





Current Status of Green Public Procurement (GPP) Implementation

Enhancing the implementation of Green Public Procurement in Southeast Asian region

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CONTENTS

LIST OF ACRONYMS	4
Chapter 1: INTRODUCTION	5
1.1 Green Public Procurement	6
Chapter 2: GPP LANDSCAPE IN THE PHILIPPINES	9
2.1 Legislation	10
2.2 Implementing Agency	13
2.3 Supporting Agencies	14
2.4 GPP Roadmap	16
2.5 National Ecolabelling Program- Green Choice Philippines (NELP-GCP)	17
Chapter 3: GPP IMPLEMENTATION IN THE PHILIPPINES	19
3.1 Product Category Selection	20
3.2 Technical Specification Development	23
3.3 CSE Technical Specifications	24
3.4 Non-CSE Technical Specifications	26
3.5 Marketing and Capacity-building	29
3.6 Monitoring/Evaluation	30
3.7 Results of GPP Implementation	31
3.8 Challenges/Issues	32
Chapter 4: GOOD PRACTICES CHECKLIST	33
Chapter 5: CONCLUSION AND RECCOMMENDATIONS	54
References	56



LIST OF ACRONYMS

4

ΑΡϹΡΙ	Agency Procurement Compliance Performance Indicators
CSE	Consumable Supplies and Equipment
DBM-PS	Department of Budget and Management – Procurement Service
DENR	Department of Environment and Natural Resources
DOE	Department of Energy
DTI	Department of Trade and Industry
DTI-BPS	Department of Trade and Industry – Bureau of Product Standards
GDP	Gross Domestic Product
GPP	Green Public Procurement
GPPA	Green Public Procurement Act
GPPB	Government Procurement Policy Board
GPPB-TSO	Government Procurement Policy Board - Technical Support Office
GPRA	Government Procurement Reform Act
IRR	Implementing Rules and Regulations
NEDA	National Economic Development Authority
NELP-GCP	National Ecolabelling Program – Green Choice Philippines
PCEPSDI	Philippine Center for Environmental Protection and Sustainable Development, Inc.
PDP	Philippine Development Plan
PHILGEPS	Philippine Government Electronic Procurement System
PRIME	Private Sector Participation in Managing the Environment
SCP	Sustainable Consumption and Production
SPP	Sustainable Public Procurement
SMEs	Small and Medium Enterprises





INTRODUCTION

INTRODUCTION

The acquisition of goods, services, and works by governments and government-owned firms, or public procurement, account for an average of 12 to 15 per cent of GDP in 2015 (Djankov, 2016).

Due to its sheer size, public procurement is seen as a strategic instrument to carry out government mandates and mission, based on standard norms and existing guidelines. Market economies increasingly recognize public procurement as a tool for increasing the efficiency and effectiveness of government spending (OECD, 2019).

Sustainable development and transitioning towards a greener economy rely on a holistic cycle that reduces the impact of economic activities on the environment, with a focus on enforcing greener lifecycle of products, building market demand for sustainable products and production technologies, and shifting consumer choices to make informed decisions towards sustainability (Testa et al., 2016). Given the government's authority to enforce policies as well as the mechanism to trigger market demand. it is seen as an essential driver in influencing consumption of environmentfriendly products (Cheng et al., 2018). Likewise, as a large consumer of goods and services, the public sector has the potential to influence manufacturers and service providers towards the use of sustainable raw materials and practices in their business operations (Bratt et al., 2013). Establishing and maintaining this virtuous loop is an essential role for the government.

1.1 Green Public Procurement

The European Commission (2008, p. 4) defines Green public procurement (GPP) as "a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured." While there are ten steps in the procurement process (see **Figure 1.1**), there are five where sustainability interventions can be integrated, as follows (UNEP, 2011):

- 1. Procurement planning
- 2. Requirement definition
- 3. Sourcing
- 4. Evaluation
- 5. Contract management

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Figure 1.1: The Procurement Process (UNEP, 2011)

Procurement planning: Procurement planning includes considerations for the overall context of the requirements, costs, and sustainability. Rethinking needs and managing demands - for example changing travel behavior to reduce carbon footprint, or auditing resource (energy and water) use and waste generation - will help assess and challenge current practices to identify choices and processes that can be improved. Alternative ways are to be sought, so proper demand management and resource allocation can be exercised. Market analysis must be conducted to understand available types of products and services, as well as available opportunities for suppliers to switch to sustainable practices.

Requirement definition:

Determining the requirements for procurement assist in getting

the most value from the purchase. This includes sustainability criteria, technical specifications, use of environmental and/or social labels, terms of reference, payment and delivery details. In crafting the technical specification requirements, it must be determined whether conformance (physical characteristics), performance (output-focused, often aligned with standards), or functional (based on the result/ requirement specified by the procurer) specifications will be used. A progressive approach to identifying sustainability benefits (i.e. setting low standard specifications in a relatively immature market) can be employed to still promote fair competition as the market maturity evolves. In other contexts, environmental and social labels are required for certain product categories to ensure adherence to standards and quality.

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Sourcing: Performance associated to sustainability impacts and initiatives by suppliers and service/ contract providers are considered in choosing and sourcing. Some indicators may point to compliance to legal requirements (i.e. waste disposal, emission), performance (meets required standards), health and safety, and good reputation.

Evaluation: The process for evaluating suppliers must be fair, fostering transparency and accountability in the bidding process while balancing sustainability efforts and cost factors. The best value for money is considered, representing the return on investment based on the set criteria. An evaluation matrix may be used to objectively assign points on each criterion being considered. **Contract management:** This step ensures that the supplier partners are able to consistently meet the sustainability criteria, and are committed to continuously improving their performance. This is especially beneficial for long-term contracts where the partnership is maintained for years. In addition, monitoring performance indicators and executing site visits or checking of certification documents are essential activities under contract management.



Chapter

GPP LANDSCAPE IN THE PHILIPPINES

GPP LANDSCAPE IN THE PHILIPPINES

2.1 Legislation

10

Several legislatures have been enacted to support green public procurement implementation, as shown in **Figure 2.1**.



Figure 2.1: Timeline of GPP Legislation in the Philippines

Government Procurement Reform Act

The Republic Act No. 9184 or the Government Procurement Reform Act (GPRA) was signed in 2003 by Former President Gloria Macapagal Arroyo, which paved the way for the modernization, standardization, and regulation of government procurement activities in the Philippines. This provided an avenue for the use of an electronic platform to promote efficiency transparency and procurement process, in the thereby eliminating corruption to promote fair competition and good governance.

GPRA's guiding principles focus on:

- 1. maintaining transparency in the procurement process
- 2. extending equal opportunity to private entities eligible to participate in public bidding
- 3. streamlining procurement process to apply to all government procurement, and making it technologyadaptive for effectiveness and efficiency
- 4. establishing system of accountability in cases when investigation of public officials involved in the procurement process is warranted
- 5. enabling public monitoring of the procurement process

Executive Order No. 301

The Executive Order No. 301, series of 2004 signed by Former President Gloria Macapagal Arroyo established the Green Public Procurement (GPP) Program for all departments, bureaus, offices, and agencies of the executive branch of the Philippine government. It recognizes the extent of the state procurement's impact on the environment as a large consumer of various goods and services, therefore initiating schemes to protect the environment and preserve the country's natural resources. It institutionalized the establishment of integrated efforts to procure environmentally-sound products, as well as recognized the importance of a systematic and comprehensive national ecolabelling program to support the GPP program.

GPPB Resolution No. 15-2013

This resolution approved the inclusion of SPP and/or GPP in the public procurement system, rules, and procedures in line with Sustainable Consumption and Production, Green Economy and Sustainable Development Strategies. This allowed for institutional cooperation synergies among and various stakeholders. It also authorized Executive Director of GPPB-TSO to coordinate with development partners such as UN Environment Programme on the implementation of SPP and/ or GPP. It enacted the creation of a special SPP and/or GPP committee composed of representatives from the Departments of Agriculture, Education, Energy, Environment and Natural Resources, Interior and Local Government, Science

and Technology, Trade and Industry, Transportation and Communications, the Commission on Climate Change, and GPPB-TSO that will take care of policy discussions and decisions.

GPPB Resolution No. 25-2017

Resolution No. 25-2017 recognized the Green Public Procurement Roadmap, which is discussed in detail in Section 2.4 of this document. This is an initiative where EU SWITCH-Asia Programme provided technical assistance to GPPB-TSO to develop the technical specifications for the prioritized 10 common-use supplies and equipment (CSE) and 10 non-common-use supplies and equipment (non-CSE).

Green Public Procurement Act

2020, the House of In Representatives passed the House Bill No. 6954 or the Green Public Procurement Act (GPPA). Anchored on the governing principles of GPRA, the GPPA intends to build and promote sustainable practices and informed decision-making across the executive, judicial, and legislative branches of the Philippine government by incorporating environmental, economic, and social considerations in government procurement processes through the Green Public Procurement (GPP) Program implemented by the Government Public Procurement Board (GPPB). Pursuing this is consistent with the country's commitment to the United Nations' 2030 Agenda for Sustainable Development.

Particularly guided by the SDG12 which outlines responsible consumption and production goals and targets, as well as AmBisyon Natin 2040 (loosely translated as Our Ambition 2040, it encapsulates the 25-year collective vision and aspirations of Filipinos for a stable livelihood, comfortable life, and a peaceful and secure environment) the government is to implement programs that ensure adherence to sustainable consumption and production (SCP) with the end goal of shifting towards a circular economy.

12

The objectives of the GPP Program are as follows:

- a. To promote the culture of making green, sustainable, and informed decisions in government, especially in public procurement;
- b. To require the Philippine Government Electronic Procurement System (PHILGEPS) to identify all government agencies procuring consumable supplies and equipment (CSE) and non-consumable supplies and equipment (non-CSE) identified by GPPB as part of the Green Procurement Roadmap;
- c. To observe green criteria in government procurement whenever possible and practicable;
- d. To develop technical specifications for CSE and non-CSE products, taking into account, among others, the following processes and principles:

- i. Development of a standard template consisting of scope, key environmental impact of a product in terms of its material composition, use, and eventual disposal, product specifications, evidence, verification, and references;
- *ii.* Extensive research of GPP technical specifications, taking into account international and national specifications of countries with extensive GPP experience;
- iii. Document comments and feedback on the technical specifications of the various products;
- iv. Conduct of environmental impact studies of a product in terms of its material composition, use, and eventual disposal; and
- v. Include employment generation, safe working environment, and supplychain management in the formulation of a long-term sustainability criteria.
- e. To establish a system for the development of green criteria and including the same in the project requirements developed by entities; and
- f. To develop programs for manufacturers and suppliers of green and sustainable products and services for relevant government agencies.

2.2 Implementing Agency

Government Procurement Policy Board (GPPB)

The key implementing body of the GPP Program is the Government Procurement Policy Board (GPPB), an independent inter-agency body that is impartial, transparent, and effective, with private sector representation. This was established by virtue of the GPRA, and all matters related to public procurement, including those related to the implementation of green public procurement, are handled by this entity. The Board is composed of high-level officials from different line agencies and one representative from the private sector. The three main functions of GPPB are as follows:

- a. Amend implementing rules and regulations of procurement law (quasilegislative function); and prepare generic procurement manual and standard bidding forms;
- b. Establish a sustainable training program; and
- c. Ensure the proper implementation by Procuring Entities (PEs) of RA 9184, its Implementing Rules and Regulations (IRR), and all other relevant rules and regulations on public procurement; and review effectiveness of procurement law through procurement monitoring.

GPPB established its own Technical Support Office (TSO) which undertakes research, technical, and administrative support to GPPB. The GPPB-TSO created a Green Public Procurement (GPP) Team composed of one focal person from the following:

- a. Office of the Executive Director – assists in research, monitoring, and capacity development plans
- b. Legal and Research Division
 provides legal research on policy recommendations
- c. Performance Monitoring Division – monitors and provides feedback on GPP implementation
- d. Capacity Development Division – plans and implements capacity development opportunities for GPP implementation

The following are the member agencies of GPPB:

- Department of Budget and Management (DBM)
- National Economic and Development Authority (NEDA)

14

- Department of Education (DepEd)
- Department of Energy (DOE)
- Department of Finance (DOF)
- Department of Health (DOH)
- Department of Information and Communications Technology (DICT)

- Department of the Interior and Local Government (DILG)
- Department of National Defense (DND)
- Department of Public Works and Highways (DPWH)
- Department of Science and Technology (DOST)
- Department of Trade and Industry (DTI)
- Department of Transportation (DOTr)
- Private Sector Representative

2.3 Supporting Agencies

GPPB is supported by the efforts initiated by and data provided by various agencies that share equal responsibility for GPP Program implementation.

Department of Budget and Management – Procurement Service

- a. Lead agency in the practical implementation of GPP (green procurement of Common-use Supplies and Equipment (CSE) items and guiding the green procurement of non-CSE items)
- b. Determines technical specifications of items that it will procure on behalf of the entire government and assist to develop the green technical specifications for directly procuring entities throughout the government landscape

National Economic and Development Authority

- a. Ensure the inclusion of the GPP Roadmap developments in the national development plans, as well as consideration of green infrastructure project proposals in their approval processes
- b. Monitors and evaluates the broader socioeconomic and environmental impacts of GPP

Department of Trade and Industry

a. Strengthens programs for greening of the industry and SMEs with interventions to enable the industry to meet environmental standards required by the market

Department of Trade and Industry – Bureau of Philippine Standards

- a. National standards body of the Philippines and formulates Philippine National Standards (PNS)
- b. The approved green specifications for the CSEs and Non-CSEs are harmonized with the PNS for these items

Department of Energy

- a. Improve the quality of life by formulating and implementing policies and programs that ensure sustainable and reasonablypriced energy, among others
- Ensures judicious utilization of energy through utilizing energy efficient technologies; the current scope such as energy-efficient lights, refrigerators, air-conditioning units, and other fixtures that will be gradually expanded.

Department of Environment and Natural Resources

- Assures the availability and sustainability of the country's natural resources and have a clean and healthy environment.
- b. Set emission limits/standards for vehicles to improve air quality, and set effluent standards for industrial wastewater, among others, so that disposal of wastewater during the production processes of suppliers are within acceptable standards

Government and Private Testing Centers

- a. Verifies the conformity of the products to green specifications.
- Electrical, chemical, physical, and mechanical testing of products are performed to determine compliance with the Philippine Standards Quality and Safety Marks or to acceptable international/ foreign standards.

Other stakeholders and multipliers

a. Involves NGOs, industrial associations, media, leaders and citizens, which help in the spreading the word of green purchasing such as the Philippine Center for Environmental Protection and Sustainable Development, Inc., and the National Ecolabelling Program –Green Choice Philippines.

Procuring Entities of departments, provinces, cities, municipalities, and government linked bodies

a. Target group for training and awareness raising efforts on GPP.

2.4 GPP Roadmap

The Green Public Procurement Roadmap is an initiative by the GPPB-TSO published in 2017 and developed with the support of the European Union under the SWITCH Policy Support Component Philippines, a part of the EU SWITCH-Asia Programme that focuses on sustainable consumption and production as an approach to sustainable development.

The roadmap documents the integration of green practices to the existing public procurement system, without the need for a parallel system just to cover sustainable requirements. Green criteria determined by technical specifications that has less environmental impact as compared to conventionallymanufactured goods and services are embedded into the contracting mechanisms and processes already set by the GPPB. The initiative focuses on 20 product categories initially (ten CSEs and ten non-CSEs) but is seen to expand to a more comprehensive list later as the industries adjust to the needs of the government. The roadmap supports the development objectives of the country as it establishes policies for sustainable development that covers energy, water and material efficiency, waste reduction, and pollution and emission prevention.

The roadmap aims to instill an impactful program that centers on economic, social, and environmental initiatives through shifting market demands towards sustainable products; creating opportunities for small and medium enterprises (SMEs) to offer sustainable products and use sustainable processes; promoting transparency and fairness in the government procurement processes through established criteria for green products, influencing the private sector and individual consumers to choose green products, leveling the costs of green products to make them more affordable through increase in demand and supply; and reducing the impact on the environment over the product's life cycle.

Overall, the Philippine GPP Roadmap supports and strengthens the 2017 to 2022 Philippine Development Plan (PDP), which was formulated to establish the foundation for inclusive growth, a high-trust and resilient society, and a globally-competitive knowledge economy. It specifically feeds into the Subsector Outcome 2 of improving environmental quality by developing and implementing sustainable consumption and production policies and initiatives to achieve economic goals and environmental standards (NEDA, 2017).

The GPP Roadmap commits to the following initiatives:

- 1. Policy commitment
- 2. GPP of CSE products
- 3. GPP of non-CSE products
- 4. Communication and awareness for GPP
- 5. Monitoring and evaluation of GPP implementation

2.5 National Ecolabelling Program- Green Choice Philippines (NELP-GCP)

Ecolabelling is the method of identifies the overall environmental performance and adherence to standards within a specific product or service category based on life cycle factors. It is a voluntary practice used all over the world (Global Ecolabelling Network, n.d.)

The Republic Act 9003 called The Ecological Solid Waste Management Act of 2000 paved the way for the birth of the National Ecolabelling Program – Green Choice Philippines (NELP-GCP). Signed by Former President Gloria Macapagal Arroyo, RA 9003 states under Article 4, Section 27 that "the Department of Trade and Industry shall formulate and implement a coding system for packaging materials and products to facilitate waste recycling and reuse". DTI – Bureau of Product Standards (DTI-BPS) and the Private Sector Participation in Managing the Environment (PRIME) -Environmental Management System Module designed a plan in institutionalizing the National Product Ecolabelling Program.

NELP-GCP is a third-party ecolabelling program that aims to shift behavioral patterns towards sustainable consumption and production by guiding consumer choices towards selection of green products, encouraging manufacturers to adopt sustainable practices, and using the label to inform consumers and complement government's environmental policy. It follows the guidelines set by ISO 14020 and 14024. Through its endeavors, it fuels the country to exercising the fundamentals of sustainable development.

Currently, NELP-GCP has accredited green products that received the Seal of Approval under the following categories: laundry detergent, cement, natural infill material, engine oil, ceramic tile, water-based paint, LED light, paper hand towel, tissue papers, induction lamp, electronic ballast, organic liquid disinfectant, fiber cement board and photocopier. Also, the programme has developed and approved the environmental criteria for certain products and services, including tissue paper products, household batteries, engine oils, printing and writing paper products, crayons, fire extinguishers, cement, fluorescent lamps, electronic ballasts, paints, writing instruments, paper envelopes, paper boards, inkjet and toner cartridges, desktop and laptop computers, multifunction printing devices, printers, photocopiers, facsimile machines, liquid disinfectants, bath soaps, hair shampoos, fiber cement board, liquid dishwashing products and food services. It has established criteria for a total of 40 products (PCEPSDI, 2018, April 17).

Philippines Country Report: Current Status of Green Public Procurement (GPP) Implementation Enhancing the implementation of Green Public Procurement in Southeast Asian region

Awarding of Seal of Approval

18

Products that are available in the Philippine market, regardless of their country of manufacture, can apply for a Green Choice License for the product category whose certification criteria have either already been developed or not yet developed through a panel of review process. The license to be granted is product and facilityspecific. This means that separate applications must be done for same products manufactured in different plant sites, or products that have different brands.

The certification process takes approximately one to two months and entails processing, site visits, product testing, evaluation, and validation as seen in **Figure 2.2**. Evaluation of the application is based on the guidelines set by NELP-GCP.



Figure 2.2: NELP-GCP Application Process (NELP-GCP, n.d.)



Chapter Chapter GPP IMPLEMENTATION IN THE PHILIPPINES

19

GPP IMPLEMENTATION IN THE PHILIPPINES

Green public procurement implementation in the Philippines is integrated in the public procurement process supervised by the Government Procurement Policy Board (GPPB). This is anchored primarily on competitive bidding of suppliers or vendors, based on technical specifications as well as eligibility criteria set by the Board. These include economic standing, previous records on reliability and satisfaction with services, and value for money. Transparency, fairness, and promoting equal opportunity are at the core of the government's procurement process, and extended into the GPP implementation.

3.1 Product Category Selection

20

Six criteria were considered in the selection of product category. These are based on the experiences and procedures of other countries, and adapted to the local context based on their relevance. Department of Budget and Management – Procurement Service (DBM-PS) and the GPPB-TSO identified the following criteria, and their corresponding explanation (GPPB, 2017a):

- Market readiness: Is there a sufficient number of suppliers, sufficient choice and sufficient product quality? A score is given from 1, if the market is not ready at all, for example because no suppliers exist, to 5, if the market is perfectly ready and many suppliers which offer a broad choice of products are available.
- **Environmental impact:** What is the direct environmental impact for example through emissions and depending on the number of procured goods and the individual environmental pollution caused by each product? In addition, what is the indirect environmental impact through a potential contribution to greening the industry depending on the leverage on the market? A score of 1 to 5 is given depending on a low or very substantive positive environmental impact.
- Cost implications: Are decreasing costs through lower operational costs for energy, water and disposal expected or higher costs for example as a consequence of higher product cost and higher product quality? A score of 1 to 5 is given depending on substantial cost increases or notable savings.
- **Practicability:** Are supposed green criteria easy to formulate and to verify? A score of 1 to 5 is given depending on the difficulty or easiness to formulate and to verify green criteria.
- Support to government environmental objectives: A score of 1 to 5 is given depending on either a weak or a strong connection to government environmental objectives.
- Support to the local economy: A score of 1 to 5 is given depending on either no or substantial support to the local industry and local SMEs.

The first set of ten common-use supplies and equipment (CSE) identified for GPP were determined through consultative processes in coordination with the SWITCH-Asia team, based on cumulative scores using the matrix above. These are as follows:

- 1. Multi-copy paper
- 2. Toilet paper
- 3. Record books
- 4. Cleaners
- 5. Chairs

- 6. Disinfectant spray
- 7. Trash bags
- 8. Liquid hand soap
- 9. Detergent powder
- 10. Light Emitting Diode (LED) light bulbs

Table 3.1: Decision Matrix Applying the Selection Criteria for CSEProducts (GPPB-TSO, 2017a)

Prioritisation of Product Categories (CSE products)

No.	Criteria	Weight	Chairs	Cleaner	Detergent Powder	Disinfectant Spray	LEDS	Multicopy Paper	Liquid Hand Soap	Trash Bag	Toilet Paper	Re cord Books
٦.	Market readiness	1	4	4	4	4	4	5	4	4	5	5
2.	Environmental impact	1	4	4	3	3	3	5	3	4	4	5
3.	Cost implications	1	3	5	4	4	4	5	4	4	5	4
4.	Practicability of criteria	1	4	3	3	4	3	4	3	3	4	4
5.	Support to govemment environmental objectives	٦	2	3	3	3	3	3	3	3	3	3
6.	Support to the local economy (SMEs)	1	4	3	3	3	1	4	3	3	4	4
	Weighted average		3,5	3,7	3,3	3,5	3,0	4,3	3,3	3,5	4,2	4,2

Meanwhile, the ten non-CSE items are as follows:

- 1. Computer monitors, desktop computers, laptops
- 2. Air conditioners
- 3. Vehicles
- 4. Fridges and freezers
- 5. Copiers

- 6. Paints and varnishes
- 7. Food and catering services
- 8. Training facilities/hotels/venue
- 9. Toilets and urinals
- 10. Textiles/uniforms and work clothes

Table 3.2: Decision Matrix Applying the Selection Criteria for non-CSEProducts (GPPB-TSO, 2017a)

No.	Criteria	Weight	Vehicles	Fridges Freezers	Computers monitor Desktop Computers and Laptops	Copiers	Air Conditioners	Paints and vanishes	Textiles/ and work clothes	Toilets and urinals	Food and Catering Services	Training Facilities/ Hotels/ Venue
٦.	Market readiness]	5	4	5	5	4	4	3	3	3	3
2.	Environmental impact	1	4	2	4	3	3	4	3	2	3	3
3.	Cost implications	1	2	5	4	4	5	4	3	4	4	3
4.	Practicability of criteria	1	5	3	4	3	4		3	3	3	3
5.	Support to govemment environmental objectives	1	5	5	5	5	5	3	3	3	3	3
6.	Support to the local economy (SMEs)	1	2	3	2	2	3	3	2	3	5	5
	Weighted average		3,8	3,7	4,0	3,7	4,0	3,5	2,8	3,0	3,5	3,3

Prioritisation of Product Categories (Non CSE products)

3.2 Technical Specification Development

The EU-SWITCH Team, along with international and local consultants, provided technical assistance in this area. The following processes and principles were adopted to decide on the green criteria:

- a. Development of a standard template consisting of scope, key environmental factors, product specifications, evidence, verification and references
- Extensive research for GPP technical specifications taking into account international specifications and national specifications of countries with extensive GPP experience
- c. Document research on background reports regarding the experience made with the existing technical specifications where more than 100 documents in total were considered; and
- d. Overall, the development of the technical specifications was guided by the principles of applicability and simplicity

The technical specifications are based on six factors (GPPB-TSO, 2017a):

- 1. Scope considers the current use conditions (CSE requirements), but keeping it as open as possible.
- 2. key environmental impact and GPP approach - include all aspects of a product where it has a major negative impact on the environment. The GPP approach should address the key environmental impacts where possible. The current specifications do not always address all the key environmental impacts. Future reviews of the documents and a further strengthening of the GPP approach should make sure that step by step all key environmental impacts will be addressed.
- 3. Product specifications kept deliberately simple. In specifying the product specifications - where possible - reference is made to existing national standards. The specifications address only the most important environmental aspects and are restricted to specifications which are (relatively) easy to verify. The product specifications also contain a sub-section on justification. In that section the product specification is further explained in detail, based on technical reports and other international information sources on products and chemical substances.

23

- **4. Evidence** based on international experiences, it details which evidence shall be provided by the supplier.
- 5. Verification specifies how the criteria of the product specifications can be verified by the procuring entity, taking into account the evidence provided by the supplier, but not relying exclusively on it.
- 6. References provides links to existing examples, partly technical specifications with a similar approach, partly technical specifications which are far more complex and which provide an idea, how the GPP approach might be strengthened in future. Also, references include some background information where possible.

3.3 CSE Technical Specifications

Procuring entities are required to procure the CSE items below with their respective green specifications through the Procurement Service.

CSE			Criteria			
1.	1. Multi-copy paper		Made out of raw materials from at least 50% recycled fibre			
			At least Elementary Chlorine Free			
		C.	Must be Totally Chlorine Free			
		d.	Any paper wrapping and carton box packing must be made from 100% recycled fibre			
		e.	Recycled fibre must contain not less than 10% post- consumer fibre			
2.	Toilet paper	Toilet paper a. Made out of raw materials from 100% recycled fibre.				
		b.	At least Elementary Chlorine Free			
		C.	Must be Totally Chlorine Free			
		d.	Must contain not less than 60% post-consumer fibre			
		e.	Core as well as any paper wrapping and carton box packing must be made from 100% recycled fibre and the cartons must be strong enough for storage and transit.			

Table 3.3: Green Technical Specifications for CSE

CSI	E	Cr	iteria			
3.	Record books	a.	Made out of raw materials from at least 50% recycled fibre			
		b.	At least Elementary Chlorine Free			
		c.	Must be Totally Chlorine Free			
		d.	Any paper wrapping and carton box packing must be made from 100% recycled fibre			
		e.	Recycled fibre must contain not less than 10% post- consumer fibre			
4.	Cleaners	a.	Not chlorine based and does not contain inorganic acids			
		b.	Vith adequate instructions for proper use and disposal			
5.	Chairs	a.	Products made of plastic materials which do not contain lead, chromium, cadmium, mercury, phthalates, and halogenated organic substances			
		b.	Chairs shall be marked for recycling according to ISO 11469 or equivalent and must not contain additions of other materials that may hinder their recycling			
		C.	Products which are packaged in recyclable material			
6.	Disinfectant spray	a.	Do not contain ethylene-diamine-tetra-acetate (EDTA) nor alkyl phenol ethoxylates (APEO)			
		b.	With detailed instructions on maximizing product performance and indications for the proper waste disposal and the recyclability of the container.			
7.	Trash bags	a.	Products which is made of polyethylene			
		b.	Polyethylene should contain a minimum of 30% postconsumer material			
8.	Liquid hand soap	a.	Do not contain ethylene-diamine-tetra-acetate (EDTA) nor alkyl phenol ethoxylates (APEO)			
		b.	With adequate instructions for proper use and disposal			
9.	Detergent powder	a.	Do not contain ethylene-diamine-tetra-acetate (EDTA) nor alkyl phenol ethoxylates (APEO)			
		b.	With adequate instructions for proper use and disposal			
10.	Light Emitting Diode (LED)	a.	Fulfill the specifications according to PNS IEC 62612 (latest version, currently 2014)			
	light bulbs	b.	Packaged in recyclable material			

3.4 Non-CSE Technical Specifications

26

Procuring entities are encouraged to procure non-CSE items with their respective green specifications. Procurement rules do not require certifications for the criteria below. The use of discriminatory criteria such as brands, labels or other suppliers' requirements that could distort the open competition are prohibited (GPPB-TSO, 2017b) and may contribute to higher costs. Instead, suppliers just need to provide evidence that show their technical capability, among others, and the procuring entity must conduct due diligence, post-qualifications, among others.

Table 3.4: Green Technical Specifications for non-CSE

No	n-CSE	Cr	iteria
1.	desktop computers,		ICT equipment which fulfils at least ENERGY STAR 6.1 for computers and 7.0 for monitors criteria
	laptops	b.	With a visible On/Off switch
			In case of desktop computers: The supplier shall supply products which are designed so that the memory, hard disk and CD drive are readily accessible and can be changed easily for upgrades
			Notebooks and desktop computers where the availability of replacement batteries and power supplies is guaranteed for at least 5 years after end of production
		e.	In recyclable packages and shall provide a packaging take-back service
2.	Air conditioners	a.	Comply with the latest version of the International ENERGY STAR requirements (currently version 2.0 for Imaging Equipment)
		b.	Contain user instructions for green performance management
		C.	Must be capable of using recycled content paper without voiding the manufacturer's warranty
		d.	With a function to reduce the quantity of paper consumed, especially 2-side copying for all copiers with a monochrome printing/copying speed of 25 images per minute for A4 size paper.
3.	Vehicles	a.	Ensure that the vehicle meets the EURO IV Standard
		b.	Provide a guarantee for the vehicle for a period of at least 3 years or 100,000 km, whichever comes first
		c.	Demonstrate guarantee the availability of parts for the specific vehicle model for at least 7 years from the time production of the particular model ceases

CS	E	Cr	iteria
4.	Fridges and freezers	1	Refrigerators and freezers which fulfils at least ENERGY STAR 5.0
		b.	Do not contain "controlled refrigerants" as defined under the Ozone Layer Protection Regulation
		c.	Repairable and that replacement parts are available (for minimum of 10 years after end of production)
		d.	In recyclable packages
		e.	Have four stars according to DPNS 396-2 (latest version)
5.	Copiers	a.	Comply with the latest version of the International ENERGY STAR requirements (currently version 2.0 for Imaging Equipment)
		b.	Contain user instructions for green performance management
		c.	Must be capable of using recycled content paper without voiding the manufacturer's warranty
		d.	With a function to reduce the quantity of paper consumed, especially 2-side copying for all copiers with a monochrome printing/copying speed of 25 images per minute for A4 size paper
6.	Paints and varnishes	a.	Shall not contain mercury, lead, cadmium, hexa-valent chromium, barium, antimony, as well as tributyltin (TBT) and triphenyltin (TPT). If the above substances exist in the product as impurities or contaminant, their total weight shall be less than 0.1% of the product. The use of Bariumsulfate (Barite) is excluded from this limitation.
		b.	Packaging shall be accompanied by a brief statement discouraging improper disposal of the material and encouraging consultation with local authorities for disposal requirements or recycling opportunities as specified in RA 9003 under article 4
7.	Food and catering services	a.	Service supplier shall have its own environmental policy. The environmental policy shall cover environmental procurement, the reduction of waste and energy consumption, and water saving
		b.	Service supplier shall provide local or regional products or products which are produced in a sustainable way (e.g. produced according to good agriculture practices, organic, avoiding overfishing, no products from threatened species) when offering food and beverages
		C.	Service supplier shall provide a vegetarian offer
		d.	Service supplier shall eliminate the use of non-essential disposable products like plastic bags, single-use utensils, etc. When disposable products are used, the supplier shall use recycled materials where possible
		e.	Service supplier shall post its environmental policy in places where employees can easily notice them

28

CS	E	Cr	iteria
8.	Training facilities/ hotels/venue	a.	Service supplier shall have its own environmental policy. The environmental policy shall cover the reduction of chemical substances usage, the reduction of waste and energy consumption, and water saving
		b.	Service supplier shall provide organic, local or regional products or products which are produced in a sustainable way (esp. avoid overfishing, no products from threatened species) when offering food and beverages
		c.	Service supplier shall ensure that indoor lighting is energy efficient
		d.	Service supplier shall reduce packaging and usage of disposable containers for food, drink and condiments
		e.	Service supplier shall post its environmental policies or targets in places where guests and employees can easily notice them
9.	Toilets and urinals	a.	Nominal full flush volume shall not exceed 6.0 l/flush (for urinals 2.0 l/flush)
		b.	Toilets (toilet suites delivering a full flush volume of more than 4.0 litres and toilet flushing systems shall be equipped with a water -saving device. The reduced flush volume shall not exceed 3.0 l/flush
		c.	With a warranty for repair or replacement of minimum four years
		d.	Packaged in materials that should be recyclable
10.	Textiles/uniforms and work clothes	a.	The amount of free and partly hydrolysable formaldehyde in the final product shall not exceed 80 ppm for products that come into direct contact with the skin and 300 ppm for all other products
		b.	Made of organically produced textiles when possible
		c.	Packaged in recyclable material

3.5 Marketing and Capacity-building

Awareness Raising (Internal and External Stakeholders)

A few activities were undertaken to create awareness and share information among the internal and external stakeholders. The internal and external stakeholders include the GPPB member agencies, its TSO, and all other government and private entities. The GPPB website remains to be a repository of knowledge products on green public procurement this includes the GPP Philippine Roadmap, green technical specifications of CSE and non-CSE products, and audio-visual presentations. Likewise, all forms and documents required to participate in the procurement process can be accessed through the website. Given that the Philippine GPP Roadmap, Green Technical Specifications of the prioritised items and the Audio-Visual are posted in the GPPB website, the information is likewise aceessible to the public.

For FY 2022, GPPB-TSO intends to focus on Electronic Bidding and GPP. In order to leverage on this initiative, TSO will also sustain such promotion by incorporating GPP in the Procurement Summit, and Procurement Forum to reach more potential suppliers and PEs and overall strengthen GPP efforts. This means that PEs and Suppliers are critical in strengthening GPP efforts as they serve as our primary target audience. On the other hand, a group will continue to focus on expansion of items with the Department of Energy (DOE) and PS-DBM. Further, to promote knowledge on GPP among procurement practitioners, the Capacity Development Division (CDD) has included the GPP Module on its Training Needs Assessment Form for Training Requests.

Training of Employees/Implementors

Trainings related to GPP continued despite the pandemic, delivered through webinars. A total of 140 GPPB Recognized Trainers underwent trainings. Meanwhile, 40 Procuring Entities were given trainings as of December 2021. The Procuring Entities consist of the following:

- National Government Agencies (NGAs)
- State Universities and Colleges (SUCs)
- Government-Owned and Controlled Corporations (GOCCs)
- Constitutional Bodies and Other Executive Offices

The levels are categorized as Main, Regional Office, an Attached Agency, or a particular law that created it.

The use of audio-visual presentation on GPP during trainings help standardize the delivery of the message, and public relations materials on the status of adoption of GPP in the government sector are released through various media channels. The National Ecolabelling Program – Green Choice Philippines (NELP-GCP) offered capacity development opportunities for the GPPB-TSO personnel in January 2022 in preparation for the revision of GPP modules.

*based only on recent records – there are still data left from physical records that are yet to be incorporated in the trainings database as per GPPB

Promotional Activities

To encourage the private sector to participate in GPP, a GPP module was designed and delivered during procurement trainings. For procuring entities that have not yet adopted green specifications in their procurement of non-CSE, outreach trainings are offered to boost their awareness and generate participation.

3.6 Monitoring/Evaluation

As early as 2012, he GPPB approved the use of Agency Procurement Compliance and Performance Indicators (APCPI) system as standard procurement monitoring and assessment tool of the Philippine Government (GPPB Resolution No. 10-2012, 2012, June 01). APCPI tool is the monitoring tool used by the GPPB-TSO in determining which procuring entity/ies adopted green specifications. The APCPI requires procuring entities to state whether they have procured non-CSE items with green specifications. The same are invited for validation, which involves the submission of copies of their purchase request forms and awarded contracts to verify such declaration. On the other hand, submitted reports of key stakeholders contain the list of their commitments and their respective status whether implemented or not yet.

The GPPB-TSO monitors through the following approaches:

- a. Request for annual status reports on GPP implementation from GPP key stakeholders

 Department of Trade and Industry (DTI) and Procurement Service-Department of Budget and Management (PS-DBM) GPP focal persons. It requests information also from the Philippine Government Electronic Procurement System, as may be necessary;
- b. Analysis of APCPI reports to recommend areas of improvement to GPPB – TSO core groups and key stakeholders, if any; and
- c. Regular updating of GPP roadmap as may be necessary.

3.7 Results of GPP Implementation

Based on the Procurement Service Report as of 31 December 2020, there are six out of ten CSEs with green specifications (record book, toilet paper, disinfectant spray, LED lights, detergent powder, and cleaner) and four out of ten Non-CSEs with green specifications (computer monitors, vehicles, copiers, air conditioners) have been implemented. Total spending on CSE products amount to PhP147,547,681.85 (USD 7 billion) while spending on non-CSE products totaled to PhP3,134,074,204.35 (USD 150 billion) from the period of 2017 to 2020 (Ruiz, 2021).







Figure 3.2: Percentage contribution of non-CSE products procured between 2017-2020 (Ruiz, 2021)

For the period of FY 2018-2020, below are the APCPI reports from the sample of 407 Procuring Entities*:

- a. There are 68 procuring entities that has consistently adopted green specifications in their procurement of non-CSE items and equipment
- b. There are 228 procuring entities that have inconsistently adopted green specifications in their procurement of Non-CSE items and equipment
- c. There are 38 procuring entities that did not consistently adopt green specifications in their procurement of non-CSE items and equipment

*Monitoring for this matter can only be obtained from 407 Procuring Entities since the same group received trainings on the use of APCPI. The 407 PEs consists of 140 NGAs, 111 SUCs, 105 GOCCs, 5 Constitutional Bodies and 38 Other Executive Offices, while there are 8 PEs that are no longer considered in the list for APCPI analysis because they are no longer operational, were merged to other agencies, and some represented that their procurement is not governed by RA 9184.

3.8 Challenges/Issues

Lack of green public procurement awareness remains to be a challenge faced by GPPB. Full compliance to the green criteria for the ten CSEs and ten non-CSEs still needs to be achieved, as only purchase of six CSEs and four non-CSEs have been met. This also points to the lack of market readiness, as suppliers are still finding ways to comply with the technical specifications. Internally, employee turnover renders GPPB-TSO lacking in GPP champions with the procuring entity. This also results to lack of technical expertise in GPP. However, constant trainings are provided for capacity building of GPPB recognized trainers to be more adept at promoting and advocating GPP in the procurement processes.





GOOD PRACTICES CHECKLIST

33

Table 4.1: Checklists of GPP/GP good practices & recommendations: Supply- Producer of Green Products and Services

Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Additional practices/ recommendations
Manufacturers/ Producers Small and Medium Enterprises (SMEs) Large Enterprises	Several large enterprises/ manufactures support the SMEs (especially in their supply chain) by consulting, coaching, and/or mentoring to enhance the capacity to produce green products and/ or services more effectively. In addition, the capable SMEs can register as the approved supplier list or green network members of those large enterprises. Note: This cooperation between large enterprises and SMEs on above mentioned practices (green supply chain/ green network) has been promoted by the government (such as Ministry of Industry through Green Industry Mark certification scheme) and Private Associations (such as the Thai Federation of Industries through Eco Factory certification scheme)	☑ Yes □ No	To encourage the private sector to participate in GPP, a GPP module was designed and delivered during procurement trainings. For procuring entities that have not yet adopted green specifications in their procurement of non-CSE, outreach trainings are offered to boost their awareness and generate participation. There is currently no available collective documentation as of the moment on the practices of manufacturers re: greening their supply chain.
	Several enterprises (with the support of the top executives), especially the listed companies in the stock market, set their visions toward green/sustainable development targets, including the production and consumption of green products/ services. They usually join the green projects initiated by the government or the Stock Exchange of Thailand, such as "Green Industry Mark" (by the Ministry of Industry), "G-Mark Certification" (by the Department of Environmental Promotion), and "Care the Bear/ Care the Whale/ Care the Wild projects" (by the Stock Exchange of Thailand).	₽ Yes ■ No	The Philippine government through the Securities and Exchange Commission (SEC) requires sustainability reporting for publicly-listed companies. This covers economic, environmental, and social impacts, in accordance with globally accepted standards. Environmental disclosures relate to how the company manages the natural resources it needs for its business, as well as how it minimizes its negative impacts to the environment, including biodiversity. <i>https://www.sec.</i> gov.ph/wp-content/ uploads/2019/10/2019MCNo04. pdf

Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Additional prac- tices/recommendations
	The manufacturers use the results of green products/ services production and consumption to communicate (to the stakeholders) and reflect their social and environmental responsibility performances to the public via the annual and/ or SD (Sustainable Development) Report.	☑ Yes □ No	There is currently no available collective documentation as of the moment on this topic.

Table 4.2: Checklists of GPP/GP good practices & recommendations: Supply- Eco-label Certification

Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Additional prac- tices/recommendations
Developers of green products and services criteria	Several types of eco-label (type 1, 2, 3, and others) are available in the market. However, there are only a limited number of GPP products/ services (mostly Type 1 and limited approval list) for government procurers and private organization procurers who follow the GPP list. So, it is recommended to cluster all green products/services certified and add them into the national Green Directory to stimulate the supply and demand of GPP/GP.	☑ Yes □ No	Philippines currently has one eco-labelling entity (type 1) called the National Eco-labelling Program – Green Choice Philippines. The green directory is still currently being developed.
	Set up and/or modify the green products and services criteria using life cycle and circular economy considerations	☑ Yes □ No	
	Set up and/or modify the green products and services criteria to meet the needs and capabilities of the small, medium, and large enterprises, both as the GPP/GP suppliers and the consumers	☑ Yes □ No	GPPB promotes fair competition in its competitive bidding. A stepwise and modular approach gives opportunities for enterprises of all sizes to adhere to the GPP criteria
	Perform the market study on the top 10 groups of products and services required by the users (central government, local government, private organizations, and general consumers) and set up the green products and services criteria to meet their demands	⊻ Yes □ No	Current GPP implementation in the Philippines focuses on top 10 common-use services and equipment (CSE) and top 10 non- CSEs based on the following criteria : market readiness, environmental impact, cost implications, practicability, support to government environmental objectives, and support to the local economy.
Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Additional practices/ recommendations
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	Set up the green criteria for new types of products and services, popularly use and high environmental impact, in the market such as Data Center/ Building Renovation/ Air Conditioning Repair Service/ Security Service/ Food Catering/ Food Delivery/ Logistics Services/ Major Rental services (buildings, automobiles, etc.)	☑ Yes □ No	GPP in the Philippines covers the following: CSEs: multi-copy paper, toilet paper, record books, cleaners, chairs, disinfectant spray, trash bags, liquid hand soap, detergent powder, and LED light bulbs Non-CSEs: computer monitors, desktop computers, laptops,
	Key GPP sectors of the EU include 1) Buildings, 2) Food and catering services, 3) Vehicles, and 4) Energy- using products. These sectors have been selected according to their environmental impact, budgetary importance, the potential to influence the market as well as the availability of green alternatives.	⊻ Yes □ No	air conditioners, vehicles, fridges and freezers, copiers, paints and varnishes, food and catering services, training facilities/hotels/venue, toilets and urinals, and textiles/ uniforms and work clothes
Testing Laboratories	Testing equipment and facilities, with ISO 17025 certified, should be adequately available to support the customers demand for certification of green products and services.	¥es ■ No	 Currently, there are 9 testing facilities in the Annex of the Philippine GPP Roadmap. Note that the GPPB does not accredit these testing facilities. There is also no current information if these testing facilities are ISO 17025 certified. Forest Product Research and Development Institute (c/o DOST) Fuels and Appliance Testing Lab (c/o DOE) TUV Rheinland Intertek Testing Services Philippines Inc. SGS Philippines Sentrotek (Heavy metals: Lead, Cadmium, Mercury Arsenic, Chromium only) Ostrea Mineral Laboratories Scientific Environmental and Analytical Laboratory and Services, Inc. (SEALS Inc.) Industrial Technology Development Institute (ITDI)

Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Additional practices/ recommendations
	The testing fee should be reasonable and acceptable by the customers	Ø Yes □ No	
Eco-label Certifiers	Have the proper certification system and comply with international standards	Ø Yes □ No	There are 9 testing facilities being used by GPPB for the certification of CSEs and non- CSEs. Likewise, NELP-GCP certify products in at least 40 product categories for type 1 labeling.
	Have the proper training curriculum and manual for criteria developers, auditors, and certifiers in order to have the mutual understanding	☑ Yes □ No	Aside from conducting trainings all year-round, GPPB has the Green Technical Specifications for 10 CSEs and 10 non-CSEs available in their website:
			GPPB Manual on Green Technical Specifications
			https://www.gppb.gov.ph/ downloadables/forms/GPP Technical Specifications Doc - Final.docx
			Meanwhile, NELP-GCP also has the criteria easily accessible on their website:
			NELP-GCP Product Criteria https://pcepsdi.org.ph/ programme/green-choice- philippines/gcp-criteria/
	The certification fee should be reasonable and acceptable by the customers	☑ Yes □ No	NELP-GCP provide "socialized" pricing depending on business size, to make certification more affordable.

Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Additional practices/recommen- dations
Vendor	Register the green products/services in the Green Directory with the complete information so that the procurers or users can easily access	☑ Yes □ No	This is still currently not available, but is soon to be launched in the first quarter of 2022
	Note: Currently in Thailand, there are only information of producers in the existing Directories such as Eco-Product Directory (on FTI platform) and Green Basket (on PCD platform). So, the procurers have difficulty in finding the vendors who usually sell the green products/services directly to the procurers		
	Coordinate with the producers and procurers/users to understand their needs and adjust themselves to be the vendors of green products/services to support the growing green market according to the national GPP/GP policy	☑ Yes □ No	
	Coordinate with the Green Directory Manager and always keep the vendor's information up to date.	Ø Yes □ No	

Table 4.3: Checklists of GPP/GP good practices & recommendations: Supply- Vendor

Table 4.4: Checklists of GPP/GP good practices & recommendations: Supply: Green Directory

Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Additional practices/recommen- dations
Green Directory Manager	 Set up the Green Directory to be the collection source of green products and services, including the list of vendors located all over the country to facilitate the procures and the general buyers. This GPP/GP marketplace should have at least the following data: General Information; Name of manufacturer or service provider, Address, Telephone number, Email, Website Eco-Label information; Certified Eco-Label, Certification no., Issue date, Expiry date, Environmental claims Contact information of green vendor; Name of company, Address, Location map, Telephone, Email, Contact person 	⊻ Yes □ No	This is still currently not available, but is soon to be launched in the first quarter of 2022 Philippine Center for Environmental Protection and Sustainable Development, Inc. (PCEPSDI) will be the owner of the platform. The platform will consider other green products, not just Type I ecolabel; this will also include products complying with the GPP criteria and other

Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Additional practices/recommen- dations
			standards that may be listed in the GPP. Guidelines are still being finalized, but initial products will be for legal timber and Type 1 ecolabel.
	Promote the Green Directory to be the main GPP/GP platform with the close cooperation with GPP policy maker/ regulator, Eco-label Certifiers, Producers and Vendors	⊻ Yes □ No	This is still currently not available, but is soon to be launched in the first quarter of 2022
	Note: In the project, the National Green Directory is being established with the collaboration of FTI and PCD		
	Encourage all the vendors (manufacturer, service provider and seller) of green products and services to register in the Green Directory	☑ Yes □ No	This is still currently not available, but is soon to be launched in the first quarter of 2022
	Collaborate with the Eco-label Certifiers (such as TEI, TGO, DEQP, etc.) to update the list of certified green products/ services regularly or automatically	☑ Yes □ No	
	Build capacity of the Green Directory Platform to be the GPP/GP data management unit and capable of monitoring and reporting the GPP/ GP progress and success (including economic, social and environmental benefits).	☑ Yes □ No	
	Build the IT system of the Green Directory for easily and friendly accessibility. May upgrade to be an online GPP/GP marketplace.	⊻ Yes □ No	

Table 4.5: Checklists of GPP/GP good practices & recommendations: Demand: Procurer and User

Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Additional practices/recommen- dations
Executive of organizations/ agencies	The strong commitment of the management level of the organization (including private sectors and central & local government agencies) is the key motivation of participating in the GPP/GP.	☑ Yes □ No	
	Set the policy and system to support the sustainable reporting and GPP/GP (SDG 12.6 and 12.7) according to the global and national policies	☑ Yes □ No	
	Set the GPP/GP target and monitor the progress/success closely and regularly	☑ Yes □ No	
	Give full support to the procurers and the related units to move the GPP/GP of the organization Note: The support could be (1) training on GPP/GP methodology and regulations (2) GPP/GP manual/guidebook and (3) source of green products and services (such as Green Directory)	☑ Yes □ No	Trainings related to GPP continued despite the pandemic, delivered through webinars. The use of audio-visual presentation on GPP during trainings help standardize the delivery of the message, presented to Procuring Entities during trainings.
Procurers	Follow the GPP/GP policy and regulation to make sure that the organizations/ agencies can implement GPP/GP correctly and efficiently	☑ Yes □ No	
	Acquire or produce the appropriate "Green by Spec" criteria or guideline for the green products/services which have no green certification yet Note: "Green by Spec" is the development of environmental related criteria of products and services that have no green certification available in the market. The criteria can be the most concerned environmental impact of that products/services and be practical for verification.	⊻ Yes □ No	NELP-GCP has a separate process for product categories with no existing certification yet. It puts together a Panel Review Committee (PRC) which then facilitates the development of criteria. For GPPB-TSO, it only focuses on the criteria already developed for CSEs and non-CSEs at the moment.

Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Additional practices/recommen- dations
	Acquire or set up the IT system to support GPP/GP data entry and reporting (with economic, social, and environmental benefits) in order to (1) avoid the work duplication of monthly or annual reporting and (2) inform procurers and colleagues to be proud of their important roles on supporting the organization and national policies	⊻ Yes □ No	The Agency Procurement Compliance Performance Indicators (APCPI) tool is the monitoring tool used by the GPPB- TSO in determining which procuring entity/ies adopted green specifications. The APCPI requires procuring entities to state whether they have procured non-CSE items with green specifications. The same are invited for validation, which involves the submission of copies of their purchase request forms and awarded contracts to verify such declaration. On the other hand, submitted reports of key stakeholders contain the list of their commitments and their respective status whether implemented or not yet.
	The GPP/GP policy of the organization is communicated to all related stakeholders within the organization and in the supply chain	☑ Yes □ No	
	The GPP/GP manual, with the clear guidelines, is available so that all procurers can follow smoothly and not conflict with the procurement regulation	☑ Yes □ No	GPP implementation in the Philippines follow the same estab- lished public procure- ment processes. Tech- nical specifications for green products are available on the web- site.

Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Additional practic- es/recommendations
	 From the snapshot survey under the project (in February and March 2021), it was found that 75% of listed companies have the GP policy in their organizations, and 50% have set goals for GP. The knowledge and understanding of how to incorporate sustainability considerations into GP remain an important challenge for the private sector. Local government agencies have GP policy in place. Still, the implementation is limited due to a lack of understanding about the regulation and availability of green products and services in the GPP list. GPP reporting and monitoring systems are the main challenges for the local government agencies. The development of the Green Integration Policy and the creation of a database of green products and services (national green directory) were recognized as very valuable support. 	Yes No	 Based on the Procurement Service Report as of 31 De- cember 2020, there are six out of ten CSEs with green specifications (record book, toilet paper, disinfectant spray, LED lights, detergent powder, and cleaner) and four out of ten Non-CSEs with green specifications (computer monitors, ve- hicles, copiers, air condi- tioners) have been imple- mented. Total spending on CSE products amount to PhP147,547,681.85 (USD 7 billion) while spending on non-CSE products totaled to PhP3,134,074,204.35 (USD 150 billion) from the period of 2017 to 2020 (Ruiz, 2021). For the period of FY 2018- 2020, there are: a. 68 procuring entities that has consistently adopted green specifications in their procurement of non-CSE items and equipment b. 228 procuring entities that have inconsistently adopted green specifications in their procurement of Non-CSE items and equipment c. 38 procuring entities that did not consistently adopt green specifications in their procurement of non-CSE
	Procurer should collect and review previous procurement data (purchased volume), then focus on GPP/GP for the top-ranking products and services	☑ Yes □ No	items and equipment Currently, GPP implementation in the Philippines focuses only on the ten CSEs and ten non-CSEs but this can be expanded later on.
	For the products and services which are not available in any green certifications, the environmentally friendly criteria or "Green by Spec" should be used to increase the volume of GP	Ø Yes □ No	

Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Addition- al practices/rec- ommendations
	"Green Titles" have been increasingly used in tenders to send a signal that environmental impacts are considered within the contract. For examples:	☑ Yes □ No	
	 "Provision of energy-efficient public lighting in Co. Kerry" (Kerry County Council, Ireland) 		
	 "International finishing works, using environmentally friendly construction material and products" (University of Malta) 		
	 "Service contract for energy savings in 12 schools" (Catalan Ministry of Education, Spain) 		
	 "Supply of ecological and recycled paper" (SCR Piemonte, Italy) 		
	Many countries in EU use "Joint procurement" by combining the procurement activities of a group of public authorities to achieve savings through bulk buying, reduced administrative cost, and pooling environmental, technical and market knowledge.	Ø Yes □ No	CSEs are centrally procured through the Department of Budget and Management – Procurement Service (DBM-PS).
	Application of GPP criteria for Office Building Design, Construction and Management – Examples of good practices	☑ Yes □ No	
	1) GPP for works/service "GPP award criteria in the Netherlands" The Rijkswaterstaat tendered for the reconstruction and maintenance of a section of motorway in the Netherlands. The winning tender was selected based on bidding price and quality. One of the Most Economically Advantageous (MEAT) quality criteria was sustainability, including a CO2 'performance ladder' of working processes and life cycle assessment of products used. These savings were monetized and deducted from the bidding prices. The winning bidder provided an overall design optimisation that will save 8,944 t CO2e over 50 years. In doing this, bidders have freedom to make their own choice for sustainable design within a technical framework.		
	2) A Sustainable New Hospital in Vienna Construction on the new Vienna North Hospital will be carried out according to a Sustainability Charter to be applied at every stage of the procurement and construction process, as well as to monitor performance once complete. The charter sets out ambitious conditions including those relating to overall energy demand, protection of the environment on site, indoor air quality, accessibility, flexibility of use, use of renewable energy sources, and waste and noise during construction.		

Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Additional practices/recommen- dations
User in organizations/ Agencies	Actively participate in the GPP/GP policy of the organizations	☑ Yes □ No	
	Support the procurer and request the procurer to provide as many green products and services as possible		
General users	Act as a responsible consumer, towards sustainable lifestyle, and buy the green products and services (instead of normal products and services) as many occasions as possible.	 ✓ Yes □ No 	In key cities in the Philippines, there is some awareness on the consumption of green products among individual consumers. Refilling stations for household cleaners and personal care products are available in some places, promoting low-waste or zero-waste lifestyle There are some online support groups that support droups that support this advocacy, such as "Buhay Zero Waste". In terms of availability of green products, there are a few choices in big cities, but are not readily available in smaller cities or provinces (Baquillas, 2022).
	Influencers such as the young generation, actors/actresses, social and environmental activists can be role models on responsible consumption/ sustainable lifestyles and help promote GPP/GP via social media. Currently, social media is the best available channel to disseminate the GPP/GP to the public.	⊻ Yes □ No	WWF Philippines actively involve young influencers and celebrities to advocate for environmental programs. These celebrities use their popularity to influence consumers on supporting environmental issues (WWF Philippines, n.d.)



Table 6: Checklists of GPP/GP good practices & recommendations: GPP/GP Supports

Players/	Good Practices/ Recommendations	Agree	Similar/ Additional practices/ recommendations
Stakeholders Policy Maker/ Regulator	Integrate GPP/GP in the national policy (highlight the SDG12.7, upstream circular economy policy, and other benefits) and involve related key ministries and other important stakeholders	☑ Yes □ No	
	 Develop the Green Procurement Promotion Plan with clear action plan, targets, and indicators The action plan should target on GPP/GP for central government, local government, private organizations, and individual consumers. The national promotion committee should involve important stakeholders. For Thailand, the national promotion committee is co- chaired by the top executives of Ministry of Natural Resources and Environment and Ministry of Industry. Legislation on Public Procurement that mandates or allows the government agencies to procure green products and services is a very critical factor to promote GPP/ GP. Note: Green products and services list which approved by PCD will be automatically applied in the green products and services list of Comptroller General's Department. 	 Yes No 	Executive Order No. 301 The Executive Order No. 301 signed by Former President Gloria Macapagal Arroyo established the Green Public Procurement (GPP) Program for all departments, bureaus, offices, and agencies of the executive branch of the Phil- ippine government. It recog- nizes the extent of the state procurement's impact on the environment as a large con- sumer of various goods and services, therefore initiating schemes to protect the en- vironment and preserve the country's natural resources. It institutionalized the estab- lishment of integrated efforts to procure environmental- ly-sound products, as well as recognized the importance of a systematic and compre- hensive national eco-label- ling program to support the GPP program.

Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Additional prac- tices/recommendations
			Green Public Procurement Act
			In 2020, the House of Representatives passed the House Bill No. 6954 or the Green Public Procurement Act (GPPA). Anchored on the governing principles of GPRA, the GPPA intends to build and promote sustainable practices and informed decision-making across the executive, judicial, and legislative branches of the Philippine government by incorporating environmental, economic, and social considerations in government procurement processes through the Green Public Procurement (GPP) Program implemented by the Government Public Procurement Board (GPPB). Pursuing this is consistent with the country's commitment to the United Nations' 2030 Agenda for Sustainable Development. GPPB-TSO do not have this data. The NELP- GCP-certified products monitored by PCEPSDI is separate from the products procured by PS-DBM.
t t	Fogether with the concerned stakeholders, the government should focus on collecting the list and the vendors of available green products and services in the market into the national green directory	☑ Yes □ No	

Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Additional practices/ recommendations
	It is recommended to have more green products and services available in the green basket of GPP/GP for procurers to select. This would help push the demand side in the green market for stimulating the supply side.	Ø Yes □ No	
	Note: In the project, all types of certified green products and services available in the market were reviewed and clustered into 4 groups, ranging from their greenness levels. The procurers are advised to buy the product/ service from the greenest group first. However, if it isn't available, they can buy from the less green group, in order.		
	Life cycle costing (LCC) is being applied by an increasing number of public authorities across the EU and in a range of sectors. LCC considers all the cost that will be incurred during the lifetime of the product, work or service include:	Ø Yes □ No	
	 Purchase price and all associated costs (delivery, installation, insurance, etc.) 		
	 Operating costs, including energy, fuel and water use, spare parts, and maintenance 		
	 End-of-life costs (such as decommissioning or disposal) or residual value (e.g., revenue from sale of product) 		
	Note: 1. The current Directive 2014/24/EU requires that where LCC is used, the calculation method and the data to be provided by tenderers are set out in the procurement documents.		
	2.The European Commission has developed a series of sector specific LCC calculation tools which aim to facilitate the use of LCC amongst public procurers include Vending Machines, Imaging Equipment, Computers and Monitors, Indoor Lighting, and Outdoor Lighting ¹		

Players/ Stakeholders	Good Practices/ Recommenda- tions	Agree	Similar/ Additional practices/rec- ommendations
Supporter/ Promoter	There are several existing schemes to certify green organizations/ green offices which greatly support the GPP/ GP, such as	☑ Yes □ No	
	 Green Office Certification scheme (by Department of Environmental Quality Promotion) 		
	 Green Industry Mark (by Ministry of Industry) 		
	 Eco-Factory Certification scheme (by Federations of Thai Industries) 		
	Note: Production and/or consumption of the green products and services (GPP/ GP) are usually listed as one of the criteria in the above green certification schemes		
	Promotion of green and sustainable procurement in the private sector, especially with the Stock Exchange of Thailand (SET) which has more than 700 listed company-members, contributes to significant impact and in achieving SDG 12.7	☑ Yes □ No	
	Production of media (especially social media) materials to promote the GPP/GP and the national green directory	☑ Yes □ No	Find other opportunities to communicate and promote GPP/GP such as during business trade fairs and the like.
			No specific information on social media use was shared by GPPB- TSO.
			For FY 2022, GPPB-TSO intends to focus on Electronic Bidding and GPP. In order to leverage on this initiative, TSO will also sustain such promotion by incorporating GPP in the Procurement Summit, and Procurement Forum to reach more potential suppliers and PEs and overall strengthen GPP efforts.

Philippines Country Report: Current Status of Green Public Procurement (GPP) Implementation Enhancing the implementation of Green Public Procurement in Southeast Asian region

Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Additional practices/ recommendations
			This means that PEs and Suppliers are critical in strengthening GPP efforts as they serve as our primary target audience. On the other hand, a group will continue to focus on expansion of items with the Department of Energy (DOE) and PS-DBM.
			Further, to promote knowledge on GPP among procurement practitioners, the Capacity Development Division (CDD) has included the GPP Module on its Training Needs Assessment Form for Training Requests.
	The GPP/GP training curriculum for procurers are available, both onsite and online, by the Pollution Control Department	☑ Yes □ No	
	A handbook on green public procurement has been published by EU to help public authorities successfully plan and implement GPP. It has been produced for public authorities, but many of the ideas and approaches are equally relevant for corporate purchasers.	₽ Yes □ No	GPPB Manual on Green Technical Specifications: https://www.gppb.gov.ph/downloadables/ forms/GPP Technical Specifications Doc - Final.docx NELP-GCP Product Criteria: https://pcepsdi.org.ph/programme/green- choice-philippines/gcp-criteria/
	GPP Criteria for several products and services (such as data centers, road lighting and traffic signals, vending machines, food catering services) have been published by EU to help the individual authority or the public authorities to integrate into the tender documents with minimum editing.	☑ Yes □ No	

Players/ Stakeholders	Good Practices/ Recommendations	Agree	Similar/ Additional practices/ recommendations
	EU has a Help Desk System available to support the procurers. The clear timetable and topics to be advised are posted in advance via the GPP website.	☑ Yes □ No	A comprehensive FAQs page and an inquiry platform with bot function can lessen the burden on the staff maintaining the helpdesk, as well as make the information available even after business hours.
			Currently, there is no FAQs page but the following pages are offered from where information on GPP can be obtained, organized in tabs based on topic (8th Edition Handbook, Updated IRR of RA9184, Philippine Bidding Documents, Manuals, Forms/ Templates, GPP Roadmap and Technical Specifications, Presentation): GPPB Downloadables https://www.gppb.
			A "Contact Us" page is also available with a list of email addresses that can be contacted: https://www.gppb.gov.ph/ contact-us.php
	EU has the website to	☑ Yes	LINKS:
	provide GPP/GP supporting information for all procurers and other stakeholders	□ No	 GPPB Downloadables - https:// www.gppb.gov.ph/downloadables. php
			 NELP-GCP Apply for GCP Seal - https://pcepsdi.org.ph/programme/ green-choice-philippines/apply-for- gcp-seal/
			 NELP-GCP Product Criteria - https:// pcepsdi.org.ph/programme/green- choice-philippines/gcp-criteria/

Philippines Country Report: Current Status of Green Public Procurement (GPP) Implementation Enhancing the implementation of Green Public Procurement in Southeast Asian region

Players/	Good Practices/	Agree	Similar/ Additional practices/
Stakeholders	Recommendations		recommendations
Monitor/ Evaluator/ Reporter	Monitoring and evaluation are very important step for measuring the progress and success (including the economic, social, and environmental benefits) of the GPP/GP implementation, both at organization, provincial and national levels. Online monitoring and evaluation are recommended due to the large amount and complexity of data. Note: After the implementation of Green Public Procurement Promotion Plan Phase 1 (2008- 2011), PCD and National Metal and Materials Technology Center (MTEC) had applied the external cost using Life Cycle Costing to evaluate the benefit of GPP in term of economic value. In addition, the reduction of GHG emission from GPP implementation was also evaluated.	Yes No	As early as 2012, he GPPB approved the use of Agency Procurement Compliance and Performance Indicators (APCPI) system as standard procurement monitoring and assessment tool of the Philippine Government (GPPB Resolution No. 10-2012, 2012, June 01). APCPI tool is the monitoring tool used by the GPPB-TSO in determining which procuring entity/ ies adopted green specifications. The APCPI requires procuring entities to state whether they have procured non-CSE items with green specifications. The same are invited for validation, which involves the submission of copies of their purchase request forms and awarded contracts to verify such declaration. On the other hand, submitted reports of key stakeholders contain the list of their commitments and their respective status whether implemented or not yet. The GPPB-TSO monitors through the following approaches: a. Request for annual status reports on GPP implementation from GPP key stakeholders – Department of Trade and Industry (DTI) and Procurement Service-Department of Budget and Management (PS-DBM) GPP focal persons. It requests information also from the Philippine Government Electronic Procurement System, as may be necessary; b. Analysis of APCPI reports to recommend areas of improvement to GPPB – TSO core groups and key stakeholders, if any; and c. Regular updating of GPP roadmap as may be necessary.

Players/ Stakeholders	Good Practices/ Recommenda- tions	Agree	Similar/ Additional practices/ recommendations
	There are national Life Cycle Inventory Database and Carbon Emission Factors available to support the (1) setting up of green products and services labeling criteria and (2) quantitative impact, environment/ social/ environmental, evaluation of GPP/ GP progress and success	☑ Yes □ No	
	The national green directory (mentioned in Table 4) can be used as the platform for online monitoring and evaluation.	☑ Yes □ No	
	The progress and success (including the economic, social, and environmental benefits) of the GPP/GP implementation should be reported to the top executives and important stakeholders regularly (at least every 6-12 months) to get the support and cooperation.	☑ Yes □ No	The GPPB-TSO provides report/s to the Board (GPPB) and this is/are scheduled. The GPPB-TSO also joined the Asia Pacific GPP network and has shared it experiences with other members. In some of the trainings or where GPPB- TSO is a resource, the progress is reported.







CONCLUSION AND RECOMMENDATIONS

CONCLUSION/RECOMMENDATION

Green public procurement implementation in the Philippines is still in the infancy stage. The GPP Philippine Roadmap presents a practical and robust pathway towards sustainable public procurement, but implementation needs to be strengthened to achieve the goals in supporting the sustainable consumption and production targets of the country. Benefits of GPP pointing to influencing market demands and making green products more mainstream are yet to be seen.

The Philippines recognizes the needtostrengthenthefoundation in the GPP implementation to ensure a smooth sailing journey moving forward. Sustaining GPP reforms is important in achieving a wider coverage of GPP implementation, both on the side of wider adherence to technical specifications of green products, and the expansion of the green product list later on, as well as on the compliance of different government entities to GPP guidelines. With the support of other key stakeholders, since Procuring Entities are required to procure CSE items with specifications green through the Procurement Service, the practical success measure would be the expansion of both CSE and non-CSE items with green specifications to guarantee the use of sustainable products in the government sector, which in turn could serve as a role model for the private sector and

the general public. However, there are no specific measures or targets for said expansion yet since the existing items and their respective green specifications are still under its review phase. For now, the goal is to have the prioritized non-CSEs items pilot tested by those agencies that procured the prioritized Non-CSE items as identified by the Philippine Government Electronic Procurement System. 55

Mainstreaming GPP trainings can widen the reach of advocating for GPP. National Eco-labelling Program _ Green Choice Philippines (NELP-GCP) boost the capacity building efforts of GPPB in getting government entities, the private sector, and the general public to have a better understanding of GPP, which can pave the way for participation and championing of areen procurement in their respective jurisdictions.

REFERENCES

- Baquillas, J. (2022). Mind the green: What drives the sustainable consumption behavior of Filipino consumers? (Doctoral Dissertation). unpublished.
- Bratt, C., Hallstedt, S., Robèrt, K. H., Broman, G., & Oldmark, J. (2013). Assessment of criteria development for public procurement from a strategic sustainability perspective. Journal of Cleaner Production, 52, 309–316. https://doi.org/10.1016/j.jclepro.2013.02.007
- Cheng, W., Appolloni, A., D'Amato, A., & Zhu, Q. (2018). Green Public Procurement, missing concepts and future trends – A critical review. Journal of Cleaner Production, 176, 770–784. https://doi.org/10.1016/j. jclepro.2017.12.027
- Djankov, S. (2016, November 7). How large is public procurement in developing countries? Realtime Economics Issues Watch. https:// www.piie.com/blogs/realtime-economic-issues-watch/how-largepublic-procurement-developing-countries
- European Commission, 2008. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Brussels, Public Procurement for a Better Environment, COM(2008), vol. 400/2 (Brussels).
- Global Ecolabelling Network. (n.d.). What is Ecolabelling? Retrieved January 11, 2022, from https://globalecolabelling.net/what-is-ecolabelling/
- Government Procurement Reform Act 2003. (Phil.). Retrieved from https://www.gppb.gov.ph/laws/laws/RA_9184.pdf
- Government Public Procurement Act 2020. (Phil.). Retrieved from https://hrep-website.s3.ap-southeast-1.amazonaws.com/legisdocs/ third_18/HBT6954.pdf
- Government Public Procurment Resolution No. 10-2012. (2012, June 01). RESOLUTION APPROVING AND ADOPTING THE AGENCY PROCUREMENT COMPLIANCE AND PERFORMANCE INDICATORS (APCPI) AS STANDARD PROCUREMENT MONITORING AND ASSESSMENT TOOL. Retrieved from https://www.gppb.gov.ph/ issuances/Resolutions/10-2012.pdf

Government Procurement Policy Board – Technical Specifications Office (GPPB-TSO). (2017a). Green Public Procurement Technical Specifications for priority product groups. Government Procurement Policy Board - Technical Specifications Office – Technical Specifications Office (GPPB-TSO). (2017b). Philippine Green Public Procurement Roadmap. The https://gppb.gov.ph/downloadables/forms/GPP_roadmap_print.pdf Organization for Economic Co-operation and Development (OECD). • (2019). Government at a Glance 2019. Size of public procurement. https://www.oecd-ilibrary.org/sites/fc0c31c5-en/index.html?itemId=/ content/component/fc0c31c5-en National Ecolabelling Program – Green Choice Philippines (NELP-GCP). (n.d.). Guidelines for Certification National Economic Development Authority (NEDA). (2017). Updated Philippine Development Plan 2017–2022. https://pdp.neda.gov.ph/ wp-content/uploads/2021/12/122421_Updated-PDP.pdf PCEPSDI. (2018, April 17). About Green Choice Philippines. https:// pcepsdi.org.ph/programme/green-choice-philippines/aboutgreen-choice-philippines/z` Ruiz, R. C. (2021). Green Public Procurement in the Philippines [Slides]. UNEP.org. https://wedocs.unep.org/bitstream/ handle/20.500.11822/37011/GPPP.pdf Testa, F., Annunziata, E., Iraldo, F., & Frey, M. (2016). Drawbacks and opportunities of green public procurement: an effective tool for sustainable production. Journal of Cleaner Production, 112, 1893-1900. https://doi.org/10.1016/j.jclepro.2014.09.092 United Nations Environment Programme (UNEP). (2011). Buying • for a Better World A Guide on Sustainable Procurement for the UN System. https://www.ungm.org/Areas/Public/Downloads/BFABW_ Final_web.pdf WWF Philippines. (n.d.). Ambassadors. https://wwf.org.ph/who-weare/ambassadors/



