

**ADDRESSING SUSTAINABILITY THROUGH PUBLIC PROCUREMENT
FOR SUSTAINABLE DEVELOPMENT OF BANGLADESH**

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

**Submitted by
Md. Saifur Rahman
MPSM, Batch: VII
ID No.: 14282027**

**Masters in Procurement and Supply Management
December, 2014**



**BRAC Institute of Governance and Development (BIGD)
BRAC University**

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**BRAC Institute of Governance and Development (BIGD)
BRAC University**

DEDICATED TO MY

LATE BROTHER IN LAW
MD SEKENDAR ALI

STATEMENT OF THE AUTHOR

It is hereby declared that the dissertation titled “**Addressing Sustainability through Public Procurement for Sustainable Development of Bangladesh**” has been performed by me and neither this dissertation nor any part thereof has been submitted elsewhere for the award of any degree or diploma.

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The Author

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ABSTRACT

Purpose: Achieving sustainable development is one of the many challenges confronting Bangladesh in its attempt to attain the middle-income country status by 2021. Recognizing the important role that public procurement can play to support sustainable development, the study seek to provide an assessment of the scope and current practices of addressing sustainability imperatives in public procurement. Second, learn about perception of procurement practitioners with barriers and opportunities of using public procurement as a tool to foster sustainable development of Bangladesh.

Methodology: The study utilized a both qualitative and quantitative approach. A semi structured questionnaire was used to collect primary data from randomly selected 60 procurement practitioners in public sector. The recorded data were analyzed by using SPSS 17 version package.

Findings: The highest proportion of the procurement practitioners was middle aged and male. Majority of them were from engineering background with post graduate education and involved in the development of specification and tender document for their organisation. Almost all of them were trained in public procurement but most of them did not get training on sustainable and ethical procurement and sustainable development. The highest portion of them define SP as procurement based on considering the environmental, social and economic impacts for achieving long term value for money and had a good level of perception on each aspect of addressing sustainability through public procurement.

Highest proportion of the respondents did not adopt life cycle costing, E-procurement process. Most of their practices did not encourage local domestic firms and SMEs, identifying and assessing environmental and social impacts before launching a high value tender, promoting sustainable building design, health and safety, legal provision of rest, vacation and wages of workers. Their organization had no EMS and policy for cost saving and avoidance of mis-procurement. They did not consider disposal issues of procured goods works and services. However, majority of the respondents considered adequate competition and supplier profit in their tender price. Their process follow the principle of equality and they did not buy goods/works and services where child labor is used. Although there is no specific guideline, various sustainability criteria could be incorporated through specifications, selection criteria and contract performance clauses within the existing framework of PPR.

Despite the potential of using public procurement as a viable tool in the pursuit of sustainable development, there exists low level of awareness and understanding among the procurement practitioners. Improvement of environmental quality, higher labor standard and optimize use of natural resources were regarded as highly ranked opportunity arise from addressing sustainability through public procurement. Lack of policy guideline, absence of political will in promoting sustainability and avoidance of complexity for secondary objective of procurement were the common responses as barrier. In addition to formulate a sustainable procurement policy, political willingness and a clear commitment is necessary form the government.

Research limitations: Besides limited only to public sector, the study highlights the importance of supporting factors, like transparency, accountability, preventing corruption as well as leeway in public policy, for using procurement as a tool for sustainable development.

Policy implication: Given the increased attention of achieving sustainable development in Bangladesh, the study seeks to develop an emerging thought among policy makers and academic researchers to use procurement as one crucial tool for sustainable development. The proposed typology of sustainable procurement for the public sector can serve as a basis for future research in this area.

Keywords: Sustainable development, PPR, Public procurement, Bangladesh.

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ABBREVIATIONS AND SYMBOLS

Abbreviations	:	Full meanings
AA	:	Approving Authority
ADP	:	Annual Development Plan
BADC	:	Bangladesh Agricultural Development Corporation
BASI	:	Barriers for addressing sustainability index
BCIC	:	Bangladesh Chemical Industries Corporation
BIGD	:	Bangladesh Institute of Governance and Development
BSTI	:	Bangladesh Standard and Testing Institute
BUET	:	Bangladesh University of Engineering and Technology
BWDB	:	Bangladesh Water Development Board
CCGP	:	Cabinet Committee on Government Purchase
CDM	:	Clean Development Mechanism
CFL	:	Compact Fluorescent Lamp
CIPS	:	Chartered Institute of Purchasing & Supply
CPAR	:	Country Procurement Assessment Report
CPTU	:	Central Procurement Technical Unit
CSR	:	Corporate Social Responsibility
DoE	:	Department of Environment
DoFP	:	Delegation of Financial Powers
DG	:	Director General
DPDC	:	Dhaka Power Distribution Company Ltd.
DPHE	:	Department of Public Health Engineering
DPP	:	Development Project Proposal
DPM	:	Direct Procurement Method
DESCO	:	Dhaka Electric Supply Company Ltd.
EIA	:	Environmental Impact Assessment
EMS	:	Environmental Management System
ERD	:	Economic Relations Division
ECNEC	:	Executive Committee on National Economic Council
EOI	:	Expression of Interest
e.g.	:	For example
<i>et al.</i>	:	And others
FY	:	Financial year
GCC	:	General Conditions of Contract
GoB	:	Government of Bangladesh
GDP	:	Gross Domestic Product
GHG	:	Green House Gas
HOPE	:	Head of Procuring Entity
IFT	:	Invitation for Tender
IMED	:	Implementation, Monitoring and Evaluation Division
ISO	:	International Organization for Standardization
KPI	:	Key Performance Indicator

KII	:	Key Informant Interview
LGED	:	Local Government Engineering Department
LTM	:	Limited Tendering Method
NGO	:	Non-government Organization
NOA	:	Notification of Award
No.	:	Number
NS	:	Non-significant
OTM	:	Open Tendering Method
OASI		Opportunity for addressing sustainability index
PCC	:	Particular Conditions of Contract
PEC	:	Proposal Evaluation Committee
POC	:	Proposal Opening Committee
PPA	:	Public procurement Act
PPP	:	Public Private Partnership
PPR	:	Public Procurement Rules/ Regulations
PE	:	Procuring Entity
PWD	:	Public Works Department
PC	:	Planning Commission
PQ	:	Pre-Qualification
RFQ	:	Request for Quotation
RHD	:	Roads and Highways Department
SASI		Support needed for addressing sustainability index
SD		Sustainable Development
SP	:	Sustainable Procurement
SPP	:	Sustainable Procurement Practices
SRFP	:	Standard Request for Proposal
STDs	:	Standard Tender Documents
TSTM	:	Two Stage Tendering Method
TEC	:	Tender Evaluation Committee
TOC	:	Tender Opening Committee
VFM	:	Value For Money
WB	:	World Bank
UN	:	United Nation
WLC	:	Whole Life Costing
%	:	Percentage
*	:	5% level of significant
**	:	1% level of significant
/	:	Per
:	:	Ratio
@	:	At the rate of
<	:	Less than
>	:	Greater than
±	:	Plus minus

CHAPTER: 1

INTRODUCTION

1.0 Background of the Study

Sustainable Development (SD) emerged as a new development paradigm and has been adopted by the international community as an overarching development goal since the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil in 1992. The concept of SD was introduced by the Bruntland Commission in its report, *Our Common Future*, as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Green economy has emerged as one of the tools for achieving SD in its three dimensions namely economic, social and environmental (GED, 2013). The global population is increasing and consumption rates per capita are growing. Human consumption of resources significantly exceeds what the earth can provide. Essential services such as clean air and water, a stable climate and viable forests and fisheries are in long-term decline. This means business as usual no longer an option for the public sector. Public sector organizations will be instrumental in creating the transition to a more sustainable future through their role in improving local quality of life and through their leadership in tackling social injustice and environmental degradation.

Achieving SD is one of the many challenges confronting the country in its attempt to attain the middle-income country status by 2021. The challenge to sustainability originates from both domestic source in the form of environmental degradation generated by natural and human-made processes and international sources in the form of climate change. The challenges arise when the country's development efforts are made without proper recognition of consequential environmental impacts which lead to degraded agro-ecosystem, rivers, coastal and urban environment, depletion of ground water, deforestation and desertification in different parts of the country (GED, 2013).

Foundational to the role of government itself, procurement has been conceptualized as one of four major economic activities performed by government (Thai, 2001). Procurement supports government functions through a make/buy process (Murray, 2007). The overarching goal of procurement is to obtain the most appropriate and highest quality goods or services with least cost. Consequently, much of government procurement was historically conducted on a lowest economic cost basis and without a solid strategic plan (Murray, 2009). Government expenditure is having a significant share of her gross domestic product (GDP's) in each country around the world because countries in both developed and developing regions are using public procurement (PP) to pursue social goals such as reduce unemployment rate, raise labor standard, provide employment opportunities for disable persons and promote gender, racial and ethnic equality (McCrudden, 2004). It pursues these values as a part of their sustainability goals. Procurement is one of the key drivers of change in any organisation, whether public or private sector and is increasingly becoming a mechanism for policy delivery. All PP is required to achieve value for money and is governed by the PP rules to ensure that it is fair and open. PP often constitutes a large share of the economy. Government procurement represents 18.42% of the world GDP (Mahmood, 2010). Spending is now at historically high levels of 40% of GDP in OECD countries, 49.1% in 27 European countries and rising in developing countries (Islam and Siwar, 2013). For Bangladesh it can exceed 16 per cent of total GDP (FD, 2014). The share of PP is generally larger in developing countries than in developed countries (Eurodad, 2009). The share of aid that is translated into PP in developing countries ranges from 25 to 43 per cent, making it an important instrument for development (World Bank Group-I, 2010).

Over the past decades, sound PP has been used by governments to encourage a more equitable economic growth. Through PP, governments can raise the bar for the respecting of labour and environmental standards by all market operators, thereby improving the quality of jobs while facilitating sustainable development. Hence the term “sustainable procurement” (SP). With the advent of globalization and the increased role

of private sector in governance, PP features as an important market-based incentive for promoting corporate social responsibility (CSR). As sustainability becomes an intensifying focus for policymakers (Zeemering, 2009; Wheeler, 2000; Jepson 2004) and is arguably elevated to a new paradigm (Mazmanian and Kraft, 2010), public procurement actions need to be considered economic, equity-driven and economic goals within the local constituency and beyond. Sustainability is driven by an incorporation of economic, environmental and equity-driven values and policy aims-further defined as people, profit and planet (Weybrecht, 2010). United Nations (2008) has stated that sustainable PP has emerged as a powerful way to stimulate more sustainable consumption and production patterns for society at large and more generally to contribute to the achievement of SD goals. In response to the call of World Summit on Sustainable Development (WSSD, 2002), various governments, international and regional organizations and networks have been active in promoting sustainable PP through various policies, awareness raising, toolkit development and capacity building activities. Thus, SP is considered as the new link between environmental, economic and social factors being taken into account in purchasing decisions, and thereby portrays the concept of SD in practical and feasible ways.

As a developing country, Bangladesh utilizes huge amount of national budget for procurement of goods, works and services (Mannan and Islam, 2013). For sustainable development of Bangladesh, proper utilization of this major portion of our national budget is necessary. At a national level, there is no sustainable procurement policy in place or under development. Bangladesh needs to balance economic, social and environmental requirements of development in order to ensure the needs of the present generation are met without compromising the ability of the future generations to meet their own needs. A total of 80% of Annual Development Program (ADP) allocation are spent for procurement of goods, works and services which are administered by PPR 2008 in Bangladesh (Rahman, 2013). This represents a huge opportunity for enhancing the environment and quality of life by choosing the right goods and services. Thus, it

seems to be a good consideration to have a look at on the role of PP in bringing about sustainability. While Sustainable Public Procurement (SPP) activities are common in many developed countries, the awareness and implementation of SPP is still comparatively low in most developing countries including Bangladesh. There is no study has been conducted to examine about the extent to which SP policies and practices are embedded within the practice of public procurement process of Bangladesh. Recognizing the important role that PP can play to support sustainable development, this study aims to provide an assessment of the present procurement practices and related opportunities and challenges of addressing social and environmental imperatives for sustainable development in Bangladesh. This provides fresh input into the SP discourse to inform policy development at the government and organizational levels.

1.2 Objectives of the Research

The objective of this research is to gain a better understanding of the role of PP in addressing economic, environmental and social considerations of sustainability. Efforts have also been made to analyze the opportunities and challenges for integration of sustainability criteria into public sector procurement process of Bangladesh.

- To assess the extent of sustainability criteria particularly economic, social and environmental are currently considered with an exploration of scope of addressing these issues in the country's procurement legislation.
- To know the perception level of procurement professionals on sustainable development thorough their practices and to find out significant suggestions in using public procurement as a tool for sustainable development in Bangladesh.
- To examine the extent of opportunities, challenges and way forwards for incorporating sustainability issues in the public procurement for sustainable development of Bangladesh.

1.3 Research Questions

The following research questions have been proposed in response to the objectives mentioned above:

- What are the perception level of procurement practitioners in Bangladesh in regards to economic, social and environmental aspect sustainability and the role of public procurement in achieving sustainable development?
- What are the scope and current practices of addressing sustainability imperatives in the current public procurement framework of Bangladesh?
- If there is any scope, what are the extent of opportunities, challenges and way forwards for incorporating sustainability in the public procurement for sustainable development of Bangladesh?

1.4 Significance of the Study

Given the increased attention of achieving SD in Bangladesh, this study was seeks to re- envision procurement as one crucial tool for SD that seek to bolster green economy strategies and policies, such as striving for sustained, inclusive, and equitable economic growth; promoting productive activities that contribute to eradication of poverty, improving the livelihoods and empowerment of the poor, enhancing the welfare of ethnic communities and women, promoting competition, gender equality and encouraging existing and new partnerships to mobilize financing for SD of Bangladesh. The study also seeks to develop an emerging thought for PP through this investigation.

1.5 Scope of the Study

The focus of this study was limited to public sector of Bangladesh. In this study, effort was made to provide comprehensive insight into the state of procurement practices in addressing SD in Bangladesh. Given the paucity of previous research on PP and its scale and significance on sustainability, it is important to shed greater light on how

public money is spent and on how sustainability issues can be introduced in PP. Information gathered will lend support to the research on what the extent of SP is and how the economic, environmental and social considerations can be integrated and applied into public procurement practices for SD.

1.6 Organization of the Thesis

The whole study has been represented in six distinct Chapters. Chapter 1 gives a general introduction and justification of addressing sustainability issues through public procurement for SD. The chapter also includes the objectives of the study including research question, the scope and finally the chapter outline. Chapter 2 titled Review of Literature introduces the concept of sustainability, SD and SP in order to give a theoretical view of the subject matter. The concepts of various SP terminologies have also been elaborated in this chapter. The chapter also presents summarization of published information to evaluate the role of PP as tool for achieving SD.

The detailed methodology of the study is highlighted in chapter 3. The process of analyzing data with different scoring system used for analyzing qualitative data and various statistical measures has been mentioned in this chapter. The theoretical background and the chronological evolution of public procurement in Bangladesh have been depicted in chapter 4. The chapter also describes the overall public procurement scenario in Bangladesh and scope of addressing various sustainability criteria.

In chapter 5, the findings regarding sustainable procurement scenario in Bangladesh collected through semi structured questionnaire in different procuring entity is analyzed and presented. This chapter gives a clear view of addressing sustainability criteria in procurement process of Bangladesh. Conclusion and recommendations made at Chapter 6. References and Appendices are placed at the end to support the research work.

CHAPTER: 2

REVIEW OF LITERATURE

2.0 Introduction

Governments are increasingly concerned with addressing sustainable development (SD) objectives, which were outlined by the Brundtland Commission. Public procurement (PP) is one way in which governments are attempting to meet sustainability goals in many developed and developing countries. This chapter introduces the theoretical background on the role of PP in addressing SD and explains on why it is a relevant issue from a public procurement perspective of Bangladesh. Besides, some of the concepts relevant to the sustainable procurement (SP) have also been elaborated. SP issues have long been neglected in developing economies as opposed to available data from developed economies. For getting in-depth knowledge of SP, different books, journals, publications were reviewed. Besides, the websites of different organizations practicing SP were visited in order to know the latest advancement in this sector. Some literatures are available on SP in developed countries. However, such information in regard to developing countries including Bangladesh is scanty. In most developing countries, there are no policies in place that would systematically link sustainable procurement practices (SPP) with broader SD goals and there are no action plans and implementation measures related to SPP. The present review concerns summarization of published information to evaluate the role of PP as tool for achieving sustainable development.

2.1 An Overview of the Public Sector of Bangladesh

Public sectors today hold sizeable share of economic activity in a number of developed and developing economies. Public sectors contribute sizably to the gross domestic product (GDP) and investment and a sizeable portion of the workforce in the economy in most of developed and developing countries. Public sector has a large capacity to influence the economy through spending (Islam and Siwar, 2013). The following table represents the size of the public sector of Bangladesh.

Table 2.1 Size of the public sector expenditure in last four FY (Figure in crore BDT)

	2010-11	2011-12	2012-13	2013-14
GDP at current price	915830	1055200	1198920	1350920
GDP at constant price	646340	688490	729900	774540
Government expenditure	129876	161213	189326	216115
Public expenditure as % of GDP	14.2	15.3	15.8	16.0

Source: (FD, 2014)

2.2 Annual Development Program of Bangladesh

Development budget is the annual action plan for channeling resources in line with the national plans and strategies adopted for economic growth, poverty reduction and social development. The size of development budget in Bangladesh clearly shows an upward trend. The increasing trend of allocation and expenditure through ADP is consistent with the policy and strategy and the commitment of the successive government for economic development. The following table represents the trend of development budget of Bangladesh.

Table 2.2 Size of the Annual development program in last four FY

Financial Year	Revised ADP allocation (crore BDT)
2010-2011	35880
2011-2012	41080
2012-2013	52366
2013-2014	60000

Source: (FD, 2014)

Procurement constitutes a vital part of ADP. These procurements are done by government agencies of different levels: ministries, attached departments & directorates, corporations attached to the ministries and the local bodies like municipalities etc.

2.3 The Concept of Sustainable Development

Sustainable development (SD) emerged as a new development paradigm and has been adopted by the international community as an overarching development goal since the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil in 1992. The concept was introduced by the Bruntland Commission in its report, *Our Common Future*, in 1987 as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. The Rio declaration at the UNCED of 1992 endorsed a total of 27 principles towards achieving SD that are captured in Agenda 21. Agenda 21 provides a thorough and broad-ranging program of actions demanding new ways of investing in our future to reach global SD in the 21st century. Its recommendations ranged from new ways to educate, to new ways to care for natural resources, and new ways to participate in designing a sustainable economy (GED, 2013).

The evidence that a degrading environment is visibly impinging on our health, economies and security is helping to drive sustainable development. SD is not just a concept; it is a stated objective of governments around the world. It is increasingly becoming the goal of businesses and organizations in the public and private sector, as well as that of individuals and communities. SD requires governments and organizations to consider the social, economic and environmental aspects of their operations, with no single aspect dominating (UNEP, 2012). With sustainability issues becoming vital in the developmental agenda of nations, it is time to shift the focus of developing countries’ public procurement systems from mainly immediate economic advantages to sustainable public procurement systems, which will result in long term benefits.

Natural resources like land and water are limited and their per capita availability is diminishing due to rising population on the one hand and also due to excessive use of common pool resources on the other hand. The degradation of natural resources reduces

the wellbeing of people; especially the poor and women suffer more, as they depend much more on natural common property resources for fuel and water. Bangladesh is a victim of climate change caused by rapid urbanization, industrialization and economic development activities worldwide. Bangladesh will be adversely affected by climate change in the form of melting of Himalayan glaciers, global warming and rising sea level, intensified natural calamities, and greater water scarcity leading to loss of livelihood, rising unemployment and poverty. A key element of the strategy of the Sixth Five Year Plan of Bangladesh is a firm commitment to pursue an environmentally sustainable development process (GED, 2011).

2.4 The Concept of Sustainable Procurement

Procurement refers to the process used by an organization to enter into supplier contracts for purchase of goods, works and services. It is not limited to the purchasing processes of the public sector, but is widely used to refer to the purchasing procedures of all organizations, including private enterprise. The term PP however, narrows the scope down to the processes used by governments and public sector organizations to purchase goods, services and commission infrastructure developments (ISSD, 2007). The concept of Sustainable Procurement (SP), was originally floated at the UN World Summit on Sustainable Development in Johannesburg in 2002, is conceptualized by Borland (2009) to include planetary, environmental, financial and social /cultural considerations. It involves looking beyond the traditional economic parameters and making decisions based on life-cycle costs, associated environmental and social risks and benefits and implications (Mensah and Ameyaw, 2012).

SP can be defined as buying goods and services in environmentally, socially and economically conscious ways. The most regularly cited definition for SP originates from the *United Kingdom Sustainable Procurement Task Force* and coherently builds on the concept of sustainable development:

Sustainable public procurement is a process whereby public institutions meet their needs for goods, services and works in a way that achieves value for money on a whole life cycle basis in terms of generating benefits not only to the organization, but also to society and the economy, while minimizing damage to the environment (DEFRA, 2006).

The reason that SP is an increasingly important aspect of the journey towards sustainable development for a government is that public sector spends on goods and services are large. In addition, as the public sector is concerned with the common good and societal well-being, it may have a natural affinity with longer term sustainable development objectives. This public sector affinity with SD may have the effect of ‘pulling’ the demand for sustainable goods and services through the market. Governments can not only ensure they are buying more sustainably, but can through the scale of their spend influence suppliers and markets to adopt sustainability practices.

There is general and global agreement around the fact that climate change presents a threat that goes far beyond the immediate disruption to our environment. The physical effects of climate change, such as sea level rise, droughts, floods and other extreme weather events, will lead to social and economic problems: large scale migration, crop failure, faster and wider spread of diseases, economic volatility and resource competition. Climate change will accelerate global instability exacerbate existing tensions around the world. The Bangladesh’s prosperity and security can only be secured through tackling these issues locally and globally. Procurement can be used as a significant mechanism to advance the sustainability agenda. Sustainable procurement is about securing value for money whilst realizing environmental, social and economic benefits and therefore becomes a key driver for promoting sustainable global growth and sustainable development commitments.

2.4.1 Economic aspect of sustainability

Economic development goals are increasingly a function of procurement (Murray, 2001). Specifically, scholars have increasingly discussed the role of procurement as an economic development tool and as a driver of innovation (Edler and Georghiou, 2007 and Murray 2001). Drawing on fostering economic opportunities as a key external goal in procurement, buy local policies can be specifically crafted as a tool to mediate equity concerns by targeting economic opportunities at particular groups in terms of geography, historical disadvantages in economic opportunities, or disproportionate economic need. McCrudden (2004; 1998; 1992) have noted the historical origins of the equity and social justice dimensions of procurement. SPP can also be a major driver for innovation and help stimulate environmentally and socially conscious markets, particularly in sectors where public purchasers represent a large share of the market such as construction, health services, public transport, or information technologies. The promotion of small and medium-sized companies (SMEs) and supplier diversity facilitates access to the public procurement market and can increase competition (Berry 2011; European Commission 2010; United Nations 2008).

2.4.2 Environmental Aspect of sustainability

The integration of environmental concern in the public procurement process goes under several different names, including *eco-procurement* (Erdmenger, 2003), *environmentally preferable purchasing* (Coggburn & Rahm, 2005), *environmental public procurement* (European Commission, 2004), *greener public purchasing* (Marron, 2003), *green procurement* (Anonymous, 2001), and *sustainable procurement*, addressing both environmental and social issues (McCrudden, 2004). Ideally, integrating environmental concern in the procurement process involves avoiding unnecessary purchases by reviewing the actual need for the product and seeking other solutions. If this is not possible, it seeks to purchase a greener variant that supplies the same or better quality and functionality as the conventional choice (Erdmenger, 2003).

Following the 2002 World Summit on Sustainable Development, environmental goals have been integrated into policy through procurement of many countries (Murray, 2001; Preuss, 2009; Walker and Brammer, 2009). Addressing environmental criteria in procurement process also support the implementation of national environmental policies and help achieving international targets such as the reduction of greenhouse gas emissions laid out in the Kyoto protocol. There is also a high potential for environmental benefits at the local level such as the use of low-emission busses to increase air quality or the procurement of nontoxic cleaning products for schools or public buildings (Berry, 2011; United Nations, 2008).

Continuous degradation of our natural environment, with increasing greenhouse gas emissions and climate change, have led policy makers to focus on PP as a way of encouraging the development of more environmentally friendly goods and services. Several authors have discussed the role of using PP as a policy instrument (Arrowsmith, 1995; Marron, 2003 and McCrudden, 2004). According to Marron (2003), governments attempt to do so by using various policies that increase the recycled content of government purchases, increase the efficiency of energy-using devices or that promote the use of one or several of the following: organic products, alternative fuels, clean electricity and less-polluting manufacturing technologies. Examples of policies that are used in this context provided by Marron, (2003) are improved budgeting systems (e.g. using life-cycle costing), price preferences for greener products (e.g. by putting an estimated price tag on an environmental factor, such as one ton emitted carbon dioxide), set-asides for greener products (e.g. 10% of power from renewable sources).

In Particular, Environmental Preferable Purchasing is defined as buying products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. Integrating environmental criteria in procurement process can contribute to meeting environmental challenges such as climate change, soil degradation, biodiversity loss, and access to

fresh water. There are significant variations in the sustainability impacts associated with different commodities. Environmental issues can be taken into consideration in technical specifications, in selection criteria, in the award of contracts, and in contract performance clauses. According to Queensland Government (2009), key environmental issues which might be considered over the life cycle of the goods/services include:

- Energy use and type of energy utilized;
- Water use and water quality impacts;
- Resource use, including the use of non-renewable resources;
- Volume and type of waste;
- End-of-life options (e.g. recyclability, resource recovery);
- Impact on natural habitat;
- Level of toxic and hazardous substances/waste;
- Noise, pollutants and emissions.

2.4.3 Social aspects of sustainability

Sustainable public procurement can be used as a technique for tackling social disadvantage and exclusion (Boomsma, 2008). This should be able to give public sector buyers a lot of control over what is manufactured and how it is manufactured. Similarly, SPP can contribute to enhancing compliance with national social and labor laws, international conventions, and social development goals such as the basic ILO conventions, which ban forced and child labor, establish the right to form trade unions and ensure non-discrimination. By promoting voluntary social standards, SPP can help improving living conditions and reducing poverty in developing countries. SPP can also stimulate social justice and social inclusion. South Africa, for example, has introduced a system to promote the advancement of people historically disadvantaged by unfair discrimination on the basis of race, gender or disability. In Brazil, a law introduced in 2007 established criteria aimed to increase participation of small businesses in procurement. Overall, social factors include recognizing equality and diversity,

complying with core labor standards, ensuring fair working conditions, increasing employment and skills, and developing local communities (Berry 2011; European Commission, 2010; United Nations, 2008; IISD 2007; UNEP, 2012).

2.5 The Triple Bottom Line

The term triple bottom line indicates three pillars of sustainability namely, economic, environmental and social. John Elkington coined the term to express what was seen as an inevitable expansion of the environmental agenda to embraces wider sustainability concerns. Based on the accounting concept of ‘The Bottom Line’(TBL), the term was designed to engage business leaders, raising awareness that cooperate activity not only adds economic value but also can potentially add environmental and social value and more importantly, create environmental and social costs. These are previously regarded as ‘externalities’ not accounted for in the performance measurement of organizations. Traditionally, these have been borne financially by governments and experientially by communities. In TBL thinking, businesses which cause costly environmental and social impacts should share (or at least recognize) these costs.

‘People’ pertains to fair and beneficial business practices toward labor and the community and region in which a corporation conducts its business. ‘Planet’ refers to sustainable environmental practices. ‘Profit’ is the economic value created by the organization after deducting the cost of all inputs, including the cost of the capital tied up. It differs from traditional accounting definitions of profit. In a sustainability framework, the ‘profit’ aspect needs to be seen as the real economic benefit enjoyed by the host society. The triple bottom line (also called 3BL, and later people, Profit, planet) recognizes the need for business to measure their performance not just by how well they further the interests of their primary stakeholders/ shareholders through profitability (the economic bottom line), but also by how well they further or protect the interests of their secondary stakeholders (including the wider society), in relation to social and

environmental sustainability. TBL accounting means expanding the traditional reporting framework of a company to take into account ecological and social performance, in addition to financial performance.

2.6 Drivers for Addressing Sustainability through Procurement

Drivers are forces which create pressure to integrate sustainability consideration through procurement. Drivers are the factors that impel actions for sustainable procurement. So, factors such as resource scarcity, legislation, reputational risk, shareholder pressure etc. are likely to drive organizational measures for sustainability. Factors such as innovation capabilities, established risk management processes, sustainability educated management, the availability of sustainable resources and the development of industry wide sustainability standards are likely to support such measures. Followings are the key drivers for sustainability:

- Values;
- Markets;
- Transparency;
- Lifecycle technology;
- Partnerships and
- Corporate governance.

2.7 Benefits of Sustainable Procurement

The benefits of SP are summarized from Sustainability in Supply Chains, the official CIPS course book for advanced diploma in procurement and supply.

Compliance: Law and regulation impose certain social and environmental responsibility on organisation in relation to workplace health and safety, employment protection, consumer right and environmental care. There are reputational, financial and operational penalties for failure to comply (eg. Polluter pays taxes).

Reputational benefit: Voluntary measures and standards accreditation on sustainability may enhance corporate image and reputation, enabling the organisation to attract and retain quality suppliers, employees and investors.

Brand proposition: Sustainable product design and sustainably sourced inputs can create a differentiated and competitive brand proposition which is increasingly valued by consumers.

Work force and supplier commitment: Above statutory provision for the treatment of employees and suppliers may be necessary to attract, retain and motivate them to provide quality service and commitment-particularly in competition with other employers and purchasers.

Supply continuity: Support for the financial viability and sustainable practices of supplier protect the ongoing security of supply which might otherwise be put at risk. The squeezing of supplier profit margins, for example, may risk supplier failure, corner cutting on quality, refusal to supply and so on.

Minimization of failure cost: Significant cost may be incurred to rectify failure: eg environmental clean- up, fines, compensation claims and so on as well as the cost of lost sells, disruption to supply or production while problems are sorted out, loss of employee morale. As in quality management, prevention costs are potentially less than failure costs.

Cost management and efficiency: A retained emphasis on economic performance and particularly a whole life costing approach can contribute to cost management and profitability. The environment-friendly focus on resource efficiency and the reduction or elimination of waste products and processes can lead to measurable efficiencies and cost savings. Video conferencing, for example, is both green and a cost reducing approach to meetings.

Improvement and innovation: SP initiatives often require increased supply chain communication and investment in problem solving and innovation. This may open up

new avenues for performance improvement, cost reduction, enhanced collaboration, supplier development and product and service innovation with flow on benefits.

2.8 Barriers to Sustainable Public Procurement

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. SP worldwide is heavily driven by public procurement agendas and is often viewed as a public sector initiative. While SP activities are common in many developed countries, the awareness and implementation is still comparatively low in most developing countries (Kamruzzaman, 2013). Potential barriers and challenges limiting the implementation of SPP have been mentioned mainly based on the European experience as clustered by GIZ (2013).

Economic: SPP is still often perceived as more costly and there is insufficient information on whole life cost of products or the cost of environmentally friendly products and services. Higher initial investments for sustainable products, tight budgets, and inflexible budget systems and accounting practices often pose an additional financial burden.

Political: There is often a low awareness of the benefits of sustainable products and services, which causes a lack of political commitment. SPP policies are not always well aligned with national development objectives or the individual procuring entity's organizational goals.

Legal framework: Certain provisions of the procurement legislation may be unclear and procurement officers do not necessarily infer that the most economically advantageous tender should be the one with the lowest whole life cost. Some countries may need to modify their procurement law to be able to incorporate sustainability criteria and need to ensure that the provisions on SPP are not considered discriminatory under regional, bilateral or international trade agreement the country is party.

Cognitive: Including environmental and social issues in purchasing decisions is a new concept. Many public procurement professionals are unfamiliar with SD principles such as WLC or calculating externalities, they lack the legal knowledge on how to incorporate social and environmental criteria into tender specifications and there is a further lack of practical tools, information and training.

Regulatory policies: SPP may permanently change framework conditions such as taxes, subsidies, fees or emission permits. Some critics argue that the consideration of environmental and social criteria is incompatible with the general principle of using only award criteria that are relevant to the procurement decision. Concerns include the notion that SPP would reduce competition, result in higher public expenditure, could be subject to misuse and increased corruption, and could increase the administrative burden in particular for small and medium enterprises.

Warner and Ryall (2001) found that many local authorities in England and Wales integrated environmental considerations into their procurement policies. However, these initiatives were only rated as moderately successful, with higher costs of green products emerging as the most commonly cited barrier. Thomson and Jackson (2007) reported the main barriers to sustainable supply were a perceived lack of priority at senior level and cost issues for disseminating green procurement information or encouraging suppliers to adopt environmental management systems (EMS).

Ning *et al.* (2003) identified that the initial higher cost of green building is than conventional buildings limited by the design and technology level is one of the significant challenges that face practice of SP. Limitations to integrating environmental concern are lack of administrative resources and sometimes also lean budgets that do not allow any price premiums to be paid for more environmentally friendly goods, services, or construction work. Uncertainty regarding the legislation seems to contribute to risk-averse behavior among procurement officers, meaning that they make decisions that reduce the risk of unsuccessful bidders complaining in administrative courts.

In the context of public procurement of Bangladesh Kamruzzaman (2013) summarized lack of policy guidelines, political willingness, awareness of procurement professionals, and contemporary knowledge of contractors and professional commitment about sustainable development were the barriers of practicing SP in Bangladesh. Apart from the financial issues, he also identified lowest price selection criteria, intangibility of the benefits of sustainable procurement and organizational attributes, particularly senior management support, act as the most salient barriers for SP.

Islam and Siwar (2013) conducted a comparative study between Australian and Malaysian public sector SPP, its opportunities and barriers. Most of the respondents felt that they were held back by additional costs of more sustainable options, perceptions of inability to offset whole cost and lack of resources and budget to do anything other than what is conventionally expected. The Malaysian respondents placed all barriers more important than Australian respondents. According to the study on SPP in LICs, GIZ (2013) mentioned low-income countries are lagging behind. In most countries, there are no policies in place that would systematically link SPP with broader SD goals and there are no action plans and no implementation measures related to SPP.

After studied the implementation status of SP in LICs, GIZ (2013) found that there are currently no incentives to implement SPP in Bangladesh, since the enforcement of environmental regulations is weak. Other challenges refer to the level of poverty, low capacity of local contractors, and lack of enforcement of the law in general and non-utilization of environmental/economic evaluation criteria in bidding processes. This is further made difficult due to political influence in procurement proceedings, particularly in decentralized procurement.

2.9 The Relevance of Public Procurement for Sustainability

2.9.1 Significant size and effect of procurement

Public procurement (PP) often constitutes a large share of the economy. The share of PP is generally larger in developing countries than in developed countries (Eurodad, 2009). In the case of Least Developed Countries and post conflict countries this can be as high as 70 percent of GDP (UNDP, 2010). The share of aid that is translated into PP in developing countries ranges from 25 to 43 percent, making it an important instrument for development (World Bank Group I, 2010). Besides the large market share, PP affects sustainability because it has a large direct impact on the environment and the society. Due to the large scale and the type of services it provides, it has a large footprint (Preuss, 2009). Through SP a significant contribution can be made to reducing environmental or social damage and more equitable society (Kjollerstrom, 2008).

2.9.2 Potential for cost saving

A second argument in favor of integrating sustainability in procurement process is its potential to save costs. Although it may lead to higher direct purchasing costs, the overall whole life cost of a sustainable product can be less than the overall lifetime costs of the up-front cheapest option. This is because the sustainable option can result in lower operating costs, maintenance and disposal costs. Thus, despite the higher initial purchasing costs, sustainable options can offer an important return on investment through reduced life-cycle cost. The cost reduction could be larger for nations with a higher procurement-GDP percentage, such as developing countries (Watermeyer, 2004).

2.9.3 Creation of positive spill-overs through public procurement

PP can create spill-over effects, both among suppliers and consumers. By showing that a consistent demand exists for sustainable goods and services, government procurement can encourage the creation of sustainable enterprises. Through its significant purchasing

power it can facilitate the realization of economies of scale, wider commercialization and the distribution of sustainable solutions (Preuss, 2009). Furthermore, through PP the government can provide *‘good sustainable consumption examples for their citizens’* (Watermeyer, 2004). This can increase consumer awareness of the environmental and social impacts of products and services (Kjollerstrom, 2008). By leading by example governments can promote responsible consumption patterns.

2.10 The Linkage between Sustainable Development and Public Procurement

The World Summit on SD acknowledged in 2002 that sustainable procurement practice (SPP) can contribute to achieving SD goals and the Johannesburg Plan of Implementation encourages public procurement practices that stimulate development and diffusion of environmentally sound goods and services and promotes the integration of the three pillars of SD which are economic development, social development and environmental protection. SP integrates the concept and values of SD into procurement activities. Sustainability is hinged on the integration of environmental, economic, and equity goals through a reorientation of the growth process within the urban context (Roberts, 2004). Public sector values are evolving to include environmental and social well-being through the adoption of sustainability principals and policies (Mazmanian and Kraft, 2010). Sustainability, through the highly linked achievement of a green economy, is increasingly discussed in academic and practitioner’s circles as a key goal for local governments (Murray, 2001).

The Earth Summit (1992)

The United Nations Conference on Environment and Development (UNCED) took place in Rio de Janeiro, Brazil in 1992. The Earth Summit was convened to address problems of environmental protection and socio-economic development. The assembled leaders signed the Agenda 21 for achieving SD. The Commission on Sustainable Development (CSD) was created in December 1992 to ensure follow-up of UNCED and

to monitor and report on implementation of the Earth Summit agreements at the local, national, regional and international levels. This summit calls upon governments to changing consumption patterns and plays a role in consumption, particularly in countries where the public sector plays a large role in the economy and can have a considerable influence on both corporate decisions and public perceptions. They should therefore review the purchasing policies of their agencies and departments so that they may improve, where possible, the environmental content of PP policies, without prejudice to international trade principles (Watermeyer, 2004).

The Johannesburg World Summit (2002)

World Summit on SD in Johannesburg (2002) brought about a clearer understanding of the relationship between poverty and environmental protection. The fundamental global action associated with SD, in which there are important linkages between poverty, the environment and the use of natural resources, is to fight poverty and to protect the environment. The eradication of poverty is the greatest global challenge facing the world today and is an indispensable requirement for SD, particularly for developing countries. This call for actions, which apart from halving the proportion of the world's people whose income is less than US \$1 a day, include the promotion of women's equal access to economic opportunity and policies to improve access by indigenous people to economic activities and employment . It calls for the strengthening of "*the contribution of industrial development to poverty eradication and sustainable natural resource management*" and proposes actions which include the transfer of environmentally sound technologies on preferential terms and the promotion of the development of SMEs (Watermeyer, 2004).

The Plan of Implementation of the Summit on Changing unsustainable patterns of consumption and production encourages "*relevant authorities at all levels to take sustainable development considerations into account in decision-making, including on*

national and local development planning, investment in infrastructure, business development and public procurement and proposes actions that include the promotion of public procurement policies that encourage development and diffusion of environmentally sound goods and services.“ Following the 2002 World Summit on SD, environmental goals have been integrated into policy through procurement (Preuss, 2009; Walker and Brammer, 2009).

2.11 Public procurement challenges arising from the Earth and World Summit

The procurement challenges flowing out of the Earth and World Summits are to utilize procurement to attain secondary objectives pertaining to the alleviation and reduction of poverty; minimizing the harmful effects of development on the local environment; the establishment and strengthening of indigenous building materials; the promotion of construction technologies that increase employment and the promotion of the increased use of environmentally sound goods, building materials and construction technologies. Strategies for attacking poverty are promoting opportunity, facilitating empowerment, and enhancing security. Secondary procurement objectives associated with the reduction of poverty in the light of the World Bank and the outcomes of the Earth and World Summits include the provision of work opportunities to vulnerable groups, increasing the quantum of employment generated per unit of expenditure through the promotion of small scale enterprises and usage of labour-based technologies and methods, and the provision of business and / or work opportunities to groups of people who are socially and economically marginalized in order to address inequities within a society. High-income countries with greater awareness, have invested resources to build up policies and legal frameworks enabling the application of SPP. Lower and medium income countries may have some policy and legal frameworks on addressing sustainability but lack implementation through PP. Asian Development Bank highlighted the strategic importance of PP and concluded that lower income countries generally lack awareness, have no policy, action plans, or implementation.

CHAPTER: 3

RESEARCH METHODOLOGY

3.1 Statement of the Research Work

The study has conducted for assessing the current procurement practices in addressing economic, social and environmental criteria for sustainable development of Bangladesh from 10th August to 30th November 2014.

3.2 Methods of the Research Work

To address the research objectives, this study utilized a mixed approach comprised of quantitative and qualitative techniques. A semi-structured and pre-tested questionnaire was used to collect data to know the extent of perception of procurement practitioners for addressing sustainability issues, opportunities and challenges for its implementation. Before asking for filling the questionnaire, the general idea of the research objectives were exchanged with respondents. After the exchange of general idea of the research objectives, the questionnaire was given to them. They were requested to fill the questionnaire based on the practical experience they had regarding the implementation of the procurement activities. Both open end and close end questions were set in the questionnaire to reveal the real perception of the respondents. Respondents were asked to indicate on a five-point Likert scale ranging from ‘strongly disagree’ (scored 1) to ‘strongly agree’ (scored 5) on economic, social and environmental aspect of public procurement. Simple random sampling method was used to select 60 respondents who are directly involved in public procurement. Data were collected from public bodies like Department of Roads and Highways, Bangladesh Agricultural Development Corporation, Department of Agricultural Extension, Department of Social Welfare, Local Government Engineering Division, Public Works Department, Bangladesh Water Development Board etc. where significant portions of national budget are used for procurement and taking account of time constraint and convenience of the study.

3.3 Sample Size

The sample size for this study was determined to be 60 as the scope and time frame of the study was limited. Employees involved in the managerial functions right from the Sub-divisional engineer up to the Chief engineer of the selected organization were considered as procurement practitioners for their organisation.

3.4 Data Processing and Analytical Framework

The responses of the respondents were transferred into a master sheet for entering the data in the computer. Collected data have been cleaned, edited, arranged and coded before statistical analysis. The analysis was performed by using SPSS (Statistical Package for Social Science) 17 version package. Two types of variables; independent and dependent were selected. The independent variables were age, background, education, volume and type of procurement, role of respondents in the procurement process, daily sustainable activities and knowledge of sustainable procurement. Procurement practices and perceptions were considered as dependent variable in regard to economic, environmental and social issues each comprising 08 aspects of integrating them in public procurement practices. Scoring was fixed in a scale of 1-3 with most sustainable option marked as 3 and least was 1. For measuring the perception, 5- point Likert scale was used to categorize the answers for easy analysis of each aspect. The graphical representations of the answers in the form of 'pie chart' and bar diagram have been given for easy understanding of the responses. Microsoft Excel has been used for preparing the frequency table & other tables and for constructing charts.

Descriptive analyses such as number and percentage, mean, standard deviation and chi-square test were calculated to find out the differences between selected variables of the respondents and to illustrate the results. The correlation between dependent and independent variables were carried out to find the relationship and to measure the strength (Gomez and Gomez, 1984). Simple tabular techniques will be used to explain the data.

3.5 Formulating Index:

Respondents were asked to rank the barriers for addressing sustainability through public procurement in a scale of 1 to 10 (1=Least Important and 10=Most Important), a value above “5” would represent that factor is of importance. For this purpose, Barrier for Addressing Sustainability Index (BASI) was measured for each of the thirteen selected aspects of constraints in addressing sustainability through public procurement process. BASI of a category was computed by modifying the formula as used by Rahman et. al. (2009).

$$\text{BASI} = P_1 \times 1 + P_2 \times 2 + P_3 \times 3 + P_4 \times 4 + P_5 \times 5 + P_6 \times 6 + P_7 \times 7 + P_8 \times 8 + P_9 \times 9 + P_{10} \times 10.$$

BASI for a category could range from 100 to 1000, where 100 indicated low Constraints and 1000 high Constraints. Similarly, Opportunities for Addressing Sustainability Index (OASI) was measured for each of the ten selected aspects that arise from addressing sustainability issues in the public procurement process of Bangladesh.

$$\text{OASI} = P_1 \times 1 + P_2 \times 2 + P_3 \times 3 + P_4 \times 4 + P_5 \times 5 + P_6 \times 6 + P_7 \times 7 + P_8 \times 8 + P_9 \times 9 + P_{10} \times 10.$$

OASI for a category could range from 100 to 1000, where 100 indicated low opportunity and 1000 high opportunity arise from addressing sustainability issues in the public procurement process of Bangladesh. Likewise, Support needed for Addressing Sustainability Index (SASI) was measured for each of the nine selected aspects that are essential for addressing sustainability issues in the public procurement process of Bangladesh.

$$\text{SASI} = P_1 \times 1 + P_2 \times 2 + P_3 \times 3 + P_4 \times 4 + P_5 \times 5 + P_6 \times 6 + P_7 \times 7 + P_8 \times 8 + P_9 \times 9 + P_{10} \times 10.$$

SASI for a category could range from 100 to 1000, where 100 indicated low needed support and 1000 highly needed support for addressing sustainability in the public procurement process of Bangladesh.

Where, P_1 = Percentage of respondents scoring the barrier/opportunity/support needed as 1;
 P_2 = Percentage of respondents scoring the barrier/opportunity/support needed as 2;
 P_3 = Percentage of respondents scoring the barrier/opportunity/support needed as 3;
 P_4 = Percentage of respondents scoring the barrier/opportunity/support needed as 4;
 P_5 = Percentage of respondents scoring the barrier/opportunity/support needed as 5;
 P_6 = Percentage of respondents scoring the barrier/opportunity/support needed as 6;
 P_7 = Percentage of respondents scoring the barrier/opportunity/support needed as 7;
 P_8 = Percentage of respondents scoring the barrier/opportunity/support needed as 8;
 P_9 = Percentage of respondents scoring the barrier/opportunity/support needed as 9;
 P_{10} = Percentage of respondents scoring the barrier/opportunity/support needed as 10.

CHAPTER: 4

PPR 2008 AND SCOPE OF ADDRESSING SUSTAINABILITY: An Overview

4.0 Introduction

Public procurement (PP) process of Bangladesh is governed by two principal legal instruments; the Public Procurement Act (PPA) 2006 and Public Procurement Rules (PPR) 2008. PPR 2008 was framed by the Government of People's Bangladesh under the PPA 2006 which came into effective on January 31, 2008. The main objective of enacting PPA 2006 & introducing PPR 2008 was ensuring transparency, accountability, fair treatment in all PP for achieving value for money throughout the public sector organizations of the country.

Until the enactment of the PPA in 2006, the legal regime of PP in Bangladesh was based on procedures and practices that date back to the British era. The Compilation of General Financial Rules (CGFR) remained the primary legal framework for public contracts and procurements (World Bank, 2002). Based on CGFR principles, several government departments and autonomous public bodies and corporations developed their own rules and codes of practices for public contracts to follow. However, these regulations were greatly influenced by international development agencies such as the World Bank, partly because Bangladeshi PP tended to rely mostly on external aid. Despite the fact that the primary objective of the pre-1996 legal instruments was to ensure openness and transparency in the public procurement system, the procurement process that was in practice was far from satisfactory. The following factors such as poor advertisement, inadequate bidding period, poor specifications, nondisclosure of selection/competition criteria, award of contract by lottery without having developed the tools of attracting quality bidders, conclusion of one-sided contract documents, negotiation with all bidders, re-bidding without adequate grounds, corruption and outside influences such as political interventions and so on were widely regarded as having contributed to the then tardy and dilatory PP system (Mahmood , 2010).

The poor performance of the public procurement regime in Bangladesh drew the attention of many international bodies. A World Bank led assessment of the existing public procurement policy, legal frameworks, and institutions concluded with a finding of just-mentioned drawbacks in the procurement. 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 making and issuance of Public Procurement Regulations in 2003, providing a unified procurement processing system (Rahman, 2014).

Public procurement system is decentralized in Bangladesh. Different departments and directorates under various ministries carry out the actual procurement functions through their offices from Upazila to national level following the PPR, 2008 and using the Standard Tender Documents prepared by the Central Procurement Technical Unit (CPTU), Ministry of Planning. At the central level, the ministries handle very little procurement functions essentially food grains, printing and stationery (World Bank, 2002). The major government departments and corporations, such as Public Works Department (PWD), Roads and Highways Department (RHD), Bangladesh Railway, Local Government Engineering Department (LGED), Directorate of Food, Bangladesh Agricultural Development Corporation (BADC), Power Development Board (PDB), Bangladesh Water Development Board (BWDB), etc. carry out the substantial amount of procurement through their central to local offices, spread all over the country. In addition state owned company of government like Dhaka Electric Supply Company (DESCO), Dhaka Power Distribution Company (DPDC), and a number of companies under Petro-Bangla etc. also carry out a significant amount of procurement. The corporations and autonomous bodies in addition to their own fund generally get allocation under Annual Development Plan (ADP) from the national budget.

4.1 Methods of procurement

The PPA provides for several methods of procurement, prescribes rules to determine pre-qualification of the potential/participating bidders, if applicable, and leverages for competition amongst the tenders, and stages of the procurement processes. The Act divides the procurement into domestic and international. As for the domestic procurement of goods, related services and works, the preferred method prescribed is the open tendering method (OTM). However, procurement methods alternative to the OTM are also allowed upon the approval of the head of procuring authority and on technical and economic grounds. These alternative methods are: limited tendering method (LTM), direct procurement method (DPM), two-stage tendering method (TTM), and the request for quotation method (RFQM). There are essential conditions that need to be met before taking resort to each of these alternative methods. For example, LTM applies when suppliers of goods or services are limited in number or the time and cost required to receive and evaluate tenders would outweigh the value of the contract. Direct method is allowed when, for technical reasons, only one tender is available, or for additional procurement of goods or services from the original supplier/contract, or for the procurement of goods, services, and works of very urgent and essential nature. Request for Quotation (RFQ) method may be used for off the shelf low value goods or physical strives available in the market or for the procurement of goods for urgent repairs or maintenance. Two stage tendering methods (TSTM) may be followed for complex and large projects or when complete technical specifications may not be possible at one stage or where alternative solutions are available in rapidly evolving industries (PPR, 2008).

For international procurements, similar methods (such as open tendering, limited tendering, quotation method, and the two-stage tendering method) and requirements are made by the Act with certain significant differences to maintain standards and competition. For example, in an international procurement through OTM, technical

specifications should be made in a way that conforms to international standards. Moreover, in case of international procurements joint ventures with local partners by foreign suppliers/ contractors may be encouraged but must not be imposed as a condition. Also, it is mandated that provisions for alternative dispute resolutions should be incorporated in the contract. The law also provides for ‘emergency flexible purchases’. Section 68 of the PPA provides that in order to meet a national urgency or a catastrophic event, the government in the public interest and with the recommendation of the Cabinet Committee on Economic Affairs may procure goods/services on an urgent basis by following the direct purchase method or any other method as provided in s. 32 of the Act.

4.2 Stages of public procurement process of Bangladesh

Public procurements in Bangladesh are processed mainly through a four-tier process: (i) Advertising the invitations for tenders/quotations, (ii) Evaluation, (iii) Approval, and (iv) Awarding of contract. The first step for a procuring entity to take is to advertise Invitations for Pre-Qualification (IFPQ), Invitations for Enlistment (IFE), Invitations for Tender (IFT) and Request for Expressions of Interest (REOI) concerning the procurement of goods with related services, works and intellectual services. The advertisements, following prescribed formats and maintaining the time frame, are to be published in at least two widely circulating daily news papers, in choosing which the entity should apply ‘sound judgment’. All invitations shall also be advertised in the procuring entity’s website, if any. Secondly, the procuring entity may opt for inviting only–pre-qualified applicants in which case there is a list of such applicants drawn through the prescribed rule. A procuring entities may undertake pre-qualification for a number of large and complex procurements such as construction works, maintenance works, design and build infrastructure, and so on. Pre-qualification applications are opened by Tender Opening Committee (TOC), which shall then be evaluated by the tender evaluation committee (TEC) that may be supported by a Technical Sub-

committee constituted by the Head of the procuring entity. Following the deadline of submitting tenders, the procuring entity convenes the meeting for tenders-opening. Tenders are required to be opened promptly and publicly at the time and place specified in the IFT. Thereafter, the evaluation committee of the procuring entity evaluates the tenders on the basis of pre-disclosed criteria and technical specificities and by following the rules and principles of procurement. The members of evaluation committee, which need to be constituted fairly/transparently, have to sign a declaration of impartiality, and the committee is to certify that evaluation has been made in accordance with the rules of the Act. TEC sends its report along with recommendations to the Approving Authority (AA) and, the AA shall make its decision as to whom to award the contract. As a matter of rule, the lowest evaluated responsive tender is the one which does not meaningfully alter or depart from the technical specifications, characteristics and commercial terms and conditions of the Tender Document, becomes the successful tender. A notification of awards then issued to the successful tendered within one week of the approval of the award by the Approving Authority, attaching therewith the contract with detailed terms and conditions.

Importantly, the powers of the approving authorities are limited in terms of the value of the contract to be awarded, i.e., the value of works, goods, and services to be procured. The delegation of financial powers, a statutory instrument clearly defines which authority can authorize the procurement of which value and also by following which method of procurement.

4.3 General Principles of Procurement

The Act provides for public accessibility to procurement documents and related papers, the issuance of standard documents, and for the framing of annual procurement plan with regard to development budget and another plan concerning procurements under revenue budget. The procurement process is premised on the principle of non-discrimination. The procuring entity is under an obligation not to prevent any tenderer

from entering into procurement processes on the ground of race, colour, sex or any other ground. The procuring entity has an obligation to facilitate competition by making available to all concerned all relevant documents, assessment criteria, and the process for evaluation of tenders/proposals, and so on. To facilitate competition, the procurement entity has to disclose well in advance the required qualification or standards of performance which it could require the tender to have possessed and to demonstrate. Importantly, giving of a minimum time for the applicant/tenderer/ to respond has been mandated. There is also a general prescription as not to split a single procurement into several packages, unless it is extremely urgent and unavoidable. It also provides that the 'validity period' of the procurement process/tender, that is the timeframe within which the whole process beginning from the advertisement to the awarding of contract, should be reasonable so that all necessary approvals be obtained by the procuring entity and the contract may be awarded. The law also mandates that the rules relating to deposit of security money, rate of charges of services, and whether any security money so deposited is to be later deducted or rejected in case of unsuccessful bidding, have to be clearly specified. A procurement entity has a duty to maintain the confidentiality of the process from opening of tenders up to awarding of a contract. Further, any person's attempt to influence the process shall lead to the rejection of his pre-qualification, tender, or proposal. However, following the signing of a contract with the tenderer, the winning tenderer may have necessary information about his application. Any other tenderer may seek for information as to why his or her tender was unsuccessful. The procurement entity is obliged to maintain records and to administer efficient management of the contract awarded, and to conduct post-procurement review within nine months of each fiscal year (Rahman, 2013).

4.4 Provision of Sustainability issues in procurement Act, Rules and documents of Bangladesh

This section represents a search for any aspects of sustainability consideration in the current public procurement framework of Bangladesh. Besides PPA and PPR, the 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. In search of the scope of addressing sustainability in the current public procurement framework of Bangladesh, PPA 2006, PPR 2008 and various STDs have been consulted.

4.4.1 Provision of economic aspect of Sustainability

- The procuring entity shall ensure competition in procurement on the basis of impartial and objective terms, providing all necessary information to all potential applicants, tenderers and consultants required for the preparation of the application, tender, quotation and proposal. **[Rule 13(1), PPA, 2006]**
- The Procuring Entity shall take into account the following when determining the method of procurement and consolidating of goods packages: (a) availability of the relevant goods in the local market; (b) quality, sources and brand of the goods available in the local market; (c) price levels of the designated goods; (d) risks related to supply in the local and international markets. **[Rule 15(2), PPR, 2008]**
- In the case of determining the method of procurement for works, the procuring Entity shall consider the following: (a) the prevalent conditions of the contracting industry; (b) expected competition. **[Rule 15(7), PPR, 2008]**
- Technical specifications prepared by procuring entities shall, where appropriate, be (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. **[Rule 29(2), PPR, 2008]**

- 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. **[Rule 29(3), PPR, 2008]**
- The Tender Document may allow for a domestic preference to provide local manufacturers and contractors with a price advantage over their international competitors for the purpose of promoting domestic products or industries. **[Rule 83(1e), PPR, 2008]**
- Adjustment of contract price: If amendment to order increases or decreases of the cost of the delivery, an equitable adjustment in contract price should be mutually agreed upon between the parties concerned. **[GCC 21.1, STD-PG3]**
- Prices shall be adjusted for fluctuations in the cost of input only if provided for in the PCC by applying the respective price adjustment factor to the payment amount. The indices to be used are as published by the BBS. **[GCC 71.1, STD-PW3]**

4.4.2 Provision of environmental aspect of Sustainability

- Procuring Entities shall prepare the specifications in close cooperation with the concerned user or beneficiary and follow among others, the standards approved or published by (a) the International Organisation for Standardisation (ISO) (b) the International Electrotechnical Commission (IEC) and (c) Standards determined by Bangladesh Standard and Testing Institute (BSTI) or any other national or international institute. **[Rule 29 (5), PPR, 2006]**
- The Procuring Entity may request the Tenderer or Applicant to submit the following Documents – as regards professional and technical capacity - (i) documentary evidence that they are enrolled in the relevant professional or trade organizations registered in Bangladesh or in their country of origin or a declaration on oath or a certificate concerning their competency issued by a professional institution in accordance with the law of Bangladesh or of the country of their origin; (ii) a description of the person's

technical facilities, available equipments, measures for ensuring quality, such as ISO certification, and design, research and development facilities; (v) sample(s), description(s) or photograph(s) of the Goods to be supplied, in the case where necessary the authenticity of that Goods may be certified by a relevant professional institution. **[Rule 49, PPR, 2006]**

- The Contractor shall throughout the execution and completion of the Works and the remedying of any defects therein: (a) take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of the Contractors methods of operation. **[GCC 27.1, STD-PW3]**
- 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. **[GCC 29.2, STD-PW3]**

4.4.3 Provision of Social aspect of Sustainability

- No procuring entity shall include any condition inconsistent with provisions relating to standard wages of workers pertaining to social benefits, occupational health and safety and prohibition of child labour in the procurement related document. **[Rule 16, PPA, 2006]**
- The Procuring Entity shall not unless the government otherwise decides restrain a person from participation in public procurement on the basis of color, nationality and race or any criterion not related to the qualifications as specified the procurement related documents or any decision taken against a person under this act **[Rule 25, PPA, 2006]**
- The Procuring Entity shall take into account the following when determining the method of Procurement and consolidating of goods packages: (a) capacity of local

suppliers to supply the required quantities; (b) capacity of the national industry and quality of its products; (c) market conditions and expected competition. **[Rule 15(2), PPR, 2008]**

- In the case of determining the method of procurement for works, the procuring Entity shall consider the following: (a) capacity of local contractors. **[Rule 15(7), PPR, 2008]**

- Procuring entities shall, where possible, prepare the specifications in close cooperation with the concerned user or beneficiary of the goods or works or service. **[Rule 29(5), PPR, 2008]**

- The Tender Document may allow for a domestic preference as defined in Schedule II to provide local manufacturers, suppliers and contractors with a price advantage over their international competitors for the purpose of promoting domestic products or industries. **[Rule 83(1) (e), PPR, 2008]**

- The Contractor shall throughout the execution and completion of the works and the remedying of any defects therein: (a) take all reasonable steps to safeguard the health and safety of all workers working on the site and other persons entitled to be on it, and to keep the Site in an orderly state. **[GCC 27.1, STD-PW3]**

- The Contractor shall not perform any work on the site on the weekly holidays, or during the night or outside the normal working hours, or on any religious or public holiday, without the prior written approval of the Project Manager. **[GCC 28.1, STD-PW3]**

- The Contractor shall comply with all the relevant labor Laws applicable to the contractor's personnel relating to their employment, health, safety, welfare, immigration and shall allow them all their legal rights. **[GCC 29.1, STD-PW3]**

- The Contractor, further in particular, shall pay reasonable wages to his or her laborers, and pay them in time. In the event of delay in payment the procuring entity may effect payments to the laborers and recover the cost from the Contractor. **[GCC 29.3, STD-PW3]**

- 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. **[GCC 30.1, STD-PW3]**

- 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: (d) Personal injury or death. **[GCC 37.1, STD-PW3]**

Although these provisions in the public procurement documents relate somehow to different aspects of addressing sustainability through public procurement, these are not sufficient for effectively addressing sustainability imperatives in the procurement system as a policy instrument for sustainable development of Bangladesh. It is noticeable here that very few points are made regarding environmental aspect of sustainability in the public procurement documents of Bangladesh. Despite of limited scope to address three aspects of sustainability, various sustainability criteria could be incorporated through specifications, selection criteria, awarding the contract and contract performance clauses within the existing framework of PPR. There is no government policy or strategy on SP yet in Bangladesh. However, the private sector in Bangladesh has started to get engaged in sustainable procurement, such as some textile and seafood exporting companies (GIZ, 2013).

CHAPTER: 5

RESULTS AND DISCUSSIONS

SECTION 1: CHARACTERISTICS OF THE RESPONDENTS

The purpose of this section is to have an understanding on selected characteristics of the respondents. Table 5.2 shows the salient features of procurement practitioners of Bangladesh.

5.0 Reliability

Reliability reflects the consistency of a set of items variables scale by measuring the concept in particular. It illustrates the individual's differences concerning the amount of agreement or disagreement of the concept studied. In this study, reliability measurement is important to verify the variables consistencies through respondent's daily sustainable activities, their perception and practices of addressing each aspects of sustainability and their perception to rank various opportunities, barriers and needed supports. The sustainability practice variables used in this study consist of 3 aspects such as economic, environmental and social, each having 08 items. The perception of each aspect contains 5 items. Cronbach's alpha was calculated through SPSS 17 version for identifying the coefficient of questionnaire items and its consistencies (Table 5.1).

Table 5.1 Reliability testing of the questionnaire item

Variables	Items	Cronbach's Alpha value
Daily sustainable activities	10	0.679
Training on various areas of SD and SP	04	0.723
Perception on economic aspects	05	0.367
Practice of economic aspects	08	0.348
Perception on environmental aspects	05	0.657
Practices of environmental aspects	08	0.809
Perception on social aspects	05	0.629
Practices of social aspects	08	0.650
Opportunities	10	0.677
Barriers	13	0.694
Needed supports	09	0.742

5.1.1 Age

Majority (60%) of the procurement practitioner were middle aged, while 10 per cent and 30 per cent were young and old aged respectively. Fewer young practitioners in the study might be due to the fact that young professional lack experience and confidence to run procurement activity. Poorer participation of older persons in procurement activities might be related to their change of role from clerical/administrative to supervisory.

5.1.2 Years of experience in public procurement

The Years of experience of respondent ranged from 02 to 30 years with an average of 12.18 (**Table 5.2**). Based on their years of experience, respondents were classified into young professional (≤ 7 years), mid-level professional (8-14 years) and senior professional (≥ 15 years). Majority (47%) of the procurement practitioner were mid level professionals while 21 per cent and 32 per cent were young and senior professionals respectively.

5.1.3 Gender

Predominantly males were the procurement practitioners (88.3%) of different procuring entities of Bangladesh (**Table 5.2**). Lower representation of female might be due to the fact that procurement happens to be one of the lucrative areas, where women's are usually deprived off. In addition, dynamic nature of job and hesitation in making challenging decision appear to be the major constraints for women to participate in procurement process. Less participation of women in public procurement process might reflect the lower representation of women's in government service of Bangladesh as a whole.

5.1.4 Background

Statistical analysis of data showed that majority (70 %) of the procurement practitioner was from engineering background, while rests belong to general graduates. The highest proportion of national development budget has been allocated for various engineering divisions which are mainly responsible for major infrastructural development of Bangladesh. This might necessitate large numbers of engineering graduate in procurement activities by default of allocation of their business in Bangladesh.

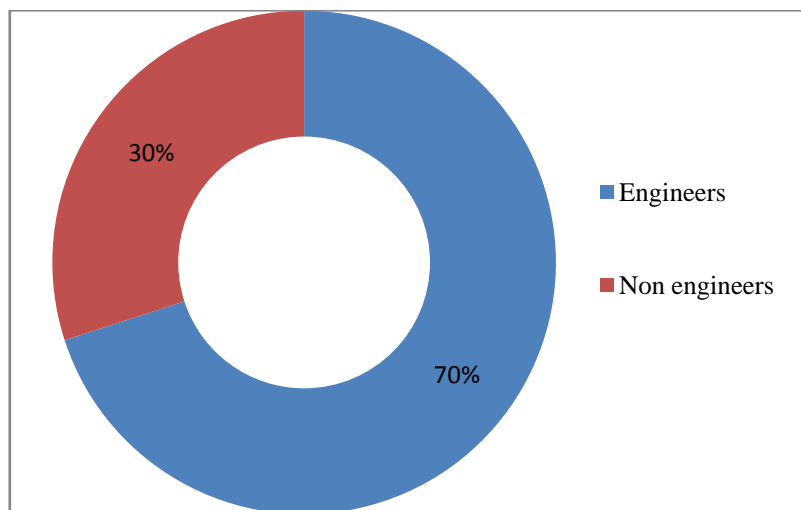


Figure 1 Distribution of respondent according to academic background

5.1.5 Level of Education

Most of the procurement practitioners (60%) had post graduate level education while 20 per cent had professional degree on procurement management and another 20 per cent had graduate level education (**Table 5.2**). Possession of some professional degree on procurement by some of the respondent is a positive aspect to develop and adopt best practice management in the country's procurement sector. This might be the outcome of the ongoing commitment of the government of Bangladesh to develop organizational human capital in procurement sector in association with Chartered Institute of Procurement and Supply (CIPS), UK.

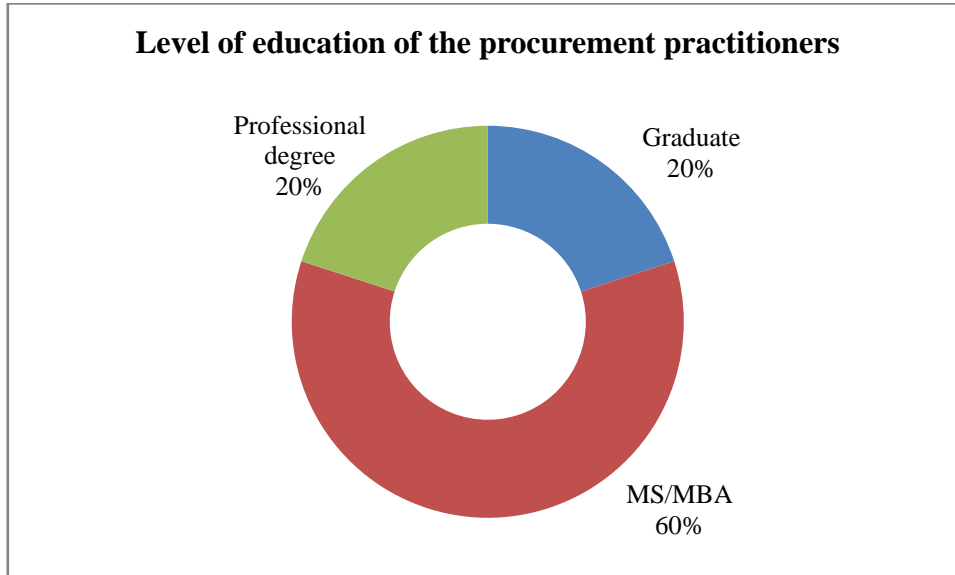


Figure 2 Distribution of respondent according to their level of education

5.1.6 Annual volume of procurement

Table 5.2 showed that the involvement of the respondent in annual volume of procurement varied from 08-8000 million with an average of farm was 623.97. Based on their responsibility for the amount of procurement, respondents were classified into low volume purchaser (≤ 99 million), medium volume purchaser (100-500 million) and high volume purchaser (≥ 500 million). About 40 per cent of the respondents were responsible for low volume, 43% medium volume and 17% high volume of procurement. Variation in volume of procurement might be due to their respective position and role within organisation, capability and managerial ability.

5.1.7 Type of procurement

About half of the respondents were involved mainly in procurement of works. Another 47 per cent respondent highlighted their major responsibility for procurement of goods. Only 3 per cent mentioned that procurement of services constituted a major part of procurement activity for them (**Table 5.2**). Variation in the proportion of goods, works and services might be due to the nature of job of their respective department.

Table 5.2 Selected characteristics of respondent involved in public procurement

Item	Category and scoring system	Respondents (N=60)		Mean	SD	Chi-Sq. (Asym. Sig.)	Observed range (Possible)		
		No.	%						
Age of respondent (years)	Young (≤ 30)	6	10.0	40.10	7.71	22.8 (0.000)	28-57		
	Middle (30-50)	36	60.0				(Unknown)		
	Old (≥ 50)	18	30.0						
Years of Experience in PP (years)	Young (≤ 7)	13	21.7	12.18	6.11	5.70 (0.058)	2-30		
	Mid level (08-14)	28	46.7				(Unknown)		
	Senior (≥ 15)	19	31.7						
Gender	Male (1)	53	88.3	1.12	0.32	35.26 (0.000)	1-2		
	Female (2)	7	11.7				(1 or 2)		
Background	Engineers (1)	42	70.0	1.30	0.46	9.60 (0.002)	1-2		
	Non engineer (2)	18	30.0				(1 or 2)		
Level of education	Graduate (1)	12	20.0	2.00	0.64	19.2 (0.000)	1-3		
	MS/MBA (2)	36	60.0				(1 or 2 or 3)		
	Professional degree (3)	12	20.0						
Training on Public procurement	Yes (2)	55	91.7	1.92	0.28	41.66 (0.000)	1-2		
	No (1)	5	8.3				(1 or 2)		
Training on Sust. development	Yes (2)	27	45	1.45	0.50	0.60 (0.439)	1-2		
	No (1)	33	55				(1 or 2)		
Training on Sust. procurement	Yes (2)	18	30	1.30	0.46	9.60 (0.002)	1-2		
	No (1)	42	70				(1 or 2)		
Training on ethical procurement	Yes (2)	15	25	1.25	0.44	15.0 (0.000)	1-2		
	No (1)	45	75				(1 or 2)		
Place of Training	University education(1)	1	1.70	1.98	0.13	56.07 (0.000)	1-2		
	Professional life (2)	59	98.3				(1 or 2)		
Annual volume of procurement	Low (≤ 99 million)	24	40.0	623.97	1451.	47.20 (0.002)	8-8000		
	Medium (100-500)	26	43.3				(Unknown)		
	High (≥ 500 million)	10	16.7						
Type of procurement	Goods ($\geq 50\%$)	28	46.7	43.15	27.41	--	0-50		
	Works ($\geq 50\%$)	30	50				47.42	30.05	(0-100)
	Services ($\geq 50\%$)	2	3.3				9.35	11.83	
Daily sustainable activities	Least(≤ 19)	16	26.7	21.32	2.68	23.7 (0.000)	16-28		
	Medium (20-24)	37	61.7				(0-30)		
	High (≥ 25)	7	11.7						
Knowledge on SP	Option A (1)	6	10.0	3.20	1.03	30.00 (0.000)	1-4		
	Option B (2)	9	15.0				(1-4)		
	Option C (3)	12	20.0						
	Option D (4)	33	55.0						

5.1.8 Training on relevant areas of procurement and sustainable development

Almost all of the respondents (92%) were trained on procurement of goods, works and services. CPTU in collaboration with WB providing trainings of various durations in different procuring entities which might explain the findings. Only 45 per cent of the respondents were well familiar with sustainable development, 30 per cent for sustainable procurement and 25 percent for responsible procurement. Mannan and Islam (2013) found poor education and practices in honesty, morality and professional ethics were prevailing among human resources involved in public procurement. Such a scenario signals the importance of training on sustainable procurement and development for using procurement as a policy instrument for sustainable development of Bangladesh. A lack of competent procurement workforce is one of the major problems of public procurement. In the past it was felt that basic training was sufficient, but now there is evidence that training is only part of the requirement for creating an effective procurement professional (APPC, 2006). The most effective procurement practitioners have a blend of the competency, good relationship, management and communication skills and an ability to think laterally.

5.1.9 Place of Training

Data in Table 5.2 show that almost all of the respondents (98.3) were trained on procurement of goods, works and services in professional life. Only one respondent did not have any training on procurement management either in university education or in professional life.

5.1.10 Major responsibility of the respondent in public procurement process

The highest portion of the respondents (43%) was involved in the development of specification and tender document for their organisation. Another 13 per cent respondents identified their role as receiver of instructions from their higher authority and implement them. Acting as a member/ chairperson of tender evaluation committee

was the role of 22 per cent respondents while 05 per cent act as approving authority of the tendering process. Only 17 per cent procurement practitioners give their opinion in favor of monitoring and supervising the procurement practices of their organisation.

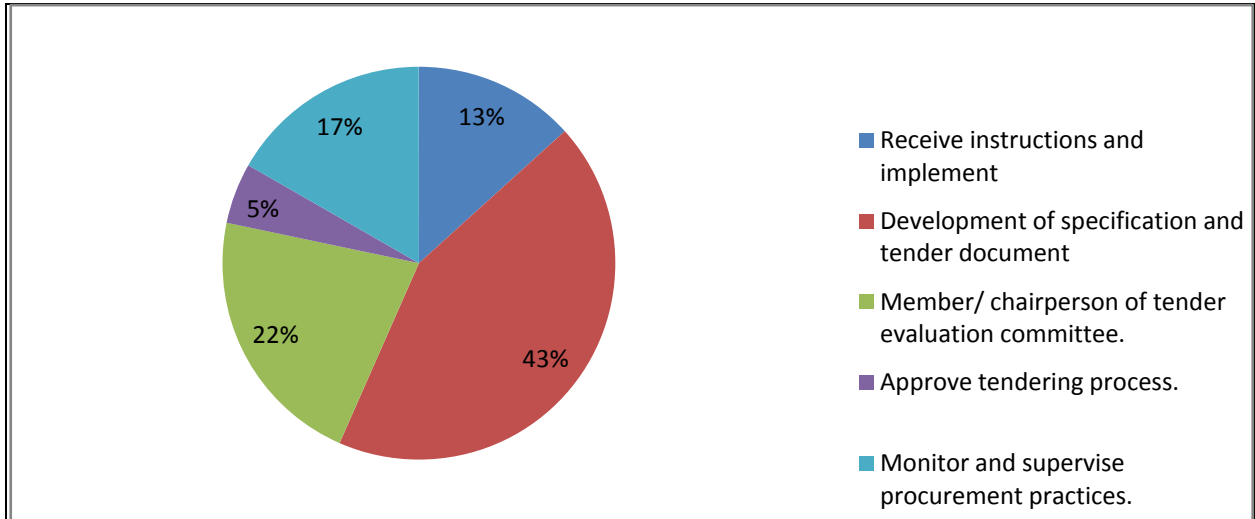


Figure 3 Role of respondent in public procurement process

Table 5.3 Distribution of major responsibility of respondents in procurement process

Role in public procurement process	Frequency	Percentage
R1. Receive instructions and implement	8	13.3
R2. Development of specification and tender document	26	43.3
R3. Member/ chairperson of tender evaluation committee	13	21.7
R4. Approve tendering process	3	5.0
R5. Monitor and supervise procurement practices	10	16.7

5.1.11 Practice of daily sustainable activities of the respondents

Highest proportion of the respondents always turned off electric fan, computer etc. after use, buy energy saving electrical and IT equipment and use less water for all activities. Most of the procurement practitioners sometime avoided using plastic bags, buying products with lots of packaging and no biodegradable packaging, thrown food and

organic materials into waste bin, used recyclable and renewable goods, bought recycled paper and shared knowledge of SD and how to make public procurement more social and environmental friendly. Because of no vehicle on their own, majority of them never using vehicles running on alternative fuels.

Table 5.4 Distribution of respondent according to their daily sustainable practices

Daily sustainable activities	Number of respondents			Mean	SD
	(3)	(2)	(1)		
DSA.a. Turned off electric fan, computer etc. after use	49	11	0	2.28	0.39
DSA.b. Buy energy saving electrical and IT equipment	40	19	1	2.65	0.52
DSA.c. Use less water for all activities	33	27	0	2.55	0.50
DSA.d. Avoided using plastic bags	7	49	4	2.05	0.43
DSA.e. Avoided buying products with lots of packaging and no biodegradable packaging	1	44	15	1.77	0.47
DSA.f. Thrown food and organic materials into waste bin	21	34	5	2.27	0.61
DSA.g. Used recyclable and renewable goods	3	45	12	1.85	0.48
DSA.h. Sharing knowledge of SD and how to make public procurement more social and environmental friendly	9	44	7	2.03	0.52
DSA.i. Buying recycled paper	3	38	19	1.73	0.55
DSA.j. Using or procuring vehicles running on alternative fuels	9	18	33	1.60	0.74

(Always=3; Sometime=2; Never=1)

Variation in the extent of daily sustainable activities among the respondents might be due to their respective awareness and education level. Based on their extent of daily sustainable activities, respondents were classified into least sustainable (≤ 19), medium sustainable (20-24) and highly sustainable (≥ 25). Daily sustainable activities of about 62 per cent of the respondents were categorized as medium sustainable, 27% least and 12% highly sustainable.

5.1.12 Knowledge of Sustainable Procurement

The most regularly cited definition for sustainable procurement originates from the *United Kingdom Sustainable Procurement Task Force* and coherently builds on the concept of sustainable development:

Sustainable public procurement is a process whereby public institutions meet their needs for goods, services and works in a way that achieves value for money on a whole life cycle basis in terms of generating benefits not only to the organization, but also to society and the economy, while minimizing damage to the environment (DEFRA, 2006).

The concept of SP among the procurement practitioners ranged from option A to option D. The highest portion of the respondents (55%) define SP as procurement based on considering the environmental, social and economic impacts for achieving long term value for money. Their definition was in line with the definition of SP as in provided by DEFRA (2006). About 15 per cent procurement practitioner give their opinion in favor of spending and investing process to maximize benefits for the organization and the country as a whole while 10 per cent of the respondent claim they had no idea about sustainable procurement. Another 20 per cent respondent believed the procurement process which maintain maximum transparency, fairness, quality and participation is regarded as SP. Variation in the concept of sustainable procurement might be due to their different academic background and education level, cosmopolitaness and level of familiarity about SP.

Table 5.5 Distribution of perception about Sustainable Procurement of the respondent

Concepts	Frequency	Percentage
SP.A. No idea about sustainable procurement.	6	10.0
SP.B. Spending and investing process to maximize benefits for the organization and the country as a whole.	9	15.0
SP.C. Procurement that maintained maximum transparency, fairness, quality and participation.	12	20.0
SP.D. Procurement based on considering the environmental, social and economic impacts for achieving value for money.	33	55.0

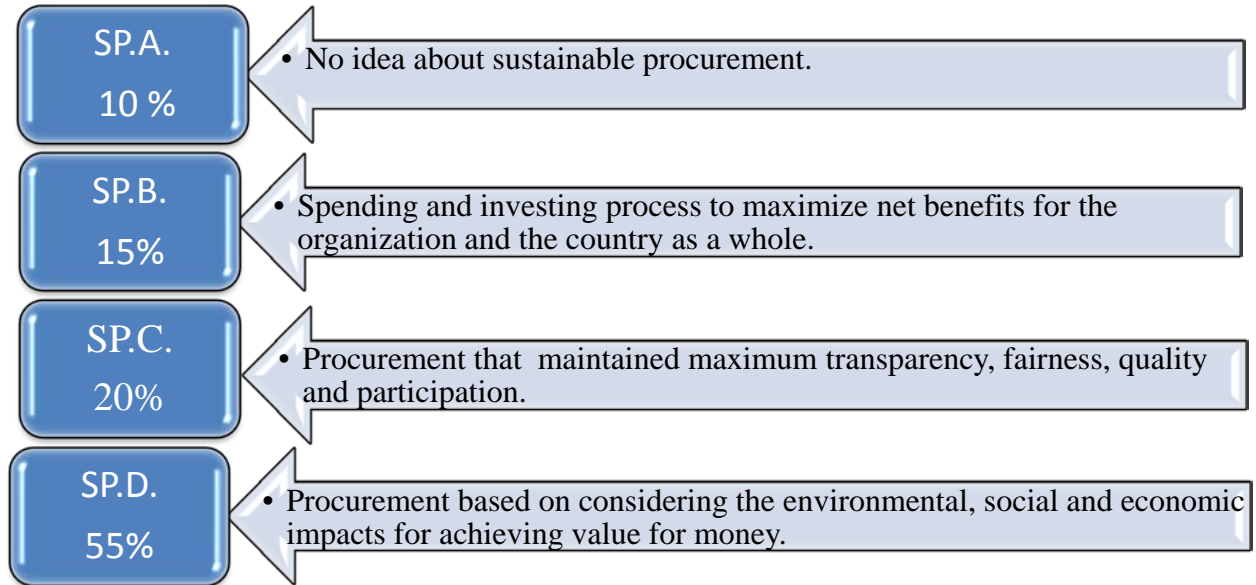


Figure 4 Knowledge of Sustainable Procurement

SECTION 2: PERCEPTION AND PRACTICES OF ADDRESSING ECONOMIC ASPECT OF SUSTAINABILITY THROUGH PUBLIC PROCUREMENT

5.2.1 Perception of procurement practitioners in regard to economic aspect of sustainability

While asked the respondents to indicate their degree of agreement with the above statements of economic aspects of sustainability, the respondents replied in a different ways in different statement. The perception of the respondents is very much consistent for the statement of “Public purchaser can contribute directly to economic (financial) outcomes including cost savings for their organisation” where most of the respondent (41) strongly agreed with mean and standard deviation of 4.67 and 0.51 respectively. No one encircle it as disagree or strongly disagree. In response to the statement of “Local economic development can be enhanced through procuring locally grown goods and to encourage use of SME as sub-contractors”, 57 respondents were remained agreed with it i.e. above neutral point (Table 5.6).

Table 5.6 Distribution of perception about economic aspect of sustainability

Selected economic aspect of sustainability	Degree of agreement					Mean	SD	Chi-sq (sig.)
	5	4	3	2	1			
Public Purchaser can contribute directly to economic (financial) outcomes including cost savings for their organisation.	41	18	1	0	0	4.67	0.51	40.3 (0.000)
Local economic development can be enhanced through procuring locally grown goods and to encourage use of SME as sub-contractors.	27	30	3	0	0	4.40	0.59	21.9 (0.000)
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.	9	20	16	13	2	3.35	1.10	15.83 (0.003)
Suppliers' fair and viable margins should be ensured for achieving quality delivery and effective supply management.	23	25	11	1	0	4.17	0.79	25.07 (0.000)
Procurement demand should make more transparent through E-procurement.	29	24	5	2	0	4.33	0.77	36.4 (0.000)

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

Multiple responses were recorded for the statement of “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” where 9 strongly agreed, 20 agreed, 16 were neutral and the rest 15 disagreed with the above statement. Most of the respondent strongly agreed (23) or agreed (25) that “Suppliers’ fair and viable margins should be ensured for achieving quality delivery and effective supply management”. The statement “Procurement demand should make more transparent through E-procurement” was strongly agreed by 29 and agreed by 24 respondents with mean and standard of 4.33 and 0.77 respectively.

5.2.2 PRACTICES OF ADDRESSING ECONOMIC ASPECT OF SUSTAINABILITY THROUGH PUBLIC PROCUREMENT

Economic considerations are the traditional heartland of decision making for procurement. From an economic perspective SP encourages the use of more resource efficient goods and services and encourages evaluating cost performance over the lifetime of a contract and not limiting decision making to upfront cost consideration.

5.2.2.1 Life cycle costing

Majority (68 %) of the procurement practitioner always made purchasing decision on the basis of lowest price and another 31 per cent partially adopt life cycle cost principals. Most of the respondents who partially applied life cycle costing in purchasing decision cited the example in case of vehicle procurement. Kamruzzaman (2013) found the similar result and conclude that whole life costing (WLC) is rarely considered in various public sector organizations of Bangladesh. Adopting WLC requires some sort of flexibility in evaluating competitive tenders which the public procurement practitioners might reluctant to exert due to lack of policy support and fear of audit objection in Bangladesh. WLC is a technique to establish the total cost of ownership that addresses all the elements of cost and can be used to produce a spend profile of the product or service over its anticipated life-span.

5.2.2.2 Participation of local domestic firms

About 41 per cent respondents claimed that they partially insert criteria in the tender documents to encourage participation of local domestic firms while 23 per cent farmers did not encourage participation local domestic firms. Public sector procuring entities have to follow the standard tender document prepared by the CPTU, which does not include any criteria for encouraging participation of local firms in the case of national competitive tendering. Another 35 per cent respondents claimed that there is a provision for encouraging participation of local firms using a term known as 'domestic

preference' in case of international competitive tendering. Procuring locally grown goods and increased contracting with local and regional suppliers should be promoted for local economic development.

5.2.2.3 Opportunities for SMEs, social enterprises and indigenous suppliers

Table 5.7 indicates that majority (63%) of the respondent's mentioned that their procurement processes had no room for SMEs, socially economic enterprises and indigenous suppliers while 21 per cent sometimes given opportunity to them for participating in the public tendering process. As SMEs are a significant contributor the economic activity, public sector should flourish them by encouraging first-tier contractors to make use of SME or small firm as their sub-contractors to stimulate local jobs creation.

5.2.2.4 Supplier's/contractors fair and viable margins

Table 5.7 shows that highest proportions (68%) of the respondents always include suppliers/contractors fair and viable margins in the estimated tender price of respective goods, works and services. While 26 per cent respondents sometimes considered supplier profit in estimating tender price. They claimed that it is difficult to ensure in case of procurement of goods as tender price calculated by analyzing current market price. The supplier need to charge prices that will enable them to generate adequate revenues to pay their workers a living wage and benefits and to invest resources in improved working conditions, additional employment and capability development.

5.2.2.5 Procurement planning for cost saving and avoiding mis-procurement

About 41 per cent procurement practitioners implement procurement activities as instructed by their higher authority without considering anything for saving cost and avoiding mis- procurement (**Table 5.7**). Another 35 per cent challenged the need for procurement in order to avoid mis-procurement. In making procurement plan, 28%

respondents considered existing assets be refurbished, repaired or upgraded before making a new purchasing need.

Table 5.7 Practices of addressing economic aspect of sustainability through public procurement

Item	Category of responses	Respondents (N=60)		Chi-Sq. (Asym.Sig.)
		No.	%	
Adopt life cycle cost costing principals in purchasing decisions	No	41	68.3	8.07 (0.005)
	Partial	19	31.7	
	Yes	0	0.0	
Any criteria to encourage participation of local domestic firms	No	14	23.3	3.10 (0.212)
	Partial	25	41.7	
	Yes	21	35.0	
Leaving room for SMEs, socially economic enterprises and indigenous suppliers	Never	38	63.3	34.30 (0.000)
	Sometime	21	35.0	
	Always	1	1.7	
Tender price include supplier's/contractors fair and viable margins	Never	3	5.00	37.3 (0.000)
	Sometime	16	26.7	
	Always	41	68.3	
Consideration during procurement planning for cost saving and avoiding mis-procurement	As instructed by authority	25	41.7	1.90 (0.387)
	Challenging need	18	35.0	
	Refurbish/upgrade	17	28.3	
Price adjustment clause for coping market price change and security of delivery	Never	31	51.7	27.3 (0.000)
	Sometime	28	46.7	
	Always	1	1.7	
Aim for making lot or package of goods and works in procurement planning	Large suppliers	13	21.7	41.7 (0.000)
	Max. no. suppliers	4	6.7	
	Reasonable no. of suppliers.	43	71.7	
Adoption of E-procurement process	No	40	66.7	30.1 (0.000)
	Partial	11	18.3	
	Yes	9	15.0	

5.2.2.6 Price adjustment

About 51 per cent of the procurement practitioner never insert and implement price adjustment (PA) clause in their procurement contract. Another 47 % of respondents sometime implement price adjustment clause in order to cope with market price change and security of delivery in work procurement of more than 18 month long. Ignorance of supplier and imparting some additional administrative burden in using PA might be responsible for not implementing it in every procurement contract. i Fixed price agreement sometimes seen as an unsustainable or inequitable passing of cost related risk down the supply chain, impacting ultimately on its most vulnerable members.

5.2.2.7 Rationale for making lot or package

About 71 per cent procurement practitioners made lot/package size based on nature of the procurement which allows participation of reasonable number of suppliers. While 21 per cent respondents preferred large size lot by allowing participation of large suppliers. To them, large supplier are more capable of ensuring quality of delivery (**Table 5.7**). The findings coincides with the result of Kamruzzaman (2013) who mentioned that package or lots should be based on the threshold value which allows participation of reasonable number of suppliers compatible with evaluation and selection process.

5.2.2.8 E-procurement process

Table 5.7 shows that highest proportions (66%) of the respondents never practice E-procurement practice while 15 per cent always use e-GP portal in public tendering process. Another 18 per cent claimed that they sometime practiced E-procurement. e-GP has been proved as an effective tool in the fight against corruption, the promotion of integration and the stimulation of greater productivity not only at government level, but also in small and medium enterprises (Mahmood, 2010). Public Procurement Reform Project II (PPRP-II) has been contributing significantly in bringing massive expansion of e-GP at the target agencies, with clearly visible impacts in improving the

transparency, efficiency and governance at local levels. This will supplement the present government's vision for building a Digital Bangladesh by 2021.

SECTION C: PERCEPTION AND PRACTICES OF ADDRESSING ENVIRONMENT ASPECT OF SUSTAINABILITY THROUGH PUBLIC PROCUREMENT

5.3.1 Perception of procurement practitioners in regard to environmental aspect of sustainability

While asked the respondents to indicate their degree of agreement with the above statements of environmental aspects of sustainability, the respondents replied in a different ways in different statement. The perception of the respondents is very much clear for the statement of “Climate change impacts associated with the production, distribution, use and disposal of the goods needs to be addressed through public procurement” where 58 respondent encircled above the neutral point with mean and SD of 4.67 and 0.54 respectively . No one of them disagreed or strongly disagreed with this statement. In response to the statement of “Key environmental issues such as energy, water use, waste, noise etc. might be considered over the life cycle of the goods/works/services.”, 41 respondents were strongly agreed, 17 agreed and 2 remained neutral with it. Similar responses were recorded for the statement of “Sustainable building design should be promoted to minimize future resource consumption, use of recycled content or road surfacing in construction contracts”. Most of the respondent strongly agreed (24) that “Public tendering process should consider resource conservation, energy consumption, and potential adverse health and environmental effects” while 21 agreed and 15 remain neutral. The entire respondent remained above the neutral point for “Purchase products that are durable, recyclable, reusable, readily biodegradable, energy efficient, nontoxic and environment friendly” with mean and SD of 4.37 and 0.66 respectively (Table 5.8).

Table 5.8 Distribution of perception of about environmental aspect of sustainability

Selected environmental aspect of sustainability	Degree of agreement					Mean	SD	Chi-sq. (sig.)
	5	4	3	2	1			
Climate change impacts associated with the production, distribution, use and disposal of the goods needs to be addressed through public procurement.	42	16	2	0	0	4.67	0.54	41.2 (0.000)
Key environmental issues such as energy, water use, waste, noise etc. might be considered over the life cycle of the goods/works/services.	41	17	2	0	0	4.65	0.55	38.7 (0.000)
Sustainable building design should be promoted to minimize future resource consumption, use of recycled content or road surfacing in construction contracts.	34	20	6	0	0	4.47	0.67	19.6 (0.000)
Public tendering process should consider resource conservation, energy consumption, and potential adverse health and environmental effects.	24	21	15	0	0	4.15	0.79	2.10 (0.350)
Purchase products that are durable, recyclable, reusable, readily biodegradable, energy efficient, nontoxic and environment friendly.	28	26	6	0	0	4.37	0.66	14.8 (0.001)

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

5.3.2 PRACTICES OF ADDRESSING ENVIRONMENTAL ASPECT OF SUSTAINABILITY THROUGH PUBLIC PROCUREMENT

Environmental concerns remain the key driver behind the sustainable procurement agenda and there is a growing consensus that humanity is placing excessive demands on available resources thorough unsustainable consumption pattern and lifestyle choices.

5.3.3.1 Identification of environmental impact

Table 5.9 shows that About 55 per cent opined that they sometime identified the environmental impact of the goods/ works or services procured before launching a high value tender while 33 per cent never did that. Only about 12 per cent practitioners always conduct environment assessment. They mentioned that assessing the

environmental impacts largely depend on the type and nature of procurement and respective allocation of project. Environmentally preferable goods and services have a lower impact on the environment over the life cycle of the good or service, when compared with competing goods or services serving the same purpose. It is important to identify the environmental impact of products purchased through the entire life cycle (BSB, 2012).

5.3.3.2 Environmental management system

About 75 per cent respondent gave their opinion that their organization had no environmental management system (EMS) or made requirement for contractors to have environmental management system. Only 18 per cent respondent claimed for existence of partial EMS in their organisation (**Table 5.9**). Lack of environmental management system in most of the procuring entities of Bangladesh was similar to the findings of Kamruzzaman (2013) who found a negative response in regard to EMS. An EMS can be seen as a tool of managing the organization's environmental performance. An EMS gives an organisation a systematic approach for assessing and managing its impact on the environment: that is the environmental consequences and risk exposure of its operations.

5.3.3.3 Environmental criteria used in procurement process

Table 5.9 indicates that about 51 per cent procurement professionals were partially able to cite the name of different environment criteria to be used in public procurement process for addressing environmental concern. Their responses were limited either for procurement of goods or works or services. Only 27 per cent were correctly able to provide different environmental criteria to be used in procurement goods, works and services. Traditional supply chain management practices have focused on cost, service and quality. The new requirement to manage carbon emissions has resulted in carbon becoming a fourth criterion (ZWS, 2011). Environmental considerations such as energy and water efficiency, use of recycled content, use of sustainable source materials might be built into specification.

5.3.3.4 Disposal of products/ works

About 66 per cent procurement professionals never and 28 per cent sometime consider disposal of goods, works, and services procured, while only 5 per cent respondents consider disposal issues during procurement planning (Table 5.9). Similar findings were reported by Kamruzzaman (2013). Absence of specific guideline in the public sector organizations might not obliged the procurement practitioners to ensure the proper disposal of products or works procured. Those who consider disposal issues explained that the current practice for disposal of products or works was either storing them or selling them by auction.

5.3.3.5 Options for reuse, repair or modification

About 62 per cent procurement professionals sometime and 15 per cent always consider various options such as reuse, repair or modification before making a new purchasing demand, While 23 per cent respondents never considered these during procurement planning (Table 5.9). It is sometimes said that the most sustainable product that you buy is the one that you do not buy at all. Identification and definition of requirement, as the basis for procurement strategy, is the fundamental intervention point for sustainability. In order to develop appropriate solutions for a given requirement, purchasers need to understand the current and future needs of key stakeholders and distinguish them from wants

5.3.3.6 Key environmental issues during procurement planning

About 46 per cent of the respondents' sometimes consider various environmental issues over the lifecycle of the procured goods, works and services. About one-fourth (24%) of respondents never and 15 per cent always considered these issues during procurement planning. Lack of awareness and time pressure of procurement practitioners might be responsible for not considering these key environmental issues in every procurement process. Key environmental issues such as energy use, water use and water quality

impacts, volume and type of waste, level of toxic and hazardous substances/waste, noise, pollutants and emissions, impact on natural habitat etc. might be considered over the life cycle of the goods/service.

Table 5.9 Practices of addressing environmental aspect of sustainability through public procurement

Item	Category of response	Respondents (N=60)		Chi-Sq. (Asym. Sig.)
		No.	%	
Identify the environmental impact before launching a high value tender.	Never	20	33.3	16.90 (0.005)
	Sometime	33	55.0	
	Always	7	11.7	
Have an environmental management system (EMS) for organisation.	No	45	75.0	48.10 (0.005)
	Partial	11	18.3	
	Yes	4	6.7	
Ability to give examples of environmental criteria used in procurement process.	No	13	21.7	9.30 (0.010)
	Partial	31	51.7	
	Yes	16	26.7	
Considering disposal of products/ works procured.	Never	40	66.7	34.90 (0.000)
	Sometime	17	28.3	
	Always	3	5.0	
Considering options for reuse or repair of existing assets before making a new purchasing demand.	Never	14	23.3	22.30 (0.000)
	Sometime	37	61.7	
	Always	9	15.0	
Considering key environmental issues like energy use, water use, waste etc. while making procurement planning.	Never	14	23.3	22.30 (0.000)
	Sometime	37	61.7	
	Always	9	15.0	
Considering sustainable building design to minimize future consumption of energy, water, cleaning services for infrastructural facilities.	Never	16	26.7	4.80 (0.091)
	Sometime	28	46.7	
	Always	16	26.7	
Assessing environmental performance of suppliers.	Never	37	61.7	27.30 (0.000)
	Sometime	19	31.7	
	Always	4	6.7	

5.3.3.7 Sustainable building design

About 46 per cent of the procurement professionals sometimes considered sustainability before making design of infrastructural facilities while only 26 per cent respondents always consider these during design stage of procurement planning. Sustainable building design should be promoted to minimize future consumption of energy, water and cleaning services. Steps should be taken to use recycled content for building materials or road surfacing in construction contracts quality and restrict procurement of goods containing hazardous materials.

5.3.3.8 Assessing environmental performance

With respect to the suppliers 62 per cent respondents never assessed environmental performance of suppliers. Only per 32 cent procurement practitioners sometimes assessed environmental performance of suppliers or contractors (**Table 5.9**). Assessing the environmental performance of suppliers largely depend on the type and nature of procurement and respective willingness of donor. Kamruzzaman (2013) also mentioned similar negative response in relation to assessing supplier's environmental performance in Bangladesh. Suppliers should be required to set and disclose environmental sustainability goals, and to measure and collect data on their environmental performance using standardized indicators and measurement protocols.

SECTION 4: PERCEPTION AND PRACTICES OF ADDRESSING SOCIAL ASPECT OF SUSTAINABILITY THROUGH PUBLIC PROCUREMENT

5.4.1 Perception of procurement practitioners in regard to social aspect of sustainability

While asked the respondents to indicate their degree of agreement with the above statements of social aspects of sustainability, the responded replied in a different ways in different statement. The perception of the respondent for the statement of "Public procurement should give priority in promoting workforce welfare, ensuring workforce

equality and diversity” were mixed where 32 of the respondent strongly agreed, 18 agreed and 7 remained neutral. About 26 respondents took their position neutral and below for use of Community Benefit Clauses under which contractors agree to provide employment of local people in large contract with mean and SD of 3.80 and 0.84 respectively.

Table 5.10 Distribution of perception about social aspect of sustainability

Selected social aspect of sustainability	Degree of agreement					Mean	SD	Chi-sq. (sig.)
	5	4	3	2	1			
Public procurement should give priority in promoting workforce welfare, ensuring workforce equality and diversity.	35	18	6	1	0	4.45	0.75	45.73 (0.000)
There is a need to use of Community Benefit Clauses under which contractors agree to provide employment of local people in large contract.	15	19	25	1	0	3.80	0.84	20.8 (0.000)
Public sector purchaser should consider greatest common good and give opportunity to contract with social enterprises and the voluntary sector for their capacity building.	11	24	20	5	0	3.68	0.87	14.8 (0.002)
Public procurement should act as a mechanism of social inclusion for supporting local sustainability	21	28	10	1	0	4.15	0.75	28.4 (0.000)
Public procurement should ensure diversity and equality; encouraging a diverse base of suppliers.	36	19	4	1	0	4.00	0.70	51.6 (0.000)

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

In response to the statement of “Public sector purchaser should consider greatest common good and give opportunity to contract with social enterprises and the voluntary sector for their capacity building.”, 25 respondent were gave their position neutral and below the neutral point. Multiple responses were recorded for the statement of “Public procurement should act as a mechanism of social inclusion for supporting local sustainability” with mean and SD of 4.15 and 0.75 respectively. Most of the respondent strongly agreed (36) or agreed (19) that “Public procurement should ensure diversity and equality; encouraging a diverse base of suppliers” (Table 5.10).

5.4.2 PRACTICES OF ADDRESSING SOCIAL ASPECT OF SUSTAINABILITY THROUGH PUBLIC PROCUREMENT

Social challenges are related to the compliance with human rights and the right to decent work as defined by the International Labour Organization (ILO). Public procurement can be used as a means to tackle social issues such as inclusiveness, equality, diversity, poverty, unemployment, skill development, health and well being. Many of these issues are interrelated which means a cohesive approach is needed to bring about lasting social improvement.

5.4.2.1 Identify social impact

About 48 per cent practitioners some time identified the social impact of the goods/ works or services before launching a high value tender while 37 per cent never did that (**Table 5.11**). Only 15 per cent claimed that they identified social impact of large procurement through conducting social impact assessment of related project although this depends on the allocation of Projects. Public sector organization's commitments to respect human and labor rights should be demonstrated and communicated through policies, and implemented through codes of conduct and management systems and rigorous ongoing monitoring and evaluation.

5.4.2.2 Principle of equality

The result of the present study revealed that majority (86%) of the respondent's procurement process follow the principle of equality i.e. participation to all the potential suppliers/ contractors. Public procurement should ensure diversity and equality in the supplier market – encouraging a diverse base of suppliers. Similar finding was reported by Kamruzzaman (2013) who stated that all the potential suppliers/ contractors are treated equally while preparing specifications. Adhering the principle of equality by most of the procurement entity might be due to the fact that PPR, 2008 does not allow making specifications which may exclude some of the suppliers/ contractors.

5.4.2.3 Criteria or clause for health & safety

Table 5.11 indicates that about 46 per cent of the procurement practitioner sometime insert clause regarding workers/ employees health & safety in their tender document. About one-third (36 %) respondents never inserted about 17 per cent always inserted health and safety clause in their procurement contract. Majority of them mentioned that it is feasible to insert the clause in contracts work procurement rather than in goods procurement. The security and hygiene conditions at work differ widely among countries, economic sectors and social groups. Deaths and injuries are of a particularly high rate in developing countries, where a big part of the population is employed in potentially dangerous sectors, such as agriculture, fishing and mining (BSB, 2012). So suppliers should make binding to adopt safety measures and to make sure the workers dispose of adequately protective equipment. After Rana Plaza incident in April 2013, Bangladesh Labor Act 2006 has been amended to consolidate and enhance the safety measures in work place which might play an important role in improving health and safety condition of workers in future. In addition, with the support of ILO, Bangladesh adopted ‘Sustainability Compact’ with a view to take joint initiatives to improve labor welfare and safety of working environment and the National Tripartite Plan of Action on Fire Safety and Structural Integrity (MOLE, 2014).

5.4.2.4 Legal provisions for working condition

In relation to legal provisions regarding working hours, rest and vacation and decent wages of workers and/or employees, 47 per cent procurement professionals never and 43 per cent sometimes made requirement for suppliers or contractors to comply with national legislation. Only 10 per cent always made these requirements for supplier/contractors to comply. Minimum Wage Board formed on June, 2013 by the Ministry of Labor & Employment to redefine the minimum wages for the workers of ready-made garments industry (MOLE, 2014) which might have positive effect in other sectors of the economy.

Table 5.11 Practices of addressing social aspect of sustainability through public procurement

Item	Category of response	of Respondents (N=60)		Chi-Sq. (Asym.Sig.)
		No.	%	
Identify social impact of the goods/works or service before launching a high value tender.	Never	22	36.7	10.30 (0.006)
	Some time	29	48.3	
	Always	9	15.0	
Follow the principle of equality i.e. participation to all the potential suppliers/ contractors.	No	0	0.0	32.28 (0.000)
	Partial	8	13.3	
	Yes	52	86.7	
Any criteria or clause regarding workers/ employees health & safety in tender document.	No	22	36.7	8.40 (0.015)
	Partial	28	46.7	
	Yes	10	16.7	
Making requirement for supplier to comply with the legal provisions regarding working hours, vacation and decent wages.	Never	28	46.7	14.80 (0.001)
	Some time	26	43.3	
	Always	6	10.0	
Visiting supplier's plants/factory to ensure that they are not using sweatshop labor.	Never	20	33.3	25.60 (0.000)
	Some time	36	60.0	
	Always	4	6.70	
Purchase from supplier or contractor where child labor is part of reality or where human rights are violated.	No	43	71.7	43.90 (0.000)
	Partial	15	25.0	
	Yes	2	3.30	
Purchase goods, works and services from third sector organizations (charities, voluntary sector, social enterprise etc).	No	37	61.7	30.70 (0.000)
	Partial	21	35.0	
	Yes	2	3.30	
Compliance audit for suppliers in the employment conditions.	Never	44	73.3	48.10 (0.000)
	Some time	15	25.0	
	Always	1	1.7	

5.4.2.5 Visiting supplier's plants/factory

For investigating sweatshop labor, about 33 per cent of the procurement practitioners never visit supplier/contractor site/plant or factory. About 60 and 7 per cent of respondent conduct site visit sometimes and always respectively. But they mentioned their visit sometime addressed this issue. Lack of awareness and imparting some additional cost in making visit might be responsible for not visiting every supplier's factory to investigate that they are not using sweatshop labor.

5.4.2.6 Child labor

Table 5.11 shows that almost all procurement practitioners (97%) did not purchase from suppliers or contractors where child labor is used or where human rights are violated. About 25 per cent of them mentioned this as partial. Their response might be partially true for supplies of goods where there might be little opportunity to investigate the issue for one off procurement of goods. The Procurement can be used as a significant tool for avoidance of child labor. Since the enactment of Bangladesh Labor Act 2006, it has made progress on moving to eliminate the use of child labor which might explain the findings.

5.4.2.7 Purchase from third sector organizations

About 62 per cent of the procurement practitioners never purchased goods or works or services from third sector organisation (**Table 5.11**). While 35 per cent sometime procured service from them. Contracting with social enterprises and the voluntary sector should be encouraged their capacity building. Only 3 per cent respondents mentioned that they always purchased from voluntary sector although their practice were limited only to service procurement.

5.4.2.8 Compliance audit for employment conditions

With respect to the suppliers 73 per cent respondents never conduct compliance audit for employment conditions (Table 5.11). Only 25 per cent procurement practitioners sometimes assessed compliance audit for employment conditions in large construction contract. According to them, this depends on the willingness of donor and provision of donor funded project. GIZ (2013) found large civil work contracts include some provisions related to environmental and social protection in Bangladesh. Suppliers should be required to set and disclose social sustainability goals, and to measure and collect data on their social performance using standardized indicators and measurement protocols. Data should cover non-compliance incidents, actions taken to remedy those incidents and measures taken to contribute to the long-term prevention or mitigation of specific concerns.

SECTION 5: OPPORTUNITY, BARRIER AND NEEDED SUPPORT FOR ADDRESSING SUSTAINABILITY IMPERATIVES THROUGH PUBLIC PROCUREMENT

5.5.1 Opportunity for Addressing Sustainability

The attractive factors of Addressing Sustainability through public procurement have been discussed by many previous researchers. This section looks briefly at some of these. So why are governments across the world favoring the approach of Addressing Sustainability through public procurement to provide for sustainable development? Through public procurement, governments can “raise the bar” for the respecting of labor and environmental standards by all market operators, thereby facilitating sustainable development. Respondents were asked to rate the incentive or opportunity arise from addressing sustainability through public procurement in a scale of 1 to 10 (1=Least Important and 10=Most Important), a value above “5” would represent that factor is of importance. Top of those factors the respondents were asked to rate, they

were also given the opportunity to add others which would be of importance, but they did not do so. In this section, only the top most factors will be discussed for emphasizing the importance. Ten Attractive factors for adopting SP were rated by the respondents (**Figure 5**).

The most important five attractive factors ranked were:

- Improvement of environmental quality.
- Higher labor standard, better health & safety condition of worker.
- Reduces use of Natural resources.
- Improve compliance on national and international obligations.
- Expectation of civil society.

Table 5.12 Extent of opportunity for addressing sustainability through public procurement process of Bangladesh

Opportunity	Scoring by the respondents										Mean	SD	OASI	Rank
	10	9	8	7	6	5	4	3	2	1				
OJ.	26	14	10	4	6	0	0	0	0	0	8.83	1.33	883.33	1
OE.	17	17	14	5	4	2	1	0	0	0	8.47	1.47	846.67	2
OD.	22	10	10	6	10	1	1	0	0	0	8.35	1.65	835.00	3
OC.	13	3	13	16	6	3	5	1	0	0	7.45	1.88	745.00	4
OI.	12	6	9	9	7	11	4	1	1	0	7.12	2.13	711.67	5
OF.	7	7	15	9	5	6	8	3	0	0	6.95	2.07	695.00	6
OG.	6	2	19	12	6	9	3	2	1	0	6.91	1.92	691.67	7
OH.	3	8	18	8	8	6	5	2	1	1	6.82	2.03	681.67	8
OA.	11	2	11	7	5	7	5	6	3	3	6.28	2.74	628.33	9
OB.	5	2	8	5	8	10	5	8	9	0	5.45	2.48	545.00	10

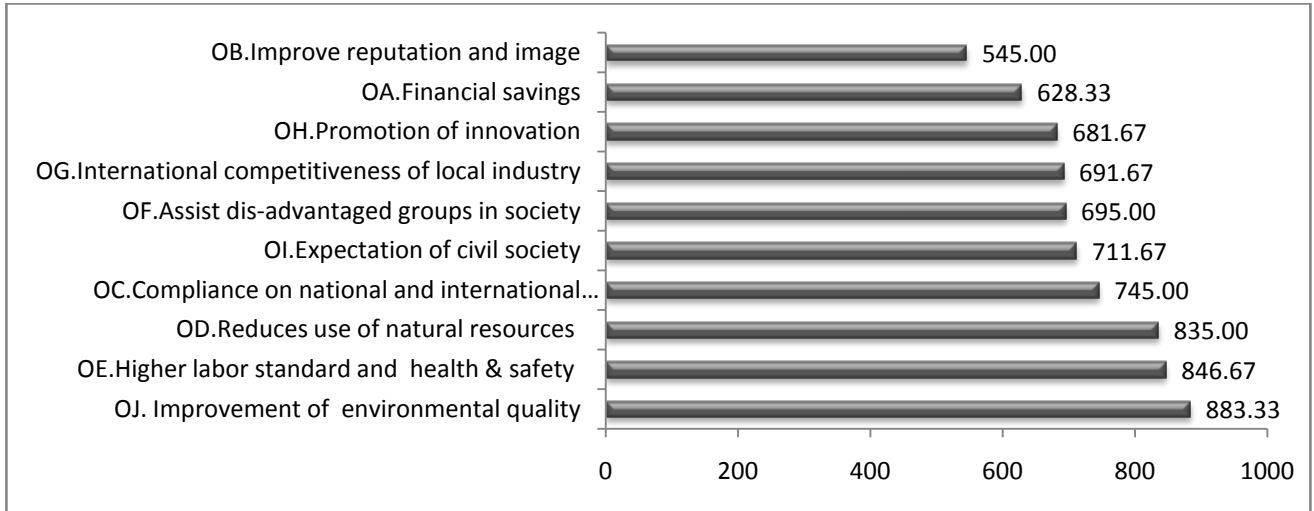


Figure 5 Ranking of opportunities for addressing sustainability through public procurement process of Bangladesh based on OASI.

5.5.2 Barriers for Addressing Sustainability

Thirteen barriers for addressing sustainability through PP were rated by the procurement professionals. The mean score were calculated and ranked in descending order of importance as shown in **Figure 6**. The most important five factors ranked by the respondents included:

- Absence of policy guidance.
- Absence of political will in promoting sustainability.
- Avoidance of complexity for secondary objectives of procurement.
- Lacking awareness among procurement practitioners.
- The overall PPR is inadequate to incorporate sustainability criteria.

Table 5.13 Extent of barriers for addressing sustainability through public procurement process of Bangladesh

Barrier	Scoring by the respondents										Mean	SD	BASI	Rank
	10	9	8	7	6	5	4	3	2	1				
BA.	31	10	11	4	3	1	0	0	0	0	8.98	1.31	898.33	1
BH.	24	9	15	8	1	3	0	0	0	0	8.63	1.43	863.33	2
BB.	24	11	12	6	2	4	0	1	0	0	8.53	1.67	853.33	3
BF.	24	10	14	5	2	3	1	1	0	0	8.52	1.70	851.67	4
BM.	19	10	11	8	10	1	1	0	0	0	8.22	1.63	821.67	5
BD.	12	9	13	9	9	4	3	1	0	0	7.62	1.85	761.67	6
BK.	13	13	7	6	6	3	6	4	2	0	7.27	2.46	726.67	7
BJ.	10	11	10	4	7	10	6	2	0	0	7.15	2.16	715.00	8
BE.	7	10	8	13	11	6	3	1	1	0	7.13	1.90	713.33	9
BC.	6	6	13	11	9	7	6	2	0	0	6.90	1.90	690.00	10
BI.	5	6	9	12	12	8	5	3	0	0	6.68	1.88	668.33	11
BL.	3	6	12	13	12	5	7	0	2		6.67	1.85	666.67	12
BG.	0	4	13	7	7	9	13	5	2	0	5.78	1.98	578.33	13



Figure 6 Ranking of Barriers for addressing sustainability through public procurement process of Bangladesh based on BASI.

5.5.3 Support required for Addressing Sustainability

The survey respondents were asked to rate the importance of ten identified supports for addressing sustainability through PP. The mean score were calculated and ranked in descending order of importance as shown in **Figure 7**. According to the Figure 7, Top five needed supports ranked included:

- Training of officials and procurement practitioners.
- Policy guidance on sustainable procurement.
- Political will/commitment.
- Awareness building.
- Introduction of Lifecycle approach of costing.

Table 5.14 Extent of support needed for addressing sustainability through public procurement process of Bangladesh

Support	Scoring by the respondents										Mean	SD	SASI	Rank
	10	9	8	7	6	5	4	3	2	1				
SB.	31	8	15	5	1	0	0	0	0	0	9.05	1.12	905.00	1
SA.	30	7	17	4	2	0	0	0	0	0	8.98	1.17	898.33	2
SD.	22	20	11	7	0	0	0	0	0	0	8.95	1.01	895.00	3
SC.	28	9	16	4	2	1	0	0	0	0	8.90	1.26	890.00	4
SE.	22	7	15	5	6	3	2	0	0	0	8.28	1.74	828.33	5
SF.	6	9	12	12	5	9	3	3	1	0	6.98	2.02	698.33	6
SG.	3	5	14	13	13	4	6	1	1	0	6.75	1.75	675.00	7
SI.	3	4	15	9	13	10	1	3	2	0	6.57	1.87	656.67	8
SH.	3	5	6	10	9	11	8	7	1	0	5.95	2.05	595.00	9



Figure 7 Ranking of supports needed for addressing sustainability through public procurement process of Bangladesh based on SASI.

SECTION 6: RELATIONSHIP BETWEEN THE SELECTED CHARACTERISTICS OF PROCUREMENT PRACTITIONERS AND THEIR PRACTICES OF ADDRESSING SUSTAINABILITY

The Pearson two-tailed correlation coefficient was used to ascertain the degree of association among the variables. Thirteen characteristics of the procurement practitioners were selected for exploring the relationship with their perception and practice of addressing each aspect of sustainability through public procurement. The findings are presented in the Table 5.15. Total perception in three aspects of sustainability were positively related with respondent's age, training, daily sustainable activities (DSA) and extent of knowledge on SP. Respondents background, education, year of experience, training, role in procurement activities, DSA were positively correlated with practices of addressing sustainability through public procurement. This implies that the higher is the practitioners' education, year of experience, training, role in procurement activities and DSA, the better is their status in adhering sustainability

practice. It is revealed that respondent's age, education, years of experience, training, DSA and extent of knowledge on SP had significant positive relationships with their exploring / scoring of various opportunities for addressing sustainability. On the other hand, respondent scored higher problem confrontation who had higher level of education, years of experiences, training and involvement in service procurement. Age, years of experiences, higher role in the procurement process and DSA were related with the respondent's responses in scoring needed support for addressing sustainability in the public procurement process.

Table 5.15 Co-efficient of correlation showing relationship between the selected characteristics of the procurement practitioners and their responses

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1.Age	1																	
2.Gender	-.005	1																
3.Background	.229	.215	1															
4.Education	.276*	.082	.115	1														
5.Years of Exp.	.884**	-.054	.004	.283*	1													
6.Train	.091	-.059	-.246	.567**	.171	1												
7.Volume	.039	-.086	-.114	.205	.087	.001	1											
8.Goods Proc.	.159	.053	.413**	.127	.032	-.274*	.296*	1										
9.Works Proc.	-.079	-.021	-.328*	-.190	.035	.152	-.247	-.919**	1									
10.Service Proc.	-.183	-.068	-.119	.200	-.183	.248	-.057	.023	-.414**	1								
11. Role in PP	.383**	-.239	-.124	.000	.405**	.142	-.133	-.092	.076	.013	1							
12.DSA	.400**	-.043	-.105	.169	.372**	.133	-.002	.146	-.174	.094	.319*	1						
13.Knowledge SP	.101	-.121	-.304*	.333**	.205	.451**	.004	-.115	.047	.142	.139	.233	1					
14.Total perception	.272*	-.114	-.168	.210	.232	.365**	-.045	.003	-.145	.361**	.106	.544**	.375**	1				
15.Total practices	.220	-.068	-.272*	.306*	.299*	.510**	-.070	-.231	.120	.230	.223	.522**	.488**	.544**	1			
16.Opportunity	.274*	-.017	.028	.467**	.347**	.380**	.157	-.055	-.064	.282*	.025	.397**	.366**	.463**	.526**	1		
17.Barriers	.240	-.050	.005	.421**	.265*	.270*	.170	.077	-.175	.267*	.060	.238	.057	.197	.254	.445**	1	
18.Support Needed	.288*	-.076	-.056	.245	.289*	.200	-.031	-.038	-.016	.128	.280*	.336**	.249	.364**	.474**	.342**	.426**	1

* = Significant at 0.05 level of probability, ** = Significant at 0.01 level of probability

CHAPTER 6

CONCLUSION AND RECOMMENDATION

6.0 Conclusions

Recognizing the important role that public procurement can play to support sustainable development, the study seek to provide an assessment of the scope and current practices of addressing sustainability imperatives in public procurement. Secondly, learn about perception of procurement practitioners with barriers and opportunities of using public procurement as a tool to foster SD of Bangladesh. To gain an understanding of the current state of public procurement and it role in SD of Bangladesh, this study utilized a both qualitative and quantitative approach. A semi structured pre tested questionnaire was used to collect primary data from randomly selected 60 procurement practitioners in public sector. The recorded data were analyzed using SPSS 17 package. Descriptive analysis such as range, number and percentage, mean, standard deviation and rank order were calculated to find out the differences between selected variables of the respondents in public sector.

The present study showed majority of the human resources involved in public procurement were from engineering background. Although they are mainly involved in implementing development projects, all of them learn public procurement management in professional life. They also had low level of familiarity on sustainable development, sustainable procurement and ethical procurement. Majority of the respondents were involved in the development of specification and tender document. Their daily sustainable activities in 10 aspects (total score 30) were also not satisfactory as almost all of the respondents score as medium sustainable. However, highest proportions of respondent were able pick up the right definition of SP from alternatives. There was a very good level of perception on economic, social and environmental aspect of sustainability among the procurement practitioners of Bangladesh.

Almost all of the procuring entity followed the principle of lowest price in their purchasing decisions. They were not adopting lifecycle costing approach in evaluating competitive tenders. Majority of the procuring entity sometime inserted criteria in the tender documents to encourage participation of local domestic firms. Their procurement processes leave very little room for SMEs, socially economic enterprises and indigenous suppliers. Majority of the practitioners sometime include supplier's/contractors fair and viable margins in estimating tender price. During procurement planning, majority of the respondents conduct procurement activities without considering any options like refurbished, repaired or upgraded in order to save procurement cost and avoids misprocurement. They sometime insert and practice price adjustment clause in procurement contract in order to cope with market price change and security of delivery. They made lot size of procurement based on nature of the procurement which allows participation of reasonable number of suppliers. There was a low level of E-procurement process adoption for ensuring transparency and promoting competitive markets.

Majority of the procurement practitioners did not identify the environmental impact of the goods/ works or services before launching a high value tender. Their organization had not an environmental management system (EMS) or they did not make requirement for contractors to have a mandatory environmental management system. They rarely considered disposal of products/ works procured. Before making a new purchasing demand, they sometime consider options for reuse, repair, upgrade or modification of existing assets. They were partially able to provide the example of environmental criteria to be used in procuring goods, works and services. While making procurement planning, they sometime consider key environmental issues like energy use, water use, waste, noise, pollutants and emissions, impact on natural habitat over the life cycle of the goods/service. They sometime consider sustainable design of building infrastructural facilities to minimize future consumption of energy, water and cleaning services. With respect to the suppliers: they rarely assess environmental performance of suppliers.

Majority of the procurement practitioners did not identify the social impact associated with the procurement of the goods/works or service before launching a high value tender. They sometime put criteria or clause regarding workers/ employees health & safety in tender document and make requirement for supplier or contractor to comply with the legal provisions regarding working hours, rest and vacation and decent wages of worker. They sometime visit suppliers' site/plants/factory but their purpose hardly to ensure that suppliers are not using sweatshop labor. Never the less their organization did not purchase from supplier or contractor where child labor is part of reality or where human rights are violated. However, their procurement process follow the principle of equality i.e. participation to all the potential suppliers/ contractors. There was not common practice to purchase goods works and services from third sector organizations such as charities, voluntary sector and social enterprises. Procurement from third sector was limited to service only. Most of the organization did not conduct compliance audit for suppliers in the employment conditions e.g. minimum wage, health and safety.

Improvement of environmental quality, higher labor standard and optimize use of natural resources were regarded as highly ranked opportunities arise from addressing sustainability through public procurement. Lack of policy guideline, absence of political will in promoting sustainability and avoidance of complexity for secondary objective of procurement were the common responses as a barrier. In addition to formulate a sustainable procurement policy, political willingness and a clear commitment is necessary form the government.

Respondents background, education, year of experience, training, role in procurement activities, DSA were positively correlated with practices of addressing sustainability through public procurement. This implies that the higher is the practitioners' education, year of experience, training, role in procurement activities and DSA, the better is their status in adhering sustainability practices.

6.1 Recommendations

Fulfilling the aspiration of sustainable development in Bangladesh requires an integrated approach to pursuing economic, social and environmental well-being and all three components are central to success. Achieving sustainable development in practice requires that economic growth supports social progress as well as respect for the environment, that economic performance reinforces social equity, and that environmental policy is cost-effective without compromising the livelihood of future generations. A variety of economic, environmental and social elements make up sustainable procurement with economic elements being most prevalent, followed by environmental elements and social elements occurring least frequently in Bangladesh. Although sustainable procurement is an important issue in most of the developed countries, it has not become an important matter of concern in developing countries like Bangladesh. However, it is a matter of hope that this issue is gaining acceptance in our country which may be a potential driver for introducing sustainability in the public procurement. Therefore, it is high time to take some necessary steps in all three aspects for sustainable development in Bangladesh. To improve sustainability imperatives through procurement process and practices some measures are needed to be adopted. Based on the above conclusions some specific recommendations are proposed to address sustainability in an appropriate way is given below:

- Climate change and sustainable development do not just affect one country, and their solutions need to be global. Environmental and social problems are not bound to domestic borders. For example, Child labor in one country can be used to provide goods for consumption in another country. Therefore, international collaboration could be valuable to develop joined up approach on sustainable procurement across the world.
- Development partners could play a catalytic role, by supporting Bangladesh in undertaking assessments, evaluating policy options and implementing strategies,

to create an enabling environment for sustainable development, by providing tools, knowledge, and funds to overcome the prevalent lack of resources.

- A sustainable public procurement policy and a national implementation strategy should be formulated that translates how economic, environmental and social issues need to be addressed through public procurement. The public procurement framework and other standard tender documents should be aligned with the policy.
- A wider procurement reform will be required by considering sustainability at an early stage of the process so that duplication of work can be avoided and synergies be created. This might be done by starting with easily implementable product categories where sustainable alternatives can be easily supplied.
- Political willingness and a clear commitment are necessary from the very top of government. The commitment towards SD must be continuously expressed and down through the ministries, authorities and chief executives in all public bodies.
- The government should provide training to incorporate sustainable procurement techniques into ongoing training programs for procurement practitioners. Procurement professionals often lack proper training and tools for putting sustainability into procurement practices. This indicates that cognitive aspects such as knowledge and awareness at the individual procurement professional level seem important in order to make procurement choices for addressing sustainability.
- As major portion of national budget is utilized in development projects and engineers are mainly involved in procurement activities, all engineering degree should include a course on Contract and Procurement Management.
- The key intervention points in the procurement process for sustainability are the same as with traditional procurement: procurement planning, preparation of tender documents and specification, publication notice, qualification criteria for tender evaluation and the contract agreement. Sustainability criteria should be

embedded and practiced in the public tendering system within the existing framework of PPR-2008. For example, environmental and social parameters can be considered in various stages of procurement process: they should be promoted through specification, pre-qualification of the tenderers, and in the contract performance clause. The criteria should be used based on nature of the procurement and relevant environmental and social impact of procurement.

- SMES are increasingly seen as the creators of new jobs and are regarded as being particularly effective in the economic implementation of employment intensive activities. Due to their contribution to the economy, they should give preferential treatment like domestic preference in case of international procurement. Steps should also be taken to remove barrier for their participation in the public tendering process.
- The procurement of capital items usually have a long life in use that give rise to many costs in addition to original purchase price. Life cycle costing should be introduced in evaluating competitive tenders for capital items.
- Procuring entities should seek maximum use of minimum packaging and minimum use of non-renewable materials .Use of recycled or re-used materials should promote to lower impact on the environment.
- Public sector procurement professionals should be given clear direction from the top of their organizations for delivering sustainable development objectives through procurement. This should be supported through government sustainability targets and performance measuring systems and progress monitoring.
- Procurement should be done by the full-time procurement professionals and people who do procurement as a significant element of their work. There should be a clear HR policy in this regard. Procurement professionals often claimed abrupt transfer and posting to other professional areas which affect their career plan as well as achieving professional competence for addressing sustainability imperatives through their practices.

- The government needs to come forward to remove actual or perceived barriers to sustainable procurement. Awareness campaign should be arranged focusing on how to take account of non-monetary benefits of sustainable procurement. CPTU might play the leading role in this regard. As part of its awareness programs about the public procurement CPTU highlight addressing the necessity of sustainability issues in the public procurement system.
- Stakeholder involvement: It has become clear that a lot of awareness rising will be necessary. A solid multi-stakeholder group had to be build first to help create public awareness on what SP stands for and to further engage stakeholders in procuring entities. For the purpose of compliance and to minimize unethical and corrupt practices, stakeholders should be involved in the evaluation and adjudication process. This will creates the conditions for effective collaboration between governments and citizens in a process that enhances legitimacy and accountability of public decision-making.
- There is the need for a broad or higher degree of collaboration and engagement between all parties, such as the government, private developers, construction professionals, contractors and suppliers, who are found to be the member of supply chain.
- There is scope to further study about the sustainability issue. Till now, the concept of sustainability has not been well embedded in the public procurement system in Bangladesh and hence, this study gives an overall scenario of integrating sustainability issues in the public sector in Bangladesh. Advanced research needs to be conducted in order to get a deeper insight into the sustainability issue in relation to the public procurement.

CHAPTER: 7

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APPENDIX
QUESTIONNAIRE

Title of Dissertation: **Addressing Sustainability through Public Procurement for Sustainable Development in Bangladesh.**

Name: **Md. Saifur Rahman**, Assistant Chief, Ministry of Planning, The Government of the People’s Republic of Bangladesh.

[This is a survey questionnaire intended to perform an academic research on scope and practice and perception of integrating sustainability imperatives in the public procurement process of Bangladesh. It is a requirement for the partial fulfillment of the degree ‘**Masters in Procurement and Supply Management**’ at the BRAC Institute of Governance and Development, BRAC University. Your honest response is valuable for the researcher. The researcher does assure that the information given by you will be kept confidential and will be used only for the academic purpose.]

SECTION A: GENERAL INFORMATION

1. Designation:.....
2. Name of the Department/ Organization:.....
3. Age:.....
4. Gender:.....
5. Education (Basic/Last Degree):.....
6. Years of Experiences in procurement activities:.....
7. Did you get training or familiar with the following concepts?

Training Area	Yes	No
a. Public procurement		
b. Sustainable development		
c. Sustainable procurement		
d. Responsible or ethical procurement		

8. Where did you get training in the above mentioned areas (Please tick mark in appropriate one)?

- a. In University education
- b. In Professional life

9. Mention annual volume of procurement you are responsible for?:..... ML. Taka

10. Please mention type of procurement you are involved?

Goods (%)	Works (%)	Services (%)

11. Please mention your responsibility in relation to procurement? (Please identify only one; the one that best describes your situation)

a. You receive instructions and implement them.	d. You approve the tendering process.
b. You participate in the development of specification and tender document.	e. You monitor and supervise the procurement practices.
c. You act as a member/ chairperson of tender evaluation committee.	f. Other (Please specify)

SECTION B: KNOWLEDGE ON SUSTAINABLE DEVELOPMENT AND SUSTAINABLE PROCUREMENT

12. Practice of daily sustainable activities

	Always	Sometimes	Never
a. Turned off electric fan, computer etc. after use			
b. Buy energy saving electrical and IT equipment			
c. Use less water for all activities			
d. Avoided using plastic bags			
e. Avoided buying products with lots of packaging and no biodegradable packaging			
f. Thrown food and organic materials into waste bin			
g. Used recyclable and renewable goods			
h. Sharing knowledge of sustainable development and tell people how to make public procurement more social and environmental friendly			
i. Buying recycled paper			
j. Using or procuring vehicles running on alternative fuels			

13. Knowledge of Sustainable Procurement (Check only one; the one that you think appropriate)

a.	No idea about sustainable procurement
b.	Spending and investing process to maximize net benefits for the organization and the country as a whole.
c.	Procurement that maintained maximum transparency, fairness, quality and participation
d.	Procurement based on considering the environmental, social and economic impacts for achieving value for money

SECTION C: ECONOMIC ASPECT OF SUSTAINABILITY THROUGH PUBLIC PROCUREMENT

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

	Score (5 to1)
a. Public Purchaser can contribute directly to economic (financial) outcomes including cost savings for their organisation.	
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.	

15. Does your organization adopt whole life cost (WLC) principals rather than lowest price in its purchasing decisions? (Please tick mark appropriate one)

- a. Yes
- b. Partial
- c. No

If yes, Please give example for what type of procurement.....

16. Do you put any criteria in the tender documents to encourage participation of local domestic firms? (Please tick mark appropriate one)

- a. Yes
- b. Partial
- c. No

If yes, How will you ensure it.....

17. Does your procurement processes leave some room for SMEs, socially economic enterprises and indigenous suppliers? (Please tick mark appropriate one)

- a. Always
- b. Sometimes
- c. Never

If you have, please mention level of participation in %.....

**18. Does your estimated tender price include supplier's/contractors fair and viable margins?
(Please tick mark appropriate one)**

- a. Yes
- b. Partial
- c. No

If yes, How will you ensure it.....

19. Which of the following options do you considers during procurement planning for saving cost and avoids mis-procurement? (Please Tick mark appropriate one)

- a. Implement procurement activities as instructed without considering anything.
- b. Challenging the need for procurement.
- c. Existing assets be refurbished, repaired or upgraded to meet the need.

20. Do you insert and practice price adjustment clause in your procurement contract in order to cope with market price change and security of delivery?

- a. Always
- b. Sometimes
- c. Never

Please give example for what type of procurement.....

21. How do you select the lot or package of goods and works in procurement planning? (Please Tick mark appropriate one)

- a. Large size for ensuring quality by allowing participation of large suppliers.
- b. Small size for ensuring maximum participation of suppliers to get the minimum price.
- c. A lot size based on nature of the procurement which allows participation of reasonable number of suppliers.

22. Does your organization adopt E-procurement process for ensuring transparency and promoting competitive markets? (Please tick mark appropriate one)

- a. Always
- b. Sometimes
- c. Never

Please give example for what procurement.....

SECTION D: ENVIRONMENTAL ASPECT OF SUSTAINABILITY THROUGH PUBLIC PROCUREMENT

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

	Score(5to1)
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 life cycle of the goods/works/services.	
c. Sustainable building design should be promoted to minimize future resource consumption, use of recycled content for building materials or road surfacing in construction contracts.	
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. Do you identify the environmental impact of the goods/ works or services before launching a high value tender? (Please Tick mark appropriate one)

- a. Always
- b. Sometimes
- c. Never

Please give example for what procurement

25. Does your organization have an environmental management system (EMS) or make requirement for contractors to have environmental management system?

- a. Yes
- b. Partial
- c. No

If Yes, Please cite an example.....

26. Can you give examples of environmental criteria that you used in procurement process (e.g. emission, noise level, energy and water efficiency, waste generation etc.) for goods, works and services?

- a. Yes
- b. Partial
- c. No

If Yes, Please cite an example.....

27. Do you consider disposal of products/ works procured? (Please tick mark appropriate one)

- a. Always
- b. Sometimes
- c. Never

If you consider, Please give example with method.....

28. Do you consider options for reuse, repair, upgrade or modification of existing assets before making a new purchasing demand? (Please tick mark appropriate one)

- a. Always
- b. Sometimes
- c. Never

If you consider, Please mention for which type of procurement

29. 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. Do you consider these while making procurement planning? (Please tick mark appropriate one)

- a. Always
- b. Sometimes
- c. Never

Please give example for what products

30. Sustainable building design should be promoted to minimize future consumption of energy, water and cleaning services. Do you consider before making design of infrastructural facilities?

- a. Always
- b. Sometimes
- c. Never

Please give example with method.....

31. With respect to the suppliers: Do you assess environmental performance of suppliers or ask your suppliers to obey the environmental law of Bangladesh? (Please tick mark appropriate one)

- a. Always
- b. Sometimes
- c. Never

Please give example with method.....

SECTION E: SOCIAL ASPECT OF SUSTAINABILITY THROUGH PUBLIC PROCUREMENT:

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

	Score(5to1)
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).	

33. Do you identify the social impact of the goods/works or service before launching a high value tender?

- a. Always
- b. Sometimes
- c. Never

If you have, Please give example for what procurement.....

34. Do your procurement process follow the principle of equality i.e. participation to all the potential suppliers/ contractors? (Please tick mark appropriate one)

- a. Yes
- b. Partial
- c. No

If yes, how will you ensure it.....

35. Do you put any criteria or clause regarding workers/ employees health & safety in your tender document? (Please tick mark appropriate one)

- a. Yes
- b. Partial
- c. No

If yes, cite an example for which type of procurement.....

36. Do you make requirement for supplier or contractor to comply with the legal provisions regarding working hours, rest and vacation and decent wages? (Please tick mark appropriate one)

- a. Always
- b. Sometimes
- c. Never

If you do, Please give example which way.....

37. Do you visit suppliers' plants/factory to ensure that they are not using sweatshop labor?

- a. Always
- b. Sometimes
- c. Never

Please give example for what type of supplier/contractor.....

38. Does your organization purchase from supplier or contractor where child labor is part of reality or where human rights are violated? (Please tick mark appropriate one)

- a. No
- b. Partial
- c. Yes

If No, how will you ensure it.....

39. Does your organization purchase goods works and services from third sector organizations (charities, voluntary sector, social enterprise etc)?

- a. Yes
- b. Partial
- c. No

Please mention the type of goods/works/services if yes:.....

40. Does your organization conduct compliance audit for suppliers in the employment conditions (e.g. minimum wage, health and safety?)

- a. Always
- b. Sometimes
- c. Never

Please give example with method.....

SECTION G: OPPORTUNITIES, BARRIERS AND SUPPORT NEEDED FOR ADDRESSING SUSTAINABILITY THROUGH PUBLIC PROCUREMENT

41. What are the main incentives/opportunities for incorporating sustainability in procurement decision? Indicate your degree of importance. (Highest importance = 10; Least importance=1)

Incentives	Score (10 to1)
a. Financial savings	
b. Improve Reputation	
c. Improve compliance on national and international obligations	
d. Reduces use of Natural resources	
e. Higher labor standard, better health & safety condition of worker	
f. Assist dis-advantaged groups in society	
g. Contribute to international competitiveness of local industry	
h. Promotion of innovation	
i. Expectation of civil society	
j. Improvement of environmental quality	
k. Other (Please Specify.....)	

42. What are the barriers to integrating economic, social and environmental criteria into your organization’s procurement processes? (Highest importance = 10; Least importance=1)

Barrier ranking	Scale (10 to 1)
a. Absence of policy guidance	
b. Avoidance of complexity for secondary objectives of procurement	
c. Lack of social drive	
d. Lack of expertise on environmental and socially responsible procurement	
e. Lack of capacity of local suppliers to invest in sustainable technologies	
f. Lacking awareness among procurement practitioners	
g. Fear of restricted supplier competition	
h. Absence of political will in promoting sustainability	
i. Product availability and premium cost of sustainable alternatives	
j. Corruption among procurement practitioners	
k. Time pressure of procurement professionals	
l. Attitude/Cultural resistance to change	
m. The overall PPR is inadequate to incorporate sustainability criteria	
n. Others (Please Specify).....	

43. What supports are required for effectively integrating economic, social and environmental criteria in procurement decision? (Highest importance = 10; Least importance=1)

Support for SP	Scale (10 to1)
a. Policy guidance on sustainable procurement	
b. Training of officials and procurement practitioners	
c. Awareness building	
d. Political will/commitment	
e. Introduction of Lifecycle approach of costing	
f. Identification of green/sustainable alternatives	
g. Cooperation and networking	
h. E- procurement activities	
i. Need for international collaboration	
j. Others	

Thank you very much for your heartiest co-operation