(d) expected competition;</p> <p>➤ [Rule 29(2), PPR-2008]</p> <p>Technical Specifications prepared by Procuring Entities shall, where appropriate, be-</p> <p>(a) expressed in terms of performance or output requirements, rather than specifications linked directly to design or descriptive characteristics which may tend to limit competition;</p> <p>➤ [Rule 29(3), PPR-2008]</p> <p>There shall be no reference, in technical specification of Goods, to a particular trade mark or trade name, patent, design or type, named country of origin, producer or service supplier.</p>
Environmental Sustainability	<p>➤ [GCC 27.1, STD-PW3]</p> <p>The Contractor shall throughout the execution and completion of the Works and the remedying of any defects therein:</p> <p>(a) take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of the</p>

	<p>Contractors methods of operation.</p> <p>➤ [GCC 29.2, STD-PW3]</p> <p>The Contractor, in particular, shall provide proper accommodation to his or her laborers' and arrange proper water supply, conservancy and sanitation arrangements at the site for all necessary hygienic requirements and for the prevention of epidemics in accordance with relevant regulations, rules and orders of the government.</p>
<p>Social/Ethical Sustainability</p>	<p>➤ [Rule 15(2), PPR-2008]</p> <p>The Procuring Entity shall take into account the following when determining the method of Procurement and consolidating of Goods packages:</p> <p>(f) capacity of local Suppliers to supply the required quantities;</p> <p>(g) capacity of the national industry and quality of its products;</p> <p>(h) market conditions and expected competition;</p> <p>➤ [Rule 15(7), PPR- 2008]</p> <p>In the case of determining the method of Procurement for works, the Procuring Entity shall consider the following: –</p> <p>(c) capacity of local Contractors;</p> <p>➤ [Rule 29(5), PPR-2008]</p> <p>Procuring Entities shall, where possible, prepare the specifications in close cooperation with the concerned user or beneficiary of the Goods or Works or Service.</p> <p>➤ [Rule 83(1)(e), PPR-2008]</p> <p>The Tender Document may allow for a domestic preference as defined in Schedule II. I to provide local manufacturers, Suppliers and Contractors with a price advantage over their international competitors for the purpose of promoting domestic products or industries.</p> <p>➤ [GCC 27.1, STD-PW3]</p> <p>The Contractor shall throughout the execution and completion of the Works and the remedying of any defects therein:</p> <p>(a) take all reasonable steps to safeguard the health and safety of all workers working on the Site and other persons entitled to be on it, and to keep the Site in an orderly state;</p> <p>➤ [GCC 28.1, STD-PW3]</p> <p>The Contractor shall not perform any work on the Site on the weekly holidays, or</p>

	<p>during the night or outside the normal working hours, or on any religious or public holiday, without the prior written approval of the Project Manager.</p> <p>➤ [GCC 29.1, STD-PW3]</p> <p>The Contractor shall comply with all the relevant labour Laws applicable to the Contractor’s personnel relating to their employment, health, safety, welfare, immigration and shall allow them all their legal rights.</p> <p>➤ [GCC 29.3, STD-PW3]</p> <p>The Contractor, further in particular, shall pay reasonable wages to his or her labourers, and pay them in time. In the event of delay in payment the Procuring Entity may affect payments to the labourers and recover the cost from the contractor.</p> <p>➤ [GCC 30.1, STD-PW3]</p> <p>The Contractor shall not employ any child to perform any work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development in compliance with the applicable labor laws and other relevant treaties ratified by the government.</p> <p>➤ [GCC 37.1, STD-PW3]</p> <p>The Contractor shall provide, in the joint names of the Procuring Entity and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles specified in the PCC for the following events which are due to the Contractor’s risks:</p> <p>(d) Personal injury or death.</p>
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Source: Public Procurement Rules 2008

3.6 LGED and its’ Central Level Procurement Activities

Local Government Engineering Department (LGED) is one of the largest public sector organizations in Bangladesh entrusted for planning and implementation of local level rural urban and small scale water resources infrastructure development programs. LGED works closely with the local stakeholders to ensure people’s participation and bottom–up planning in all stages of

project implementation cycle. The broad objectives of LGED's development activities are to improve the socio-economic condition of the country through supply of infrastructures at local level and capacity building of the stakeholders which is very much closed to sustainability development. LGED promotes labour-based technology to create employment opportunity at local level and uses local materials in construction and maintenance to optimize the project implementation cost with preserving the desired quality.

LGED is headed by a Chief Engineer, supported by 12 Additional Chief Engineers (Civil), 25 Superintending Engineers, 152 Executive Engineers, 72 Senior Assistant Engineers, 489 Upazila Engineers, 165 Assistant Engineers, 483 Upazila Assistant Engineers, 1153 Sub-Assistant Engineers and staffs spread all over the country. It has 11184 regular employees which is highest number employees among all others engineering department. The Chief Engineer is the administrative and technical Head of the department. He also acts as the Technical Advisor to the Government of Bangladesh. The operational units in the LGED are spread throughout the country. LGED is highly decentralized organization where ninety nine percent of total manpower works at District and Upazila (Sub-District) level. In the Field there are seven Zonal Additional Chief Engineers in seven divisions under which there are Superintending Engineers, Executive Engineers, Senior Assistant Engineers, Assistant Engineers, Sub-Assistant Engineers etc. The Ministry of Local Government, Rural Development & Cooperatives exercises the administrative control of the LGED.

To facilitate better client/users satisfaction and adequate technical, administrative and supervisory control in the execution of projects, LGED has a number of specialized units like Administration Unit, Planning Unit, Design Unit, Training Unit, ICT Unit, IWRM (O&M) Unit, IWRM (P&D) Unit, Quality Control Unit, Monitoring and evaluation Unit, Maintenance Unit, Urban Management Unit and Procurement Unit.

The contribution of LGED encompasses the entire spectrum of physical and social infrastructure for national development, national security and international relations. Its activities span the length and breadth of the country including remote areas and difficult terrain. The main functions of LGED are shown in following-

- Development of rural, urban and water sector infrastructures.
- Maintenance of rural, urban and water sector infrastructures.

- Technical support to Pourashava (City Council) & City Corporation.
- Technical support to ZilaParishad (District Council).
- Technical support to Upazila (Sub-District) and Union Parishad.
- Technical support to different Ministries.
- Develop planning maps, database, technical specifications and manuals.
- HRD programs for LGED, LGI and other stakeholders.

All of the Public functions stated above are associated with huge volume of procurement, mainly procurement of works. However, for supporting this huge volume of procurement LGED has a renowned Procurement Unit. This Unit is headed by an Additional Chief Engineer (Addl. CE), supported by a Superintending Engineer (SE), an Executive Engineer (Xen), two Senior Assistant Engineer (Sr.AE) and three Assistant Engineer (AE).

Before enacting Public Procurement Acts (PPR-06), all the procurement contracts were dealt with the ‘The Law of Contract’ which is very general in nature. Since, any public procurement contract demands simple bureaucratic procedure, high level of competency of the staff, quality tender documents, standard tender evaluation framework, effective administration of contracts and presence of adequate mechanism for ensuring transparency & accountability, therefore, PPR-2006 has distinctly given advantage over the existing Law. In a way to PPA-2006, the government of Bangladesh had issued also the Public Procurement regulations 2003 (PPR-2003). Immediately after pronouncing PPR-2003, LGED established a separate Procurement Unit in head quarter level on January 2004 in order to early cope up with the changes.

Main functions of Procurement Unit are as follows:

- Communication and coordination with Central Procurement Technical Unit (CPTU).
- Appointment of 10 (ten) focal persons from LGED officials to facilitate other officials to comply PPA-06 and PPR-08 in implementation and monitoring in public procurement.
- Formation of 7 (seven) members e-GP/PROMIS cell to exhaustively monitor the e-GP activities and to provide extensive support in need for successful implementation.
- Settlement in approval annual procurement plan (APP) for all off line tenders.
- Settlement in approval annual procurement plan (APP) for all e-GP tenders.
- Settlement in tender approval for all e-GP tenders.
- Settlement in enlistment tenderers in LTM (Limited Tendering Method).
- Formation of TEC/PEC at different financial level for the off line tenders.

- Formation of TEC/POC for a particular financial level for the e-GP system.
- Provide technical advice and comment on any procurement issues of other local government institution if they ask for.
- Training arrangement on PPA-06 and PPR-08 for LGED officials has been conducted for 3 weeks in Engineering Staff College, Bangladesh (ESCB) and Bangladesh Institute of Management (BIM).

3.7 LGED and Its' Upazila Level Procurement Activities.

Besides Head Quarter, LGED has 7 (seven) divisional offices, 14 (fourteen) regional offices, 64 (sixty four) District offices and 491 (four hundred ninety one) Upazila offices. Divisional office is headed by Additional Chief Engineer (Addl. CE), regional office is headed by Superintending Engineer (SE), District office is headed by Executive Engineer (Xen) and Upazila office is headed Upazila Engineer (UE). In LGED Upazila office, Upazila Engineer (UE) is supported by an Upazila Assistant Engineer (UAE) and two Sub-Assistant Engineers (SAE). There are total nineteen staffs in a LGED Upazila office.

Normally in LGED Upazila office, Upazila Engineer (UE) is asked to submit schemes with detailed specification and estimation for a project. Then UE used to assign UAE along with Sub-Assistant Engineer (SAE) to visit the site of proposed road, building, bridge or any other constructions. SAE collects data from proposed site and then make a specification (Bill of quantities-BoQ) with proper rate using updated rate schedule of LGED. Upazila Engineer approve this specification or estimation if it is ok otherwise it may be revised. Upazila Engineer sends it to his concerned Executive Engineer (Xen) of his District. Executive Engineer (Xen) sends it to concerned Project Director (PD) for approval and hence PD gives his concern to call a tender. Then Upazila Engineer (UE) calls a tender for his respective project using proper tender procedure.

In Present Upazila Engineer (UE) can call a tender for one project namely Primary Education Development Program-3 (PEDP-3). In LGED Upazila Office, members of Tender Opening Committee (TOC) for this project are Upazila Engineer (UE) who is chairperson of this committee, Upazila Assistant Engineer (UAE) who is member secretary and one external member normally is Upazila Education Officer (UEO). Members of Tender Evaluation

Committee (TEC) are also same. The role and responsibilities of Upazila Engineer in public procurement are as follows.

- Act as procuring entities at Upazila level for public procurement of LGED Upazila office.
- Prepare schemes for new project or analysis business needs.
- Prepare specification of procurement items.
- Act as a chairperson for tender opening committee (TOC).
- Act as a chairperson for tender evaluation committee (TEC).
- Act as a project manager for all contracts including Upazila Parishad and LGED Upazila level and District level.
- Involved with payments for completion of contract as per tender documents.

CHAPTER FOUR

RESEARCH AREA AND METHODOLOGY

A broad definition of research is given by Godwin Colibao is "In the broadest sense of the word, the definition of research includes any gathering of data, information, and facts for the advancement of knowledge. Another definition of research is given by John W. Creswell, who states that Research is a process of steps used to collect and analyze information to increase our understanding of a topic or issue". It consists of three steps: pose a question, collect data to answer the question, and present an answer to the question. More formally research is a systematic careful inquiry or examination to discover new information or relationships and or to expand or verify existing knowledge for some specific purpose. The aim of research is to-

- Gain familiarity with phenomena and achieve new insight into it.
- Portray accurately the characteristics of particular individual situation or group.
- Discover the truth and facts.
- Find new dimensions and generalizations with old data.
- Know old conclusions with new data.
- Reach in one conclusion from the same set of data.
- Find or to resolve contradictions existing in the area of study.

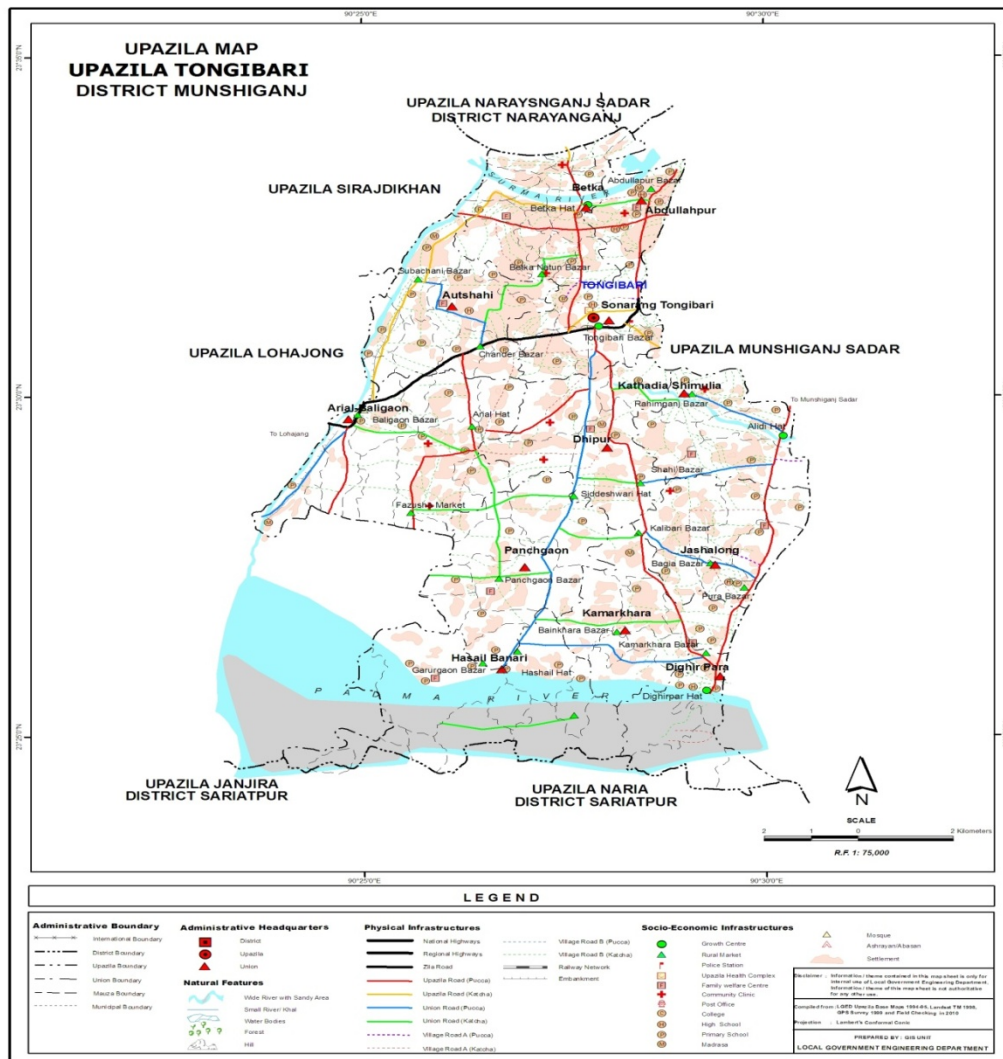
Research methodology is the combination of tools, techniques and approaches through which a scientifically designed research is actually carried out. Research is a cyclical process which begins with a problem; an unanswered question in the mind of the researcher. Then research sees the goal in a clear statement of the problem.

4.1 Research Area

The research area for this case study is LGED Tongibari office. Tongibari is an Upazila of Munshiganj District in the Division of Dhaka, Bangladesh. Tongibari is located at 23.5000°N 90.4583°E . It has 31346 households and total area 149.96 km². Tongibari has a population of 1,97,117. Males constitute 52.46% of the population, and females 47.54%. Tongibari has an average literacy rate of 35.6% (7+ years), and the national average of 32.4% literate. Tongibari has 12 Unions/Wards, 113 Mauzas/Mahallas, and 160 villa. The names of all Unions are Betka

Union, Abdullapur Union, Sonarong Tongibari Union, Autasahi Union, Baligaon Union, Dhipura Union Council, Kathadiyashimulia Union, Yasalam Union, Panchgaon Union, Kamarakhara Union, Hasailabanari Union, Ariol Union, Dighirpar Union. LGED office at this Upazila are consisted of one Upazila Engineer, two Sub-Assistant Engineer, one Surveyor, one Draftsman, one Accountant, one Community Organiser, two Work Assistant, two MLSS and one night guard.

Figure 4.1.1- Map of Tongibari Upazila



4.2 Research Models and Methods

Model is an idealization, an abstract of some part of real world and is an incomplete representation of real thing. A model is central to every analysis. To construct a model for a

given problem situation the actions to be taken are- to single out certain elements as being relevant to the problem under consideration, to make explicit the significant relationship among these elements and formulate hypothesis regarding the nature of relationship. Models can be classified broadly in two type's quantitative and qualitative model. Quantitative Research is used to quantify the problem by way of generating numerical data or data that can be transformed into useable statistics. It is used to quantify attitudes, opinions, behaviors, and other defined variables and generalize results from a larger sample population. Quantitative Research uses measurable data to formulate facts and uncover patterns in research. Quantitative data collection methods include various forms of surveys – online surveys, paper surveys, mobile surveys and kiosk surveys, face-to-face interviews, telephone interviews, longitudinal studies, website interceptors, online polls, and systematic observations. Qualitative Research is primarily exploratory research. It is used to gain an understanding of underlying reasons, opinions, and motivations. It provides insights into the problem or helps to develop ideas or hypotheses for potential quantitative research. Qualitative Research is also used to uncover trends in thought and opinions, and dive deeper into the problem. Qualitative data collection methods vary using unstructured or semi-structured techniques. Some common methods include focus groups (group discussions), individual interviews, and participation/observations. The sample size is typically small, and respondents are selected to fulfill a given quota. Quantitative data collection methods are much more structured than Qualitative data collection methods.

4.3 Research Design and Data Collection

Research design precisely means drawing a systematic approach and establishing a plan of action to carry out the research. Selltiz defines research design as the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. Research design is only a tentative plan. It differs on the research purpose. The component of Research design are-

- The subject on which information will be gathered - Sustainability practice in Public Procurement in LGED Upazila level.
- The type of information required and its intended utilization- A semi structured

questionnaire response data about sustainability practice in procurement process to identify preparedness & level of practice in Upazila Level.

- The population on which information will be gathered- LGED Upazila Level Officers who are involved in Public Procurement Process.
- The method by which information will be gathered- Interview survey.
- The means/organization through which information will be gathered- Directly by researcher.

CHAPTER FIVE

DISCUSSIONS AND RESULTS

Sustainable procurement encompasses three dimensions e.g. economic, environmental and social aspects of procurement. The operational definitions of these three aspects are outlined in Chapter two. A Semi Structured questionnaire was designed including a number of questions which covered not only the above mentioned three aspects of sustainable procurement but also the information about the organization's procurement. There are three sections in the questionnaire. Questions of section-A acts as a conditioner for the respondents. The questions were intentionally set in such a way that the officials will be reminded about the concepts & aspects of sustainability. A question was set to seek sustainability practice in officials' daily life. Section-B is about preparedness to practice sustainability in procurement activity. This section will provide the answer how much the respondents are prepared to practice sustainability in procurement activity. Section-C is about the extent of practice sustainability in procurement process of their jurisdiction. Some general questions have been set in section-D at the end of the questionnaire to get the perception of the respondents about the potential drivers and obstacles of sustainable procurement in LGED, Tognibari Upazila office. Valuable suggestions, opinions or comments have also been sought from the respondents regarding sustainable procurement from their operational experiences in this field.

To evaluate the understanding of Sustainable Procurement issues by the members of procurement related staffs of LGED, Tongibari Upazila office. Researcher has conducted in depth interview with Head of LGED, Tongibari Upazila office designated by Upazila Engineer and also four other officials of various levels.

5.1 Survey Questions and Results

This section presents the findings and analysis of the survey data. Three officials whose are involved in LGED Upazila level procurement process were covered under the questionnaire survey. The data collected through the key informant interviews have been analyzed based on the questions asked in the interviews. An individual analysis has been made on each of the questions which would help find a complete picture of the matter. Most of the analyses have been done qualitatively from the perception based interviews with the respondents. However, some

quantitative analyses have also been made based on the supplied data by the respondents. The questions set to the respondents are presented along with an analysis of the responses. Following sections illustrated the questionnaire with survey results.

5.2 General Information and Concept of Sustainability

Officials of LGED, Tongibari office have been interviewed with the same questionnaire to conduct the survey. These officials have been selected and interviewed because of their direct involvement in public procurement activities in their jurisdiction. Average length of experience in procurement activity of the officials is 7.3 years ranging from 3 years to 12 years. Average annual volume of procurement is 13.72 crore taka at their involvement. Among this volume of procurement 4.335 crore taka are liable to procure by LGED Upazila office and rest of them are liable to management the contract by LGED, Tongibari Upazila office which is procured by LGED, Munshiganj District office. In 4.335 crore taka, 2.735 crore taka comes from ADP and revenue budget and rest of them from PEDP-3 Project. Since LGED is a prime construction agency of the government so works is their main procurement item. Their procurement portfolio on average is works 98.5%, goods 1.5%. The composition of works is on average 87% new construction works and 13% is repair & maintenance works.

Figure 5.2.1- Average spend on Goods, Works and Services in Tongibari Upazila

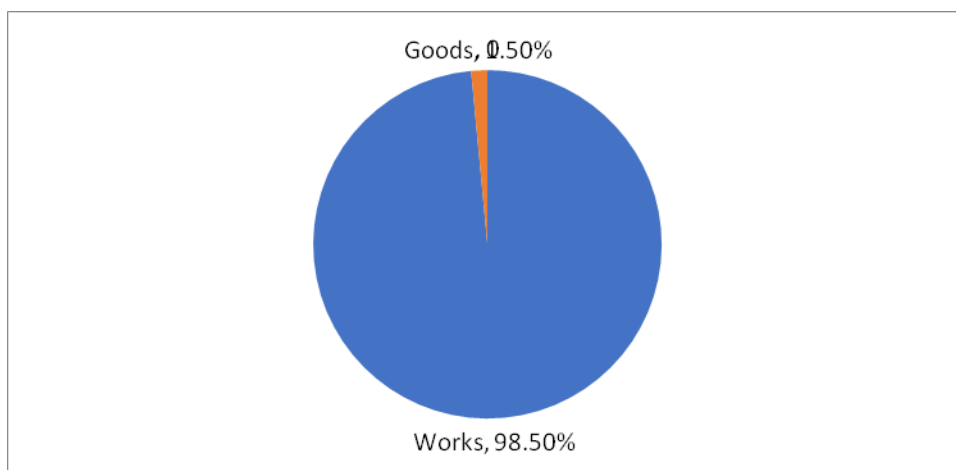
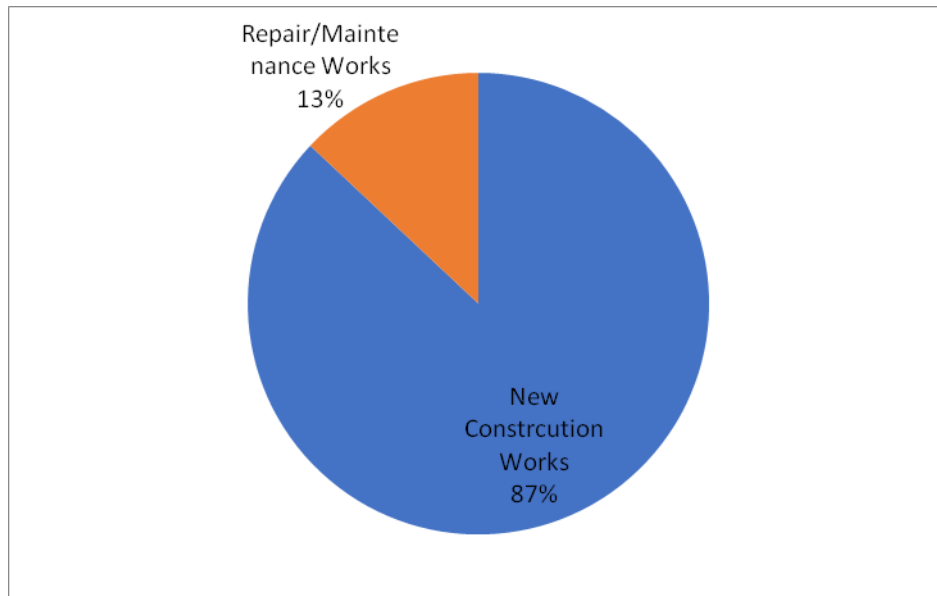


Figure 5.2.2- Average spend on Repairs and New Construction in Tongibari Upazila



The officials of LGED Tongibari Upazila are asked with some general questions about concept of sustainability. Researchers found their little bit concept on it. They know sustainability procurement as considering the environmental, social and economic impacts for achieving value for money. They defined economic sustainability as whole life costing of an activity. They addressed social sustainability as community benefit & promoting SME and environmental sustainability as minimum pollution.

5.3 Preparedness on Sustainable Procurement

A structured question was asked to know their preparedness on sustainable procurement. Researchers found some points regarding this issue. They have not enough training on sustainable procurement to conduct in Upazila level. They have average conception on economical, social and environmental aspects of sustainability but they gave their consent that sustainability consideration in public procurement process is very important in Bangladesh. They agreed that PPA-06 & PPR-08 have properly addressed three aspects of sustainability in public procurement process. LGED following Environmental Management System (EMS) in their practice and LGED schedule of rates addressed sustainability which is helpful to them to apply

sustainable procurement practice in their Upazila.

5.4 Level of Sustainability Practice

A general interview is conducted regarding sustainability practice in Tongibari Upazila. Researcher found some important points regarding three aspects of sustainable procurement. For new construction in their Upazila they consider sourcing construction materials from sustainable sources as the most important issue rather than sustainability considerations in procurement process. For repair & maintenance works in their Upazila they consider sustainable consideration in procurement process rather than sustainable re-use of garbage & debris. They only consider Lowest quoted price criteria rather than most economically advantageous tender or whole life cost as a contract award criteria to responsive tenders. General questions were asked to know their sustainability practice in their daily life. They always turn off electrical switches after use, buy energy saving electrical & IT appliances and use less water in daily activities. But sometimes they avoid using plastic bags and practice 4R policy (Reduce, Re-use, Recycle, Rethink). However, Practice of three aspects of sustainability procurement in Tongibari Upazila is discussed elaborately in the following section.

5.5 Economic Aspect of Sustainable Procurement

It has been mentioned earlier that the sustainable procurement encompasses three dimensions e.g. economic, environmental and social aspects of procurement. The respondents were asked a number of questions about the economic aspect of sustainable procurement.

They strongly agree with following three statements.

- a. Public purchaser can contribute directly to economic (financial) outcomes including cost savings for their organization.
- b. The PPR and financial procedures should promote whole life costing in order to take sustainability criteria into account rather than lowest price in all tender and
- c. Procurement demand should make more transparent through e-procurement.

But they give their neutral view on the following two statements.

- a. Local economic development can be enhanced through procuring locally grown goods and to encourage first-tier contractors to make use of SME or small firms as their sub-contractors and
- b. Suppliers' fair and viable margins should be ensured for achieving quality delivery and effective supply management.

In order to know the view of the Upazila officials about the criteria used in preparing specifications, most of the respondents opined that lowest price is the main criteria used in preparing the specifications. But ensuring better quality is also one of the major considerations along with the lowest price as mentioned by Upazila officials. However, it is evident from the responses that whole life costing is rarely considered in better quality.

In tender documents, Upazila office does not put any criteria to encourage participation of local domestic firms. Sometimes in Upazilas' procurement process they do following three criteria.

- a. Upazilas' procurement process leaves some room for SMEs' socially economic enterprises and indigenous suppliers.
- b. Price adjustment clause is inserted and practice in order to cope with market price change and security of delivery.
- c. E-procurement process is adopted for ensuring transparency and promoting competitive markets.

5.6 Environmental Aspect of Sustainable Procurement

Environmental aspect is another dimension of sustainable procurement. Efforts were made to gain the view of the respondents about the environmental aspect through a number of questions. LGED officials of Tongibari Upazila are agreed with following statements.

- a. Climate change impacts (e.g. greenhouse gas emissions) associated with the production, distribution, use and disposal of the goods needs to be addressed through public procurement.
- b. Key environmental issues such as energy use, water use and quality, hazardous waste, noise, impact on natural habitat etc. might be considered over the lifecycle of the goods/works/services.
- c. Sustainable design should be promoted to minimize future resource consumption, use

- of recycled content for construction materials.
- d. Public tendering process should consider resource conservation, energy consumption, and potential adverse health and environmental effects and
 - e. Purchase products that are ‘durable, recyclable, reusable, readily biodegradable, energy efficient, nontoxic and environment friendly.

The respondents were asked whether LGED has any environmental policy/ environmental management system/ environmental reviews or not in Upazila level? All of the officials have a negative response in this question and never assess environmental performance of suppliers to obey the environmental law of Bangladesh.

But sometimes Upazila office does the following things in their procurement process.

- a. Identify the environmental impact of the goods, works or services before launching a high value tender for Upazila and
- b. Consider disposal of products/ works procured for Upazila.
- c. Key environmental issues like energy use, water use, waste, noise, pollutants and emissions, impact on natural habitat etc. are considered over the life cycle of the goods/service.
- d. Sustainable building design should be promoted to minimize future consumption of energy, water and cleaning services are considered in procurement process.

But they always consider options for reuse, repair, upgrade or modification of existing assets before making a new purchasing demand.

5.7 Social Aspect of Sustainable Procurement

The respondents were asked a number of questions about the social aspect of sustainable procurement. LGED officials of Tongibari Upazila are agreed with following statements.

- a. Public procurement should give priority in social aspect of sustainable development and promoting workforce welfare, ensuring workforce equality and diversity.
- b. There is a need to use of Community Benefit Clauses under which contractors agree to provide employment or apprenticeships of local people in large contract.
- c. Public sector purchaser should consider ‘greatest common good’ and give opportunity

- to contract with social enterprises and the voluntary sector for their capacity building.
- d. Public procurement should act as a mechanism of social inclusion support local sustainability – building and maintaining strong communities and enhancing wellbeing of local residents by generating local employment.
 - e. Public procurement should ensure diversity and equality; encouraging a diverse base of suppliers (e.g. minority or under-represented suppliers).

They always do the following things.

- a. Upazilas' procurement process follow the principle of equality i.e. participation to all the potential suppliers/ contractors.
- b. Upazila office make requirement for supplier or contractor to comply with the legal provisions regarding working hours, rest and vacation and decent wages.
- c. Organization purchase from supplier or contractor where child labor is part of reality or where human rights are violated.

But sometimes they do following thing.

- a. Upazila office identifies the social impact of the goods/works or service before launching a high value tender.
- b. Upazila office put criteria or clause regarding workers/ employees health & safety in your tender document and
- c. Organization conduct compliance audit for suppliers in the employment conditions(e.g. minimum wage, health and safety

They never purchase goods, works and services from third sector organizations (charities, voluntary sector, social enterprise etc).

5.8 General Comments about Sustainable Procurement

In addition to the questions asked about the three aspects of sustainable procurement, a number of questions were also set in order to seek general comments from the respondents about sustainable procurement.

The respondents were requested to mention the initiatives that can help achieve any of the three aspects of sustainable procurement. A variety of suggestions have been received from the respondents as following.

- a. E-Government Procurement (e-GP) system should be applied for procurement process for Annual Development Program (ADP) and revenue budget in Upazila level. At present in Upazila Parishad tendering process for ADP and revenue budget follow off-line tendering method. Sometimes local powerful politician and contractor take control over this off-line method. If e-GP system can be applied for ADP and revenue budget then this hustle could be minimize ensuring fair participation among all local suppliers.
- b. All officials should be trained on sustainable procurement process as they can be applied in their field.
- c. All stakeholders' opinion should be considered in tendering method. If local supplier has no environmental friendly method to establish sustainable procurement then it not be wise decision to go sustainable procurement in that jurisdiction rather it will be better to implement the project only.

5.9 Obstacles of sustainable procurement

They were also requested to state the obstacles of sustainable procurement in their organization. Barriers are those factors which may obstruct an organization's progress towards sustainable procurement or the sustainable procurement agenda in general. Apart from the barriers of sustainable procurement described in section 2.8 of Chapter Two, some other barriers have been identified by officials. These are summarized below:

- a. Lack of willingness of local politician to apply e-GP system.
- b. Lack of awareness of procurement professionals about sustainability.
- c. Lack of education and contemporary knowledge of many of the local contractors.
- d. Lack of knowledge of sustainable procurement of related stakeholders.
- e. Using lowest price as the main selection criteria rather than whole life costing method.
- f. Lock in traditional procurement practices.
- g. Lack of proper guidelines of sustainable procurement policy.

5.10 Suggestions regarding sustainable procurement

During the conversation with the officials of LGED, Tongibari Upazila finally researcher want to know any suggestion regarding sustainable procurement from their experience in public procurement in Bangladesh. They suggested following points by open discussion.

- a. Encourage the officials, suppliers and all stakeholders about sustainable procurement process.
- b. Enough training should be given to procuring entities as well as suppliers.
- c. Merits of sustainable procurement should be known to all officials as well as all stakeholders.
- d. Top level management should make proper sustainable policy guideline.

5.11 Summary of the Analysis

In this chapter, analysis has been done dividing the whole study into two parts. The first part was the analysis of understanding on sustainable procurement of LGED officials of Tongibari Upazila. The analysis indicates that although they have some knowledge on sustainable procurement and preparedness level is average which need more training and proper guideline to implement sustainable procurement.

The second part of the analysis was based on the current scenario of sustainable procurement practice in Tongibari Upazila. As mentioned above a semi-structured questionnaire is prepared to conduct an interview session with LGED officials in Tongibari Upazila. There is four sections in the questionnaire. Section A is designed to know the general information & concept on sustainability, Section B is designed to know the preparedness of the officials to implement sustain able procurement, Section C is designed to Level of sustainability practice in their procurement and Section D is designed to know comments on sustainability issue. Section C was planned for discussing three area of sustainability. Thus the interview sessions were deliberate and focused. In addition to the interviews five officials who are involved in procurement related activities have been provided with printed questionnaire with a view to get a holistic view of sustainable procurement scenarios of Tongibari Upazila. General comments or

suggestions from the respondents are taken into account. The analyses done on the responses against the set questions indicate that although there are a few cases where some sustainability issues are in practice, these are not very common in the whole of the public sector.

The analysis made from the questionnaire gives a realistic picture of procurement practices in the public sector in Bangladesh. Lowest price is still the key criteria for selection of suppliers. Participation of local firms is little bit encouraged through the criteria put in the tender documents. Any type of environmental policy or environmental management system does not exist in Tongibari Upazila. Moreover, the present procurement system of LGED Tongibari Upazila provides little scope for ensuring environmental performances by the suppliers/contractors. On the other hand, equal opportunity to all the participants is generally ensured. Ethical labor practice, female labor force participation etc. are present in the current procurement system. However, the broader view achieved from the perceptions of the respondents suggests that sustainability issues are not well embedded in the procurement system of LGED Tongibari Upazila.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

In Chapter One, there are two research questions; first one is to know level of understanding & preparedness on sustainable practices in Public Procurement among the officials of LGED Tongibari Upazila; last one is to know the degree of practice in procurement process of LGED Tongibari Upazila as regards as sustainability. The analysis concludes the following points.

- a. Officials have fair understanding on sustainability issues but they have little bit confusion over different issues. But most of them are agreeing upon the importance of sustainability practice in Public Procurement in Bangladesh. They have shown concerns on sustainability issues in their daily life. So it can be said that they are more or less conversant about sustainability issues but these may not sufficient enough in introducing sustainability in the public procurement.
- b. The preparedness of LGED officials at Tongibari Upazila to practice sustainability in their procurement activity is not enough. They don't have enough training on sustainable procurement. They have overall idea but don't have clear & specific perception on different aspects of sustainability. They said that local powerful contractors are not willing to go e-GP. Because there is less chance to manipulation in e-GP. Sometimes local powerful suppliers are trying to do fraudulence and coercion practice in ADP and Revenue budget offline tender.
- c. In third part analysis was done on level of sustainability practice by respondents as procurement professional. The analysis shows that they follow PPR-2008 guidelines for their all tendering method. In PPR-2008 clause regarding sustainability mentioned specifically which is discussed in section 3.6 in chapter Three. So it can be said that they follow all clause regarding sustainability which in mentioned PPR-2008. But lowest price is still the key criteria for selection of suppliers but we know only lowest price selection criteria cannot be sustainable in procurement process because sustainability means whole life costing phenomena. Though all tender in Upazila level calls for national competitive tender (NCT) but it is seen that participation of local firms are most for ADP and revenue fund because of offline tender method. So it can be said participation of local firms is quietly encouraged through the criteria put in the tender documents. Environmental policy or environmental management system sometimes exist in project comes from LGED District office. Moreover, the present public procurement system provides little scope for ensuring environmental

performances by the suppliers/ contractors.

- d. Besides, a number of additional questions have been asked in order to get some extra comments or suggestions from the LGED officials in Tongibari Upazila. They suggested some initiatives that can help to achieve sustainability in their procurement, mentioned obstacles to implement sustainability procurement in local level which is discussed in chapter Five.
- e. The analyses done on the Tongibari Upazila against the set questions indicate that although there are a few cases where some sustainability issues are in practice and these are more or less common in all Upazila in Bangladesh. The analysis gives a realistic picture of public procurement practices at Upazila level in Bangladesh.

6.1 Recommendations

Sustainability is an important issue in the present world. United Nations set up 17 goals under Sustainable Development Goals (SDGs). Among them Goal 11: Sustainable Cities and Communities and Goal 12: Responsible Consumption and Production are directly related to any construction department like LGED. But it is matter of sorrow that it has not become an important matter of concern in Bangladesh. However, it is a matter of hope that Bangladesh Govt. is willing to introduce sustainability in the public procurement. Some recommendations are mentioned in following to establish sustainability aspects in Upazila level.

- a. Sustainability criteria should be embedded in the procurement process. For example, Environmental parameters can be considered in various stages of procurement process. Pre-qualification of the suppliers should focus on sustainability issues. Environmental criteria must be applied in the tender evaluation process and environmental requirements that must be fulfilled in the contract.
- b. A sustainable procurement policy should be formulated by sustainable procurement champions and the public procurement framework should be aligned with this policy. This policy formulation should be considered as a medium to long-term activity to introduce sustainability issues in procurement. Government and Political willingness is required to initiate sustainable procurement policy. Then the Upazila Parishad should practice according to sustainable procurement policy and then they can take necessary actions to fill-up the gaps.

- c. A clear commitment is necessary between the top level of government and Upazila level through proper channel. Many public procuring entities have lack of clear direction from the top of their organizations on the priority to be given to delivering sustainable development objectives through procurement. This should be cascaded down through both government targets and performance management systems and progress monitoring.
- d. Adequate training on sustainable procurement for all stakeholders including procuring entities, suppliers and beneficiaries is necessary in order to increase knowledge for implementing sustainable procurement. Only the formulation of a policy and including sustainability criteria in the documents are not enough to introduce a sustainable procurement system. It should be considered in long-term basis.
- e. This case study has covered only on Tongibari Upazila. So there is scope to further study about the sustainability issue. Till now, the concept of sustainable procurement has not been well embedded in the public procurement system in Upazila level and hence, this paper gives an overall scenario of sustainable procurement practices in the public sector in all Upazilas of Bangladesh through the eye of LGED Tongibari Upazila office. Advanced research needs to be conducted in order to get a deeper insight into the sustainability issue in relation to the public procurement.

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APPENDIX A

QUESTIONNAIRE ON DISSERTATION

SECTION A: GENERAL INFORMATION & CONCEPT ON SUSTAINABILITY

- 1. Name of Respondent:**
- 2. Designation & Organization:**
- 3. Age:**
- 4. Gender:**
- 5. Education level:**
- 6. Years of Experiences in procurement activities:**
- 7. Did you get training or familiar with the following concepts? (Please Tick mark)**
 - a. Public procurement..... Yes/No
 - b. Sustainable development..... Yes/No
 - c. Sustainable Procurement.....Yes/No
- 8. Mention annual volume of procurement you are responsible for your Upazila?**
..... Taka
- 9. Please mention type of procurement you are involved for your Upazila? (Total 100%)**
 - a. Works.....%
 - b. Goods.....%
 - c. Services.....%
- 10. Nature of Works Procurement you are accounted for your Upazila: (Total 100%)**
 - a. New Construction Works.....%
 - b. Repair/Maintenance Works.....%
- 11. What do you mean by Sustainable Procurement?**
.....
.....
.....
.....
- 12. What do you mean by economic sustainability?**
.....
.....
.....

13. What do you mean by social sustainability?

.....

14. What do you mean by environmental sustainability?

.....

15. Name the key stakeholders of your Upazila?

.....

SECTION B: PREPAREDNESS

16. Please indicate your degree of agreement for the following statements

(Strongly agree = 5, Agree = 4, Neutral = 3, Disagree = 2, strongly disagree = 1)

Statement	Score (5 to 1)
I have enough training & I am capable to conduct Public Procurement activity in this Upazila.	
I have clear conception on economic aspect of sustainability	
I have clear conception on Social aspect of sustainability	
I have clear conception on Environmental aspect of sustainability	
I think PPA-06 & PPR-08 have addressed sustainability in procurement process properly-	
I think PPA-06 & PPR-08 have addressed social sustainability in procurement process-	
I think PPA-06 & PPR-08 have addressed environmental sustainability in procurement process	
I think LGED has & following Environmental Management System (EMS) in their practice	
I think the itemized specification of LGED schedule of rates is addressing sustainability in procurement duly.	

SECTION C: SUSTAINABILITY PRACTICE IN PROCUREMENT

17. Which is the most important issue you may consider from sustainability point of view for new construction in your Upazila?

.....

18. Which is the most important issue from you may consider sustainability point of view for repair & maintenance work in your Upazila?

.....

19. Contract award criteria to responsive tenders that you follow is-

.....

20. Do you have sustainability practice in your daily life on following cases?

Statement	Always	Sometimes	Never
Turn off electrical switches after use			
Buy energy saving electrical & IT appliances			
Use less water in daily activity			
Avoid using plastic bags			
Practice 4R policy (Reduce, Re-use, Recycle, Rethink)			

C1: ECONOMIC ASPECT OF SUSTAINABILITY

21. Indicate your degree of agreement with the following statements. (Strongly agree = 5; Agree=4; Neutral=3; Disagree=2; strongly disagree=1)

Statement	Score (5 to1)
a. Public Purchaser can contribute directly to economic (financial) outcomes including cost savings for their organization.	
b. Local economic development can be enhanced through procuring locally grown goods and to encourage first-tier contractors to make use of SME or small firms as their sub-contractors.	
c. The PPR and financial procedures should promote whole life costing in order to takes sustainability criteria into account rather than lowest price in all tender.	
d. Suppliers' fair and viable margins should be ensured for achieving quality delivery and effective supply management.	
e. Procurement demand should make more transparent through E-procurement.	

22. Please mention appropriate answer of the following questions.(Please tick mark appropriate one)

a. Does Upazila office consider whole life cost (WLC) principals rather than lowest price in its procurement decisions?	Yes	Partial	No
b. Does Upazila office put any criteria in the tender documents to encourage participation of local domestic firms?	Yes	Partial	No
c. Does Upazila estimated tender price include suppliers /contractors fair and viable margins?	Yes	Partial	No
d. Does Upazilas' procurement process leave some room for SMEs, socially economic enterprises and indigenous suppliers?	Always	Sometimes	Never
e. Do you insert and practice price adjustment clause in your procurement contract in order to cope with market price change and security of delivery?	Always	Sometimes	Never
f. Does your Upazila office adopt E-procurement process for ensuring transparency and promoting competitive	Always	Sometimes	Never

markets?			
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C2: ENVIRONMENTAL ASPECT OF SUSTAINABILITY

23. Indicate your degree of agreement with the following statements. (Strongly agree = 5; Agree=4; Neutral=3; Disagree=2; strongly disagree=1)

	Score (5 to 1)
a. Climate change impacts (e.g. greenhouse gas emissions) associated with the production, distribution, use and disposal of the goods needs to be addressed through public procurement.	
b. Key environmental issues such as energy use, water use and quality, hazardous waste, noise, impact on natural habitat etc. might be considered over the lifecycle of the goods/works/services	
c. Sustainable design should be promoted to minimize future resource consumption, use of recycled content for construction materials.	
d. Public tendering process should consider resource conservation, energy consumption, and potential adverse health and environmental effects	
e. Purchase products that are 'durable, recyclable, reusable, readily biodegradable, energy efficient, nontoxic and environment friendly.	

24. Please mention appropriate answer of the following questions. (Please tick mark appropriate one)

a. Do your upaeszila office identify the environmental impact of the goods/works or services before launching a high value tender for your Upazila?	Always	Sometimes	Never
b. Does your Upazila office have an environmental management system (EMS) or makerequirement for contractors to have environmental management system?	Yes	Partial	No
c. Can you give examples of environmental criteria that you used in procurement process (e.g. emission, noise level, energy and water efficiency, waste generation	Yes	Partial	No

etc.) for goods, works and services?			
d. Do you consider disposal of products/ works procured for your Upazila?	Always	Sometimes	Never
e. Do you consider options for reuse, repair, upgrade or modification of existing assets before making a new purchasing demand?	Always	Sometimes	Never
f. Key environmental issues like energy use, water use, waste, noise, pollutants and emissions, impact on natural habitat etc. might be considered over the life cycle of the goods/service. Does your Upazila office consider these while making procurement planning?	Always	Sometimes	Never
g. Sustainable building design should be promoted to minimize future consumption of energy, water and cleaning services. Does your Upazila office consider before making design of infrastructural facilities?	Always	Sometimes	Never
h. With respect to the suppliers: Does your Upazila office assess environmental performance of suppliers or ask your suppliers to obey the environmental law of Bangladesh?	Always	Sometimes	Never

C3: SOCIAL ASPECTS OF SUSTAINABILITY

25. Indicate your degree of agreement with the following statements. (Strongly agree = 5; Agree=4; Neutral=3; Disagree=2; strongly disagree=1)

Statement	Score (5 to 1)
a. Public procurement should give priority in social aspect of sustainable development and promoting workforce welfare, ensuring workforce equality and diversity	
b. There is a need to use of Community Benefit Clauses under which contractors agree to provide employment or apprenticeships of local people in large contract.	
c. Public sector purchaser should consider ' greatest common good ' and give opportunity to contract with social enterprises and the voluntary sector for their capacity building.	
d. Public procurement should act as a mechanism of social inclusion support local sustainability – building and maintaining strong communities and enhancing wellbeing of local residents by	

generating local employment.	
e. Public procurement should ensure diversity and equality; encouraging a diverse base of suppliers (e.g. minority or under-represented suppliers).	

26. Please mention appropriate answer of the following questions. (Please tick mark appropriate one)

a. Does your Upazila office identify the social impact of the goods/works or service before launching a high value tender?	Always	Sometimes	Never
b. Does your Upazilas' procurement process follow the principle of equality i.e. participation to all the potential suppliers/ contractors?	Yes	Partial	No
c. Does your Upazila office put any criteria or clause regarding workers/ employees health & safety in your tender document?	Yes	Partial	No
d. Does your Upazila office make requirement for supplier or contractor to comply with the legal provisions regarding working hours, rest and vacation and decent wages?	Always	Sometimes	Never
e. Does your organization purchase from supplier or contractor where child labor is part of reality or where human rights are violated?	Yes	Partial	No
f. Does your organization purchase goods works and services from third sector organizations (charities, voluntary sector, social enterprise etc)?	Yes	Partial	No
g. Does your organization conduct compliance audit for suppliers in the employment conditions(e.g. minimum wage, health and safety?)	Always	Sometimes	Never

SECTION D: COMMENTS ON SUSTAINABILITY ISSUE

27. Could you please suggest any initiative that can help achieve any of the three aspects of sustainable procurement in your organization?

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28. Which, do you think, are the obstacles of sustainable procurement in your organization?

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29. Any more suggestions/ opinions/ comments regarding sustainable procurement from your experience in public procurement in Bangladesh.

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Thank you very much for your cordial co-operation.