

Chapter 10

Sustainable Public Procurement

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ABSTRACT

Public procurement accounts for 13 to 20 percent of global GDP annually. The tremendous purchasing power of governments coupled with the sustainability impacts associated with its procurement, presents an immense opportunity to affect global sustainability outcomes. In this chapter we will discuss the factors found to be associated with SPP success. These include formal policy commitments that mandate SPP objectives, an organizational focus on value procurement, internal SPP champions, training and education, clear SPP criteria and measurement, integrated information management and e-procurement systems, and vendor collaborations. We conclude with discussion of emergent issues in SPP and present a teaching case for students to apply core concepts from the chapter.

Key words: Sustainability, Public procurement, Sustainable procurement success, Emergent issues

10.1 Introduction

Public procurement accounts for 13 to 20 percent of global GDP annually (World Bank Group, 2020). These items range from chemicals, to electronics, to office materials, and many other products and services that are part of public service delivery. Collectively, these purchases generate significant environmental and social impacts, risks, and costs, and accounts for 92 percent of an organization's total greenhouse gas emissions (CDP, 2021) and 40 percent of global greenhouse gas emissions (Labutong and Hoen, 2018).

The tremendous purchasing power of governments coupled with the sustainability impacts associated with its procurement, presents an immense opportunity to affect global sustainability outcomes. The United Nations and other international governance bodies, such as the World Bank and the Organisation for Economic Co-operation and Development, have identified sustainable public procurement (SPP) as a critical climate solution and a way to improve multiple societal objectives, including pursuing social equity among disadvantaged groups (Fernandez et al., 2013; Dimand and Cheng, 2023; Stritch et al., 2020; UNEP, 2022). Additionally, research organizations, such as the Sustainable Purchasing Research Initiative, and professional organizations, including the Sustainable Purchasing Leadership Council and the International City/County Management Association, are increasingly endorsing SPP as a tool for governments to achieve their sustainability goals (Hafsa, et al., 2021b).

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Sustainable Public Procurement (SPP) is a process employed by public authorities to improve societal and environmental outcomes, while stimulating the production of more sustainable products and services through procurement practices (Li and Geiser, 2005; Darnall et al., 2022). The underlying objective of SPP is to enhance the overall well-being of society (Dimand and Cheng, 2023; Behraves et al., 2022) by integrating sustainable development principles across all stages of the procurement process, from sourcing, to purchasing, and supply chain management.

Additionally, by aligning procurement processes with sustainability principles, governments can improve their operational efficiencies and reduce risks imposed by climate change and other global threats (Stritch et al., 2020; Behraves et al., 2022). For instance, by procuring more energy efficient streetlights, the City of Phoenix (U.S.) saved over \$1 million per year in energy costs and reduced its overall carbon emissions (Darnall et al., 2018).

In the next section we review the literature to define SPP in practice and identify and discuss factors that are associated with SPP adoption and implementation success.

10.2 Summary of the Literature – Factors Supporting SPP Success

Purchasing criteria are the characteristics by which goods and services are evaluated in the procurement process. Traditionally, products and services have been judged by criteria such as cost and quality. SPP introduces environmental and social criteria into the public procurement process (Walker and Phillips, 2009; Brammer and Walker, 2009; Cogburn and Rahm, 2005) either formally, by way of SPP policies such as ordinances, executive orders, resolutions, and administrative directives, or less formally when governments append SPP to related policies or plans (Hsueh et al., 2020). Environmental criteria are the characteristics used to evaluate and select suppliers and products based on their environmental impacts, such as energy efficiency, waste reduction, or carbon footprint. These criteria are often added to a government's existing sustainability plan or energy conservation policy (Darnall et al., 2017b, 2018a; Hsueh et al., 2020). Environmental criteria may also include reducing broader environmental impacts such as minimizing consumption, greenhouse gas emissions, solid waste, and toxic chemicals. For instance, as part of its broader sustainability plan, a government may introduce procurement criteria that reduces its packaging and waste, assesses its vendor's environmental performance, encourages more environmentally friendly products, and reduces carbon impacts associated with the transport of goods (Islam et al., 2017). Often the term "green" is associated with these characteristics.

Related to the social aspects of SPP, social criteria are the characteristics used to evaluate and select suppliers and products based on their opportunities for improved social equity, diversity, working conditions, and human rights (Behraves et al., 2022; Cheng and Ali, 2023). They may also seek to increase community involvement and support community economic development by focusing on buying from small-scale suppliers (Carter and Rogers, 2008; Romzek and Johnston, 2005; Walker and Brammer, 2009). Other social criteria might advance social equality in economic development through purchasing preferences given to women-owned businesses (McCrudden and Doreen, 2007; Furneaux and Barraket, 2014), veteran-owned businesses (McGrann, 2014), and minority-owned businesses (Stritch et al., 2020; Hawkins et al., 2018).

Regardless of whether a government emphasizes environmental sustainability, social sustainability or both, SPP requires system-wide changes to traditional procurement systems. These changes often involve new regulatory and internal support structures, training, and different ways of engaging with vendors and other stakeholders (Behraves et al., 2002).

We focus on seven facilitators that are widely discussed in SPP literature and draw from a wide range of U.S. and international examples.

10.2.1 National/State Sustainability Commitments and Regulation

About 19 percent of national governments have instituted regulations for mandatory SPP. Mandatory SPP consists of regulation that requires compliance with set SPP standards (UNEP, 2022). These higher-level sustainability commitments can help bring focus to SPP as a sustainability solution and help to garner resources and attention to facilitate successful implementation. For example, in its national plan, Australia established national climate emission reduction goals to reduce its carbon emissions by 26-28 percent by 2030. By establishing these national goals, states within Australia have begun considering creative sustainability approaches, including SPP. For example, New South Wales, Australia's southeast state, requires its local governments to emphasize the procurement of low emissions products (Lingegård et al., 2021). These requirements provide clear focus about top-level support, which helps mobilize action and shift internal cultures in lower levels of government (Wierzbicki et al., 2022).

Mandatory SPP regulation creates much stronger incentives that encourage SPP across the organization, because expectations are formalized, and employees can be held accountable for implementation (UNEP, 2022). For instance, within the U.S., Executive Orders in the Commonwealth of Massachusetts require all its state agencies to mitigate the negative sustainability impacts of their purchases. This requirement has provided the Commonwealth with a pathway to dedicate resources towards SPP training and education. Today, Massachusetts is recognized as a state leader in advancing SPP. At the local level, the City of Tempe, Arizona (U.S.) reports that their departments have prioritized SPP because it is endorsed by a City Council directive (Behraves et al., 2022).

National and regional mandatory sustainability regulations can also provide motivation for local governments to adopt SPP, even if it is not required. For instance, in 2001, Japan passed a law requiring all national agencies and all prefectural governments to develop SPP policies. Because of the mandatory requirements at the national and prefectural level, 700 local governments chose to voluntarily develop SPP policies of their own (Darnall et al., 2018). In contrast, voluntary SPP consists of general guidance to include certain sustainability criteria in procurement but does not require any specific action. Voluntary SPPs can elevate SPP as an organization goal or an objective to consider but lack the same monitoring, incentives, and resources that come with mandatory SPP. This can lead to inconsistent implementation, while sending only a weak signal to markets about the importance of producing sustainable products and services (Wierzbicki et al., 2022).

10.2.2 Value Procurement

When the government emphasizes sustainability attributes associated with a purchase (over the product's purchase price), it is more likely to implement SPP successfully because they pay greater attention to the economic, environmental, and social equity impacts of their procurement activities (Casier and Ruete, 2020). By doing so, procurement managers are incentivized to deliver social benefits to a wider range of stakeholders and reduce environmental harms. Value procurement focuses on the total life-cycle cost of procuring a good or service and is a more accurate assessment of the true cost of goods and services (Busellato, Drentin & Kishore, February 2021; Swanson, et al., 2023). Life-cycle cost is the full cost (social, environmental and economic) of a product over its entire life, including costs for research and development, testing, production, operation, maintenance, and disposal (França, et al., 2021)

By contrast the most common criteria used for procuring goods and services is purchase price, which tends to exclude social and environmental costs that are associated with product sourcing, use, and disposal (Swanson et al., 2022). For instance, the United Kingdom's 2012 Social Value Act requires the government to 'explicitly evaluate social value when awarding most major contracts.' This policy reduces negative impacts related to modern slavery in supply chains. Similarly, the executive authority of the Australian Capital Territory (ACT), one of the territories of Australia, which also governs all local government affairs, requires its departments and local governments to pursue value for money procurement. Factors to be considered in

procurement include: existing government policies; whole of life costs; design for the environment; environmental labels; environmental performance; and demand management opportunities (TEC, 2009).

10.2.3 Internal SPP Leaders and Champions

Management research has long recognized the importance of leaders and champions as drivers of cultural changes and implementing new organization practices, routines, and norms related to SPP (Pruess and Walker 2011; Roman 2017). An SPP champion is a leader that helps build momentum for SPP across the organization by translating the vision for SPP in actions, words, and commitments in a way that inspires and empowers others to act (Behraves, et al, 2022; Sönnichsen and Clement, 2022). Because of their legitimacy among their peers and support from higher level management, champions influence others around them (Hoffman, 2000) and are an essential part of SPP implementation.

One example of how SPP champions help facilitate SPP is seen in the City of Tempe (U.S.). When the city implemented its 2019 Climate Action Plan, the Director of Purchasing believed that SPP might be a means by which the City could meet its climate goals. He became the central champion for exploring SPP, and developing a shared set of SPP beliefs, values, and activities across the city (Behraves, et al., 2022). His ideas were reinforced by the City's Director of Sustainability and Resilience and its Deputy Mayor, both of whom were strong advocates for sustainability across the City (Behraves, et al., 2022). As a consequence of his advocacy, in 2020, the City of Tempe voted on and approved its sustainable procurement policy, which is now an integral component of the city's climate action plan.

10.2.4 Training and Education

In addition to leaders and champions, the broader base of employees also plays a critical role in SPP implementation, and a lack of knowledge and skills is a limiting factor in effective SPP implementation (UNEP, 2022; Grandia and Voncken, 2019). In many instances, despite having a policy in place, organizations fail to invest in employee training and education when managers and leaders fail to see the full value of SPP (Swanson et al., 2022). SPP training and education occur when organizations dedicate time and resources to create a shared understanding about the importance of sustainability and how the procurement process can be leveraged to advance sustainability goals. SPP training and education might occur in a number of settings, ranging from short workshops to form certifications offered through professional associations. They are critical mechanisms for employees to understand the concepts and practical applications of SPP and are vital first steps towards empowering them to act and ensuring they are positioned to implement SPP successfully and reinforce a culture of sustainability (Swanson et al et al., 2022). Trained and educated staff play a critical role in shaping an organization's direction towards the adoption and implementation of sustainability innovations since they tend to have a strong understanding of organizational issues based on their daily interactions (Hasu et al., 2011).

10.2.5 SPP Criteria and Performance Measurement

SPP criteria define what product characteristics must be met in order for a procurement contract or a product to meet the organization's expectation of being "sustainable." Formal SPP criteria reduce ambiguity for procurement managers who are responsible for implementing SPP. Example criteria include requiring that products meet the condition of being produced with no child labor, minimum expectations for energy or water efficiency, and expectations that vendors have a climate risk mitigation plan (Zhang, Song, & Zhang, 2018). Having clear SPP criteria reduces the chance of procuring products that are less sustainable, sends vendors clear expectations of what is needed to do business with the government, and provides vendors with incentives to address their sustainability impacts. As an example, Poland has adopted a National Plan for Sustainable Procurement, which sets clear SPP criteria. These criteria were used to create a catalog of products and services that meet minimum sustainability expectations (Ministerstwo Rozwoju i Technologii, 2022), which has

increased procurement managers' confidence about implementing SPP (Lewis & Machlowska, 2022).

Performance measurement refers to a process collecting and tracking data on an activity. Organizations manage what they measure and those that track their SPP spending are more likely to elevate the importance of SPP in their organizational routines and practices (Darnall et al., 2017a). By tracking spending related to SP, organizations are better positioned to reduce costs related to energy, water, fuel, and other expenditures and reward employees who are making strides to meet the organization's SPP goals (Darnall et al., 2017a). The Commonwealth of Massachusetts is one example. It has embedded SPP performance tracking within its e-procurement systems. Using spreadsheets and data visualization software, the Commonwealth is able to produce informative reports about their SPP performance that can be assessed over time. Performance measurement approaches such as these create opportunities to develop goals and targets around SPP and more appropriately recognize departments and employees who are meeting or exceeding (or failing to meet) SPP expectations.

10.2.6 Information Management & E-Procurement

While setting criteria and measuring performance are important, it is also important to consider the systems that are needed to implement these criteria and ensure that performance is monitored and measured. Well-organized, user-friendly information systems ensure procurement personnel have access to product information. Even for simple decisions, information is vital to effective decision-making. SPP information that is particularly important includes product ecolabels (Darnall et al., 2017a). Ecolabeled products generally bear a recognizable label or seal that indicates to procurement officers' specific information about the product's sustainability attributes (Darnall & Aragón-Correa, 2014). Because they are generally externally verified, ecolabels increase the credibility of a vendor's sustainability claims (Darnall et al., 2023). In order to access this information organizations often rely on online SPP product catalogs, which are digital platforms or databases that provide searchable information about sustainable products and services.

However, SPP information is still often lacking for many governments. For instance, in the United States, less than half of local governments reported that they have access to environmental information that is critical to SPP decisions (Darnall et al., 2017a). Such information includes access to product ecolabels/certifications and online databases of sustainable products and services.

E-procurement systems are digital platforms or software solutions that automate and streamline the procurement process (Chen, et al., 2021). They are another way to effectively integrate sustainability information into purchasing and can radically reduce the costs of seeking sustainable goods and services for purchasing managers. This is done by customizing standard e-procurement systems to include sustainability criteria and dashboards to track sustainability performance (UNEP 2022). By integrating SPP into e-procurement, organizations have the potential to raise the profile of sustainable products or services so that they become the default decision during purchasing. Because purchasing information is maintained in an integrated electronic system, organizations can more easily track their sustainable spend, monitor SPP progress and incentivize sustainable purchasing behavior (Swanson et al., 2022).

In addition to e-procurement systems that provide product information, more complex tools are available that can be used to calculate different product risks. An example is Sweden's online 'risk analysis service' and 'Life Cycle Costing' (LCC) tools, which have helped inform procurement managers about a product's environmental and social impacts that are accrued over its lifetime. Life-cycle cost tools enable procurers to quickly estimate the lifetime costs (and savings) associated with multiple products (Lewis and Machlowska, 2022), which helps facilitate SPP implementation success.

10.2.7 Vendor Collaboration

Vendors are entities that sell goods or services. Often used interchangeably with “suppliers” or “sellers,” vendors supply products or services to other public organizations. They are also often useful partners in facilitating an organization’s SPP success because they can educate purchasers about their SPP options (Behraves, et al., 2022). At the local level, municipalities that report having greater SPP implementation success tend to work more closely with their vendors and regard them as collaborators and important allies during the implementation of their SPP (Darnall et al., 2017). Examples of governments that strongly encourage vendor collaboration include the Netherlands, which created “Green Deals” that enable public and private actors to form coalitions and actively collaborate (Lingegård et al., p. 9, 2021). The interactions facilitate critical information exchange between the two groups so that they can discover innovative ways to meet their sustainability goals. Additionally, the European Union encourages market consultation with vendors prior to developing a tender and in every stage of the procurement process (before, during and after the tender), as long as transparency, equal treatment of all suppliers, and other conditions are satisfied (European Union, 2014). These collaborations support governments by providing critical information that informs SPP opportunities and may otherwise not be discovered.

10.3 Important Themes and Emergent Issues

While the previous section provides an overview of the current literature on the factors that are associated with SPP adoption and implementation success, there are a number of emergent issues both driving and shaping how public organizations enact SPP, and the considerable challenges they must work to confront.

10.3.1 Shifts in the Regulatory Environment

As noted in the previous section, broader environmental regulations is a driver of both SPP adoption and implementation (Walker et al., 2008; Behraves et al., 2022). However, recent regulatory shifts related to addressing climate change are accelerating this focus (Lăzăroiu et al., 2020). Early SPP efforts focused on recycled products and reducing the use of toxic materials. These were often consistent with local policies and ordinances regarding recycling and discarding toxic materials. As other environmental policies and regulations have influenced early SPP efforts, we can already see the regulatory shift and emphasis on carbon and greenhouse gas (GHG) reduction, serve as the impetus for increased SPP engagement on these issues (Lăzăroiu et al., 2020). Moving forward these are likely to be areas where governments will need to dedicate additional capacity in their SPP programs. Furthermore, the greater international focus stemming from the UN’s Paris Climate Agreement, a legally binding treaty aimed at mitigating climate change, will likely lead to more national governments making SPP mandatory in order to reduce their overall carbon footprint.

10.3.2 Fragmentation of Procurement and Purchasing Processes

Government procurement reflects a wide array of processes, actors and IT systems (Chen et al., 2022). From a request for bids or proposals to the processing of payment to a vendor, there are often multiple groups of people and different systems utilized. Centralized procurement systems are those in which a single-group or department conducts all procurements for the organization. In decentralized procurement systems, individuals in different departments have the ability to conduct procurement. In many local governments, procurement and purchasing often occur in hybrid procurement systems (McCue and Pitze 2000; Dimitri, Dini & Piga 2006). In these hybrid procurement systems, some types of procurement are centralized while others are decentralized. For example, procurements such as those that exceed a particular cost threshold and require certain technical specifications, might be led by the finance department or individuals who procure as their main job responsibilities. In contrast, other purchases for low-cost items (e.g., office and cleaning supplies)

might be completed by individuals who purchase on behalf of a unit through catalogs and pre-existing vendor contracts but for whom purchasing is only a minor part of their job (Stritch et al., 2020; Chen et al., 2022). The fragmented and often decentralized nature of procurement adds multiple layers to complexity for SPP implementation and SPP policy and environmental considerations have to be embedded and prioritized in the work among a wide range of actors.

This creates several challenges. First, given that procurement and purchasing might only be a small part of some individuals' jobs, it can be challenging to increase the saliency of sustainability criteria across all relevant employees. One solution may be to utilize technologies such as e-procurement systems and online product catalogs to shape the choice architecture that purchasers confront, presenting or limiting choices to environmentally preferred options (Walker & Brammer, 2012). However, a second challenge is that the purchasers are generally not the end user of the product or service. The purchaser is thus discouraged from taking on the risk associated with purchasing a product or service that is unproven, even if it is more sustainable.

10.3.3 Challenges with Advanced Data Tracking & Integration of Organization IT Infrastructure

Related to the often decentralized and fragmented nature of many procurement processes, data tracking and integration have emerged as a challenge for governments seeking to integrate SPP into their existing procurement practices. For example, information regarding environmental performance of products might not be linked with the procurement system. Additionally, in many instances, SPP practitioners note that data collected regarding the sustainability performance of products and services are often not used to inform decision making, rather are aggregated and presented after the fact. Data are collected and reports are generated but in a way that is disconnected from the procurement process.

In instances where data do get collected, they often are not integrated across different digital systems, which prevents them from being considered during the procurement process (Darnall, et al., 2024). One reason relates to governments' continued reliance on legacy digital technology systems, or outdated software and hardware systems, which pose barriers to converting sustainability data to other formats or the applications and are not easily upgraded (Irani et al., 2022). Additionally, data integration would likely cause considerable disruption for users. Shifting mindsets of individuals and organizations to have an orientation towards such data as input rather than output of their SPPs is critical for organizations to consider as they seek to embed SPP in their procurement systems.

An additional issue regarding SPP data is that governments are often dependent on the vendors themselves for information about the sustainability impacts associated with their business and their products. This can create a lack of standardized metrics and reporting that requires considerable effort to transform into usable data structures. While ecolabels and third-party certifications are useful, they vary significantly, with some being more robust than others, which makes them incomparable and not always reliable (Darnall & Aragón-Correa, 2014; Darnall et al., 2017b). With more than 450 ecolabels in the market, expecting purchasing managers to verify them is not possible. Within the U.S., the Environmental Protection Agency has developed recommendations for standards and Ecolabels to help purchasers identify and procure more sustainable products and services (USEPA 2023), however, this guidance does not consider the full population of ecolabels in the market.

Given the complexity of this landscape, considerable opportunities exist for governments to utilize technologies and third-party application program interfaces that independently verify the sustainability impacts of the products and services they wish to purchase. Additionally, artificial intelligence technologies offer enormous promise to integrate sustainability considerations into contracting and procurement practices, while creating new opportunities for SPP (Caldera, Mohamed & Feng, 2022).

10.3.4 Multiple Priorities in the Procurement Process

With respect to elevating SPP as a priority within an organization's procurement process, several opportunities exist. First, it is critical to note that historically procurement has been leveraged to advance a number of social goals (Stritch et al., 2020; Dimand and Cheng, 2023). For instance, governments at all levels have sought to use procurement to support minority-owned business, veteran-owned business, or locally owned business preference policies. While such policies are important to social sustainability, in many instances, they are inconsistent with each other and environmental sustainability (Liao, Warner & Homsy, 2019; Chen et al., 2022). Competing goals are further complicated when some policies are mandatory and others voluntary. Indeed, identifying ways to integrate social goals within the broader context of sustainability is critical in moving beyond seeing these goals as an "either/or" proposition.

As noted previously, a major challenge as it relates to elevating SPP as a priority in organizations is cost. While taking into account a product's life-cycle costs have reshaped thinking to some extent, the upfront cost and initial purchase price of products and services remain an important consideration in public procurement (Keulemans, & Van de Walle, 2017; Walker, Di Sisto & McBain, 2008). Additionally, investment of any public resources towards meeting sustainability goals is often met with political opposition. Although value procurement can save budget resources in the long term, it often involves a higher initial purchase price, which can be a major issue when the budgets are limited (Brammer and Walker, 2011). Moving forward, it will be important for governments managing these political discussions to rely on the best practices of other governments who have successfully advanced the value procurement discussion.

10.3.5 Rules and Limits to Engaging Vendors & Suppliers

The previous section illustrates how SPP can be enhanced by collaborating with vendors. They are important sources of information of both the environmental performance and impacts of different products and services and often have more information regarding goods and services available on the market (Behraves et al., 2022). The access to information helps reduce market uncertainty about the sustainability attributes of the procured products and services. However, some governments, including the U.S., are less eager to promote vendor collaboration, which involves cooperative relationships between a government and its vendors (e.g., communication, information sharing) aimed at achieving shared goals and mutual benefits (Erridge and Nondi, 1994; Caldwell et al., 2005). Reluctance is due in part to regulatory safeguards against corruption and the misuse of taxpayer money, which generally require public purchasers to keep an arm's length distance from vendors (Behraves et al., 2022). These safeguards tend to reduce the public sector's discretion associated with vendor selection, while increasing accountability expectations (Schotanus and Telgen, 2007). Increased regulation around vendor selection also means that the public sector purchasers must be cautious (or, in some settings, avoid) collaborations with vendors and contractors (Erridge and Nondi, 1994; Caldwell et al., 2005). Yet, U.S. governments, especially those at the local level, which respect these boundaries while seeking creative ways to engage their vendors, report greater SPP implementation success (Darnall et al., 2017a).

10.4 Conclusion

Governments have tremendous purchasing power. This fact coupled with the sustainability impacts associated with its procurement, presents an immense opportunity to affect global sustainability outcomes. This Chapter provides readers with an introduction to the literature, including the key factors associated with SPP success as well as emerging issues and challenges. In Appendix 1 (available from the authors), we provide a teaching case to allow students to implement key concepts from the Chapter. We describe a local government official tasked with exploring SPP in their community. After the description of the organization, we ask a series of questions to help you consider the various challenges and opportunities facing decision makers tasked with implementing SPP.

10.5 Glossary

Centralized procurement systems are those in which a single-group or department conducts all procurements for the organization.

Decentralized procurement systems allow for individuals in different departments to have the ability to conduct procurement.

E-procurement systems are digital platforms or software solutions that automate and streamline the procurement process.

Ecolabels are a recognizable label or seal that indicates to procurement officers' specific information about the product's sustainability attributes.

Environmental criteria are the characteristics used to evaluate and select suppliers and products based on their environmental impacts, such as energy efficiency, waste reduction, or carbon footprint.

Hybrid procurement systems are present when some types of procurements are centralized while others are decentralized.

Legacy digital technology systems, or outdated software and hardware systems, pose barriers to converting sustainability data to other digital formats or applications and are not easily upgraded.

Life-cycle cost is the full cost (social, environmental and economic) of a product over its entire life, including costs for research and development, testing, production, operation, maintenance, and disposal.

Life-cycle cost tools enable procurers to quickly estimate the lifetime costs (and savings) associated with multiple products.

Mandatory SPP consists of regulation that requires compliance with set sustainable public procurement (SPP) policy standards.

Performance measurement refers to a process collecting and tracking data on an activity.

Purchasing criteria are the characteristics by which goods and services are evaluated in the procurement process.

Social criteria are the characteristics used to evaluate and select suppliers and products based on their opportunities for improved social equity, diversity, working conditions, and human rights.

Sustainable public procurement (SPP) is a process employed by public authorities to improve societal and environmental outcomes, while stimulating the production of more sustainable products and services through procurement practices.

SPP champion is a leader that helps build momentum for SPP across the organization by translating the vision for SPP in actions, words, and commitments in a way that inspires and empowers others to act.

SPP criteria define what product characteristics must be met in order for a procurement contract or a

product to meet the organization's expectation of being sustainable.

SPP training and education occur when organizations dedicate time and resources to create a shared understanding about the importance of sustainability and how the procurement process can be leveraged to advance sustainability goals.

SPP product catalogs are digital platforms or databases that provide searchable information about sustainable products and services.

UN's Paris Climate Agreement is a legally binding treaty aimed at mitigating climate change.

Value procurement focuses on the total life-cycle cost of procuring a good or service and is a more accurate assessment of the true cost of goods and services.

Vendors are entities that sell goods or services.

Vendor collaboration involves cooperative relationships between a government and its vendors (e.g., communication, information sharing) aimed at achieving shared goals and mutual benefits.

Voluntary SPP consists of general guidance to include certain sustainability criteria in procurement but does not require any specific action.

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