

Scopes and Challenges
Of
Sustainable Procurement
In
Public Works Department (PWD), Bangladesh

SCOPES AND CHALLENGES OF SUSTAINABLE PROCUREMENT IN PUBLIC
WORKS DEPARTMENT, BANGLADESH



The dissertation submitted in partial fulfillment of the requirements for the degree
of

MASTERS IN PROCUREMENT AND SUPPLY CHAIN MANAGEMENT
(MPSM)

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Declaration

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I hereby declare that the dissertation entitled “**SCOPES AND CHALLENGES OF SUSTAINABLE PROCUREMENT IN PUBLIC WORKS DEPARTMENT, BANGLADESH**” submitted to the BRAC Institute of Governance and Development (BIGD), BRAC University for the degree of **Masters in Procurement and Supply Management (MPSM)**.

This is exclusively my own and unique work. No part of it in any form, has been submitted to any other University or Institute for any degree, diploma or for other similar purposes.

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Certificate from Supervisor

It is to certify that, Shah Mostofa Tariquzzaman, Assistant Engineer, Public Works Department, Bangladesh, a student of Masters in Procurement and Supply Chain Management (MPSM) in BRAC Institute of Governance and Development has successfully completed the dissertation on “**SCOPES AND CHALLENGES OF SUSTAINABLE PROCUREMENT IN PUBLIC WORKS DEPARTMENT, BANGLADESH**” as part of fulfillment of his Masters in Procurement and Supply Chain Management (MPSM) degree.

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Abstract

Sustainability is a major concern these days whenever we are making a purchase or procurement. This is a global issue and having Sustainable Development Goals ahead of us, everyone would like to consider social, environmental and economic impacts of procurement.

Public works department is one of the largest public procurement agencies in Bangladesh. Since Bangladesh is a densely populated country and is a developing country. So the implementation of any project has environmental impact on this country as a whole and also specifically in that region. The working conditions of the labors, construction process pose a great challenge to ensure sustainability in public procurement in this department. So, ensuring sustainability has a great scope and also equal challenge in this large and historical department.

The study is carried out among entry level and mid level procurement professionals who are engaged in procurement and implementation of different government projects at that moment. It is found that the procurement method has no sustainability (neither environmental nor social) indicator while choosing contractor. The choice is made on the basis of “Lowest Bidder” only. Also, there are some loopholes in the contract management and implementation stage. The professionals lack adequate knowledge in sustainability issues and this sector needs deeper insight.

List of Abbreviations and Acronyms

ADP	Annual Development Plan
BADC	Bangladesh Agricultural Development Corporation
BCIC	Bangladesh Chemical Industries Corporation
BJMC	Bangladesh Jute Mills Corporation
BPC	Bangladesh Petroleum Corporation
BSEC	Bangladesh Steel & Engineering Corporation
BWDB	Bangladesh Water Development Board
CGFR	Compilation of General Financial Rules
CIPS	Chartered Institute of Purchasing and Supply
CPTU	Central Procurement Technical Unit
CSR	Corporate Social Responsibility
DESCO	Dhaka Electric Supply Company
DPDC	Dhaka Power Distribution Company
DoFP	Delegation of Financial Powers
DPHE	Department of Public Health Engineering
DPM	Direct Procurement Method
EMS	Environmental Management System
ERD	Economic Relations Division
GHG	Green House Gases
HOPE	Head of Procuring Entity
IMED	Implementation, Monitoring and Evaluation Division
KII	Key Informant Interviews

KPI Key Performance Indicators

LGED Local Government Engineering Department

LTM Limited Tendering Method

MEAT Most Economically Advantageous Tender

OTM Open Tendering Method

PPA Public Procurement Act

PPPA Public Procurement Processing and Approval Procedures

PPR Public Procurement Rules

PWD Public Works Department

RFQM Request for Quotation Method

RHD Roads and Highways Department

SME Small and Medium Enterprise

SP Sustainable Procurement

SRFP Standard Request for Proposals

SRFPs Standard Request for Proposals

STDs Standard Tender Documents

TBL Triple Bottom Line

UK The United Kingdom

UN United Nations

UNGM United Nations Global Marketplace

WLC Whole Life Costing

WTO World Trade Organization

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Chapter 1

Introduction & Conceptual Framework

1.1 Introduction/Background of the Study

Sustainable procurement (SP) is concerned with sustainable development, such as ensuring a just and healthy society, living within environmental limits, and promoting good governance. According to United Nations procurement website, procurement is called sustainable when it integrates requirements, specifications and criteria that are compatible and in favor of the protection of the environment, of social progress and in support of economic development, namely by seeking resource efficiency, improving the quality of products and services and ultimately optimizing costs (UNGM, 2011). Through sustainable procurement, organizations use their own buying power to give a signal to the market in favor of sustainability and base their choice of goods, works and services on:

Economic considerations: Best value for money, price, quality, availability, functionality;

Environmental: Green procurement, the impacts on the environment that the product and/or service has over its whole lifecycle; and

Social: social variables refer to social dimensions of a community or region that includes human rights, labor conditions, health and well-being, access to social resources, quality of life etc.

Public procurement is concerned with how public sector organizations spend tax payers' money on goods, works and services. Public procurement is guided

by principles of transparency, accountability, and achieving value for money for citizens and tax payers. Public sector expenditure is often substantial as government is the single biggest customer within a country for some cases, and government can potentially use this purchasing power to influence the behavior of private sector organizations. Environmental issues have been on the international agenda for several decades, and both public and private sectors are concerned about the role they play in environmental issues. More recently, the focus has expanded to broader topics such as sustainability. However, while sustainable procurement activities are common in many developed countries, the awareness and implementation of sustainable procurement is still comparatively low in most developing countries.

1.2 Problem statement

The public works department follows general procurement policies of the country. So, the department only follows as much as sustainability is introduced in that. But there are some challenges in implementing or to comply with those sustainable issues while running a project. And these challenges and scopes are specific to this organization as it has some specific works to do, compare to other government agencies.

1.3 Topic

The topic of the dissertation is – **Scopes and Challenges of Sustainable Procurement in Public Works Department, Bangladesh.**

1.4. General Aim of the Research

The aim of this study is to improve PWD's present condition with respect to Sustainable Development. Sustainable procurement is an important part of

sustainable development. This needs to address the importance, issues, scope and challenges of sustainable procurement in PWD.

The secondary aim of this study is to provide a guideline how the policies and procedures can be implemented and new dimensions can be introduced.

1.5 Objectives of the Research

Aim of the research is to understand how environmental, social and economic considerations can be advanced through public procurement. It is also attempted to understand the possibilities and constraints for the integration and application of sustainability criteria into the public works department's procurement process.

- To study the existing sustainable issues in present procurement structure.
- To find the scopes and challenges to implement those issues in present procurement structure.
- To make recommendations to overcome the challenges and how we can introduce more sustainability in procurement in PWD.

1.6 Hypothesis

Hypothesis is a projected statement subject to empirical test. A hypothesis is made in order to find out the correct and valid explanation of certain process or phenomena through scientific investigation. Hypothesis enables to direct inquiry along the right lines. Hypothesis determines the method of verification as well as the procedure of inquiry. Hypothesis is the focal point of any research and must be so formulated that it can be tested and will permit the formulation of other hypothesis. Hypothesis needs to be in line with research

method, related to existing theory, specific & testable, simple & clear concept and empirically verifiable. For this research-

- Hypothesis 1: a better awareness among all stakeholders can ensure better sustainability.
- Hypothesis 2: a change in key personals understanding and approach towards this issue can ensure better sustainability.
- Hypothesis 3: More attention and accountability can ensure better sustainability in procurement in PWD.

1.7 Research Question

The hypothesis states that sustainability in public procurement as a whole can be ensured if its importance is realized by all stakeholders. The research question guides the researcher to formulate specific research objectives and the hypothesis of the study. Research question addresses important aspects of problem & which are doable. Research question provides a synthesis of diverse viewpoints so that the results represent integration to the field. It exhibits policy representativeness by addressing issues in a manner that will help policy makers to act on the problem. Two basic research questions have been proposed in the study that are-

1. What is the level of understanding about sustainability in Public Procurement among different level officers of Public Works Department (PWD)?
2. What is the present condition of sustainability in present procurement process of Public Works Department (PWD)?

Detail aspects regarding research question are elaborated in questionnaire.

1.8 Methodology

Both primary data and secondary data have been collected and analyzed in order to make this report. It has been ensured that no variables can affect the objective of this study. Various types of primary and secondary sources have been used to collect necessary data.

1.9 Scope of the Study

The focus of this study will basically remain on public sector procurement. In this study, effort will be made to provide comprehensive insight into the state of sustainable procurement practice in particularly Public Works Department (PWD). Information gathered through Key Informant Interviews (KII) with a questionnaire among a number of entry level and mid level officers of PWD will lend support to the research on what the extent of sustainable procurement is and how they define the economic, environmental and social considerations of sustainable procurement & to which extent sustainability is practiced in their public procurement process.

1.10 Limitation of the Study

The main constrain of this study was both conceptual and technical.

Since there is not yet a good understanding and researches or studies carried out in this niche it was difficult to find relevant data. Due to lack of the practice, the need of sustainability has less significance among decision makers in PWD.

Also, the time was very limited for understanding such a vast topic. Due to cost constraints the study window and data collection methods were chosen that way. The professionals who were contacted were busy which a barrier was, some people

did not understand the term properly and some does not have a clear concept and has given away answers.

1.11 Outline of the Dissertation

The study has been represented in six distinct Chapters.

Chapter 1 gives a general introduction of the sustainable procurement. The chapter also includes the overall objectives of the study including research question & hypothesis, scope of the study and finally organization of the report.

Chapter 2 titled “Literature Review” introduces the concept of sustainability, sustainable development and sustainable procurement in order to give a theoretical view of the subject matter. The concepts of various sustainable procurement terminologies have also been elaborated in this chapter.

In chapter 3, background and the chronological evolution of public procurement and Public Works Department have been depicted. The chapter also describes the overall public procurement scenarios like general principle, procurement methods, legal framework etc. in Bangladesh.

In chapter 4, UN’s SDGs are discussed along with Bangladesh’s 2021 goals. It is also discussed how MDG, SDG can be integrated with national targets.

In chapter 5, Research design, sampling and mode of data collection have also been described in this chapter. Data and information regarding sustainable procurement collected through key informant interviews with a number of procurement professionals from Public Works Department (PWD) are analyzed, presented and discussed. This chapter gives a clear view of

sustainable procurement practices in public sector in Bangladesh particularly in PWD. Concluding remarks and recommendations came at the concluding Chapter. References and Appendices are placed at the end of the report to support the research work.

Chapter 2

Literature Review

2.1 Introduction

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

2.2 Public Procurement

Procurement can be defined as “The process of obtaining goods or services in any way, including purchasing, hiring, leasing and borrowing”. In other way procurement is the acquisition of goods, works and services for the need of the organizations. According to CIPS, “Procurement describes all those processes concerned with developing and implementing strategies to manage an organization’s spend portfolio in such a way as to contribute to the organization’s

overall goals and to maximize the value released and/or minimize the total cost of ownership”(CIPS Procurement Glossary, No Date).

Procurement reflects the more proactive, relational, and strategic and integrated role of the function in modern organizations. Procurement may act as a department, a role or a process in an organization, procurement process starts with the review of the expenditure portfolio and the analysis. This concerns potential stakeholder identification and engagement with specifying business needs and preparing a business case. Procurement strategies may involve in-sourcing, outsourcing, competitive bidding, direct negotiation, and a variety of other sourcing strategies. Once the strategy is developed, the execution will involve market engagement and the issue of the Request for Interest (RFI) and the Request for Proposal (RFP) and/or negotiation. Once offers are evaluated, the optimum solution will be selected and the appropriate contractual agreement established.

Public procurement refers to the function of purchasing goods, works and services from an outside body with a contractual means by public bodies with public fund. Public procurement is about spending tax payers’ money to acquire the goods, works and services that public bodies need in order to carry out their activities. The performance of public procurement has paramount influence on the society that refers to a group of people involved with each other through persistent relations. The public procurement can affect the society in many ways. It obstructs or enables economic development of the country, promotes or dismisses social and environmental objectives. Sometimes, public procurement can be misused for political gain by supporting an ineffective procurement or an inefficient firm. The success or failure of public procurement of the goods, services, works, can lead to citizens having the quality of life they expected or hindering the government to fulfill its responsibilities with consequences for the citizens (Joarder, 2015).

Usually public procurement is subject to defined rules and policies and procedures which cover how the relevant decisions should be made. In public procurement the concern government officials have to follow a set system for procurement According to the laws and regulations. Rules and regulations may cover the way of advertisement should be published for suppliers, the criteria on which a supplier should be selected, and the way to specify and enforce the requirements to be put upon the supplier. In general the aim of such a public procurement system is to take advantages of open competition among suppliers and to reduce the risk of corruption, coercions and collusion (Ruhunnabi, 2015).

2.3 The Concept of Sustainability

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

The concept of sustainability was first emerged into mainstream discourse in 1972, during United Nations Conference on the Human Environment. At that time serious environmental concerns were beginning to be raised in relation to development & its practices. A series of high-profile environmental disasters like Chernobyl Nuclear Reactor explosion, Exxon Valdez oil spill subsequently raised the public & political profile of environmental issues. Conference delegates were debating over which is more important: economic development or environmental protection? At the same time issues of social justice also became a matter of concern especially in Africa where racial segregation was acute.

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

UN therefore appointed a think-tank under chairmanship of Gro Harlem Brundtland to come up with strategies to enable continuing economic development without threatening the environment. The Brundtland commission published the report 'Our Common Future' in 1987 where sustainable development was defined as 'Development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.

The idea was refined by the 1992 Rio Declaration on Environment and Development, where social justice and human right issues were explicitly added to the mix. These three dimensional (economic, environmental & social) view of sustainability has been widely adopted. In 1994 an accounting framework known as the Term 'Triple Bottom Line' (TBL) of sustainability was coined by John Elkington to highlight for the nations & organizations to measure their performance in all three areas.

The TBL can be expressed through 3P as Profit, People and Planet or through 3E as Economics, Environment & Equity. In 3P Profit is for economic performance, People are for social sustainability and Planet is for environmental sustainability. In recent years these three dimensions have formed a framework for a range of

issues broadly related to business ethics and CSR including corporate governance, fair trade, labor relation, diversity, transparency along with an increasing number of existing and emerging environmental concerns like climate change, renewable energy, pollution, genetic modification etc.

2.4 The Concept of Sustainable Development

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

2.5 The Concept of Sustainable Procurement

A widely adopted (including CIPS) definition of sustainable procurement was proposed by UK Sustainable Procurement Taskforce (procuring the future). As per the taskforce sustainable procurement is a process whereby organizations meet their needs for goods, services, works and utilities in a way that achieves

value for money on a whole-life basis in terms of generating benefits not only to the organizations but also to society and the economy whilst minimizing damage to the environment. So it is an approach that takes economic, environmental & social sustainability into account when making purchasing decision.

Purchasing goods, works & services efficiently with minimum risk and at the best possible value remain central element of a buyer's job. Even buyer must have to consider the impacts on the supply chain of how they buy and operate. For example shortening lead time and purchase price may seem like a good business strategy, but not at the expense of labor standard further down the supply chain or the risk to organizational reputation due to worker exploitation. Sustainable procurement asks the following questions-

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

There are four main aims for sustainable procurement according to British Standard Institutions Sustainable Procurement guide-

- (iv) To minimize negative impacts of goods, works or services across their lifecycle and throughout the supply chain.

- (ii) To minimize demand for non-renewable resources.
- (v) To ensure that fair contract prices and terms are applied and respected, at least meeting minimum ethical, human rights and employment standards.
- (vi) To promote diversity and equality in the organization and throughout the supply chain.

Potential ways to procurement function to add value through sustainability are as follows-

Profit (adding Economic Value)	- Securing Value for money.
	- Effective investment appraisal and capital purchasing
	- Cost management and budgetary control.
	- Added value through sourcing efficiencies, supplier involvement, and Quality improvement.
	- Ethical trading to support the long-term financial viability of suppliers And supply markets (sustainable pricing, payment on time).
Planet (adding Environmental Value)	- Input to design & specification of green product & services
	- Sourcing of green material & resources
	- Reducing waste of resources throughout the sourcing cycle.

	<ul style="list-style-type: none"> - Managing logistics to minimize waste, pollution, GHG emission & Environmental impact.
	<ul style="list-style-type: none"> - Support 4R policy (Reduce, Re-think, Re-use, Recycle)
People (adding social value)	<ul style="list-style-type: none"> - Encouraging diversity in the purchasing team & among suppliers.
	<ul style="list-style-type: none"> - Monitoring supplier practices to ensure observance of human right & labor standards (child labor, force labor, workplace safety, equal Opportunity etc.)
	<ul style="list-style-type: none"> - Input to health & safety of products & services (design, specification, supplier quality management)
	<ul style="list-style-type: none"> - Fair & ethical trading (fair pricing, ethical use of power, ethical business practice)
	<ul style="list-style-type: none"> - Sourcing from local SME.

Table 2.5.1: How Sustainability Can Add Value

2.6 Sustainable Consumption and Production

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

The term production can be used to describe a wide range of activities undertaken in the process of transferring raw materials, resources and other inputs into finished goods, services as outputs. The activities within the process includes product & service design, procurement & supply, logistics, resource consumption, extraction, processing, manufacturing, assembly or service delivery, waste management, technology management, facilities management, human resource management, outsourcing & off shoring etc. Production activities have the potential to create negative environmental & social impact. Some key sustainability concerns of production process are-

- (i) Minimize environmental pollution and degradation
- (ii) Manage waste products from production, packaging,
- (iii) Reduce GHG emission & carbon footprint
- (iv) Minimize the use of non-renewable resources
- (v) Design products which are environment friendly.
- (vi) Design or adapt production processes those are environmentally clean.
- (vii) Minimize negative impact on communities and social amenities from business activity.
- (viii) Ensure ethical & responsible treatment to labor.
- (ix) Build & manage sustainable production capacity.

Sustainable consumption is closely linked to sustainable production as because producers are themselves consumer of labor, materials, products,

services etc. Thus sustainable production implies the sustainable procurement & use of the resources. Improving production efficiency means less consumption. Sustainable consumption imposes responsibility on producers to think beyond the sustainability of their own input & processes, to how outputs will be used maintained & disposed of. So, sustainable production actively supports sustainable consumption. Some examples of sustainable consumption which can be applied by organizations are-

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

2.7 The Triple Bottom Line

Triple Bottom Line is accounting concept of sustainability coined by John Elkington in 1994, co-founder of SustainAbility, a strategic, consultancy and

advocacy organization. The term was designed to raise awareness that corporate activity not only add economic value but can potentially add environmental and social value- more importantly create environmental & social cost. Traditionally these costs have been borne financially by governments & experientially by communities. Triple Bottom Line (also called as TBL, 3BL and ‘people, profit, planet’) recognizes the need for business to measure their performance not just through profitability but also by how well they protect their secondary stakeholders (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.

2.8 Benefits of Sustainable Procurement

Society can be benefited immensely if sustainability is ensured in procurement. Normally buyers has a lot of power & control over what is manufactured & how is manufactured because buyer sets the specification of the product of his desire. Every time buyer purchasing the product is actually ‘voting’ the producer for his product. If products are purchased from companies those are ethically irresponsible i.e. companies that exploit their workers, degrade the environment through their operation then these companies engaged in such unsustainable practice are being encouraged to continue. It should not be happen. So having biggest purchasing power government should support companies those produce sustainable products. Public procurement therefore needs to consider sustainability issues in their procurement process. This would ensure that development targets are achieved through the acquisition of goods, works, services without much damage to society and the environment.

Sustainable Procurement seeks long term impact on economic, social and environmental issues through-

- (i) Achieving value for money.
- (ii) improving ethical behavior of suppliers / contractors especially
- (iii) improving working conditions - health and safety, labor standards
- (iv) improving condition of disadvantaged groups in the country
- (v) reducing harmful emissions and waste generation
- (viii) improving air, water, soil quality
- (ix) Making local industries applying sustainable procurement in their practice.

2.9 Potential Drivers for Sustainable Procurement

We have already discussed the main reasons for increasing focus on sustainability in procurement. There are mainly two different types of support factors for sustainability- drivers and enablers. Drivers are forces which create pressure to develop and implement sustainable procurement strategies. Enablers are factors those create condition for sustainable procurement strategies. Main driving factors are resource scarcity, legislation, reputational risk/ opportunity, shareholder pressure etc. Drivers can be classified in two groups. External drivers, those are mainly from STEEPLE factors and internal drivers. External drivers' are-

- Political drivers- Government policy, targets and standards, incentives and penalties, government practice as a buyer/ supplier and employer

- Economic drivers- Loss of market demand for unsustainable products/ services, rising market demand for sustainable products/services
- Social/ Ethical drivers- Social attitudes and values creating media, public, labor and consumer pressure for sustainable practices, emerging social justice and ethical issues (i.e. corporate governance, citizenship, corruption, trading ethics, fair trade, human and labor rights), industry/ professional codes of ethical practice.
- Technological drivers- Competitor/market innovation and take-up of sustainable technologies (new products, materials and processes), exposure of unsustainable technologies (e.g. resource usage, wastes), and opportunities in new sustainable technology markets (e.g. alternative energy).
- Legal drivers- National and international legislation on sustainability (or threat thereof), waste, pollution, emissions, employment rights, health and safety, consumer rights, corporate governance, public sector procurement etc.
- Environmental drivers- Resource depletion and costs (especially energy costs), issues of concern to key stakeholders (e.g. climate change, GHG emissions, deforestation, water management, conservation, biodiversity, pollution, waste reduction), national targets under international agreements.

- External stakeholder drivers- Interest and pressure in any or all of the above factors, creating threats and opportunities for the organization in obtaining resources and collaboration (e.g. customers, labor, investors, pressure group activism, potential for cause-related marketing)

Internal drivers' are-

- Corporate Goals - Corporate vision, mission and objectives including sustainability values and aspirations.
- Organizational status -Existing CSR and/ or corporate citizenship objectives/ policies
- Top level buys-in - senior management visionaries, champions and supporters of sustainability.
- Business factors- Business case arguments for sustainability, enhanced reputation, brand strength and sales revenue, cost/ waste reduction (eco-efficiencies), enhanced supply chain innovation and efficiency, reduced regulatory burden.
- Accountability factors- Accountability mechanisms, which demonstrate seriousness, and make reward contingent on sustainability progress/ performance.
- Risk awareness- Priority given to risk management, perception of business, reputational and supply risk from non-sustainability, reputational damage

- Stakeholder factors- Internal stakeholder demand for sustainability (e.g. need to attract and retain quality managers, employees, investors and supply chain partners).

2.10 Challenges to Sustainable Public Procurement

Barriers are the factors those obstruct the organizations progress towards sustainable procurement. Barriers are mainly resistant to change. Main barriers are cost, stakeholder attitude, cultural barrier, macroeconomic barrier, policy conflict etc. In addition to the above barriers, the Sustainable Procurement National Action Plan in the UK identifies a number of primarily internal barriers to sustainable procurement in the public sector.

Area	Identified barriers
Leadership, clarity and ownership	Lack of leadership and commitment
	Confusion about ownership
	Poor incentive systems
	Mixed messages to suppliers
Clarity on policy priorities	Lack of clarity and proliferation of priorities.
	Lack of cross-government buy-in
	‘One size fits all’ approach
Need to meet minimum standards now	Lack of prioritization
while setting challenging future goals	Lack of enforcement of mandatory standards
	Failure to signal future trends to the market

	Failure to manage supply chain risk.
Developing capabilities	Lack of helpful information, training and
	accountability
	Ignorance of sustainability
	Suspicion about benefits
	Confusion arising from mixed messages.

Table 2.10.1- Barriers to Sustainable Public Procurement

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

2.11 Sustainability and Public Procurement

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

Public procurement is concerned with how public sector organizations spend tax payers' money on goods, works and services. Public procurement is guided by

principles of transparency, accountability, and achieving value for money for citizens and tax payers. Public sector expenditure is substantial as government is often the single biggest customer within a country, and government can potentially use this purchasing power to influence the behavior of private sector organizations.

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

Chapter 3

PUBLIC PROCUREMENT AND PUBLIC WORKS DEPARTMENT (PWD)

3.1 Introduction

The chapter describes the general background of public procurement including its history and evolution. It provides a picture of public procurement scenario in Bangladesh by incorporating the legal framework, under which public procurement is done and regulated, the general principles and features of public procurement currently in practice. In the Public Procurement Act, 2006 (PPA 2006), the term ‘procurement’ has been defined as ‘the purchasing or hiring of goods, or acquisition of goods through purchasing and hiring, and the execution of works and performance of services by any contractual means’. Public procurement can broadly be defined as the purchasing, hiring or obtaining of goods, works or services by the public sector through any contractual means. Public procurement is alternatively described as the acquisition of goods, works or services if such acquisition is effected with resources from public funds. Governments all over the world have to ensure essential services, such as health, education, defense infrastructure etc. to the people. To be able to meet the demand for these services, governments purchase goods, works and services from the open market. Public procurement thus has both economic and political implications. Yet the subject of public procurement has received little attention by academic researchers and policy makers, because it has been considered merely as an administrative function of the government. The items involved in public procurement range from simple goods or services such as stationary or cleaning services to large commercial projects, such as the development of infrastructure, including road, power stations and airports etc. Procurement in the public sector differs from that in the private sector. The

purpose of procurement in the private sector is basically straightforward whereas that in the public sector complex as it considers the economic development and welfare of the country rather than the commercial profits. Furthermore, unlike private procurement, public procurement needs to address the considerations of integrity, accountability, national interest and effectiveness.

3.2 Legal framework of public procurement in Bangladesh

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

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

- To review and revise the layering in the approval process.

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

At present the legal regime of public procurement in Bangladesh is based on two principal legal instruments which are the Public Procurement Act, 2006 and the Public Procurement Rules, 2008. Besides these documents, the CPTU is working for finalizing the Standard Tender Documents (STDs) for goods and works and the Standard Request for Proposals (SRFPs) for services. Ministry of Finance has already issued the revised Delegation of Financial Powers (DoFP) to public sector corporations and autonomous bodies, as well as to department heads, chief engineers, and project directors for smoothly implementing the public procurement in the country. Public Procurement System is decentralized in Bangladesh. Different departments and directorates under various ministries carry out the actual procurement functions through their offices from national level to upazila level following the PPR, 2008 and using the Standard Tender Documents and Standard Request for Proposals prepared by the CPTU. At the central level, the ministries handle very little procurement functions essentially food grains, printing, and stationery (World Bank, 2002). The major Government Departments, such as, Public Works Department (PWD), Roads and Highways Department (RHD), Bangladesh Railway, Local Government Engineering Department (LGED), Telephone and Telegraph (T&T) Board, Education Engineering Department (EED), Health Engineering Department (HED), Department of Public Health

Engineering (DPHE), Directorate of Food etc. carry out the substantial amount of procurement through their central to local offices, spread all over the country.

Apart from the departments/directorates of ministries, as pointed out earlier, the corporations under the Ministries also undertake large scale procurement activities. The corporations like: Bangladesh Chemical Industries Corporation (BCIC), Bangladesh Petroleum Corporation (BPC) Bangladesh Steel & Engineering Corporation (BSEC), Bangladesh Agricultural Development Corporation (BADC), Power Development (PDB), Bangladesh Water Development Board (BWDB), Bangladesh Jute Mills Corporation (BJMC) are some of the leading procurement agencies of the government. In addition some semi-government/ autonomous bodies like Dhaka Electric Supply Company (DESCO), Dhaka Power Distribution Company (DPDC), a number of companies under petrobangla 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.

3.3 Public procurement techniques in Bangladesh

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

The Public Procurement Rules, 2008 prescribes several methods of procurement, dividing the procurement into domestic and international classes. For the domestic procurement, the preferred method is the Open Tendering Method (OTM) which ensures equal opportunity to all bidders, open competition and proper advertisement. However, a number of procurement methods alternatives to the OTM are also allowed under certain circumstances. These methods must be justified on technical and economic grounds. Prior permission of the Head of Procuring Entity (HOPE) has to be sought for the methods other than the OTM. These alternative methods include-

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

There are some essential conditions that need to be considered when applying the alternative methods. The LTM can be used when suppliers are limited in number or the time and cost required to receive and evaluate tenders would outweigh the value of the contract or in an urgent situation. Two stage tendering method may be followed for complex and large projects or when preparing complete technical specifications is not possible at one stage or where alternative solutions may be available but not known to the procuring entity due to rapidly changing technology. The RFQM may be used for standardized, low value goods easily available in the market or low value works and physical services subject to the value being within the prescribed threshold value. However, for resisting the misuse of this method, the application of this method is strictly controlled by the

head of procuring entity. Direct procurement method is allowed when, goods are procured from sole proprietor due to patent or copyrights, or additional goods or services are procured from the original supplier/manufacturer, or the goods are available only from the sole dealer or manufacturer, or a special type of good is procured from a local manufacturer, or for the procurement of goods, works or services of very urgent and essential nature For international procurement, the methods mentioned above are also applicable but with certain differences to maintain standards and competition. For example, in international procurement, specifications should be made conforming to the international standards; provisions for alternative dispute resolution should be incorporated in the contract etc.

3.4 Towards the sustainable procurement

Public procurement is more than just a simple act of purchase by government. It is a major economic activity and it accounts for the largest share of government spending besides wages. It can also be used as a public policy tool to foster particular economic and social outcomes. Procurement practices determine the ultimate destination and beneficiary of a large share of public spending (Ellmers, 2011). As the government of any country is the single biggest purchaser of goods, works or services, this purchasing power of the public sector could play a significant role in initiating the sustainable procurement practices both in public and private sector. By doing so, the public sector can set an example and act as an important “norm setter” towards a sustainable development. The recent spectrum of attitudes have shifted towards the adaptation of a more environmentally and socially responsible ethos. Sustainable procurement is a broad policy concept and a basic value that is gaining legitimacy in business practices. Environmental pressures are increasingly becoming recognized as new market opportunities in

which good environmental performance will be seen as a pre-requisite for good management practices. So, it is not sufficient to put only the price and quality criteria in procurement, it is equally important to put sustainability criteria in procurement.

3.5 Sustainability addressed in Public Procurement Documents

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

Area of Performance	Article relevant to procurement document
Economic Sustainability	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]
	<ul style="list-style-type: none"> • In the case of determining the method of Procurement for Works, the Procuring Entity shall consider the following: –

	<p>(a) the prevalent conditions of the contracting industry;</p> <p>(b) expected competition;</p> <p>[Rule 15(7), PPR, 2008]</p> <p>• Technical Specifications prepared by Procuring Entities shall, where appropriate, be-</p> <p>(a) expressed in terms of performance or output requirements, rather than specifications linked directly to design or descriptive characteristics which may tend to limit competition;</p> <p>[Rule 29(2), PPR, 2008]</p> <p>• There shall be no reference, in technical specification of Goods, to a particular trade mark or trade name, patent, design or type, named country of origin, producer or service supplier[Rule 29(3), PPR, 2008]</p>
Environmental Sustainability	<p>The Contractor shall throughout the execution and completion of the Works and the remedying of any defects therein:</p> <p>(a) Take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or consequence of the Contractors methods of operation. [GCC 27.1, STD-PW3]</p> <p>• The Contractor, in particular, shall provide proper accommodation to his or her laborers' and arrange proper water supply, conservancy and sanitation arrangements at the site for all necessary hygienic requirements and for the prevention of epidemics in accordance with relevant regulations, rules and orders of the government. [GCC 29.2, STD-PW3]</p>
Social/Ethical Sustainability	<p>The Procuring Entity shall take into account the following when determining the method of Procurement and consolidating of Goods packages:</p> <p>(a) capacity of local Suppliers to supply the required quantities;</p> <p>(b) capacity of the national industry and quality of its products;</p> <p>(c) market conditions and expected competition;</p> <p>[Rule 15(2), PPR, 2008]</p> <p>• In the case of determining the method of Procurement for works, the</p>

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. I to provide local manufacturers, Suppliers and Contractors with a price advantage over their international competitors for the purpose

Of promoting domestic products or industries.

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

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

(a) take all reasonable steps to safeguard the health and safety of all workers working on the Site and other persons entitled to be on it, and to keep the Site in an orderly state; **[GCC 27.1, STD-PW3]**

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

[GCC 28.1, STD-PW3]

- The Contractor shall comply with all the relevant 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

	<p>or</p> <p>Her laborers, and pay them in time. In the event of delay in payment the Procuring Entity may affect payments to the laborers and recover the cost from the contractor.</p> <p>[GCC 29.3, STD-PW3]</p> <ul style="list-style-type: none"> • The Contractor shall not employ any child to perform any work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development in compliance with the Applicable labor laws and other relevant treaties ratified by the government. <p>[GCC 30.1, STD-PW3]</p> <ul style="list-style-type: none"> • The Contractor shall provide, in the joint names of the Procuring Entity and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles specified in the PCC for the following events which are due to the Contractor's risks: <p>(d) Personal injury or death.</p> <p>[GCC 37.1, STD-PW3]</p>
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Table 3.5.1- Sustainability aspects addressed in Public Procurement Documents.

3.6 Public Works Department (PWD)'s procurement technique

Public Works Department (PWD), under the Ministry of Housing and Public Works, is the pioneer in construction arena of Bangladesh. Over about two centuries, PWD could successfully set the trend and standard in the country's infrastructure development. It plays a pivotal role in the implementation of governments building construction projects. It also undertakes projects for autonomous bodies as deposit works. Public works Department has highly

qualified and experienced professionals forming a multi-disciplinary team of civil, electrical and mechanical engineers who work alongside architects from the Department of Architecture. With its strong base of standards and professionalism developed over the years, PWD is the repository of expertise and hence the first choices among discerning clients for any type of construction project in Bangladesh. Besides being the construction agency of the Government, it performs regulatory function in setting the pace and managing projects for the country's construction industry under the close supervision of the Ministry of Housing and Public Works.

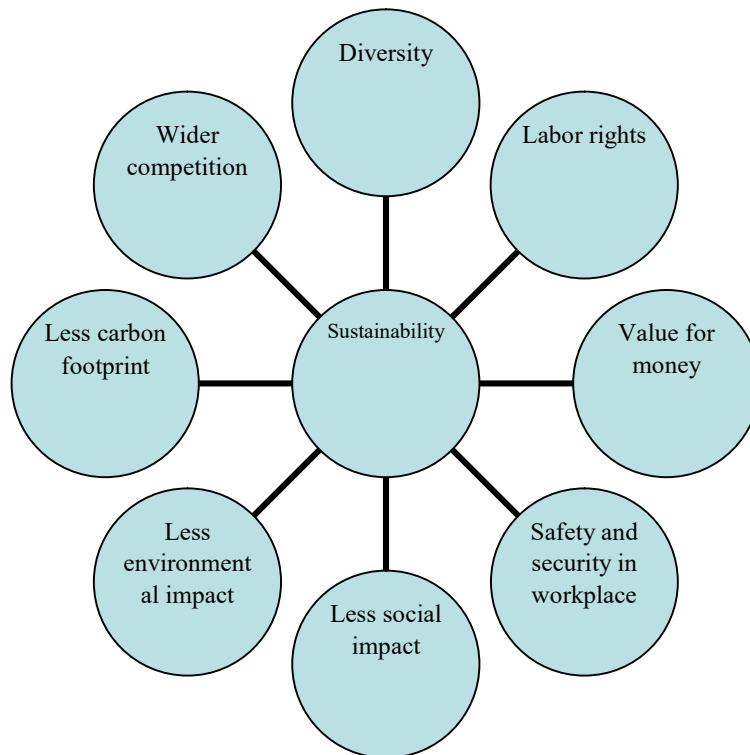


Fig 3.6.1: sustainability consideration in public procurement in PWD

PWD is headed by a Chief Engineer, supported by 12 Additional Chief Engineers (Civil), 37 Superintending Engineers, 141 Executive Engineers, 284 Sub-Divisional Engineers, 360 Assistant Engineers, 1167 Sub-Assistant Engineers and

staffs spread all over the country. It has 7,350 regular employees that include 846 class-1 officers. The Chief Engineer is the administrative and technical Head of the department. He also acts as the Technical Advisor to the Government of Bangladesh. The operational units in the PWD are spread throughout the country. Field offices are divided into Civil Working Units and Electrical/Mechanical (E/M) Working units. In the Field there are seven Zonal Additional Chief Engineers in seven Zonal (Divisional) Head quarters under which there are Superintending Engineers, Executive Engineers, Sub-Divisional Engineers, Assistant Engineers, Sub-Assistant Engineers both for Civil and E/M works. The Ministry of Housing and Public Works exercises the administrative control of the PWD.

To facilitate better client/users satisfaction and adequate technical, administrative and supervisory control in the execution of projects PWD has a number of specialized units like Planning Unit, PWD Structural Design Units, Electro Mechanical Unit, Wood Workshop, arboriculture Division, PWD Health Wing, MIS Cell, PWD Training Academy and Testing Laboratory etc.

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

- Design and Construction of Public Buildings (except those of RHD, T&T, Postal Department).
- Construction of National Monuments
- Repair and Maintenance of Public Buildings

- Preparation of Book of Specifications and Code of Practice
- Construction of Buildings for Other Agencies on Deposit Work Basis
- Maintenance of Public Parks.
- Preparation of Schedule of Rates and Analysis of Rates for Construction & Maintenance of Public Buildings
- Acquisition and Requisition of Land for Public Construction Work
- Valuation of Land and Property and Fixing of Standard Rent

All of the Public Works stated above are associated with huge volume of procurement, mainly procurement of works. It may be mentioned here that the architectural plans and designs of almost all Government building infrastructural projects & monuments are done by the Department of Architecture in close consultation with PWD.

Chapter 4

SDG, MDG & Sustainable Procurement

4.1 Introduction

There is a global trend towards organizations developing sustainability procurement (purchasing) programs, with many of them doing so as a means of implementing their sustainability or corporate social responsibility programs. Environmental considerations are typically ranked higher than social factors, though priority environmental concerns have human health implications such as toxics. Indeed, the greening of the supply chain was ranked as the number one supply chain issue for 2007. On the social side, fair trade, diversity purchasing and ethical sourcing are showing strong growth trends. The ethical sourcing experience of large brands is starting to pay off in deep knowledge for how to reward and

motivate ethical considerations with suppliers going forward, including a focus on supplier collaboration and capacity building.³² Top priority concerns of many purchasers are how to screen their suppliers and how to measure the sustainability impacts of their purchases. There are many documented barriers to sustainable purchasing programs, too, including product cost premiums, lack of time and resources, lack of management support and the need for tools, information and training. Governments and universities, i.e. the Sustainability Purchasing Trends and Drivers public sector, are key drivers of sustainable purchasing, universities primarily driven by activist student bodies, and governments by leadership concerns. Further analysis of sustainable purchasing trends reveals a strong move toward greater collaborations in the supply chain and with stakeholders, whether purchaser to purchaser, purchaser to supplier or purchaser to NGO. As a result of these collaborations, improved awareness, understanding and efficiencies are created. This helps advance a key priority concern of purchasers, which is impact and performance measurement, a trend that will affect how sustainable purchasing evolves in future.

Recent trends and thoughts further concentrate on ‘competitiveness’ through global sourcing, especially from “low-cost” countries. Latest concerns include:

- Enhancing labor standards and abolition of forced working
- Wages and social security payments
- Elimination of in-equalities of workers and gender discrimination
- Enhancing health and safety standards, working conditions
- Economic resource consumption
- Waste and water management

- Climate change and ‘carbon footprint’ reduction

Among the initiatives, both national and international attempts have been made to solve those issues. According to ‘Responsible Purchasing Initiative’, the first step for purchasing organizations wishing to have a fair and positive impact on their supply chains is to ensure that sourcing is in line with –

- The national laws
- And the international agreements (such as ILO conventions, international environmental protocols).

A number of codes and laws have been introduced for sustainable procurement initiatives, such as, ILO conventions, ETI base codes, the Agricultural Ethical Trading Initiatives (AETI), the Social Accountability (SA) 8000: 2001 standard, Fair Trade standard, ISO35 14001 (The Environmental Management System standard), ISO 14020+:

Eco-labeling standards, the Eco-management and Audit Scheme (EMAS), PAS36 2050:2011, the UN global compact, ISO 26000: 2010 Guidance for Social Responsibility, BS37 8903: 2010 Sustainable procurement and so on.

4.2 UNDP Sustainable Development Goals (SDG) and Global Goals

At the United Nations Sustainable Development Summit on 25 September 2015, world leaders adopted the 2030 Agenda for Sustainable Development, which includes a set of 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030.

The Sustainable Development Goals, otherwise known as the Global Goals, build on the Millennium Development Goals (MDGs), eight anti-poverty targets that the world committed to achieving by 2015.

The 17 SDGs are as follows: Sustainable Development Goals

- Goal 1. End poverty in all its forms everywhere
- Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- Goal 3. Ensure healthy lives and promote well-being for all at all ages
- Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- Goal 5. Achieve gender equality and empower all women and girls
- Goal 6. Ensure availability and sustainable management of water and sanitation for all
- Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all
- Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- Goal 10. Reduce inequality within and among countries
- Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 12. Ensure sustainable consumption and production patterns
- Goal 13. Take urgent action to combat climate change and its impacts*

- Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
- Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- Goal 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Goal no.12 has its sub-clause 12.7, which is dedicated for sustainable procurement, is indicating that sustainable procurement is a part of sustainable development. The clause is as below:

12.7: Promote public procurement practices that are sustainable, in accordance with national policies and priorities. Therefore, there is no doubt that sustainable procurement issues will be crucial for upcoming days. The world's leading organization UNDP is focusing on promoting the sustainable procurement practices and policies, in order to ensure the sustainable production and consumption patterns.

4.3 Bangladesh 2021 Targets

In the prospective plan of Bangladesh for 2010-2021, Bangladesh holds her vision for sustainable development. The plan announces that, “Nothing should be done today which will compromise the well-being of future generations”. The process of economic growth must be equitable as well as environmentally sustainable. The environmental efficacy deteriorates when the environment is degraded and the

environmental balance disturbed through overuse, pollution, deforestation, and the consequences of greenhouse gas emissions. Environmentally sound development calls for actions to restore and maintain environmental health while pursuing socio-economic development. Internationally, there is broad consensus that the environment and production systems should be tailored to minimize damage to the environment to ensure the sustainability of development. The government has developed Bangladesh Climate Change Strategy and Action Plan (BCCSAP) and National Adaptation Programmed of Action (NAPA) in 2009 to respond to climate change induced development risks and National Plan for Disaster Management (NPDM) in 2010 to respond to disaster risks. GoB has also developed National Environment Policy (NEP) in 1992, National Forest Policy (NFP) 1995, National Sustainable Development Strategy (NSDS) and other relevant policies for environmental conservations. The basic approaches in BCCSAP, NAPA, NPDM, NEP, NFP and NSDS are to wise use of natural resources, disaster and climate resilient development initiative, pro-poor adaptation and mitigation strategies, green growth, eco-system based disaster risk reduction, all risk resilient urban development and pollution management. Although not required to reduce greenhouse gas emissions given its status as a least developed country, Bangladesh is committed to following a low carbon path, success of which would depend on provision of resources by the international community. But Bangladesh will not compromise on the need for accelerated economic growth and poverty reduction. Planning Commission has taken an initiative to mainstream poverty-environment-climate change and disaster issues into development planning and budgetary process. GoB dictates its one of the strategy regarding procuring development projects as follows:

“All development initiative needs to be pro-poor, environmental sustainable, climate change and disaster resilient. Therefore, Planning Commission and relevant agencies will develop proper capacity building mechanism to ensure that development projects are designed in a sensible way to increase country’s resilience”.

It is very clear that, the Government of the People's Republic of Bangladesh has a mandate to ensure that all its development projects and works are being sustainable. At least, the processes and procedures of the projects and procurements should follow the national laws and international guidelines of sustainability. To reach this goal, GoB is also trying to incorporate the global mandates in its national plans and accommodate the globally accepted sustainable policies and procedures in its national activities. [Prospective Plan of Bangladesh, 2010-2021, Planning Commission, Ministry of Planning, Government of People’s Republic of Bangladesh]

4.4 Integration with UNDP’s MDGs and SDGs in National Plan

Bangladesh has integrated Millennium Development Goals (the MDGs, dictated by UNDP) within the economic and social targets of its Sixth Five Year Plan (2011-15). General Economics Division (GED), Planning Commission has been monitoring and reporting the MDG status through the “Millennium development Goals: Bangladesh Progress Report”. The latest report on MDGs (2012) reveals that Bangladesh has already met some targets of MDGs. In Bangladesh, the first round of post-2015 national consultations provided opportunities for the country to reflect and draw upon its experiences with the MDG framework, bolster its say in shaping new global development goals and to ensure that the goals set are relevant to Bangladesh development context. To this end, the Government of Bangladesh

(GoB) committed to lead the national consultative process in an inclusive and participatory manner.

On 10 November, 2012, the GoB conducted the first National Expert Level Consultation Conference that 'kick-off' the national consultation process. The aim of the conference was to identify gaps and challenges that exist in relation to sustainable development and generate ideas on preliminary goals, targets and indicators for Post-2015 development agenda. The summary report from the first national conference set the motion for the subsequent consultations. Between November 2012 and May 2013, a number of consultation meetings were organized to create a draft framework. These dialogues were held at the national and sub-national levels and participated by concerned Ministries, UN agencies, Development Partners, civil societies and media representatives. The draft framework was reviewed by various experts from the UN System who provided insights and inputs for inclusion in May 2013, prior to the final consultation with the Hon'ble Prime Minister Sheikh Hasina and Ministers of Finance, Planning as well as Foreign Affairs, among others, present. The national document of Bangladesh contains 11 goals, 58 targets and 241 indicators. The goals set are:

- Goal 1: Unleash human potentials for sustainable development
- Goal 2: Eradicate poverty and reduce inequality
- Goal 3: Ensure sustainable food security and nutrition for all
- Goal 4: Universal access to health and family planning services
- Goal 5: Achieve gender equality
- Goal 6: Ensure quality education and skills for all
- Goal 7: Increase employment opportunities and ensure worker rights

- Goal 8: Ensure good governance
- Goal 9: Promote sustainable production and consumption
- Goal 10: Ensure environmental sustainability and disaster management
- Goal 11: Strengthen international cooperation and partnership for sustainable development

Bangladesh thus prioritizes goals with Global Perspectives and rationale for Post 2015 Development Agenda (P2015DA) following the guidance from Rio +20 conference and UNDP goals (17 SDGs) from the “Transforming Our World: The 2030 Agenda of Sustainable Development”. She has included sustainable development goals in the post 2015 agenda (proposal to UN with 11 goals). On “Promote sustainable production and consumption” goal, sustainable use of resources for production and consumption pattern has been proposed along with measures to ensure further efficiency.

Bangladesh is now in the process of formulating its Seventh Five Year Plan (7th FYP) for the period of 2016-2020. While formulating the plan document, the proposed goals by both OWG were well taken into consideration so that the proposed goals of the SDGs can be illustrated in the national plan. The goals of SDGs were also given emphasis while setting up the priority areas of the 7th FYP. Bangladesh tries to address the issues of international goals into the Seventh Five Year Plan because it is the guiding document of the country that is implemented in next five years' time.

Chapter 5

Data Collection and Data Analysis

5.1 Introduction

This chapter represents an analysis of the data collected through questionnaire survey and provides the detailed information on the findings from the survey. The data have been collected through filling up a questionnaire by different level responsible procurement professionals of Public Works Department in order to achieve the research objectives mentioned in Chapter 1.

Sustainable procurement encompasses three dimensions e.g. economic, environmental and social aspects of procurement. The operational definitions of these three aspects are outlined in literature review. A questionnaire was designed including a number of questions which covered not only the above mentioned three aspects of sustainable procurement but also the information about the organization's procurement. There are three sections in the questionnaire. The questions were intentionally set in such a way that the respondents will be reminded about the concepts and aspects of sustainability.

Some general questions have been set at the end of the questionnaire to get the perception of the respondents about the potential drivers and obstacles of sustainable procurement.

A total of fifteen officials of Public Works Department have been interviewed with the same questionnaire to conduct the survey. These officials have been selected because of their direct involvement in public procurement activities in their jurisdiction. The respondents were selected randomly and interviewed. Average length of experience in procurement activity of the respondents ranges from 2 years to 20 years. Since Public Works Department is a prime

construction agency of the government so works is their main procurement item. Their procurement portfolio on average is works 90%, goods 9% and services less than 1%. The composition of works is on average 75% new construction works and 25% is repair & maintenance work. Some of them are not directly involved in procurement but they do planning and design which involves sustainability issues a lot.

5.2 Questionnaire and Analysis

The first question of the questionnaire was about the working area of the respondents. There are three different types of areas- working divisions, planning and design divisions and there are some administrative divisions. Among our respondents 9 were from working divisions-directly engaged in field, 4 were from design and planning side and 2 were in administrative positions. But all of them have something to do with the procurement process at some stage.

Total No of respondents	Working Division	Planning and Design	Administrative
15	9	4	2

Table 5.1 Different nature of respondents' job responsibility

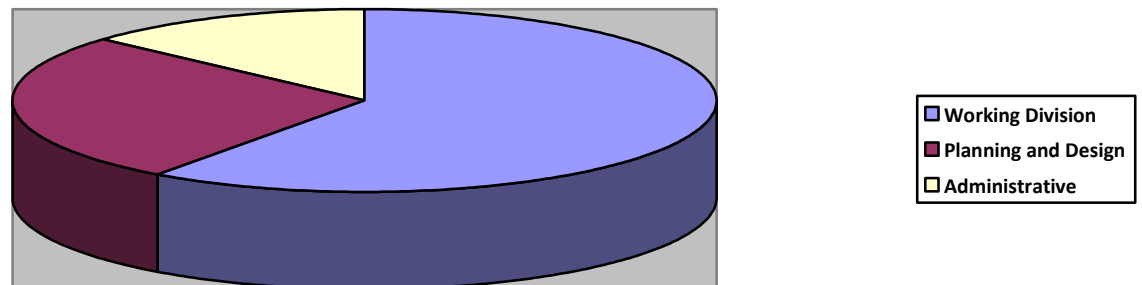
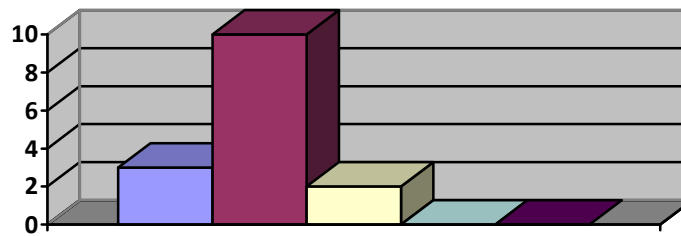


Fig 5.1: Different nature of respondents' job responsibility

The second question was regarding the experience of the respondent. There were assistant engineers, sub divisional engineers and some executive engineers. No superintendent engineer and above professionals were respondent in this survey.

Designation	Assistant engineer (0-3 years)	Sub-Divisional Engineers (3-7 years)	Executive Engineer (7-15 years)	Superintendent Engineer (15-20 years)	ACE (20 years and above)
Experience level	3	10	2	0	0

Table 5.2: Different experience level of the respondents



Assistant engineer (0-3 years)	3
Sub-Divisional Engineers (3-7 years)	10
Executive Engineer (7-15 years)	2
Superintendent Engineer (15-20 years)	0

Fig 5.2: Different experience level of the respondents

Question 3 was regarding their awareness level of the sustainability issues. There were only 2 professional or expert level officers found. 4 of them have good knowledge, 5 have average knowledge and 4 have below average knowledge. No one was found who haven't heard of it.

Level of expertise	Working division	Planning and design	Administrative
Never heard of it	0	0	0
Below Average	3	0	1
Average	2	2	1
Good understanding	3	1	0
Expert level	1	1	0

Table 5.3: Different awareness level of the respondents

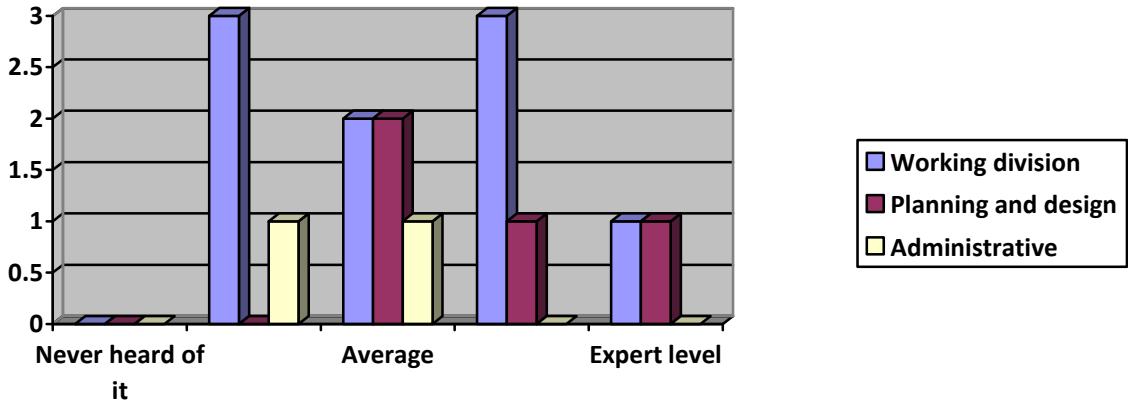


Fig 5.3: Different awareness level of the respondents

Next couple of questions was about their outlook towards the necessity of sustainability. If it is necessary for procurement and if it is necessary for PWD, that was the question. It is found that most of them think strongly or moderately that is an important issue.

Level of necessity	Strongly	moderate	neutral	Not a thing to worry	Completely unnecessary
For Procurement	7	5	2	1	0
For Procurement in PWD	5	5	3	2	0

Table 5.4: necessity of sustainability in PWD

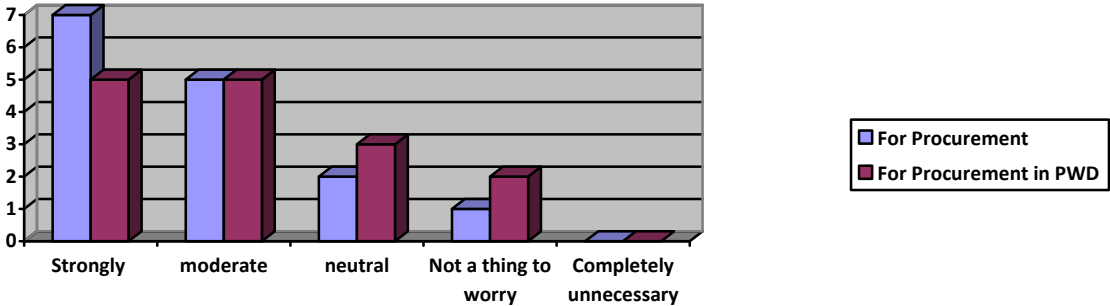


Fig 5.4: necessity of sustainability in PWD

The next questions were regarding if public works department keeps in mind sustainability issues while designing, planning and implementing the project. There it is found that the sustainability issues are considered while designing and planning, but there is a gap between plan and implementation when it comes to sustainability.

Sustainability issues are kept in mind	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Design and planning	5	4	4	1	1
Implementation stage	1	3	5	4	2

Table 5.5: sustainability considerations in different stages of a project

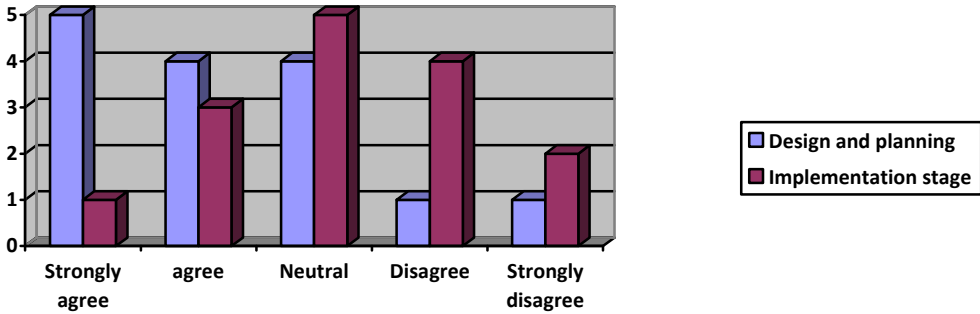


Fig 5.5: Sustainability considerations in different stages of a project

The next three questions evaluated Public works department’s present condition of procurement. If environmental impact assessment is done, the answer was unanimously “No”. Do the documents reflect labor and international codes and ethics? The answer was yes. But when it came to if those commencements of projects have any adverse impact the response was different.

Level of impact	Strongly agree	Agree	Moderate	Disagree	Strongly disagree
Implementation of projects have adverse impact	0	1	1	3	8

Table 5.6: Impact of projects on social and environmental life

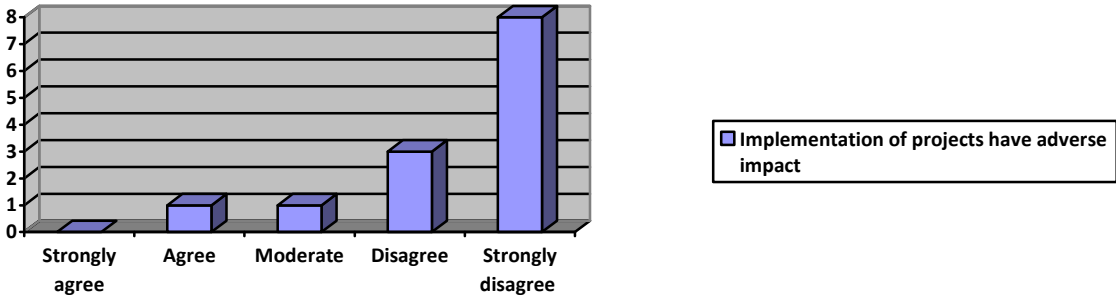


Fig 5.6: Impact of projects on social and environmental life

The next couple of questions were regarding how they came to know about sustainability issues. Most of them have known about from newspaper and WebPages. The in-house training facility is not considerate and not yet mature. So, PWD could not develop yet the “Sustainability culture”. The answer was unanimously “No” when it came to if they received any training on sustainability issues from PWD training academy and also if this organization has any specialized cell working on this issue. Yet almost 75% respondents think that PWD is working in line with SDG.

Finally short answers were asked about the barriers of sustainability implementation in PWD and how they can be overcome.

Barriers:

- Political leaders working as bidder

- Frequent change of requirement
- Improper DPP
- Time and Cost Constraints
- Lack of knowledge and induction
- not having a specialized unit
- lack of expert manpower
- PWD works for other agencies, so, lack of cooperation from their side.

How they can be overcome:

- Everyone thinks a specialized unit and induction of all procurement related officers is essential.
- Developing a sustainable culture.
- Proper monitoring and implementation of “Particular Conditions of Contract (PCC)” by Project manager and procuring entity i.e. SDE and EE.
- Loosening political influence.
- PWD has different projects where Project Directors are non-technical person. If technical persons could be made PD, it would have been easier.
- Inclusion of sustainability in Planning stage and separate unit for EIA and TIA, convincing concerned agencies about the importance of sustainability.
- Proper training.

5.3 Findings and Summary

From the analysis it is clearly found that the officials of PWD are aware of sustainability issues, but there is not any institution culture towards it. Also, it is

found that sustainability issues are reflected in procurement documents and planning & Design stage. But when it comes to implementation of a project, sustainability is merely a concern because time and cost becomes major and in some cases only concern. Also since PWD has to do projects of different agencies and essentially not always Projects Directors and respected agencies are not well aware of sustainability issues. Without cooperation from all stakeholders it is difficult to introduce sustainability.

All the officers unambiguously stated that proper training, a specialized cell to monitor sustainability throughout the procurement stage can develop a corporate culture where everyone will keep this issue in mind.

Chapter 6 Recommendations

6.1 Sustainability is Future

Sustainability is the next big issue. It is not possible anymore only on short-term benefits. Globally there is a trend towards sustainable issues. Since PWD is the pioneer organization in building and construction i.e. in engineering sector of this country, they need to set their own benchmarks regarding sustainable issues.

Also, the government of Bangladesh has taken it seriously. Sustainable procurement is not just a mere word anymore. It is already been founded the it's and bits of sustainable procurement in PWD.

Now, it is time to find a way to improve the scenario.

6.2 Proposals

1. Considering Whole Life Costing Method Instead of Lowest Price Criteria: Whole life costing (WLC) or life cycle costing (LCC) can be a step towards sustainability. WLC may be used to achieve a more complete picture of total costs of purchasing a good or service-rather than purchase price alone. It consists of planning cost, acquisition cost, operational and maintenance cost, disposal and end-of-life cost. WLC gives better budgeting over the life of the asset. WLC should be used instead of existing 'Lowest price' method. MEAT (most economically advantageous tender) is the best method for public procurement.

2. Involvement of all stakeholders: It is often found that there is lack of integration of all associated stakeholders in the procurement and project management process. It is important to involve all stakeholders and pay attention to everyone's need. The project planning should reflect the needs and expectations of all the stakeholders.

3. Developing a sustainable culture: It must not only rest on the documents. It should be taken to the implementation level. Everyone should know that this is a serious issue and it cannot be neglected.

4. Training and induction: All the officials of the department should be trained properly to give a clear insight about this issue. The training is not only about informing them about sustainability issues but building a mindset towards this.

5. CSR: Corporate Social Responsibility issues are neglected in project management. It is not possible anymore to avoid this issue. Constructions are done for future generations and if doing so leaves an adverse impact on society and environment that will become self-contradictory.

6. Developing a dedicated cell: PWD need to develop a dedicated cell which will only monitor and ensure sustainability issues throughout the process. They will be working directly under the HoPE and will work closely with all the ongoing projects under this department.

7. Develop and implement sustainable procurement policy: Since PWD has some distinctive type of work and its procurement; it can develop its own sustainable procurement policy and ensure it is implemented properly.

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Appendix A

BRAC Institute of Governance and Development

BRAC University

Survey Questionnaire

Research Topic: Scopes and Challenges of Sustainable Procurement in Public Works
Department, Bangladesh.

Questionnaire no:

- Name of the respondent:
- Office name:
- Designation:
- Phone no:
- Email:
- What is your working area?

Working Division

Planning & Design

Administrative

- What is your level of experience?

0-3 years (Assistant Engineer level)

3-7 years (Sub-Divisional Engineer level)

7-15 years (Executive Engineer level)

- 15-20 years (Superintendent Engineer Level)
- 21 years and above (Additional Chief Engineer level)
- How is your awareness about sustainability?
 - expert level good medium below average never heard of it
- Do you think sustainability issues are important?
 - strongly agree agree neutral disagree strongly disagree
- Do you think sustainability issues are important for procurement in PWD?
 - strongly agree agree neutral disagree strongly disagree
- Does PWD design and plan a project considering sustainability?
 - strongly agree agree neutral disagree strongly disagree
- Does PWD complete a project considering resources are limited and we better plan for future?
 - strongly agree agree neutral disagree strongly disagree
- Does PWD run EIA check before commencing a project?
 - strongly agree agree neutral disagree strongly disagree
- Do you think projects implemented by PWD can have adverse impact on social and environmental life?
 - strongly agree agree neutral disagree strongly disagree
- Does PWD follow international rules and regulations in their tender documents?
 - strongly agree agree neutral disagree strongly disagree

- Dose PWD maintain labor codes/ethical standards while implementing a project?

strongly agree agree neutral disagree strongly disagree

- Have you received any institutional training from PWD?

Yes No

- Where have you learnt from sustainability?

PWD Training Academy From My Seniors From Websites From Newspaper other sources

- Do you think better awareness and understanding can enable Executive Engineer (PE) and Sub-Divisional Engineers (PM) to introduce sustainability?

strongly agree agree neutral disagree strongly disagree

- Does PWD have any procurement cell or a specialized unit working on this issue?

Yes No

- Does PWD training academy train any level of officers regarding this issue?

Yes No

- Do you think PWD is working in line with SDG?

strongly agree agree neutral disagree strongly disagree

- What are the barriers of introducing sustainability in procurement in PWD? (short answers)

- How do you think it can be improved and PWD can become pioneer in sustainable procurement and construction? (short answers)