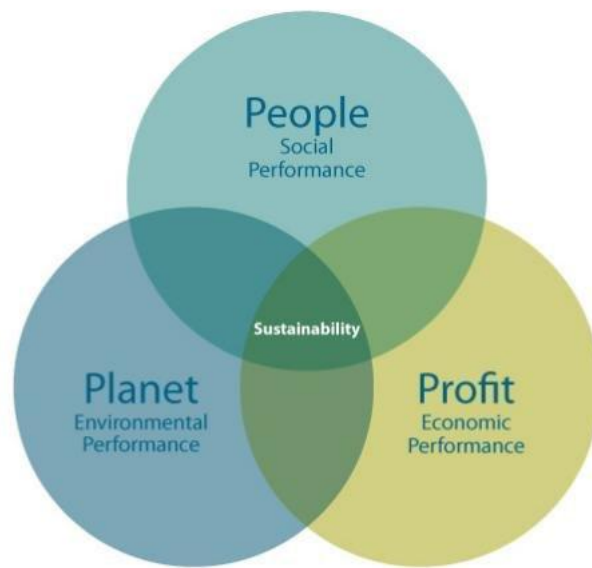


**ADDRESSING SDGS THROUGH SUSTAINABLE PUBLIC
PROCUREMENT: A STUDY ON BANGLADESH**



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DECLARATION OF CONTRIBUTION

We, the research team members declare that this research work is an original work which has been conducted with the approval and funding of BPATC, Savar, Dhaka.

We, the team members have actively contributed to conduct the research as a cohesive and effective team. We, all members were actively involved in every stages of the research work and development of this report.

Any other work of a similar nature or on related topic has been appropriately referenced in the research report.

Regards

Team Members

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ABSTRACT

In order to establish the proper balance among the three pillars of sustainable development (economic, social, and environmental) while purchasing, the government of the country uses a technique known as sustainable public procurement (SPP). Integration of sustainability parameters into the procurement system will help the nation transition to SPP. SDG indicator 12.7.1 refers to countries implementing SPP policies and action plans to achieve SDG 12 which states ensure sustainable consumption and production patterns. SPP has been suggested as a strategic tool to drive sustainability in the UNEP Global Review of SPP (UNEP 2017). Bangladesh's public procurement mechanism is still lacking consideration for the sustainability pillars. Against this backdrop, this study was designed to examine the existing legal framework supporting or constraining the practice of SSP; identify the awareness and practicing level of SPP among public procurement professionals; and opportunities and potential challenges of practicing SPP with reference to suitable ways for addressing the issues of sustainability for sustainable growth.

This study was conducted using mixed research methods where both qualitative and quantitative data were collected and used; however, a 'dominant - less dominant' research design was followed and qualitative data was considered as the dominant over quantitative data. In the qualitative portion, data was collected using key informant interviews (KII), in-depth interviews (IDI), and focus group discussions (FGD); and the quantitative data was collected through a questionnaire survey with the stakeholder of public procurement in Bangladesh.

The research findings denote that public procurement is fairly controlled by the Public Procurement Act and Rules which emphasize economic factor where social and environmental factors have not been significantly considered. The Government is yet to use procurement as a strategic tool to achieve the concerned SDGs goal. As a result, public procurement professionals are not sufficiently equipped with the required knowledge and concepts of SPP. This research also found that there are potential opportunities to practice SPP in the public sector through the inclusion of it in procurement regulations as public procurement professionals are already used to following the procurement act and rules and sustainability criteria are considered while development projects are selected.

This research conveys the message of the participants from the public procurement professionals to the concerned government authority to take effective initiatives to incorporate SPP in the procurement legal system. There is a scope to conduct more studies and policy-level discussions to develop country-specific policy framework so that it can be used as a strategic tool to achieve SDGs.

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ABBREVIATIONS AND ACRONYMS

Abbreviation/Acronym	Explanation
CIPS	Chartered Institute of Procurement and Supply
CPTU	Central Procurement Technical Unit
EU	European Union
e-GP	electronic Government Procurement
GP	Green Procurement
GPP	Green Public Procurement
ISO	International Standard Organization
LGED	Local Government Engineering Department
MDG	Millennium Development Goal
OECD	Organisation of Economic Co-operation and Development
PP	Public Procurement
PPA	Public Procurement Act
PPR	Public Procurement Rules
PWD	Public Works Department
RHD	Roads and Highway Department
SCM	Supply Chain Management
SDGs	Sustainable Development Goals
SP	Sustainable Procurement
SPP	Sustainable Public Procurement
TBL	Triple Bottom Line
UN	United Nations
UNEP	United Nations Environment Programme
WLC	Whole Life Cycle

CHAPTER ONE: INTRODUCTION

This chapter introduces the research paper in 06 (six) sections. Firstly, the background of the study has been presented which reflects the reasons for adopting this issue for research. Secondly, the main objectives are mentioned. Thirdly, the research questions have been articulated. Fourthly, the significance of conducting this study has been described. Fifthly, the rationale of the study has been outlined. And finally, how this research will help national development is mentioned.

1.1 Background of the study

Public procurement denotes the purchase of goods and services or others by a government or organization which is managed by the public sector (Uyarra and Flanagan 2010) whereas Sustainable Public Procurement (SPP) indicates the process of introducing social and environmental concern into the economic, social and environmental (UN, 2015: 1/35). The Global Review 2017 shows that it is an increasing trend to use procurement to achieve the SDGs (UNEP 2017). SPP policies have been adopted by governments all over the world to put pressure on suppliers to help them meet their policy goals (Rolfstam 2009). However, Sustainable Development (SD) enables governments and organizations to consider all facets of their operations, including social, economic, and environmental factors, without any one factor taking precedence (UNEP 2012). SPP is one of the important measures of sustainable development goals because of continually increasing government expenditure. In the 2030 framework, Target 12.7 upholds practices for sustainable public procurement with an emphasis on national priorities and policies (United Nations 2015). Bangladesh is therefore also committed, as a signatory of the UN resolution, to support and promoting SPP activities. In order to accomplish the 17 goals for sustainable development, the nation has adopted Agenda 2030 as its new development framework and put in place a comprehensive strategy and action plan (Budget Report, 2021-22). The Government of Bangladesh created the Climate Fiscal Framework (CFF) in 2014 in response to the recommendation of the Climate Public Expenditure and Institutional Review (CPEIR) to increase the opportunities for resilient development and green growth in Bangladesh. Bangladesh is one of the most vulnerable countries to the effects of climate change brought on by natural disasters. According to CPTU 2023, 25 Ministries/Divisions are currently recognized as climate

inclusive. In order to attain Agenda 2030, adopting SPP as a strategy in its journey toward equitable growth may be beneficial.

1.2 Problem Statement

The government procures goods and services through a contract to run its functions and to provide services to the citizens. The public sector organizations are engaged in the procurement of these goods and services. According to UNEP (2014), the procurement process of organizations goes through some stages including a preparatory stage, a specification stage, a sourcing stage, and a utilization stage. In the first two stages, specifications of the goods and services are made by the stakeholders. The third step allows for tendering for the goods and services while in the fourth and final stage, the procured goods and services are supplied and consumed. Once procured goods are consumed the procurer or users decide how the goods would be disposed of. In the procurement process when specifications are decided and published as tenders, the suppliers produce the goods and services. If social, environmental, and economic criteria could be included in the specifications of the goods and services, the procurement behaviour becomes a sustainable one. This SPP can have an impact on the production process and ultimately on society. How the public sector organizations in Bangladesh are practicing SPP has not been studied much scientifically. This research focuses on this gap in the literature and wants to fulfil it.

1.3 Objectives of the Study

The main objective of the study is to identify the status of Bangladesh in practicing SPP for achieving the SDGs.

The specific objective includes:

- a) To identify the level of awareness among the procurement professionals on SPP in their practices;
- b) To know the current level of practicing SPP by public officials;
- c) To examine the existing legal framework supporting or constraining the practice of SSP by public officials;
- d) To explore the degree of opportunities of practicing SPP with reference to suitable ways for addressing the issues of sustainability for sustainable growth.

These objectives were fulfilled through the following research questions:

- What are the levels of awareness among the procurement professionals on SPP and its importance to achieve SDGs in their practices and what are their suggestions for this?
- How SPP is practiced to achieve SDGs in Bangladesh?
- What are the existing legal frameworks for supporting or limiting the practices of SPP?
- What are the opportunities and challenges in respect of SPP and what are the best ways for incorporating sustainability in public procurement in Bangladesh?

1.4 Rationale of the study

Sustainable procurement has been documented as key to sustainability as suggested in the Earth Summit in Johannesburg stating "relevant authorities at all levels should promote procurement policies that encourage the development and diffusion of environmentally sound goods and services" (WRAP 2003). Procurement processes that mull over social, economic, and environmental factors can steer sustainability along the value chain. SDG target 12.7 clearly supports "public procurement practices that are sustainable, in accordance with national policies and priorities".

Bangladesh's government spends \$13 billion on public procurement of goods, works, and facilities for the implementation of development programs, accounting for roughly 70% of the country's development budget (Islam 2018). In reality, in the country's existing procurement process, sustainability risk assessment is not conducted. Tenders are assessed exclusively on the basis of the lowest evaluated price (LEP); however, prior to that, certain eligibility requirements related to environmental and social thresholds are included in bidders' guidance and bid data sheet (Satter 2019).

In 2011, the government introduced the e-GP platform with the aid of the World Bank, making the complete tendering process accessible online. About half of the national procurement budget is now administered through the e-GP (Islam and Tembon 2019). In the financial year 2019, 62% of public procurement was administered through the e-GP system which is worth US\$ 15 billion (World Bank 2020). In addition to this, on August 26, 2020, Implementation Monitoring and

Evaluation Division under Central Procurement Technical Unit (CPTU) launched a Citizen Portal (citizen.cptu.gov.bd) which enabled citizens to access data on public procurement (Alam 2021). SPP, on the other hand, has yet to be integrated into public procurement law and practices. The introduction and implementation of SPP are important for attaining sustainable development goals (World Bank 2020). Literature suggests that the procurement function plays an essential role in the realization of SDGs (Crespin-Mazet & Dontenwill 2012; Nijaki & Worrel 2012). Research findings to explore sustainable procurement practices within the Nigerian Oil and Gas sector indicate that some SDGs can be achieved through the adoption of sustainable procurement practices (Ekiugba and Papanagnou 2017). Countries across the world, even Asian countries like China, Thailand, and Malaysia are progressively adopting SPP policies (UNEP 2017).

Grandia and Voncken (2019) cited that, in the European Union, public organizations annually spend approximately 16% of the gross domestic product on public procurement, and it is increasingly used as a policy tool. The uptake and implementation of these SPP policies are the topics of a growing number of academic studies. They show that the uptake and implementation of SPP vary greatly across countries. The majority of the studies in this regard have been done within EU and North American contexts (Ahsan & Rahman 2017). Even rare, some studies are available on developing countries like China and Pakistan. However, as per information to the researcher, no study has been conducted on issues of SPP to address SDGs in Bangladesh. This particular study tried to fill up this knowledge gap and hopefully will help the policymakers and public procurement practitioners to think of using SPP as a tool to achieve SDGs for Bangladesh.

1.5 Scope of the Study

The scope of this study was only public sector procurement in Bangladesh. More effort has been given to find out the link between SPP and achieving sustainable development goals (SDGs) and how sustainability can be introduced in public procurement as well as how SDGs can be achieved through SPP. Like other developing countries, Bangladesh expends around 40% of its annual budget on development sectors through projects, implemented by various government institutions like the Local Government and Engineering Department (LGED), Roads and Highways Department (RHD), Public Works Department (PWD), Bangladesh

Railway, Bangladesh Agricultural Development Corporation (BADC), Directorate of Food, Power Development Board (PDB), Bangladesh Water Development Board (BWDB) in a decentralized process. In this study, the researcher focused on the Roads and Highways Department (RHD), Public Works Department (PWD), and Local Government Engineering Department (LGED) as these departments are engaged in major development works in the country and the study result can be used as a representative for the public procurement of the country.

CHAPTER TWO: LITERATURE REVIEW

This chapter consists of four sections. Firstly, a brief introduction is given about procurement and SPP. Secondly, how procurement relates sustainable development is discussed. Thirdly, the challenges and opportunities of SPP have been identified from different context. And finally, how SPP is related to SDGs and how SPP play an important role for achieving SDGs is described from different literatures.

2.1 Procurement and Sustainable Public Procurement (SPP)

Procurement refers to the procedure an organization uses to enter into supplier contracts for the purchase of products, works, and services is referred to as procurement. Moreover, it is the entire process of allocating responsibilities to businesses, stakeholders, and everyone else who works to satisfy customers (Silva & Kulatunga 2022). It is frequently used to refer to the purchasing methods utilized by all organizations, including private businesses, and is not just used to describe the public sector's purchasing operations. However, the word PP limits the scope to the procedures used by governments and public sector companies to make purchases, commission services, and commission the construction of infrastructure (ISSD 2007).

SPP is defined as "a method by which businesses meet their demands for products, services, works, and utilities in a way that provides value for money on a whole life basis in terms of creating benefits not just for the organization but also for the society and the economy, while limiting harm to the environment"(UNEP 2013). The term "sustainability" has been more popular over the past few decades. However, this word is sometimes misunderstood because it is frequently primarily concerned with the environmental aspects of sustainability, ignoring the social and other elements. (Kuhlman & Farrington 2010; Illankoon, Tam, & Le 2016). Borland (2009) expands the definition of the term "sustainable procurement" (SP), which was first proposed at the UN World Summit on Sustainable Development in Johannesburg in 2002, to take into account planetary, environmental, financial, and social/cultural issues. Decisions must be based on life-cycle costs, associated environmental and social risks, rewards, and repercussions, rather than just standard economic characteristics (Mensah & Ameyaw 2012)

2.2 Procurement and Sustainable Development

Goals for economic development are increasingly influenced by procurement (Murray 2001). In particular, academics have talked more and more about how procurement might be used to advance innovation and the economy (Edler & Georghiou 2007; Murray 2001). Local policies can be specifically designed as a tool to mediate equity concerns by focusing economic opportunities at particular groups due to geography, historical disadvantages in economic opportunities, or disproportionate economic need, drawing on the promotion of economic opportunities as a key external goal in procurement (Berry 2011). SPP may also be a significant market stimulator for innovation and promote ecologically and socially responsible markets, especially in industries like construction, health care, public transportation, and information technology where public purchasers make up a sizable portion of the market. Promoting SMEs and diverse suppliers makes it easier to reach the public procurement market, which can lead to more competition (Berry 2011; European Commission 2010; United Nations 2008).

There are many terms used to describe how environmental concerns are incorporated into the public procurement process, 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," which addresses both environmental and social issues (Mc Crudden 2004). The best way to incorporate environmental consideration into the procurement process is to steer clear of irrational purchases by assessing the true demand for the product and looking for alternate solutions. If this is not possible, it looks to buy a more environmentally friendly alternative that offers the same or better quality and functionality as the standard option (Erdmenger 2003). After the World Summit on Sustainable Development in 2002, many nations' procurement practices have included environmental aims into policy (Murray 2001; Preuss 2009; Walker & Brammer 2009). Achieving international goals, such as the reduction of greenhouse gas emissions outlined in the Kyoto agreement, is made easier by taking environmental considerations into account during the procurement process. Additionally, there is a significant chance that local actions will have an impact on the environment, such as

the purchase of nontoxic cleaning supplies for public facilities like schools or the employment of low-emission buses to improve air quality (Berry 2011; United Nations 2008).

SPP can be used as a strategy to combat social inequality and exclusion (Boomsma 2008). This should be able to give buyers in the public sector considerable control over what is produced and how it is produced. Similar to this, SPP can help improve adherence to national social and labour laws, international agreements, and social development objectives. An example of this would be the fundamental ILO conventions, which outlaw child labour and forced labour, guarantee the right to form unions, and prohibit discrimination. SPP can contribute to bettering living circumstances and lowering poverty in emerging nations by encouraging voluntary social norms. SPP can promote social inclusion and fairness as well. For instance, South Africa has established a system to support the growth of those who have traditionally been disadvantaged due to unjust discrimination based on race, gender, or handicap. A law passed in Brazil in 2007 created standards meant to boost the involvement of small firms in the procurement process. Recognizing equality and diversity, abiding by fundamental labour laws, guaranteeing fair working conditions, boosting employment and skill levels, and fostering local communities are all examples of social elements (Berry 2011; European Commission 2010; United Nations 2008; IISD 2007; UNEP 2012). The public sector is increasingly moving away from the traditional procurement system and toward one that is more sustainable and environmentally friendly, especially in industrialized and some emerging nations. SPP makes it possible for governments to accomplish environmental objectives like lowering greenhouse gas emissions, enhancing water and energy efficiency, and promoting recycling. The social advantages of SPP may include a decrease in poverty, increased justice, and adherence to fundamental labour standards. SPP can produce cash, cut costs, and aid in the transfer of knowledge and technology from an economic standpoint. Social, environmental, and economic sustainability are the three pillars of SPP (UNEP 2012). Transparency, fairness, non-discrimination, competitiveness, accountability, and verifiability are crucial components of SPP, just as they are in successful procurement. The effects of SPP activity are seen globally since procurement happens in a globalized market. These effects at the local, national, and international levels must be considered by SPP (IISD 2007; UNEP 2012).

Governments and organizations must take into account the social, economic, and environmental facets of their activities in order to practice sustainable development, with no one sphere taking precedence over the others. SPP must be founded on a life cycle approach and the idea of continual development. It should be supported by the hierarchy's guiding principles for procurement and acknowledge all benefits. SPP should adopt a risk-based strategy, focusing on the most important or urgent issues, but also achieving quick wins to show instant success. The inclusion of SPP in organizational management systems, such as environmental management systems, aids in its integration into standard procurement procedures. In order to support national, regional, and international policies and programs like those for poverty eradication, wealth creation, boosting local economies and employment, national sustainable development strategies, and innovation and development of environmental technologies, sustainable procurement is increasingly being used as a policy instrument ((Brammer & Walker 2011).

Adopting and putting into practice a sustainable purchasing policy can aid in minimizing these effects on a variety of environmental issues, including waste, water quality, and climate change. Given the complexity of environmental effects of items, it is challenging to quantify the effects of purchase. The final environmental "footprint" of a product will depend on a variety of elements, including the many diverse environmental qualities, intricate supply networks, and variations in how items are used and disposed of (Jolien & Joanne 2017).

Nevertheless, choosing, acquiring, and utilizing goods and services in a more sustainable manner clearly communicates to the market the value of these qualities, ultimately resulting in enhanced environmental performance. Selecting goods and services that are measurably more environmentally friendly than their competitors, can improve the environmental performance of the businesses that produce, purchase, and use them. SPP can assist the purchasing organization in lowering costs while simultaneously reducing environmental impacts. In a 2007 study, the European Commission evaluated the cost effects of integrating environmental criteria in procurement (Hall et al. 2016).

The study by Zaidi et al. (2019) contrasted the GPP to standard purchasing for national governments and individual purchasing bodies in terms of costs and benefits to the economy. The study's findings demonstrate the financial advantages of using

operating cost calculations in procurement decisions and show that the purchasing cost represents a relatively small portion of the total life cycle expenditures.

The potential of the "Green Economy" to create jobs and chances for wealth creation wherever in the globe has been acknowledged by the United Nations and the international community. For example, the Chinese government has pledged to produce 16% of its primary energy from renewable sources by 2020, while 1.5 million people are employed in Mexico to plant and manage trees. The global market for environmental products and services is currently worth \$1.3 trillion and is constantly expanding. SPP helps green technology and products become competitive in the private market while also advancing existing environmental goals by utilizing the purchasing power of public authorities to select environmentally friendly items (e.g., Bouwer et al. 2006; Ghisetti 2017; OECD 2015; Rainville 2017). Public procurement accounts for a sizeable portion of GDP in many developed nations. Public authorities are frequently in charge of spending between 10% and 15% of total GDP on procurement (Hall et al. 2016).

2.3 Challenges and Opportunities of SPP

The three pillars of sustainable development—economic growth, social development, and environmental protection—can and should be integrated into national planning and policymaking, though it is a challenging process. Because governments cannot overcome all of the obstacles, participation from civil society, local governments, the private sector, and the general public is essential to the planning and implementation of sustainable development (UN 2008).

According to the research by Walker & Brammer (2009), the main obstacle to the adoption of SPP is the general public's lack of knowledge regarding the true environmental impact of the products they buy. The drafting of tender documents and purchasing are challenging for purchase officials due to a lack of information. Other obstacles to the acceptance of environmentally friendly public procurement include the lack of a defined definition and evaluation criteria for green procurement. For instance, Ashenbaum (2008) and Gattiker, Tate, and Carter (2008) both believed that, knowledge was the foundation for creating SPP rules. Because employees believe buying environmentally friendly products requires more work and time than standard purchases, they occasionally consider extra benefits for going above and beyond. Employees develop a distinctive behaviour toward SPP based on incentives and

expected benefits. According to the research of Jolien & Joanne (2017), the implementation of SPP is considerably and directly impacted by the green buying behaviour of procurers. The development of positive procurer behaviour is crucial for businesses if they want to make the most of their workforce's potential and undertake SPP successfully. Implementing SPP is further hampered by a lack of qualified personnel.

Studies by Björklund (2011) and Bouwer et al (2006) identified environmental training as a crucial component of sustainable procurement. Organizations must comprehend the idea of SPP and the related governmental rules and regulations in order for implementation to be successful. Organizations should thus create these tools so that they may engage in sustainable buying (Gomes & Jabbour 2017). Additionally, it was stated that senior leadership may not always see SPP as a worthwhile or significant undertaking since they are unaware of its benefits and drawbacks (Gomes & Jabbour 2017).

In the public sector, money is distributed according to the usual market prices, although green products are more expensive. For instance, environmentally friendly or green production methods are typically perceived as being more expensive than others (Bouwer et al 2006). As a result, management sticks to its predetermined spending plan and doesn't use sustainable procurement. Furthermore, funding is needed for procurement officers' specialized training courses. One other guiding principle for firms when making decisions is the cost of implementing sustainable buying. (Zhu, Geng, & Sarkis 2013; Kipkorir & Wanyoike 2015) made the argument that budgetary restrictions increase the cost of procurement; as a result, financial assistance and economic rewards are crucial for sustainable procurement in the public sector. According to a study by Bouwer et al. (2006), one of the biggest barriers to the adoption of sustainable buying is the price difference between green and conventional products. Organizations perceive the cost of green products as an additional strain on their budgets. (Brammer & Walker 2011)

The implementation of green public procurement may be sped up or slowed down depending on top management commitment and organizational structure and process design (Ashenbaum 2008; Björklund 2011; Teutemann 1990). According to studies (Ashenbaum 2008; Björklund 2011, Kipkorir & Wanyoike 2015), the adoption of

sustainable procurement in the public sector is significantly hampered by a lack of managerial commitment. Government regulation is the key enabler of SPP in public sector enterprises, according to studies (Rahman & Subramanian, 2012; Walker & Brammer, 2009).

Organizations are mostly driven to engage in sustainable procurement by government-backed, clear regulations (Oruezabala & Rico 2012; (Oruezabala & Rico., 2012). Additionally, Davis (2011) advocated for governments to mandate some green practices across all industries to promote a sustainable environment. Through incentives, businesses must be pushed to purchase eco-friendly products (Thomson and Jackson T. 2007). Those who implement sustainable procurement principles may be rewarded with tax breaks or price concessions (Zhu , Geng & Sarkis 2013).

Since the general public is the actual end user of the public procurement, numerous studies have demonstrated that public pressure is a major component in the implementation of SPP (Walker & Brammer 2009; Oruezabala & Rico. 2012; Worthington et al. 2008). The general public will be required to follow sustainable procurement methods if they are aware of the items' effects on the environment (Zhu, Geng & Sarkis 2013). Stakeholder pressure on procurement agencies causes them to exert pressure on suppliers to provide green products (Seuring S. & Müller 2008).

It has been determined that the difficulty in involving suppliers is the main barrier to the adoption of sustainable procurement (Walker & Brammer, 2009). Lysons and Farrington (2008) concluded that the primary causes of suppliers' unwillingness to participate include bad supplier practices, a lack of resources, and the sensitive nature of their information. It is difficult to find sustainable products and services in emerging nations, especially when specialized public goods are needed (Lysons & Farrington, 2008). They added that the lack of green product availability causes many SPP programs to fail.

In September 2015, the United Nations unveiled 17 Sustainable Development Goals (SDGs), including "zero hunger," "no poverty," "quality education and health," "clean energy and economic growth," "sustainable cities and communities," "climate action," "responsible consumption and production," and "life on land" (United Nations 2015). Each year, both developed and developing nations invest billions of dollars to

accomplish these objectives. SPP is crucial to the achievement of the SDGs. Without sustainable procurement, the three pillars of sustainable development—economic, social, and environmental—cannot be addressed. In order to achieve the agreed aim of sustainable development, sustainable procurement is designed to bring businesses and policymakers together. The public sector must choose sustainable procurement in order to make any real progress toward the sustainable development goals. (Zaidi et al. 2019)

Despite the fact that public procurement has a sizable potential to advance sustainability in a nation due to its volume (Bratt et al. 2013; Ruparathna & Hewage 2015b), implementing sustainable procurement correctly is challenging since many elements are unknown at the time of procurement. In addition, there are a number of obstacles and disadvantages that are restricting its adoption (Varnäs 2008). The idea of sustainability is challenged and difficult to apply appropriately, and procurement professionals frequently lack the requisite skills and understanding. Officials are confused of how to include sustainable issues in the procurement process, according to studies (Brammer & Walker 2011). However, a number of studies show that the idea of sustainable development has been misconstrued and seen in a variety of ways. Moreover, those who work for public clients have a low degree of knowledge and comprehension of sustainability issues. This may be attributed to a lack of training on sustainable development issues, a vague understanding of what constitutes sustainable, a lack of regulatory requirements, a lack of information necessary to make informed decisions regarding the choice of sustainable products and materials, a lack of understanding of what constitutes sustainable procurement and how to achieve it, and an insufficient information, knowledge, and competencies among procurers. (Walker & Brammer 2009; Testa et al. 2016; Sourani & Sohail 2011; Iles & Ryall 2016; Weissman 2009)

Roman (2017) asserts that implementing sustainable procurement might be difficult, both in terms of the organization's politics and technical considerations. The creation of a supportive environment for the adoption and promotion of sustainable practices can be seriously hampered by political issues and a dearth of encouraging legislative mandates or incentives at the local, state, and federal levels (Brammer & Walker 2011; Iles & Ryall 2016). In order to properly address sustainability, Sourani and

Sohail (2011) stressed the necessity for a more mandatory role. Because even though there are laws and government policies in place to help address sustainability challenges in public procurement, these laws and policies might not be enough to advance sustainable development. However, sustainability has always been thought to be more expensive (Brammer & Walker 2011; Roman 2017). But it need not always be more expensive (Preuss 2009). However, it should be mentioned that with the adoption of a long-term view, an organization's sustainability performance could provide a further contribution to business competitiveness in the future (Bratt et al. 2013; Varnäs, Balfors & Faith-Ell 2009; Iles & Ryall 2016). This is true even if sustainability shows to be more expensive in terms of capital cost. However, it's also crucial to note that there isn't enough proof to show that environmentally conscious purchasing has any tangible benefits (Preuss 2009; Roman 2017). There aren't any reliable criteria by which to judge sustainable procurement. According to Ruparathna and Hewage (2015a), the life cycle perspective of the project is frequently missed by the present bid evaluation methodologies, which only consider the initial cost. The lack of impartial techniques for evaluating bids might provide room for fraud, corruption, and waste. Additionally, there is a discrepancy between qualitative and quantitative analyses of the advantages of employing sustainable procurement because the majority of suppliers lack a consistent strategy to realize or quantify sustainable gain (Weissman 2009). Other crucial elements are concerned with logistics, such as making sure project stakeholders are involved in time and giving the program enough time to address and evaluate sustainability issues (Sourani & Sohail 2013).

2.4 SPP and the Sustainable Development Goals (SDGs)

A number of UN agencies banded together in 2011, prior to the adoption of the 2030 Agenda for Sustainable Development, to draft comprehensive guidelines on sustainable procurement for the UN system. The goal of these guidelines is to ensure that procurement is used to advance social justice and human rights, ensure environmental sustainability, and create a future of equitable development and prosperity (UNOPS 2011). As the head of one of those organizations later stated, procurement is essential to attaining the SDGs (Faremo 2017). Each of the 17 SDGs has a different set of targets, ranging from one to seventeen. There are one or more

indications for each aim. Many national development programs and international aid strategies use the SDGs as a key tenet. (Moyer & Hedden 2020)

SDG12 specifically makes reference to SPP (Ensure sustainable production and consumption patterns). SPP is the primary emphasis of Target 12.7, which is to "Promote sustainable public procurement procedures in line with national plans and priorities." "Number of nations implementing sustainable public procurement policies and action plans" is the only indicator. Although it is quite small, the influence of SPP policies and action plans being implemented at the national level is obvious. The custodian organization for SDG12.7 is UNEP (UNEP 2012). This indicates that national and sub-national governments are providing information and contributions to UNEP. Although the indicator is thought to be conceptually straightforward and has a proven methodology and standards, data are not consistently produced by nations. The SPP Implementation Guidelines include examples of the technique that was developed in 2012 by UN Environment (UNEP 2012). The Guidelines are intended to provide guidance to national governments on developing and implementing SPP policies and action plans, which are seen as an effective strategy to enable actual sustainable purchasing practices on the ground. The Guidelines incorporate the lessons learned from the experience of the Marrakech Task Force on SPP. (Moyer & Hedden 2020)

According to SDG 9 and 11, public works are a typical area where sustainability may be improved. SDG 9 (Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation) calls on nations to "develop quality, reliable, sustainable, and resilient infrastructure, including regional and trans border infrastructure to support economic development and human well-being, with a focus on affordable and equitable access for all" (Target 9.1) as well as to "upgrade infrastructure and retrofit industries to make them sustainable, with increased emphasis on inclusive and sustainable industrialization" (Target 9.2).

Transport completes the cycle as we return to SDG 11 (Make cities and human settlements inclusive, safe, resilient, and sustainable). Countries must "offer access to safe, cheap, accessible, and sustainable transport systems for all, increasing road safety, particularly by expanding public transport, with specific regard to the needs of those in vulnerable situations, including women, children, individuals with

disabilities, and older people" (Target 11.2). However, climate change is also taken into account, and it is said that "much more cities and human settlements should develop and implement integrated policies and programs towards inclusiveness, resource efficiency, mitigation and adaptation to climate change, and resilience to catastrophes" (Target 11.11b). SDG 13 (Take immediate action to mitigate climate change and its repercussions) provides further targets related to the previous concern (UNEP 2012).

SPP is important to achieving a number of other SDGs, even if it isn't specifically specified. Target 1.4 of SDG1 (End poverty in all its forms everywhere), for example, aims to guarantee that "all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology, and financial services, including microfinance" (emphasis added). Basic services are offered by or on the behalf of the government in a broad sense and are also referred to as public services or services of universal interest. Procurement is necessary for the delivery of these services, and procurement can be conducted sustainably. Target 1.4 is expanded upon in many targets. For example, Target 3.8 (Achieve universal health coverage, including financial risk protection, access to quality essential health-care services, and access to safe, effective, quality, and cheap necessary medications and vaccinations for all) calls for non-profit health infrastructures, the purchase of instruments and medicines, and all connected services, including cleaning, laundry, and catering, opening up again significant prospects for SPP (Caranta 2021).

The protection of human rights is one example of a subject that runs throughout the SDGs. The UN Guiding Principles on Business and Human Rights (UNGPs), which were endorsed by the UN Human Rights Council in 2011, further clarified that states have a responsibility to protect human rights that extends to public procurement before the adoption of the 2030 Agenda for Sustainable Development (Martin-Ortega 2019). Although this obligation is currently relevant under SDG 12.7, it has a clear cross-cutting significance beginning with SDG 8 (Decent Work and Economic Growth).

2.5 Agenda 2030 and Bangladesh in Relation to SPP

According to the People's Republic of Bangladesh's Permanent Mission to the UN (2023), Bangladesh is dedicated to putting the Agenda 2030 into practice. It successfully finished "Mapping of Ministries/Divisions by Targets in the Implementation of SDGs" and created a "National Action Plan for SDGs Implementation" while incorporating the SDGs into its national development plans. In accordance with its guiding philosophy of "Leave no one behind," SDG Tracker was created and developed and has embraced a "whole of society" approach to accomplishing the SDGs. However, according to GED's 2017 research, A Data Gap Analysis for SDGs, of the 230 SDG indicators, 70 are fully available, 108 are somewhat available, and 63 are not available in Bangladesh. Targets 12.1 and 12.7 for Goal 12, which is directly related to public procurement, are also unavailable. The National Action Plan for the Implementation of the SDGs did not contain Target 12.7 either. GED (2018) noted that Bangladesh has not yet established the 10YFP in its SDGs-Bangladesh Progress Report 2018. Although there are limits to natural, physical, human, and social capital, the government is conscious of the difficulties in achieving accelerated economic growth, social inclusion, and environmental sustainability.

CHAPTER THREE: METHODOLOGY

The research methodology chapter provides an explanation of the vital planned guidelines of how data was collected and analyzed to find out the answer to research questions. The study used scientific theory, policy, and methodology as the research target. Moreover, as a result of different theoretical aspects, the study followed the practical facet of the research which is a prerequisite of 'methodological pluralism' as a means of examining the SDGs through SPP: A study on Bangladesh.

3.1 Research Design

For performing this research the researchers proposed a mixed method. This methodological pluralism has been constructed from several interpretive qualitative methods, such as secondary literature review which have already been published in different sources, in-depth interviews (IDIs), focus group discussions (FGDs), key informant interview (KII) with the expert in sustainability and procurement combined with the quantitative method of questionnaire survey (semi-structured), to complement each other. The similarity was maintained among interview topics, discussion points, and survey questionnaires which were constructed from the country 'Status Assessment Questionnaire' on sustainable public procurement by UN Environment (2018).

The researcher used both qualitative and quantitative data. Quantitative data, however, has been used to complement arguments derived from qualitative data. This situation is labelled as a 'dominant - less dominant design' (Creswell 1994). Here, the less dominant design is quantitative data, while the dominant one is qualitative data.

3.1.1 Validation and Triangulation

To establish a thorough knowledge and validate the research data, methodological and data triangulation techniques have been applied (Donkoh & Mensah 2022). For the investigation, the researcher employed a mixed methodology and gathered a variety of complimentary data.

3.2 Data Source/Collection

Data has been collected through the 'mixed method' approach (quantitative and qualitative methods). The following were the sources of data:

3.2.1 Desk Research

To get a good insight into the research subject a sufficient number of literatures were collected and reviewed as secondary sources of information. Secondary data were also been collected through content analysis and examination of various literatures available in different libraries and websites, from newspaper articles, published books, government records, academic papers, internet documents, etc. Books and published papers related to the study were also been collected from different sources.

3.2.2 Focus Group Discussion

Focus group discussions were conducted with the people related to public procurement. The researcher conducted 02 (two) FGDs with 10 and 8 participants composed of Public procurement stakeholders including govt. employees from departments of LGED, RHD and PWD who are involved in procurement and policy making, suppliers, employees who monitor procurement implementation, and people who are related to implementing SDGs to get a multidimensional picture of the practices of sustainability in public procurement. Standard FGDs guidelines and protocol have been maintained.

3.2.3 Key Informant Interviews (KIIs)

The researcher conducted 8 (eight) key informant interviews; with 3 public procurement experts from three concerned departments, 1 from CPTU as policymakers, 3 from researchers and 1 expert on SDGs from SDGs coordination cell of the government.

3.2.4 In-Depth Interviews (IDIs)

In-depth interviews with public procurement professionals were conducted in selected government offices especially LGED, PWD, and RHD using semi-structured questionnaires. The researcher conducted 5 in-depth interviews with public procurement professionals from the above-mentioned departments who are senior officials and actively involved in public procurement.

3.2.5 Questionnaire Survey

To validate and cross-check the insights and arguments drawn from the qualitative data, the researchers conducted a questionnaire survey. The scope of this quantitative

survey was kept similar to the qualitative methods used. The questionnaire was constructed to gather data covering all research questions. Data were gathered using a non-probability random sampling method. The population is replicated and the controlled quota sampling approach is used to guarantee the best representation from the three concerned departments. The researcher was able to use this strategy to exercise judgment in choosing the best instances to address the research questions and accomplish the project's goals (Saunders et al., 2012). Due to restrictions that required at least 10 participants from each relevant department and a representation of all professional tiers, 40 public procurement experts were polled.

3.2.6 Sample Size and Sampling Technique

For the study, the sample size was determined by the well-known statistical formula (Cochran 1977):

$$n = \frac{z^2 p(1-p)}{d^2} \times (deft)$$

Where,	
n	= sample size
z	= value of standard normal variate at desired (95%) confidence level
p	= assumed proportion in the target population estimated to have a particular characteristic
deft	= design effect (a constant which has been used to correct/adjust probable sampling variance)
d	= degree of accuracy desired.

In this formula, the value of z was 1.96 which corresponds to 95% confidence level and d was set at 5% (as usual practice) and the design effect was set at 0.15 for keeping the sampling variance smaller and p was reasonably assumed to be 0.5 as the safest procedure.

$$n = \frac{1.96^2 \times 0.5(1-0.5)}{0.05^2} \times (0.15)$$

Thus $n = 57.62$ which was rounded to 60 public procurement professionals. However, 40 public procurement professionals were surveyed due to limitations.

3.3 Data Analysis and Presentation

Data, relevant to the purpose of the study was presented as per the requirement of the study. Various data which are both qualitative and quantitative in nature have been analyzed and presented separately and then the irrelevant data has been discarded. Quantitative data has been analyzed by using Microsoft Office Excel software. And for the qualitative section, qualitative judgment has been made for the data which was revealed from primary sources of focus group discussions, in-depth interviews, observations, and key informant interviews. The findings of the analysis have been presented in a descriptive, graphical, and tabular manner.

3.4 Ethical Consideration

Two issues that were especially relevant in this study are preserving confidentiality and obtaining informed consent. This research has been done in compliance with clear existing ethical guidelines. Participants in focus groups and respondents were well informed about the study's intent during the data collection process. Before the interview, written/verbal consent was taken from the respondent. The privacy of the respondent has been maintained in each step of the study.

3.5 Quality control and risk mitigation mechanism

To conduct this research project; there were some predicted risks and mitigation plans for avoiding these risks are shown in the following Table:

Table 1: Research Risk and Mitigation Plan

Predicted risk	Mitigation Plan
Maintaining Survey Quality	For maintaining survey quality and minimizing the level of error, the researcher proposed a small sample size
Analysis of Quantitative Data	For analyzing quantitative data, standardized quantitative software including Microsoft Excel, and SPSS have been used.
Analysis of Qualitative Data	For Analysing Qualitative data, the researcher used NVivo (software that supports mixed and Qualitative data)
Uncertainty about conducting	To conduct KIIs, IDIs, and FDGs with different public procurement stakeholders, some steps have been maintained to

KIIs, IDIs, and FDGs	minimize uncertainties; These steps were <ol style="list-style-type: none"> 1. Communication with appropriate individuals through a phone call; email or social media. 2. Commutation project brief and objectives through email or social media. 3. Seeking an appointment. Either physical or virtual 4. Meeting on appointment date; Either physical or virtual 5. Conducting interview
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3.6 Limitations of the Study

In this research, the researcher relied on the questionnaire; there may have lacked a guarantee of the accuracy of the answer. The sample size was 40 in the quantitative part, but in Bangladesh, more than thousands of people involved in public procurement, which is relatively small, sometime key informants may be unable to provide appropriate information due to lack of secrecy or confidentiality issues; in addition to this For fulfilling research objectives, the researcher worked with LGED, PWD, and RHD only which may have posed a risk full reliability of the data gathered. Time and resource constraints were experienced.

CHAPTER FOUR: RESEARCH FINDINGS

In this chapter, research findings have been presented according to the research objectives. Findings from qualitative data have been described first, and then findings from the quantitative survey have been linked to qualitative findings and presented in figures and tables with a relevant description. A relevant and short discussion has been given to clarify the findings.

4.1 The Level of Awareness among the Procurement Professionals on SPP in Bangladesh

Procurement is a systematic process managed by procurement professionals. The inclusion of sustainability in procurement needs to be concerned with planetary, environmental, financial, and social/cultural issues. Decisions must be taken based on life-cycle costs, associated environmental and social risks, rewards, and repercussions, rather than just standard economic characteristics (Mensah & Ameyaw 2012). According to the data from the UNEP's 2016 Stakeholder Survey, sustainable procurement is largely driven by policy and top-down leadership. SPP training and the legal, environmental, and economic expertise in SPP within organizations are important, and having a cadre of well-trained practitioners to undertake implementation is also important. In this research, the level of awareness has been used to refer to the level of knowledge and familiarity of the procurement professionals of the country with the concepts related to SPP.

To identify the current level of awareness regarding SPP in the country, 10 questions were discussed with selected KII, IDI, and FGD respondents who are directly involved in public procurement in different tiers of the government. Questions were related to the basic knowledge of global SPP practice and included familiarity with basic concepts, ILO core conventions, International agreement, Initiative and Indicators, availability of sources of information, knowledge of sustainable products and process identification, basic concept on SPP impacts as well as interest to get and provide training on SPP.

4.1.1 Familiarity with Basic Concepts of SPP

Most of the respondents said they are familiar with some primary sustainable concepts of suitable issues like sustainable development, sustainable development goals, and

efficient procurement but they mentioned that they have no clear familiarity with eco-efficient products/processes, ethical code of conduct, environmental procurement/green procurement, clean procurement, whole life costing/whole life assessment, responsible procurement/ethical sourcing, Corporate Social Responsibility(CSR), labour codes of conduct/modern slavery, triple bottom line. The quantitative survey results show similar information (Fig. 1). More than 80% of participants are familiar with sustainable development and SDGs whereas only 37.5% of participants are known for sustainable procurement. 67.5% of participants know about efficient procurement which relates to the only economic dimension of procurement but only 25% know about environmental procurement.

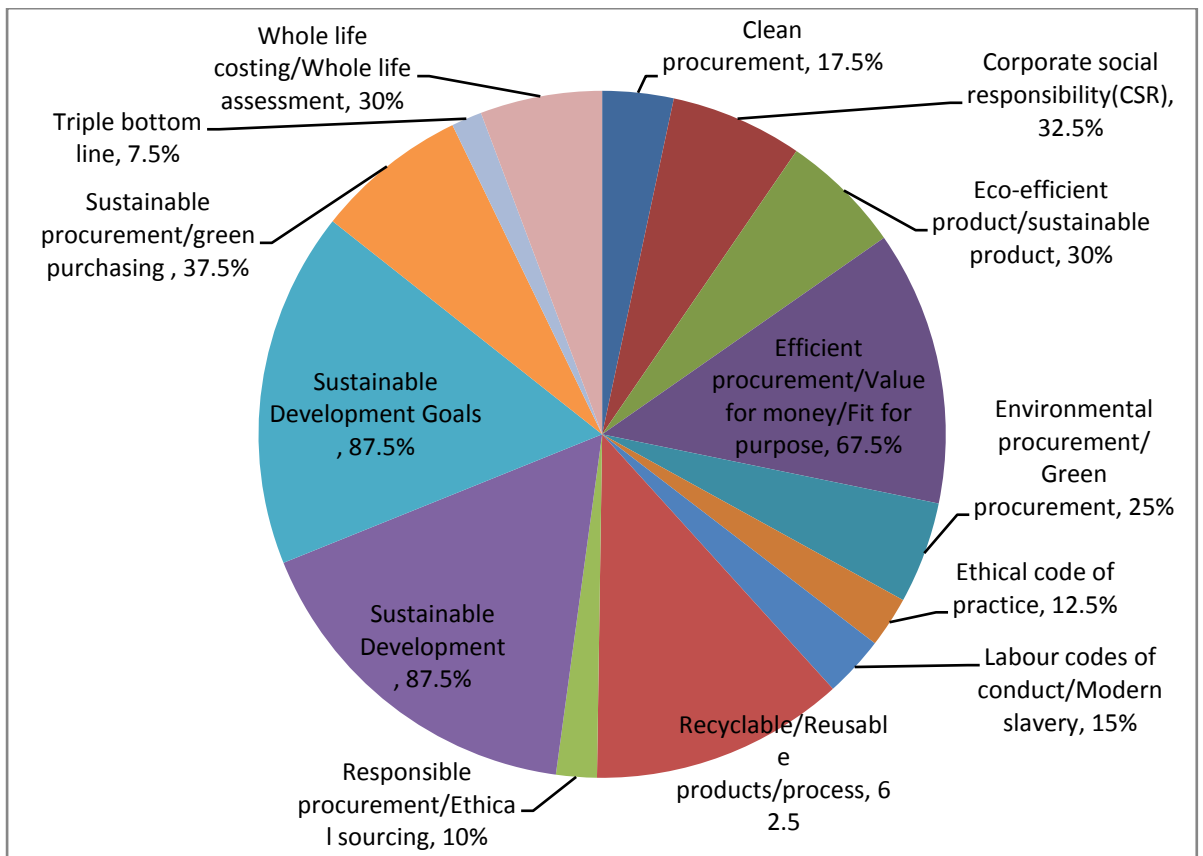


Figure 1: Level of Familiarity with the Basic Concept of SPP

Notably, only 7.5% of participants have an idea about the Triple Bottom Line (TBL) which is the centre of the SPP concept.

4.1.2 Familiarity with Core ILO Conventions

Agenda 2030 places decent work for all, and the ILO's mandate and purpose of social justice, are at the heart of policies for sustainable and inclusive growth and development. Several ILO core conventions are related to the SDGs and SPP like the worst form of child labor convention 1999, Equal Remuneration Convention 1991, Minimum wage convention 1951, Occupational Safety and Health Convention, 2006. Bangladesh ratified all eight of ILO's 'Fundamental Conventions' covering social and labour issues that are considered fundamental to rights at work (ILO 2023). Most of the Respondents said that they have no knowledge about these conventions. Some said some conventions are not allowed in Bangladesh. The survey result also indicates that the public procurement officials are not familiar with the core ILO Conventions (Fig. 2). No one is acknowledged with Force Labor Convention, Occupational Safety and Health Convention, and Promotional Framework for Occupational Safety and Health Convention.

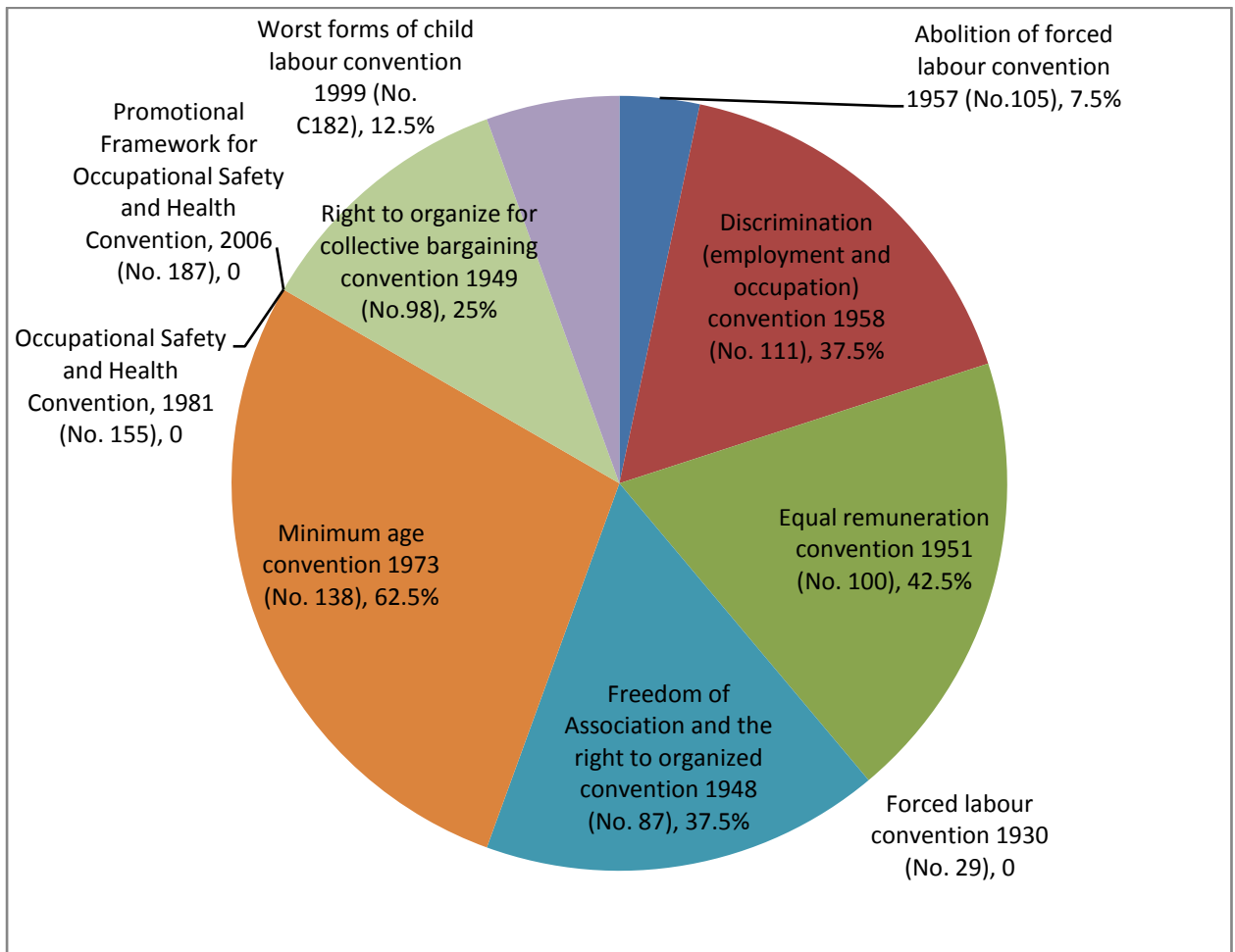


Figure 2: Familiarity with ILO Core Conventions

Only 7.5% of participants know about the Abolition of Forced Labor Convention and 12.5% are known about the Worst Form of Child Labor Convention. However, 62.5% of participants know about Minimum Age Convention, and 42.5% know about Equal Remuneration Convention.

4.1.3 Familiarity with International Agreements Related To SPP

International Agreements play important role in global business and international procurement as well as in addressing sustainability issues. Procurement professionals need to have primary knowledge of these agreements to implement SPP and Achieve the SDGs of a country. Widely used nine agreements were presented to the selected respondents to measure their familiarity with these agreements to them. The Kyoto Protocol and The Montreal Protocol were familiar to the majority of respondents whereas other agreements were unfamiliar to most of them. Similar results were found in the survey (Table-2). 15 participants mentioned that they were known about Kyoto Protocol whereas 11 participants were known about the Montreal Protocol.

Table 2: Familiarity with International Agreements Related to SPP

Agreement	Known number	Known %
The 1979 Geneva Convention on Long-Range Trans-boundary Air Pollution (LRTAP)	0	0
Stockholm Convention on Persistent Organic Pollutants (POPs)	2	5
United Nations Framework Convention on Climate Change (UNFCCC) - Kyoto Protocol	15	37.5
Convention on Environmental Impact Assessment in a Trans-boundary Context (Espoo Convention)	7	17.5
Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal	2	5
The Montreal Protocol on Substances That Deplete the Ozone Layer	11	27.5
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade	0	0
Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter	2	5
International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78)	2	5

The remaining agreements are mostly unknown to the participants.

4.1.4 Knowledge of Global Initiative Regarding SPP

The UN Environment Programme (UNEP) plays an active role in the promotion of SPP; it co-leads the One Planet Programme on SPP which supports the implementation of SPP around the world and publishes a Global Review of SPP in every 4 years which shows the state of SPP implementation at world level. There are many initiatives around the world to implement SPP. Our procurement professionals were asked whether there are any defined initiatives – policy, action plan, strategy, programmes initiative by the government or any organization has been taken in Bangladesh.

Most respondents argued that there are some initiatives for implementing SPP that are undertaken by the government including the CPTU policy, DIMPP project, and e-GP. Most of the Government procurements are implemented through e-GP which saves time, money, and procedural difficulties. There are several types of environmental and social management; environmental policy and program initiatives exist in our country which are used as support for promoting SPP such as ISO certification for PPR, WMP (Waste Management Plan), STP (Sewerage Management Plan), LEED (Leadership in energy and environment development). One of the KII mentioned that the Government also took initiative for promoting SPP by giving the Award for best practices –BAFO. There is a Member Chartered Institute of Procurement and Supply (MCIPS) training project for government employees in CPTU under the supervision of the Chartered Institute of Procurement and Supply (CIPS), UK to develop public procurement professionals which will help to knowledge gaining and sharing on global initiatives for SPP. In survey responses, major participants mentioned that initiatives are under development by the government.

4.1.5 Knowledge of SPP Criteria

Implementing SPP requires goods and services with sustainable criteria like recycling and biodegradable features of a product. Most of the participants of KIIs and FGDs said that they have basic knowledge of sustainable criteria but are not aware of the social and environmental criteria of goods and services they procure. They have no

adequate knowledge and training to identify sustainable criteria for the goods and services they procure. On the other hand, most of the respondents to the quantitative survey said that they do not know about the sustainable criteria like social, environmental, and economic criteria of goods and services (Fig. 3). Only 25% of respondents said that they know how to identify sustainable criteria of goods and services.

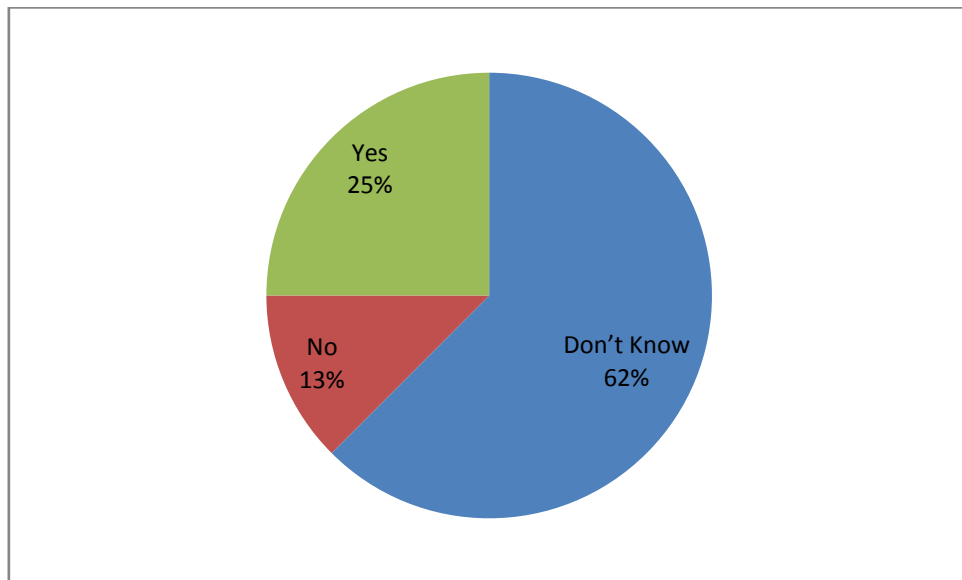


Figure 3: Ability to Identify SPP Criteria in Products or Services

4.1.6 Training Interest and Opportunities of the Procurement Staff

There are adequate training courses on 'how to buy' in the procurement system following existing Acts and Rules for procurement officials/staff regarding the process of suppliers selection, specification development, tender evaluation, and supplier's assessments, but there is no specific training for SPP or how to address sustainability issues in the buying process. Most of the respondents argued that training by the government budget is given to make the procurement officials to follow the existing legal system in which SPP is not included still now. If the SPP is included in the procurement Act or Rules, training on SPP will be available then. However, there is a project in CPTU, through which some procurement professionals are getting global knowledge on procurement from CIPS including SPP. Most of the participants claim that they do not feel interested in training for SPP as they are still

not aware of it. In FGD, one stakeholder (contractor) mentioned that they have not yet received any type of instruction regarding SPP or sustainability.

4.1.7 Perception of the Impact of Sustainability Criteria on Goods and Services

Most of the participants said that the price is increased for sustainable products, functionality and performance are also increased, its quality is better than traditional products and it is widely accepted by the organization, but sustainable products are not widely available in the market. This perception is supported by the available literature.

4.1.8 Availability of Sources of Information

Most of the Participants said that they do not have any idea how to define and evaluate certain environmental characteristics for the products to procure, they think they will use the internet as the information source. Some respondents think that they will use product labels or brushier. The survey reports show similar results (Fig. 4).

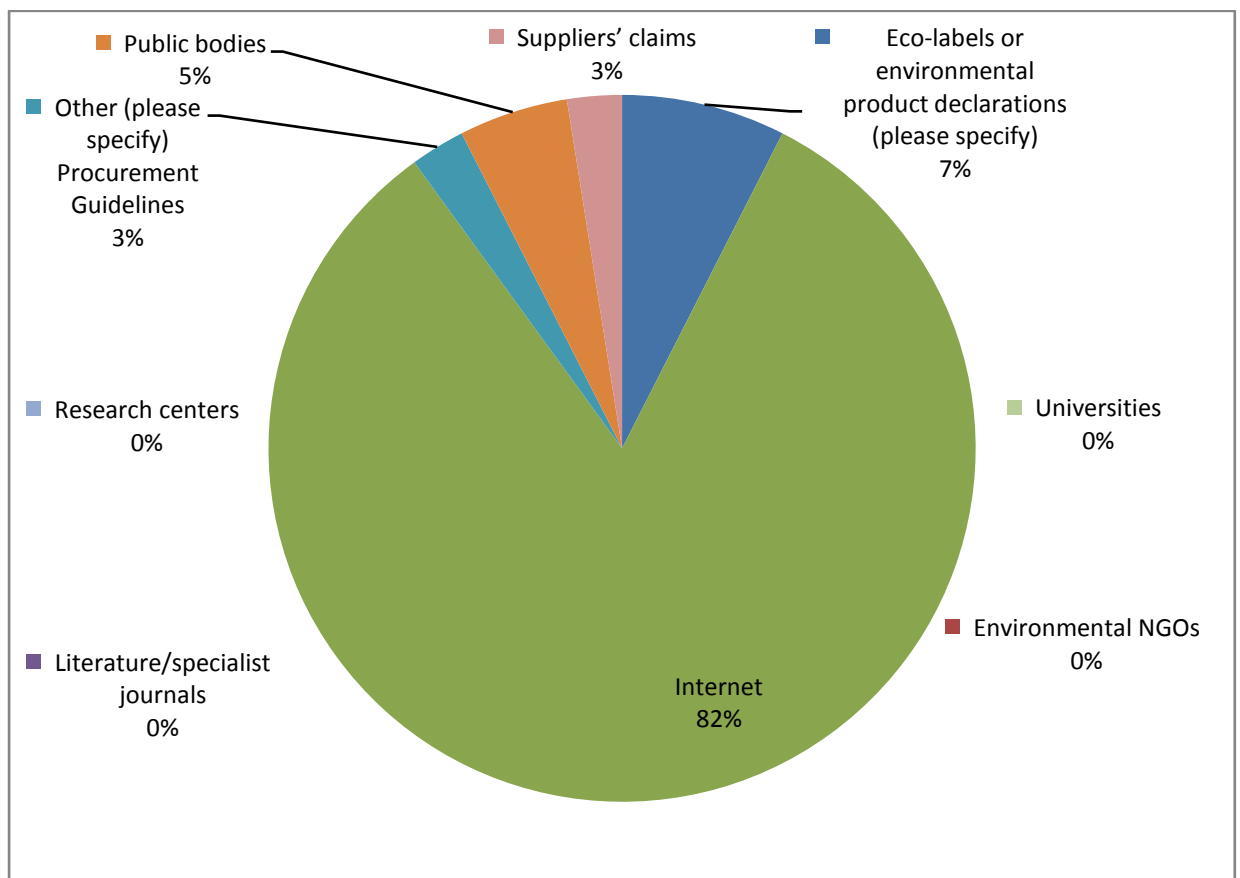


Figure 4: Sources of Information on Sustainability Criteria

4.2 The Current Level of Practicing SPP by Public Officials in Bangladesh

To evaluate the status of practicing SPP in the country, 19 questions were asked and discussed with selected KII, IDI, and FGD respondents who are directly involved in public procurement. The questions were in the following broad categories-

- Existence of SPP supporting procurement Rules and Regulations
- Existence of Tools and Techniques provided by the Government to implement SPP
- Coverage and Dimension of current Approach
- Capacity level to implement SPP with Risk assessment and Monitoring process
- Stakeholder engagement and communication for SPP practice

Ideally, an SPP-practicing country should have procurement rules and regulations which will not only support SPP but also impose to practice of SPP by providing appropriate tools and techniques in a holistic approach to cover all sustainability criteria throughout the procurement process. Every step of the procurement process like Specification making, Evaluation, selection criteria, Whole life costing, etc should consider as a Sustainability issue. People involved in the process should have the capacity to assess the product to identify sustainability criteria and risk evaluation.

4.2.1 Existence of SPP Supporting Procurement Rules and Regulations

Public procurement in Bangladesh is controlled by Public Procurement Act, 2006 (PPA, 2006) and Public Procurement Rules, 2008 (PPR, 2008). There is no specific regulation or law to implement SPP in Bangladesh. All respondents admitted that the Act and Rules are well established and widely practiced but it emphasized on economic aspect only, environmental and social aspects have not been addressed. The legal instruments aim to ensure 'Transparency and Accountability' through 'Equal treatment and Fair competition'. In supplier selection and awarding criteria, the 'lowest-cost' idea gets preference with quality checks to some extent. Initial or

purchase price is considered, Whole Life Costing (WLC) is not considered. However, there are some scopes to include sustainability criteria in specification but that may limit competition which also goes against the spirit of 'free and fair competition' of the Law.

Some respondents opine that, as the system does not pursue SPP practice, it ultimately prohibits SPP practice. They argue that socially and environmentally sustainable products and services are usually more expensive in initial purchase price than conventional products and services. As a result, sustainable products and services are unable to win a tender where the initial purchase price is used as a winning factor.

However, some of the respondents added that sustainability is included in public procurement in Bangladesh but it is not applied at all and there is no existing implementation plan or policy for it. One of the KII remarked that while there are requirements for meeting minimal legal standards, none of them are environmental in nature. In FGD, two of the members responded favorably to the inclusion of such requirements in the tender document. They clarified that depending on the type of procurement, environmental legal norms may occasionally be included in the tender document.

The participants of the quantitative survey were given the choice to select one situation from 11 situations describing gradual development from the worst to the best legal framework. The worst one is the absence of any legal framework and the best one is the government's approach to SPP covers all aspects. They are broadly divided into two opinions, the major group (45%) thinks that in Bangladesh, a Legal framework exists which is routinely applied and measures are taken to improve it, some sustainability issues are also included but not applied whereas another group (37.5%) think that Legal framework exists which is routinely applied and measures are taken to improve it but sustainability issues are not included (Table 3).

Table 3: Existence SPP Supporting Legal Framework

Existing legal status	Response %
There are no public procurement laws/regulations.	0
Exist and applied in some procurement activities.	2.5
Exist and routinely applied in procurement.	7.5
Exist and routinely applied, measures are taken to improve the degree of compliance	5
Exist, routinely applied, measures are taken to improve but Sustainability is not included	37.5
Exist, routinely applied, measures are taken to improve, Some Sustainability issues are included but not applied	45
Exist, routinely applied, measures are taken to improve, Sustainability is included and applied in some procurement activities	2.5
Exist, routinely applied, measures are taken to improve, Sustainability is included and routinely applied	0
Exist, routinely applied, measures are taken to improve, Sustainability is included and routinely applied, measures are taken to improve the degree of compliance	0
Public procurement included in the government approach to sustainable development	0
The government's approach to SPP cover all aspects	0

4.2.2 Existence of Tools and Techniques Provided by the Government to Implement SPP

According to practitioners of public procurement, Government provides some tools such as Standard Tenders Documents (STDs), standard specifications, risk assessment templates, and product/service fact sheets. The government also sets some criteria for procurement but these do not cover all aspects of SPP. One of the responded in FGD mentioned that the governments of Bangladesh already have taken initiative to develop an SPP policy. According to procurement practitioners, the entities that require the goods and services are the ones who develop the technical specifications. Administrative issues are handled by the procurement unit and the entities are responsible for addressing social, environmental, and sustainable development issues.

Most of the respondents mentioned that the government has included many areas as an approach to sustainable development for achieving SDGs. Public procurement is one of them. Although, Government does not directly use the term “SPP”, they practice SPP by different names such as e-GP, and e-procurement. Some mentioned that the technical requirements are developed jointly by the unit that requires the product and services and the procurement unit. The units responsible for sustainable development, and environmental and social issues then contribute their closest or sustainability criteria for final consideration by the procurement. Almost all of the responses provide a similar response that because the procuring organizations must adhere to the standard tender document created by the CPTU, it is the CPTU that may set specific requirements in order to improve the environmental performance of contractors or suppliers. There is limited scope for procurement organizations to include any significant criteria in the tender document. The survey result shows similar findings on government support to SPP by providing tools and techniques (Fig. 5). 85% of participants think that government provides some tools and techniques such as STD and e-GP platform for public procurement but does not cover three dimensions, it emphasizes economic factor mainly, and social and environmental coverage is limited.

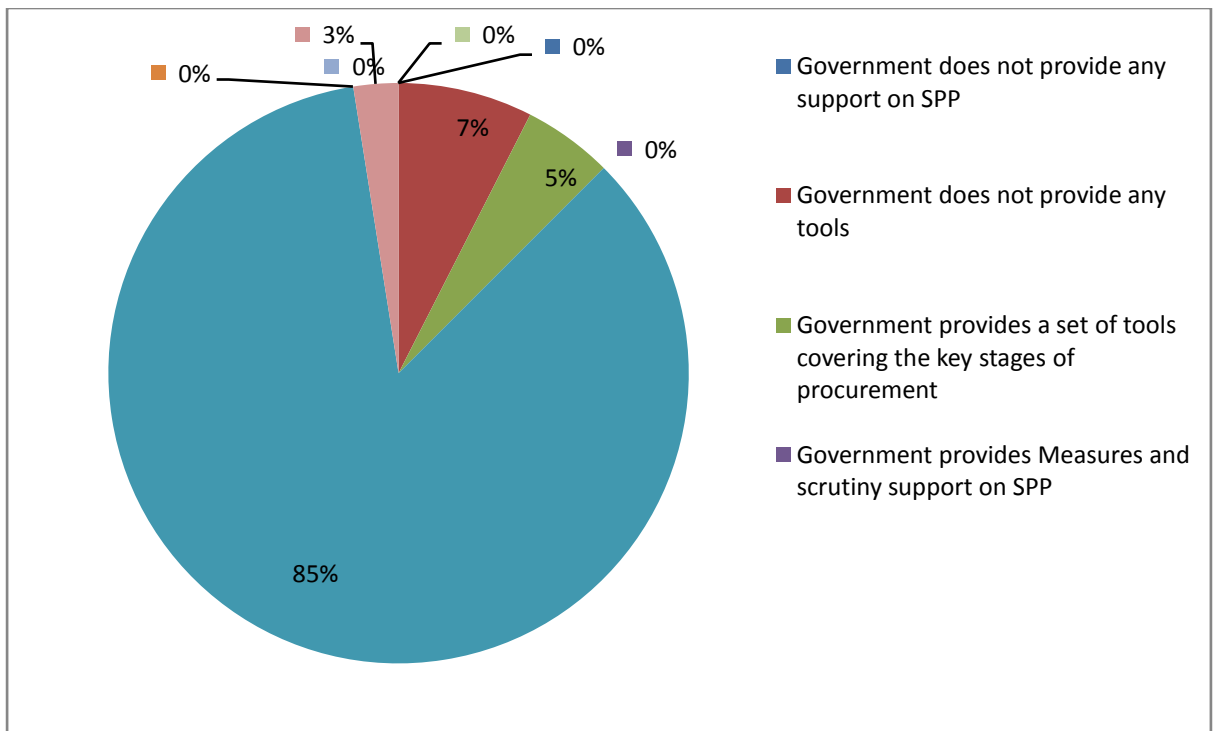


Figure 5: Government-Provided Tools and Techniques to Support SPP

4.2.3 Coverage and Dimension of Approach to SPP

Most of the respondents claim that the current procurement approach is the lowest-cost based, mostly economic factors are considered in Procurement plans, environmental and social factors are not considered. However, some argue that environmental and social factors are also considered indirectly when project plans are approved. At specification development stages, price and quality get importance but it does not cover other dimensions of sustainability. In the same way, the initial purchase price is the determining factor of evaluation, total life cost is not considered, although quality factors are considered, environmental and social impact are not evaluated. Products/services with high economic, environmental and social impacts are not identified. The organization does not undertake any sustainability risk assessments in the procurement process, and does not evaluate suppliers on sustainable criteria. The quantitative survey result shows that 90% of participants think that tender evaluation is based on the purchase price only in practice (Fig. 6).

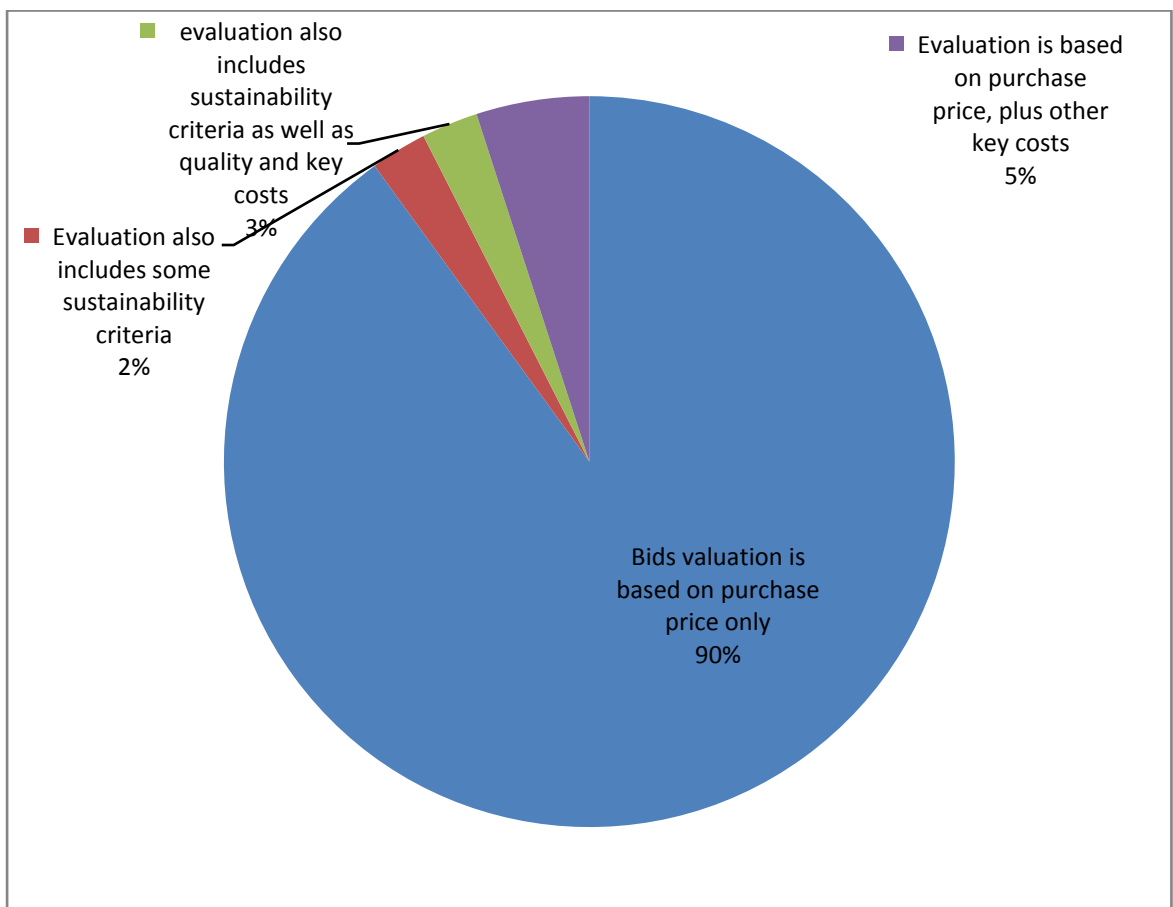


Figure 6: Approach to SPP in Bid Evaluation

4.2.4 Capacity Level to Implement SPP with Risk Assessment and Monitoring Process

According to the respondents, there are many tools available for monitoring procurement but no specific monitoring system or policy for SPP. Internal and external/independent auditing systems are in place but do not include SPP aspects. Reports are produced that demonstrate achievement of procurement e.g. savings, but SPP aspects are not verified.

Our survey result shows similar findings that Public Organizations undertake monitoring and reporting on procurement but does not consider SPP, Independent auditing systems are in place but does not include SPP aspects and Organization does not have a compliance audit for suppliers

4.2.5 Stakeholder Engagement and Communication for SPP Practice

Most of the respondents mentioned that Stakeholders are involved in developing an approach to SPP at Policy Level. CPTU, as the government agency to provide support to public organizations in procurement, is continuously working to improve the public procurement legal system, assessing and monitoring system. It has started to incorporate sustainability issues in public procurement. Stakeholders are engaged in seminars, and workshops organized by CPTU. At the organizational level, there is very limited scope to engage stakeholders in the procurement process; rather it is seen as offence/bad practice as it may promote corruption in procurement process. Although procuring entity can hold a pre-tender meeting with potential suppliers, the function of the meeting is limited to some specific issues of the tendering process; it does not allow engaging suppliers in the planning or specification development process which can help to promote SPP practice. The same opinions are found in the quantitative survey report.

4.3 The Existing Legal Framework Supporting or Constraining the Practice of SSP by the Public Officials

According to UNEP global report 2022, regulation was found the most important driver of SPP (UNEP 2022). Two principal legal instruments (PPA, 2006 and PPR, 2008) deal with public procurement in Bangladesh. These two instruments were

examined through 'Desk Research' to understand the legal standing of Bangladesh regarding SPP. The findings were also discussed with respondents and participants. The procurement structure is decentralized and regulated by 'The Delegation of Financial Power', issued by the Ministry of Finance. Central Procurement Technical Unit (CPTU) under the Ministry of Planning provides advice and technical support.

The legal instruments aim to ensure 'Transparency and Accountability' through defined methods and procedures for ensuring 'Equal treatment and Fair competition' for all in public procurement (PPA, 2006). These legal instruments cover five key principles (Transparency, Accountability, Ethical behaviour, Full and Fair Opportunity, Focus on need) out of ten (Transparency, Accountability, Ethical behaviour, Full and Fair Opportunity, Respect, Innovative solution, Focus on need, Integration, Life-cycle costing, and Continual improvement) of sustainable procurement standards of ISO 20400 (CIPS 2019). The procedures follow six distinct methods for Goods and Works procurement, where eight different methods for Service procurement. In supplier selection and awarding criteria for goods procurement, the 'lowest-cost' idea gets preference with quality check to some extent while in the case of service procurement, quality gets preference over price. However, there are some scopes to include sustainability criteria specification but that may limit competition which also goes against the spirit of 'free and fair competition' of the Law. Procurement executives fear of potential audit objections to consider sustainability factors over price factor. The audit is conducted by different independent government departments and usually after a few years of procurement. The respondents and participants show concord with an opinion that due to this legal standing, SPP practice is difficult in the country. Ultimately, it is not supportive of SPP, rather prohibiting it to some extent. These findings have been acknowledged in the recently published draft policy on SPP of Bangladesh (CPTU 2023). However, some respondents pointed out that, social and environmental factors are considered in the project proposal and approval process, under section 12 of the 'The Bangladesh Environmental Conservation Act, 1995' (BECA, 1995)', no industry can be established, or no project can be undertaken without an Environmental Clearance Certificate from the Department of Environment under the Ministry of Environment and Forests. However, they think that it is not sufficiently effective for sustainable development.

4.4 The Opportunities of Practicing SPP for Addressing Issues of Sustainability

The Opportunities were identified against readiness of procurement departments of the country to implement SPP, motivation to adopt SPP, and way to incorporate social and environmental criteria in the procurement process.

4.4.1 Readiness of Public Procurement Departments to Implement SPP

Respondents are widely divided on the position or readiness of public procurement departments to implement SPP in Bangladesh. Some respondents said that the overall public procurement system is inadequate for incorporating SPP due to sustainable products being more expensive, Lack of information and knowledge about SPP, lack of interest and commitment from users of the procurement, and sustainable procurement mechanisms, while some said that Procurement departments of the public sector are in a position to implement SPP. The deviation is visible across all types of respondents from the policy level to lower procurement officials. Even though most of the policy level officials think that Bangladesh needs time to practice SPP based on its economic and technical capabilities, some think that it is possible if a legal system is made imposing SPP as many developing countries already doing this. On the other hand, major respondents from lower-level officials think that it is possible to implement SPP if the government impose it in laws and provide some training on it but many of them argue that it is not for developing country like Bangladesh.

4.4.2 Motivation to Adopt SPP

Respondents vary in opinions on identifying important motivations to adopt SPP in Bangladesh. The majority of them opine that globally the existence of a legal framework is the most important motivator to adopt SPP and achieving SDGs is an important motivator. According to the survey report (Fig.7), the most important motivations include the implementation of a framework policy for promoting sustainable development, achieving SDGs, improving efficiency and reducing contracting costs, and following international trends on the modernization of public procurement systems.

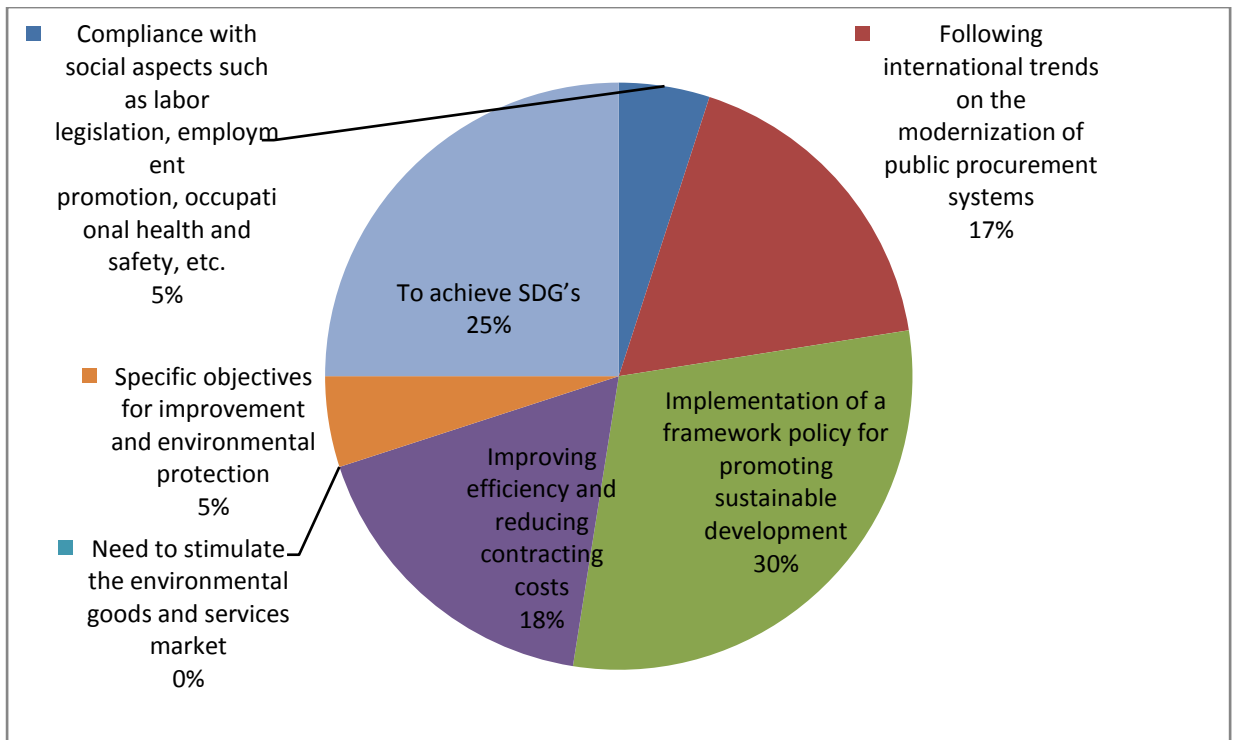


Figure 7: Motivators to Adopt SPP

4.4.3 Way to Integrate Environmental and Social Criteria in the Procurement Process

SPP requires incorporating social and environmental criteria with economic criteria in the procurement process to achieve TBL (people, planet and profit). Almost all respondents opine that technical specifications and/or award criteria in the tendering process are the most feasible way to incorporate environmental and social criteria in the procurement process. They argued that procurement decision is taken based on specification requirement and evaluation criteria. Bidders propose their offer based on these to win in a competition. However, it can reduce the tender competition which is contradictory to the existing legal spirit of Bangladesh. The same opinion was found in the survey response (Fig. 8). Participants opined that environmentally friendly Technical specifications and/or award criteria for the works, supplies, or services are the most feasible way to incorporate environmental and social criteria in the procurement process.

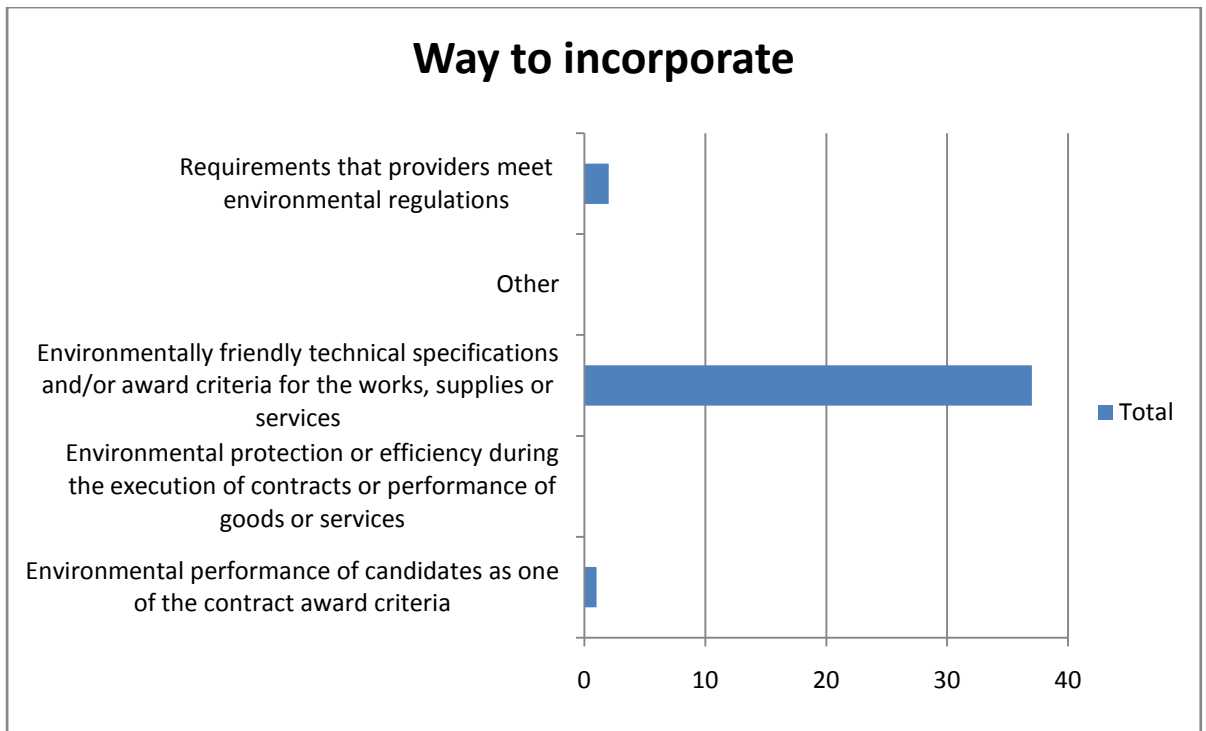


Figure 8: Ways to Incorporate Environmental and Social Criteria

However, some respondents pointed out that there is a high potential to incorporate SPP into the existing legal system as the country provides importance on protecting the environment and has included an article in its Constitution on environmental protection and the pursuit of sustainable development. Article 18A of the constitution states, “The state shall endeavour to protect and improve the environment and to preserve and safeguard the natural resources, bio-diversity, wetlands, forests, and wildlife for the present and future citizens”. Not only this, there are other supportive acts like ‘The Bangladesh Environmental Conservation Act, 1995’ (BECA, 1995, amended 2010) and Rules, ‘The Environmental Conservation Rules, 1997’ in the country. According to Section 12 of the Environment Conservation Act, 1995, “No industrial unit or project shall be established or undertaken to obtain, in the manner without prescribed by rules, an Environmental clearance Certificate from the Director General.” Planning Commission, through issuing the guidelines/ circulars or the green book, addresses the social and environmental issues during the development project formulation and approval process. During the sectoral appraisal, it is checked whether the project involves land acquisition. If a land acquisition is involved then, compensation and resettlement are mandatory to approve the project.

4.4.4 Challenges to Adopt SPP in Bangladesh

Practice on SPP relates to the availability of goods and services with sustainability criteria in the market at a competitive price. Price also needs to be calculated on the whole life cost basis of that particular goods or service, not on the initial purchase cost basis. It is critical to identify the challenges of SPP in a specific country. Most of our respondents argued that our legal system does not support SPP as the system emphasizes on the initial purchase price in the tendering process. According to them, purchasing price of the environment friendly products is usually higher than conventional products, so it fails to win the tender. Buyer has to face objections, even in auditing reports if he buys products at a higher price. They also claimed that products with sustainability criteria are not available in the domestic market of Bangladesh. Some respondents also mentioned that there are lacking of knowledge and information on sustainable products and services. Survey participants were asked to select the most important five challenges they think have to implement or adoption of SPP in Bangladesh. The options were taken from various literature and study reports mentioned as global challenges for implementing SPP. The survey results are shown in the following figure (Fig. 9).

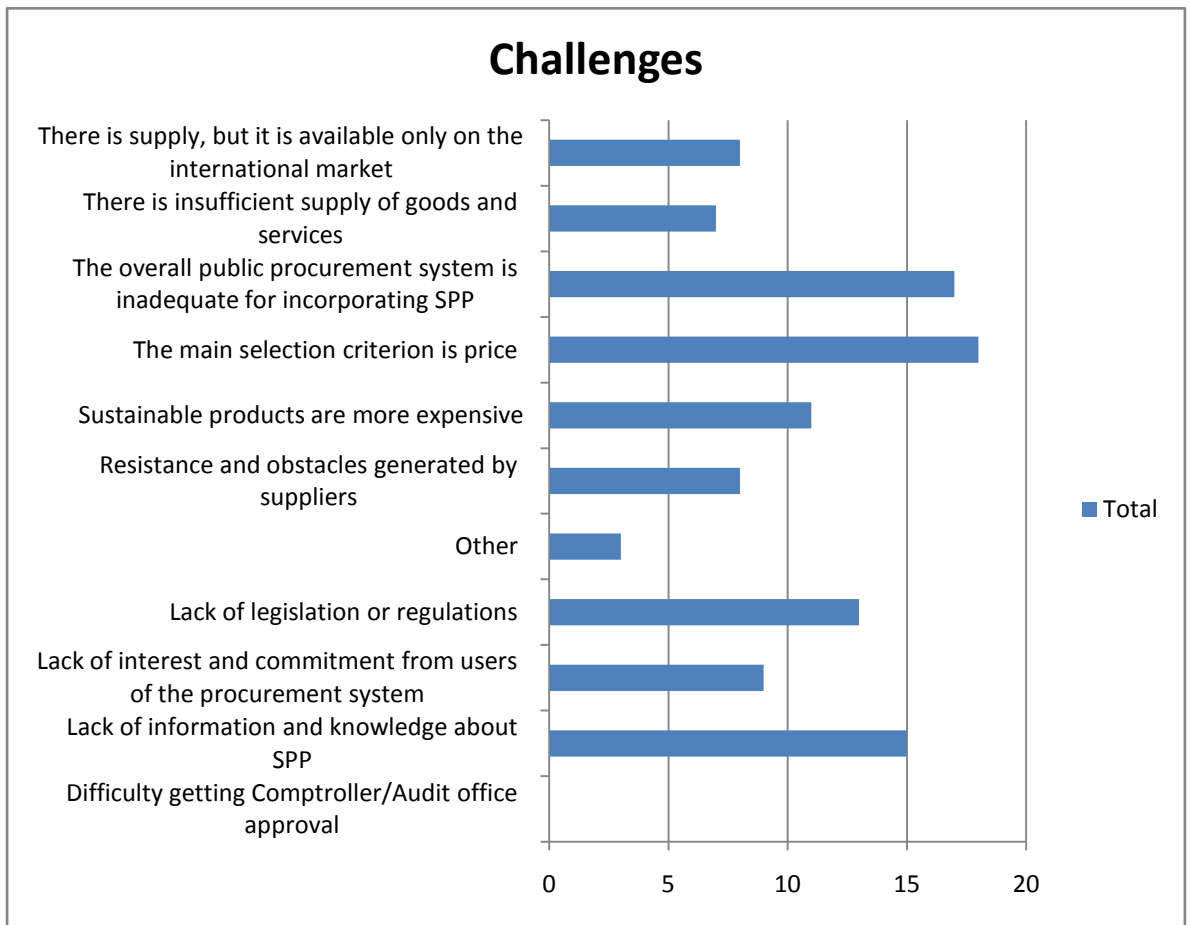


Figure 9: Challenges to Adopt SPP

The figure shows that 'price' being used as selecting factor in tendering process has been marked as the main challenge in Bangladesh to practice SPP. Overall public procurement system also marked as critical challenge. Other challenges include a lack of knowledge and information as well as the absence of rules and regulations. In fact, most of the critical challenges are connected to the legal system by which public procurement is controlled.

4.4.5 Recommendation to Implement SPP for Achieving SDGs

Varieties of suggestions have been found to implement SPP for achieving SDGs. Some respondents mentioned that to integrate sustainability concerns into the public procurement system, a national policy or guideline for sustainable procurement must be developed. Regardless of the industry or organization, the policy must be appropriately executed. According to one of the responders, political openness is

necessary for this goal. Building the sustainable procurement knowledge of public sector procurement authorities can also be a step in the development of the sustainable procurement practice in the nation. The CPTU has been running several public procurement awareness campaigns. Similar awareness campaigns highlighting the importance of sustainability issues in the public procurement system should be organized. .

According to one of the respondents, training on SPP for concerned people is required not only for officers but also suppliers. Policy on SPP should be improved such as environment-friendly specifications, sustainability issues on TOR, etc. Government should take initiative to promote Sustainable procurement by giving reorganization and rewards, incentives, etc.

A number of respondents also recommended including Corporate Social Responsibility (CSR) issues in the procurement system, implementing environmental policy efforts, and taking actions to reduce carbon footprints, among other things.

However, one of the respondents has emphasized proper study to implement SPP Government should enact qualification criteria and KPI in STD. Government should take initiative for developing the capacity of stakeholder mainly PE and Contractor.

One responded mentioned that to ensure SPP govt. should spread knowledge to the stakeholders so that they get positive mindset. Need to remove bureaucratic red tape in Public Procurement. The people who have proper knowledge, or who is associated with the project/procurement, bureaucrats should let them do their job.

In the quantitative survey, participants were requested to suggest five recommendations that they think are important to promote and encourage the implementation of SPP in Bangladesh perspective. However, some participants did not provide any suggestions whereas others provided diverse recommendations. Following diverse suggestions have been found (Table-4) and the second column indicates the number of participants who mentioned that recommendation in the same idea in different wordings–

Table 4: Participants' Recommendation on SPP

Recommendations	Mentioned
There needs to be discrete Law, policy and guidelines regarding SPP.	32
There need to be awareness campaigns and training/workshop programs for educating relevant stakeholders.	25
A bridge needs to be established between public, private, and third-sector organizations to enhance awareness and a positive outlook regarding sustainability in procurement.	15
Availability of sustainable goods and a sufficient budget for procurement should be ensured.	20
There should be a strict monitoring and regular updates and support should be available to eliminate any obstacles.	5
It can be included in PPR and STD	27
Short, Medium, and Long term plans should be taken based on the priorities	10
The social dimension of SPP should be given more attention	4
Creating awareness in the supply market about sustainability.	7
If the public sector gives preference to sustainable criteria, the supply market would adapt to provide sustainable products as well.	3
Specific objectives for improvement and environmental protection	1
Political and administrative will	20
Citizen engagement	4
low tariff/tax on environmental products	9
Spreading knowledge to the stakeholders so that they get a positive mindset.	5
Clarity or openness in Public Procurement. No political bias.	5
Before going to start a project or procurement, every government organization should seek public opinion. If the majority of people want it, then the government organization will do that.	3
Need to remove bureaucratic red tape in Public Procurement. The people who have proper knowledge, or who are associated with the project/procurement, bureaucrats should let them do their job.	1
The concerned procuring entity should get punishment if they make corruption. The real culprits should be punished for forgery, fraudulent	1

practice, or corruption.	
Developing technical requirements for tendering processes to procure only higher energy efficiency products	1
Comparing the economic cost and environmental impact of different bids during the life span of the appliances being procured	
Prioritizing long-term value-for-money over short-term, upfront costs	2
Creating demand for and availability of cost-effective sustainable products goods, services, and infrastructure	4
Encouraging better treatment of workers throughout the entire supply chain	1

Analyzing the survey suggestions and findings from interviews and FGDs, the most important five recommendations can be represented as billow-

1. Developing policy framework on SPP aligning to SGDs and National Strategy Documents.
2. Incorporating SPP in the legal framework to support and encourage SPP
3. Developing processes to promote knowledge sharing on SPP among stakeholders including buyers and suppliers
4. Developing strong political will for social and environmental concerns connected to development works.
5. Joint and collaborative initiatives from public, and private NGO

CHAPTER FIVE: DISCUSSION AND CONCLUSION

5.1 Discussion

To achieve sustainable development in practice, it is necessary for economic growth to support both social advancement and environmental protection, for economic performance to strengthen social justice, and for environmental policy to be cost-effective without endangering the well-being of future generations. Sustainable procurement involves economic, environmental, and social factors, with economic factors being the most common, followed by environmental factors, and social factors being the least common in Bangladesh.

This study found that the public procurement system in Bangladesh is not considering all sustainability dimensions as it supports the 'lowest-cost' based selection process which ultimately drives away the sustainable proposal from the competition. However, there is potential to incorporate it into the existing system. It also found that there is limited scope for developing dedicated procurement professionals as the procurement system is mostly decentralized and executed by departmental officials having no specific procurement unit even in line ministry. Headquarters of some departments have procurement units whose function is mostly monitoring and reporting. As a result, awareness level and willingness to SPP among public procurement executives are poor and need to develop. The inclusion of SPP in the legal system and establishment of procurement units in each ministry will motivate executives to be procurement professionals, it will open a global network among the professionals to face the challenges of SPP. This study found similar challenges of SPP practicing to other research findings, however, found extensive potential to incorporate SPP as it has a strong controlling legal system and already has other supporting laws and examples of many countries practicing SPP. While this study is in progress, CPTU has published a draft of the SPP policy of Bangladesh which acknowledged these findings and hoped it will help Bangladesh to maximize benefits and effectively respond to the sustainability agenda (CPTU 2023).

The study area was public sector only, so all of the respondents and participants selected for this research were government officials who may be biased to some extent and sometimes unwilling to criticize the government system. However, it could not be compared its findings to other studies on Bangladesh as no such research paper

was available to the researchers to compare but the findings show consistency with other research findings on similar topics in different countries.

5.2 Conclusion

Sustainable procurement is a significant issue in the majority of industrialized nations, but it is not yet a significant cause for concern in developing nations like Bangladesh. We can only hope that this problem will acquire traction in our nation and serve as a catalyst for the inclusion of sustainability in public procurement. This particular study was a great experience for this researcher and opened up many windows of opportunity to enhance knowledge in the field of sustainable procurement and SPP research topic in particular. This study was intended to analyze the position of the country in terms of SPP as a tool for achieving SDGs and to provide recommendations for development. Research findings revealed that the country is yet to use SPP to achieve SDGs but has potential and gradually preparing for that. This study could not be labelled as an exhaustive approach and further research is also possible in the same topic.

This study motivates to present the following recommendations:

- **Developing Sustainable Public Procurement Policy:** The Bangladesh government can develop and implement a policy that outlines the requirements for sustainable public procurement practices. This policy should include guidelines for sustainable product selection, evaluation criteria, and monitoring and evaluation procedures.
- **Incorporating SPP in the legal framework:** Public procurement is strictly controlled by acts and rules. Without incorporating it in the legal framework, it will not get importance. Keeping aligned with policy and other related acts, SPP can be incorporated into the procurement act to support and encourage it.
- **Setting Sustainable Procurement Targets:** The government can set targets for sustainable public procurement, such as requiring a certain percentage of public procurement to be from sustainable sources. These targets can be tracked and reported annually to ensure progress toward sustainability goals.
- **Incorporating Life-Cycle Costing:** The government can incorporate life-cycle costing in the procurement process, which takes into account the total cost of ownership of a product over its entire life cycle, including disposal. This approach

can help identify products that may have a higher initial cost but lower overall costs due to their durability and efficiency.

- **Engaging Suppliers in Sustainable Procurement:** The government can engage suppliers in the sustainable procurement process by requiring them to meet sustainability standards and provide sustainable products. This can be done through training and capacity-building programs, as well as through supplier audits and evaluations.
- **Monitoring and Evaluation:** The government can establish a monitoring and evaluation system to ensure that sustainable procurement practices are being implemented effectively. This can include regular reporting on the sustainability performance of suppliers and tracking progress towards sustainability targets.
- **Connecting to global network:** The country should be connected to global platforms working on SPP like UNEP, and One Planet Network on SPP. This connectivity will help to develop processes to promote knowledge sharing on SPP among stakeholders including government officials.
- **Developing joint and collaborative initiatives for awareness:** Government should develop a procurement unit in each ministry to enhance using SPP as a strategic tool for achieving SDGs. Like the public sector, the private sector also should be concerned about the social and environmental aspects of procurement. Government can take awareness programmes for sustainability by engaging public, private, and NGO sectors. This will help to develop consumers' expectations for sustainable goods and services which will create a strong political will for sustainability.
- **Inclusion of SPP in training modules:** Sustainability issues can be included in all procurement training provided by CPTU, departments, and other training institutes like BPATC. The topic should be included in foundation training for all cadre officers to build awareness of sustainability practices.

By implementing these recommendations, Bangladesh can promote sustainable development through its public procurement practices. However, these recommendations are only for the way forward, more in-depth researches are required to develop actionable strategies based on the country context.

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APPENDICES

Protocol for Interview and Survey

Protocol for Interview and Survey

DECLARATIONS: This is a research project named “Addressing SDGs through sustainable public procurement: A study on Bangladesh” undertaken by Mr. Zahangir Alam and his team funded by BPATC to identify the status of Bangladesh in practicing SPP for achieving the SDGs.

The aim of this research is to identify the status of Bangladesh in practicing SPP for achieving the SDGs. The detailed objectives of this research are as follows; to identify the level of awareness among the procurement professionals on SPP in their practices, current level of practicing SPP by the public officials; to examine the legal framework supporting or constraining the practices of SPP by the public official and to explore the degree of opportunities as well as challenges of practicing SPP with references to suitable ways for addressing the issues of sustainability for sustainable growth visibility along with procurement and delivery lead-time optimization for achieving competitive advantage.

We ardently request your support in this regard. The information generated hereby shall be used purely for research, and individual names or institutions shall remain anonymous.

Name	Zahangir Alam
Designation	Senior Assistant Secretary (OSD on Study)
Address	Ministry of Public Administration

Please confirm the followings:

	Yes	No
I have read the Participant Information Sheet included with this questionnaire;		
I am over the age of 18;		
I understand that no personal identifying data is collected in this study, therefore I know that once I have submitted my answers I am unable to withdraw my data from the study;		
I agree to take part in this study		

The questionnaire has been read to me. I have had the opportunity to ask questions about it, and any questions that I have asked have been answered to my satisfaction. I consent voluntarily to participate as a participant in this research.

Name of Participant : _____

Signature of Participant : _____, Mobile Number:

Email Address: _____

Designation of the participant: _____

Interview Location/Address:

The End