Green Public Procurement in Indonesia

Policies, practices, and ways forward

IISD REPORT

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- Ministry of Environment and Forestry
- Ministry of Public Works and Public Housing
- National Public Procurement Agency
- Deutsche Gesellschaft für Internationale Zusammenarbeit Indonesia
- World Bank Indonesia

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This report is part of a larger project on the dissemination of the CO_2 Performance Ladder in Europe, Accelerating Carbon Emissions Reduction Through the Power of Procurement. It is a collaboration between SKAO, the independent owner and manager of the Ladder, and the International Institute for Sustainable Development, an independent think tank. The project is funded by the IKEA Foundation.

Executive Summary

This brief explores the current state of green public procurement (GPP) in Indonesia and provides recommendations for advancing it. It is based on a desk review of existing literature, policy documents, and prior studies on GPP both within Indonesia and in comparable contexts. Additionally, in-depth interviews were conducted with key stakeholders, namely the Ministry of Environment and Forestry, the Ministry of Public Works and Public Housing, and the National Public Procurement Agency.

Public procurement in Indonesia accounts for a substantial portion of the government's spending—over 45% in 2022. This corresponds to approximately 6.6% of the total nominal GDP, highlighting the potential of GPP to drive significant environmental, social, and economic benefits. GPP is already anchored in key national plans and strategies as a tool for fostering a sustainable transformation of the economy. Indonesia has also developed a framework of laws and regulations to support GPP.

While there is a growing awareness and adoption of GPP in Indonesia, challenges remain. These include a limited understanding of GPP among procurement officials and industries, weak government support, the higher costs associated with green products, and a lack of incentive schemes to attract suppliers.

This brief provides several recommendations to advance GPP in Indonesia, including the introduction of easy-to-use tools, enhancing training and capacity-building initiatives, developing comprehensive support platforms, providing both financial and non-financial incentives, and improving monitoring of both GPP outputs and outcomes.

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Abbreviations

ADB	Asian Development Bank
AMDAL	Analisis Mengenai Dampak Lingkungan (Environmental Impact Assessment)
APRSCP	Asia Pacific Roundtable for Sustainable Consumption and Production
BMP	company benefit weight
EMS	environmental management system
FOLU	Forestry and Other Land Uses
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GPP	green public procurement
ISO	International Organization for Standardization
KADIN	Kamar Dagang dan Industri Indonesia (Indonesian Chamber of Commerce and Industry)
LTHE	Label Tingkat Hemat Energi (Energy Efficiency Saving Label)
M&E	monitoring and evaluation
MoEF	Ministry of Environment and Forestry
NDCs	nationally determined contributions
NGOs	non-governmental organizations
NPPA	National Public Procurement Agency
SCP	sustainable consumption and production
SIH	Standar Industri Hijau (Green Industry Standard)
SKEM	Standar Kinerja Energi Minimum (Minimum Energy Performance Standard)
SNI	Standar Nasional Indonesia (Indonesian National Standard)
SPP	sustainable public procurement
SVLK	Sistem Verifikasi Legalitas Kayu (Timber Legality Verification System)
TKDN	Tingkat Komponen Dalam Negeri (Domestic Component Level)
UKPBJ	Unit Kerja Pengadaan Barang/Jasa (Procurement Service Unit)

1.0 Introduction and Purpose of the Study

Public procurement has a significant role to play for governments in delivering their sustainable development goals. Its environmental impact is substantial, with public spending directly and indirectly contributing to 15% of global greenhouse gas emissions (World Economic Forum, 2022). Furthermore, public procurement represents an average of 13% to 20% of GDP (World Bank, 2022a). This sheer scale of procurement signifies its potential as a driving force for sustainability initiatives across countries. Against this backdrop, green public procurement (GPP) stands out as an effective tool for countries aiming to hit their climate targets by promoting sustainable purchasing practices.

GPP leverages the purchasing power of the public sector to meet environmental goals (World Bank, 2022a). GPP is a component of the wider sustainable public procurement (SPP) strategy, which encompasses economic, social, and environmental factors.

The United Nations Environment Programme (n.d., para. 11) describes SPP as

> a process whereby public organizations meet their needs for goods, services, works, and utilities in a way that achieves value for money on a whole life-cycle basis in terms of generating benefits not only to the organization, but also to society and the economy, whilst minimizing damage to the environment.

While GPP is sometimes used interchangeably with SPP, GPP more explicitly focuses on environmental aspects. The European Commission (2008) describes GPP as "a process where public authorities aim to procure goods, services, and works with a reduced environmental impact throughout their life cycle compared to similar goods, services, and works that would otherwise be purchased."

GPP's potential to promote sustainability has been increasingly acknowledged across countries and globally. The United Nations has also underlined the importance of GPP in achieving Sustainable Development Goal (SDG) 12, focusing on sustainable consumption and production (Interreg, 2018). By implementing GPP, public agencies can create demand and markets for environmentally friendly goods and services, which encourages businesses to switch their products and services to greener options.

The volume of public procurement in Indonesia is substantial. In 2021, over 45% of government spending (around USD 78.5 billion in total) was allocated to procurement, primarily focusing on the infrastructure, health, and education sectors (Kartianingsih, 2021). This means public procurement accounts for around 6.6% of the total nominal GDP. On average, annually public procurement represents a third of government spending (Kartianingsih, 2021). Therefore, understanding and enhancing the uptake and implementation of GPP practices in Indonesia is essential to meeting its climate goals.

The purpose of this study is to

- understand the current state of GPP in Indonesia
- provide recommendations for advancing GPP
- explore GPP tools necessary for implementing GPP at scale.

The study was prepared as part of a project about using the CO_2 Performance Ladder (the Ladder) as a low-carbon procurement tool, funded by the Foundation for Climate Friendly Procurement and Business (SKAO). While researching the wider context for GPP in Indonesia, we, therefore, paid specific attention to the interest and opportunities for applying tools like the Ladder.

2.0 Research Methodology

This report draws on desk reviews of existing literature, policy documents, and previous studies on GPP within Indonesia and similar contexts. In addition, interviews were conducted with key stakeholders from relevant government agencies:

- Ministry of Environment and Forestry
- Ministry of Public Works and Public Housing
- National Public Procurement Agency (NPPA)

These semi-structured interviews focused on understanding the current state of GPP implementation in Indonesia, exploring challenges in adopting sustainable procurement practices, and identifying potential strategies for improvement. The discussions also delved into the country's climate commitments, priority sectors for decarbonization, and the feasibility of adapting international best practices such as the CO_2 Performance Ladder to the Indonesian context. These consultations provided valuable insights into the regulatory landscape, existing tools, and barriers to implementing GPP in Indonesia.

A comprehensive list of interview questions can be found in Appendix A.

3.0 Policy Priorities and Environmental Objectives

Indonesia is the fourth most populous country in the world and the largest economy in Southeast Asia. With a nominal GDP of around USD 1 trillion, Indonesia is the 16th largest economy in the world. The country boasts impressive economic growth (World Bank, 2023b); however, this progress comes at a significant environmental cost. Indonesia ranks as the fourth largest global emitter of GHGs (Climate Analysis Indicators Tool, 2020), largely due to activities like deforestation and reliance on fossil fuels. Moreover, Indonesia faces a heightened vulnerability to the negative impacts of climate change. Rising sea levels threaten coastal infrastructure and populated areas, extreme weather events disrupt food production, and changing rainfall patterns create water scarcity (Ministry of Environment and Forestry [MoEF], 2023). These challenges pose a significant threat to Indonesia's continued economic development and the overall well-being of its citizens. These challenges highlight the critical need for climate mitigation and adaptation efforts within the nation.

3.1 Climate Change Mitigation

Indonesia is making strides toward its climate and development goals, which is evident in its efforts to reduce GHG emissions while promoting economic and social resilience (Kartianingsih, 2021). Emphasizing the balance between environmental sustainability and development, Indonesia's Long-Term Strategy for Low Carbon and Climate Resilience 2050 charts a course for transitioning to a high-income economy with low GHG emissions (Government of Indonesia, 2021). Complementing this, Indonesia has committed to cutting emissions as part of its nationally determined contributions (NDCs) under the Paris Agreement. In 2022, Indonesia released its Enhanced NDC, outlining targets for emissions reductions by 2030, with a vision for achieving net-zero emissions by 2060 or earlier. To achieve these targets, Indonesia is stepping up its efforts to reduce the impact of climate change through several measures, specifically focusing on the land and energy sectors.

3.1.1 Forest and Land Use Emission Cuts

Over 60% of Indonesia's emissions reduction goal under the Enhanced NDC targets the Forestry and Other Land Uses (FOLU) sector (World Bank, 2023a). The government has also set an ambitious goal within its FOLU Net Sink 2030 plan, aiming to transform the FOLU sector into a carbon sink by 2030, which would mean achieving negative net emissions. To achieve this, the government is implementing various strategies that include reducing deforestation, promoting sustainable forest management, developing timber plantations, restoring peatlands, and enhancing water management practices, all aimed at achieving negative emissions in the FOLU sector by 2030 (MoEF, 2021).

3.1.2 Energy Sector Emission Cuts

The energy sector is crucial for achieving Indonesia's emission reduction target, accounting for approximately 39% of the country's total goal. To address this, the government is taking several key steps. It is introducing favourable pricing schemes for renewable energy technologies, laying the groundwork for increased adoption of clean energy sources. Additionally, the government is implementing legally binding restrictions on the construction of coal-fired power plants, aiming to significantly reduce emissions from the country's electricity grid. These initiatives form part of a comprehensive strategy to transition toward a more sustainable energy sector (World Bank, 2023a).

3.2 The Role of GPP in Accelerating Climate Action in Indonesia

GPP is strategically positioned in Indonesia's policy framework to foster sustainable consumption and production. It was mentioned in the National Medium Term Development Planning (RPJMN) 2015–2019 and 2020–2024 as one of the programs for implementing the agenda for sustainable consumption and production patterns (Asia Pacific Roundtable on Sustainable Consumption and Production [APRSCP] & SWITCH-Asia, 2022). In subsequent development plans, GPP has been included as a specific program under the responsibility of the MoEF. This program focuses on increasing the number of environmentally friendly products registered and included in government procurement of goods and services. In the Indonesian context, "services" encompasses both services and works. By 2024, the target is to have 100 available products integrated into the government's procurement processes.

Furthermore, GPP is highlighted as a key strategy in Indonesia's 10-Year National Program on Sustainable Consumption and Production (10Y SCP) for 2020–2030. During the 2020–2024 phase, the SCP emphasizes resource efficiency, a low-carbon development strategy, a green economy, and a circular economy, with GPP serving as a tool to stimulate demand for sustainable products (MoEF & Bappenas, 2020). By incorporating GPP into national development plans and setting specific targets, Indonesia is demonstrating its commitment to using procurement as a policy tool to achieve its sustainability goals.

4.0 Legal and Governance Framework for GPP

This section examines the legal framework for GPP in Indonesia, specifically focusing on decrees and regulations that have paved the way for GPP practices in Indonesia. This section will also highlight the key stakeholders of GPP in Indonesia.

4.1 The Legal Framework for GPP

Legislation in Indonesia mandates the use of sustainability considerations in government procurement. However, there is a lack of enforcement mechanisms, making implementation of GPP effectively voluntary (APRSCP and SWITCH-Asia, 2022). Indonesia has established multiple regulations and legal frameworks that incorporate provisions for GPP/SPP which demonstrate a commitment to these practices, as provided in Table 1.

Table 1. Summary of the legal framework for GPP

Regulations/ decrees/guidelines	Description of GPP content	Link to document
Presidential Regulation No. 16 of 2018 and its amendment to Presidential Regulation No. 12 of 2021	Mandates sustainability considerations in government procurement of goods/services, focusing on economic, social, and environmental aspects.	https://peraturan.bpk.go.id/Details/73586/perpres-no-16-tahun-2018 https://peraturan.bpk.go.id/Details/161828/perpres-no-12-tahun-2021
NPPA Circular Letter No. 16 of 2020	Builds upon the MoEF Regulation No. 5 of 2019 by providing specific operational procedures for the procurement of the three types of products listed in the regulation: paper, office stationery, and wooden furniture.	https://jdih.lkpp.go.id/regulation/surat-edaran-kepala-lkpp/surat-edaran-kepala-lkpp-nomor-16-tahun-2020
NPPA Regulation No. 5 of 2022	Outlines procurement procedures specific to early activities, development, and relocation to the new National Capital, emphasizing the importance of domestic products and environmental considerations.	https://peraturan.bpk.go.id/Details/216821/perka-lkpp-no-5-tahun-2022
Decree of the Head of NPPA No. 157 of 2024	Provides guidelines for sustainable procurement, applicable across all governmental levels. It covers sustainable procurement strategies, planning, and best practices.	https://peraturan.bpk.go.id/Details/294635/keputusan-kepala-lkpp-no-157-tahun-2024

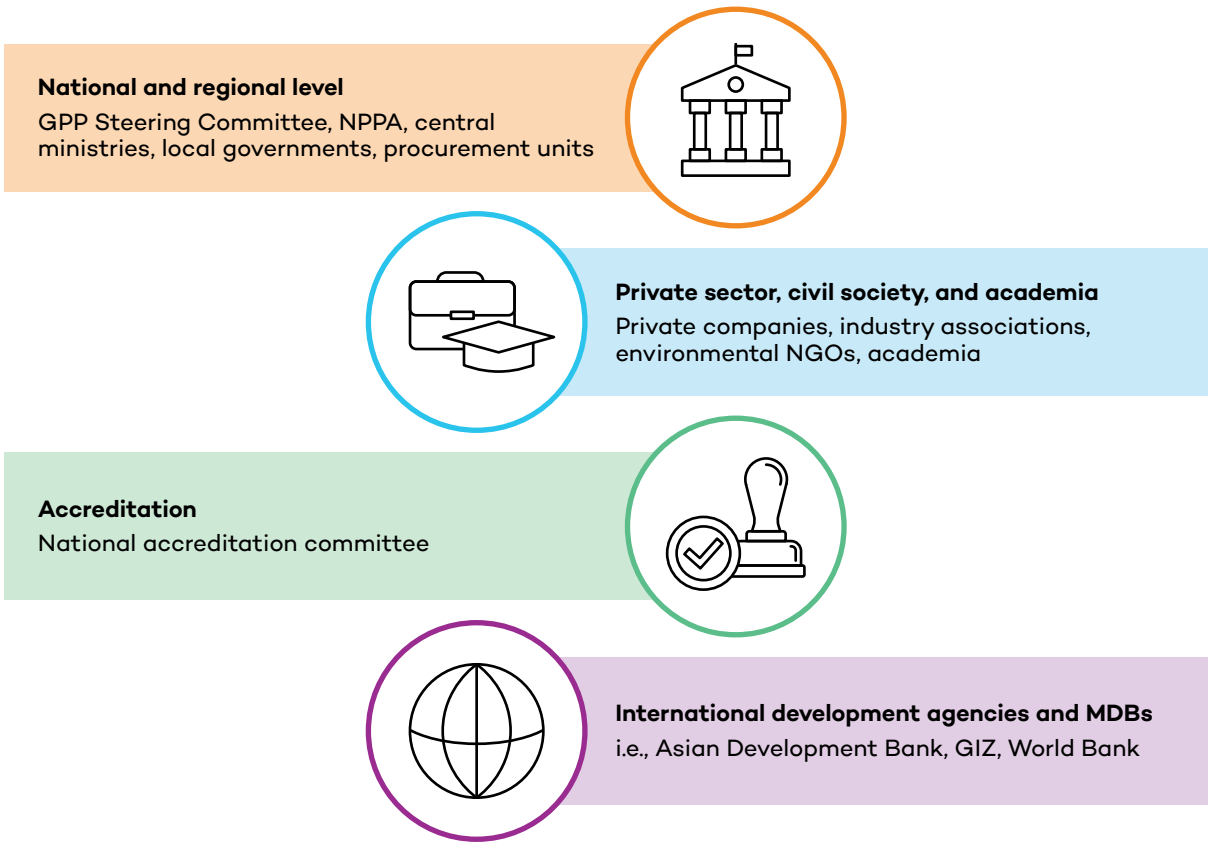
Regulations/ decrees/guidelines	Description of GPP content	Link to document
Decree of the Deputy for Strategy and Policy Development No. 3 of 2024	Details a model document for sustainable procurement in construction, covering aspects from tender announcements to contract signing, highlighting the importance of sustainable practices throughout.	https://ppid.kemendagri.go.id/front/dokumen/detail/300324875
Ministry of Environment and Forestry Regulation No. 5/2019	Sets procedures for applying eco-friendly labels in green procurement practices, including a reference list of environmentally friendly goods and services that is updated annually.	https://jdih.maritim.go.id/en/peraturan-menteri-lingkungan-hidup-dan-kehutanan-no-p5menlhksetjenkum122019-tahun-2019
Ministry of Environment and Forestry Decree No. 1207/2021	Updates the reference list of environmentally friendly goods and services, expanding the scope of products considered eco-friendly.	N/A
Ministry of Public Works and Public Housing Regulation No. 9 of 2021	Outlines guidelines for the implementation of sustainable construction, focusing on principles of economic feasibility, community welfare enhancement, environmental preservation, and reducing social disparities.	https://peraturan.bpk.go.id/Details/216870/permen-pupr-no-9-tahun-2021
Examples of local government regulations		
Governor Regulation of Yogyakarta Number 57 of 2023	Provides an SPP roadmap as a strategic plan that outlines the approach for implementing sustainable procurement in the Special Region of Yogyakarta. It details three strategic programs, encompassing 12 work programs and 35 activities. Examples of activities include training for procurers and market dialogue.	https://peraturan.bpk.go.id/Details/274341/pergub-no-57-tahun-2023
Decree of the Governor of South Sulawesi Number 242 of 2020	Establishes the implementation team for the pilot project for SPP, detailing the roles and responsibilities assigned to each member	https://jdih.sulselprov.go.id/dokumen/no-242-tahun-2020-4

Source: Compiled by the authors.

4.2 Governance System and Key Stakeholders

The implementation of GPP in Indonesia involves a complex network of stakeholders, each playing crucial roles in shaping policies, executing procedures, and driving sustainable practices. Figure 1 provides an overview of the key procurement stakeholders in Indonesia, categorizing them into distinct groups based on their roles and levels of operation.

Figure 1. Key procurement stakeholders in Indonesia



Source: Authors' diagram.

4.2.1 Public Entities

There are several public entities involved in GPP at both national and local levels. In Indonesia, the NPPA leads the development of public procurement policies, while several ministries contribute to sector-specific SPP/GPP policies and the development of technical standards.

According to the Decree of the NPPA Head Number 157 of 2024, here are the roles and responsibilities of ministries, agencies, and procurement officers in SPP:

- **NPPA.** The NPPA plays a pivotal role in designing and overseeing the implementation of SPP/GPP policies. The agency's responsibilities include ensuring that procuring authorities adhere to sustainability policies and practices. To further the government's

sustainability targets, NPPA is tasked with identifying new areas for the application of sustainable procurement. NPPA also updates procurement documents with sustainability criteria and evaluates procurement plans. Additionally, NPPA provides training, reviews outcomes, and formulates recommendations to enhance sustainable procurement across government sectors.

- **Ministry of Home Affairs.** The Ministry provides procurement directions and policies for local governments based on NPPA policies and guidelines.
- **MoEF.** The Ministry develops standards for eco-labelled/environmentally friendly products.
- **Ministry of Energy and Mineral Resources.** The Ministry develops the Minimum Energy Performance Standard (SKEM) and associated schemes.
- **Ministry of Industry.** The Ministry provides directions on the domestic component level (TKDN) and company benefit weight (BMP). TKDN refers to the percentage of locally sourced components or content in a product or service. BMP is an award value given to industrial companies that invest and produce in Indonesia. To support local industry, procurement policies often require that companies meet a minimum combined TKDN and BMP threshold of 40%. This means that only companies offering goods or services with at least 40% local content and economic benefit are prioritized for selection in government contracts. Additionally, the Ministry also provides a scheme for green industry, known as Standar Industri Hijau (SIH) or Green Industry Standard. This will be discussed in more detail later in this document.
- **Ministry of Public Works and Public Housing.** The Ministry has the authority to determine the basis for sustainability aspects and criteria for construction works.
- **National Accreditation Committee.** The institution is an accreditation body that carries out its activities in accordance with the International Organization for Standardization (ISO) standard IEC 17011. The institution provides accreditation to certification bodies, laboratories, inspection bodies, proficiency test providers, and reference material producers. For instance, in GPP, the committee gives accreditation to independent third parties to conduct certification schemes for eco-friendly labels.
- **Procurement units (procurement service units, budget users, commitment-making officers, procurement officers).** There are several units involved within the public procurement process for contracting authorities. Some of them are procurement service units (UKPBJ), budget users (KPA/PA), commitment-making officers (PPK), and procurement officers. All play a significant role in GPP/SPP activities.

  UKPBJ is a working unit within the ministries, institutions, or local governments, which is the procurement centre of excellence. These units are pivotal for the effective implementation of government procurement policies, including SPP. UKPBJ is critical as it facilitates the internalization of regulations and guidelines among procurement officers and suppliers (Kartianingsih, 2022).

  The budget user is the official authorized to utilize state or regional budgets. This role requires early consultation with procurement officers to ensure that sustainability criteria are integrated into the technical requirements of procurement projects.

Commitment-making officers are responsible for decisions leading to budget expenditures and ensure sustainable procurement guidelines are applied at all stages. They may also help draft procurement policies, select priority sectors, and develop specific criteria during planning.

While the Decree does not explicitly mention the role of the Ministry of Finance and local governments, they play a crucial role in GPP/SPP implementation:

- **Ministry of Finance**: The Ministry of Finance can play a pivotal role in advancing GPP in Indonesia by strategically allocating budget resources and implementing fiscal policies that incentivize sustainable practices. For instance, the Ministry can incorporate environmental criteria into the national budget and procurement guidelines to ensure that public spending supports the purchase of eco-friendly products and services. Additionally, the Ministry can introduce tax incentives and subsidies for companies that meet green standards, fostering a market shift toward sustainability.
- **Local governments**: Local governments play a crucial part in implementing GPP policies at the regional and municipal levels. They are responsible for adapting national GPP guidelines to local contexts and priorities, ensuring that sustainable procurement practices are tailored to meet specific regional needs and challenges. Furthermore, local governments are well-positioned to collaborate with local businesses and stakeholders to promote sustainable practices, fostering a community-wide commitment to sustainability. Their on-the-ground experience also allows them to provide valuable feedback to national entities on the practical challenges and successes of GPP implementation at the local level, contributing to the continuous improvement of national GPP strategies.

Steering Committee for the Promotion of Environmentally Friendly Goods and Services for GPP

To promote environmentally friendly goods and services for GPP, the government formed an interdepartmental steering committee, with MoEF as chair. Other related ministries and institutions act as members of the technical team, which consists of the Ministry of Energy and Mineral Resources, Ministry of Public Works and Public Housing, Ministry of Tourism, Ministry of Industry, Ministry of Commerce, Technology Application and Assessment Agency, and the NPPA (APRSCP & SWITCH-Asia, 2022). Together, they develop criteria and schemes for the promotion of environmentally friendly goods and services. These entities use a scheme that spans multiple sectors, with regulations that serve as a reference for the procurement of environmentally friendly goods and services.

The determination of what constitutes environmentally friendly goods and services falls under the jurisdiction of the Minister of Environment and Forestry. This process is further refined and implemented by the Cross-Ministry/Agency Technical Team, operating in line with the guidelines of the MoEF Regulation No. 5 of 2019. Furthermore, this technical team has identified and selected six products from five different green schemes, where these selections have been officially documented in the MoEF Regulations No. 5 of 2019, as a reference list for GPP. This list encompasses such categories as paper products, stationery, wood furniture, air conditioners, and other electronic equipment, all certified with environmentally friendly labels.

4.2.2 Private Sector

Private companies play crucial roles in implementing GPP in Indonesia. They can serve as suppliers and training providers in public procurement. Some key stakeholders include private companies, business professional associations such as the Chamber of Commerce and Industry (KADIN), and industry associations that are interested in green practices (e.g., the Cement Association and Paper Association). An example is PT Dan Liris in Central Java, which became the first textile company in the region to receive a Green Industry Certificate (Nugroho, 2023).

KADIN is the umbrella organization for Indonesian business chambers and associations. It plays a crucial role in SPP activities in Indonesia and is a key partner of the NPPA. KADIN encourages businesses to engage with the LKPP, for instance, by registering with the E-Catalog system. As the voice of Indonesian businesses, KADIN also advocates for policies that promote the use of sustainable products and services in public procurement, often lobbying the government to implement supportive measures. For instance, KADIN has been instrumental in pushing for policies that prioritize micro, small, and medium-sized enterprises in public procurement processes. With a growing focus on sustainability, KADIN is increasingly advocating for the transition to green industries and is deeply involved in promoting decarbonization efforts across various sectors.

Other industry associations, especially the green industries that are not affiliated with KADIN, also have a key role in advocating for environmentally friendly practices, for instance, by proposing to the NPPA the adoption of eco-friendly labels and communicating these standards to producers.

4.2.3 Civil Society and Academia

Environmental non-governmental organizations (NGOs) contribute significantly to GPP implementation in Indonesia. One such organization is the Green Product Council of Indonesia, which focuses on environmental considerations in the use of industrial materials, especially those related to building construction. The council developed assessment standards and rating tools by engaging professional experts, which resulted in the development of Green Label Indonesia.

Academia plays a crucial role in building the knowledge base and skills necessary for effective GPP implementation. The NPPA has recognized academia as a key collaborative partner in its strategy for building capacity among procurers (Kartianingsih, 2021). For example, the government is collaborating with the University of Rome, which offers a master's degree program in public procurement, and the University of Indonesia, which is currently developing a master's program in public procurement (Kartianingsih, 2021).

4.2.4 International Development Agencies and Multilateral Development Banks

International development agencies such as Germany's Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) also play a significant role in supporting Indonesia's

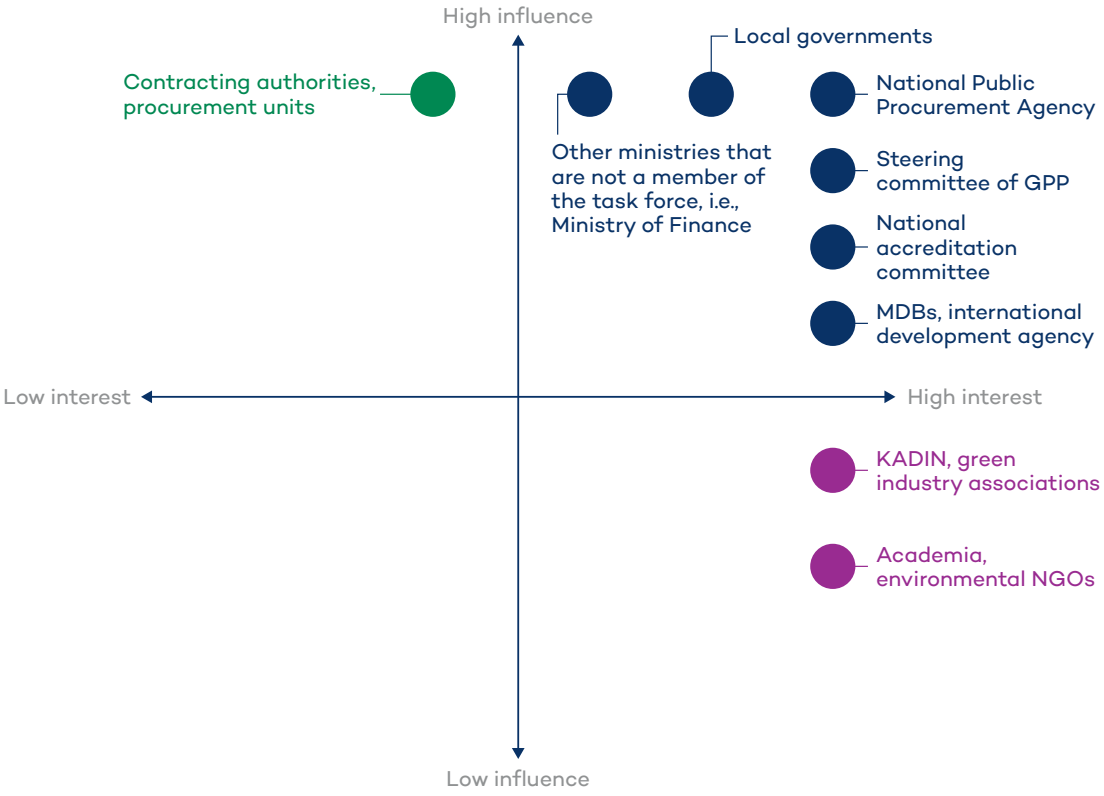
GPP initiatives. For instance, GIZ collaborates with MoEF to facilitate the scaling of the SCP initiative. This initiative aims to support the enhancement of competencies in applying standard criteria for environmentally friendly goods and services. Additionally, the project aims to increase sustainable procurement at both national and subnational levels.

Multilateral development banks (MDBs), such as the World Bank and the Asian Development Bank (ADB), provide essential funding and technical assistance for sustainable procurement practices. For instance, the ADB, in collaboration with the government, developed the Guidelines for Sustainable Public Procurement.

Mapping Influence and Interest of GPP Stakeholders in Indonesia

Figure 2 presents a stakeholder map for GPP in Indonesia, plotted on a matrix of influence versus interest. The map reveals the diverse range of stakeholders involved in GPP implementation and their relative positions. High-influence, high-interest stakeholders include the NPPA, the GPP Steering Committee, and the National Accreditation Committee, indicating their crucial roles in shaping and implementing GPP policies. Local governments and other ministries (such as the Ministry of Finance) also possess high influence but are positioned slightly lower on the interest scale. Contracting authorities and procurement units have high influence but lower interest, suggesting potential areas for increased engagement. On the other hand, entities like KADIN (Chamber of Commerce), green industry associations, academia, and environmental NGOs show high interest but lower influence, highlighting their potential as advocates and knowledge partners for GPP initiatives. This stakeholder mapping provides valuable insights for strategizing stakeholder engagement and identifying key players for successful GPP implementation in Indonesia.

Figure 2. GPP Indonesia stakeholder map



Source: Authors' diagram.

4.3 Procurement Systems and Platforms

The NPPA's guidelines for SPP outline how to integrate sustainability criteria into the public procurement process and the e-procurement system (Decree of the Head of NPPA number 157 of 2024). It emphasizes the importance of incorporating sustainability aspects at every procurement cycle stage.

- **Planning Stage**. During the planning phase, it is imperative to devise a procurement plan. The use of the Planning System (called "SiRUP") is mandatory for all procurement, including sustainable procurement and comes equipped with sustainability tagging for each planned procurement package. This facilitates easier identification and assessment of sustainable procurement performance by government departments and agencies.
- **Preparation Stage**. The preparation phase involves defining technical requirements and procurement specifications, including sustainability aspects, such as value for money. Procurers can also consult technical personnel at NPPA who understand the implementation of sustainable procurement aspects if input is needed. There are several requirements and specifications that procurers can consider; for instance, procurers can use a sustainable procurement checklist to plan and manage procurement effectively.

- **Procurement Stage**. The procurement stage requires the use of Indonesia's National e-Procurement System for available goods and services. This national system includes features like online tendering, an e-catalogue, and online purchasing (World Bank, 2022b). The e-catalogue provides sustainability data on products, such as environmental labels and small and medium-sized enterprise status. In addition to the NPPA's system, there are other systems that procurers can use, such as the Ministry of Environment and Forestry's Sibarjasramling, a small e-marketplace for environmentally friendly goods and services. Products are selected based on existing eco-labels and criteria available in the Indonesian market (GIZ, 2022a). Currently, Sibarjasramling is being developed to be connected to the Indonesia National e-Procurement System.
- **Evaluation Stage**. In the evaluation stage, procurers assess suppliers' technical capabilities, including their ability to meet sustainability requirements. They may require suppliers to provide goods and services with environmental or sustainability certifications. The procurer shall evaluate the bids based on the criteria and awarding criteria outlined in the bidding documents. After the bid evaluation, the procurer prepares a report that includes an assessment of the sustainable procurement criteria.

4.3.1 Monitoring and Evaluation System

Despite recognizing the importance of monitoring and evaluation (M&E) for GPP/SPP, Indonesia currently lacks a formal monitoring system (World Bank, 2022b). The need for M&E became apparent with the enactment of the Minister of Environment and Forestry Regulation number 5/2019 and the subsequent implementation of GPP. An effective M&E system would be crucial to assess the regulation's impact on government procurement practices (APRSCP & SWITCH-Asia, 2022). M&E plays a key role in ensuring the implementation of GPP and tracking its progress toward national policy goals while also illustrating the tangible benefits of adopting GPP practices. In particular, monitoring results enhances transparency and demonstrates political commitment, which, in turn, encourages and legitimizes the promotion of GPP by others. Monitoring also highlights areas where authorities and sectors may face challenges with implementation, thereby facilitating the provision of targeted support.

To bridge the existing gap, the MoEF and the NPPA are actively developing tools for monitoring and evaluating GPP implementation. In the latest SPP guidelines, the NPPA mandates the collection and processing of data on the implementation of sustainability criteria. This process aims to understand the impact of implementing these criteria. In gathering this data, procurers can consider the following aspects:

- Utilizing online tools, such as the M&E dashboard, can streamline the collection and aggregation of data on sustainability performance, making it more efficient.
- Data on the effects of implementing sustainability criteria, as outlined in contracts, can be sourced directly from the supply chain.

5.0 Current GPP Practices in Indonesia

5.1 Overview of GPP Implementation

Indonesia's pursuit of GPP practices is a critical component of its environmental governance strategy, aiming to integrate sustainability into government procurement processes. While comprehensive data on the extent of "green" procurement is currently lacking, it's clear that significant improvements are needed to meet sustainability goals.

The primary efforts of the GPP in Indonesia are centred around enhancing green labelling systems, and the procurement model now increasingly focuses on sustainable practices, specifically within the construction sector. To increase the uptake of GPP/SPP, the NPPA has developed modules and training materials that detail concepts, procedures, and selection processes for sustainable goods and services (APRSCP & SWITCH-Asia, 2022).

Complementing these efforts, Indonesia has also invested in capacity-building initiatives, collaborating with a broad array of stakeholders, including international organizations like MDBs, NGOs, national government bodies, the private sector, and academic institutions. One notable collaboration is with the ADB to tailor its procurement guidelines to the Indonesian setting, resulting in the development of the Guidelines for Sustainable Public Procurement. Another example is a collaboration with GIZ on a sustainable procurement training module and workshop.

The government has also initiated several other activities in collaboration with various entities. For instance, GIZ, in partnership with the MoEF, launched a market readiness analysis in 2019. This study aimed to understand current and future demand by the government, as well as the current and future production/supply capacity for sustainable paper and wooden furniture products. Being the first study of its kind, it provides valuable insights for the future expansion of GPP into other product categories. The study also highlights the importance of comprehensive data collection, revealing challenges such as data scarcity and fragmentation. These findings offer lessons not only within the paper and furniture sectors but also across various industries, emphasizing the need for improved data availability to support the effective implementation of SPP.

5.2 Available Tools for GPP and Case Studies

This section presents a comprehensive overview of the tools and systems available for GPP in Indonesia, each playing a vital role in embedding environmental sustainability within public procurement practices. These tools include eco-labels, which provide transparency on the environmental impact of products; the Timber Legality Verification System (Sistem Verifikasi Legalitas Kayu, or SVLK), which ensures the legality and sustainability of timber; and the Verification of Environmentally Friendly Technology, which evaluates the green credentials of technological solutions. Additionally, the Energy Efficiency Saving Label (Label Tingkat Hemat Energi, or LTHE) guides procurement toward energy-efficient products, while the SIH sets benchmarks for sustainable industrial practices.

5.2.1 Eco-labels

Eco-labels aim to create a standardized system for communicating the environmental impact of products and services to consumers. Regulated by MoEF Regulation No. 2 of 2014, Indonesia has developed Type 1 and Type 2 eco-labels.

Type 1 eco-labels are awarded to products meeting Indonesian National Standards (Standar Nasional Indonesia, or SNI), considering the environmental impact throughout the product life cycle. Certification is performed by an accredited third-party body, with approval from MoEF.

Figure 3. Type I Indonesian eco-label

Source: Ministry of Environment and Forestry of Indonesia, n.d.-b.

Type 2 eco-labels in Indonesia, known as Ekolabel Swadeklarasi Indonesia, pertain to specific environmental claims made by producers. Despite the term "swadeklarasi" (self-declared), these claims undergo a structured verification process. Producers initiate the process by submitting their environmental claims to an eco-label verification institute for assessment, followed by registration with MoEF. This system ensures that while producers self-declare their environmental claims, there is still a rigorous verification and approval mechanism in place, maintaining the credibility of the Type 2 Eco-label in Indonesia.

Products certified with the Type 1 Indonesian Eco-label to date include textiles, textile products, uncoated printing paper, and flat glass. Products certified with the Type 2 Indonesian Eco-label are plastic products, paper/cardboard, building materials (mortar and ready-mixed concrete), aluminum, wet wipes, and glass bottle packaging (MoEF, n.d.-a). As of 2023, procurement agencies of some national ministries have used both types of the Indonesian Eco-label for four purchasing categories. Additionally, these labelled products are included in the e-Catalogue, which facilitates their uptake in public procurement processes and increases GPP.

5.2.2 Timber Legality Verification System

The SVLK is a multistakeholder tracking system ensuring the legality of timber products in Indonesia, addressing illegal logging and improving forest management. Established by MoEF Regulation No.P.38/Menhut-II/2009, SVLK applies to all forest management units

and wood-processing industries. It certifies the legality and sustainable management of timber, with assessments conducted by accredited auditors using standards developed by Indonesian forestry stakeholders.

MoEF also integrates the SVLK into GPP practices and has created a reference list of environmentally friendly goods and services through some regulations. Specifically, for SVLK, MoEF Regulation No. 5 of 2019 identifies wood for furniture products and MoEF Decree No. 8 of 2021 lists wood for construction. Both categories are earmarked for GPP purchases and are required to comply with the SVLK scheme.

Box 1. Case study: Sustainable timber procurement in infrastructure and construction in Indonesia

Illegal logging involves unauthorized timber activities, with a global valuation estimated by the United Nations Environment Programme and International Criminal Police Organization between USD 51 billion and USD 152 billion annually (NPPA, 2024a). Predominantly affecting countries like Brazil, Indonesia, and Cameroon, it undermines community livelihoods and contributes to deforestation, biodiversity loss, and increased GHG emissions. Indonesia, a significant consumer of wood products, has adopted sustainable procurement practices to combat this issue, for instance, by implementing the SVLK system to ensure timber legality and sustainability (NPPA, 2024a).

Building on these initiatives, Indonesia began piloting GPP in 2020 across several ministries, agencies, and local governments (NPPA, 2024a). This pilot specifically focuses on two green products: one of them is wood furniture with the SVLK certification, requiring the purchase of wood furniture only with that certification. This step marks a significant advancement in integrating sustainable practices within procurement processes.

5.2.3 Verification of Environmentally Friendly Technology

MoEF has launched a mechanism to assess eco-friendly technologies, following ISO 14034 - 2017 standards. A technical committee of experts, practitioners, auditors, associations, and government agencies conducts the verification through a review of green claims. Companies apply for registration by submitting their technology to MoEF. The technical committee reviews documents, conducts a preliminary assessment, and performs an actual performance test. Based on the evaluation report, MoEF issues a registration letter endorsing the technology's green credentials.

In integrating this scheme into the GPP process, the MoEF has included medical waste treatment equipment as one of the product categories in its GPP reference list. This is detailed in MoEF Regulation No. 5 of 2019, which specifically mentions products that need to go through the verification process for environmentally friendly technology, such as autoclave hybrids and microwave hybrids.

5.2.4 Energy Efficiency Saving Label

The Ministry of Energy and Mineral Resources developed the Energy Efficiency Saving Label (LTHE) for energy-using equipment. This label, visible on packaging and products, indicates compliance with energy-saving criteria, helping consumers compare product efficiency. The LTHE aims to provide consumers with information to choose energy-efficient products, prevent energy-inefficient products from entering the Indonesian market, and reduce electricity costs through efficient appliances. Nationally, LTHE supports energy security, resource conservation, and GHG reduction (Ministry of Energy and Mineral Resources, 2020). MoEF has integrated LTHE into its GPP reference list, requiring air conditioning units in government procurement to have this label, ensuring they meet energy-saving standards.

5.2.5 Green Industry Standard

The SIH of the Ministry of Industry is based on the Indonesian Standard Industrial Classification (Badan Pusat Statistik [Central Bureau of Statistics] Regulation No. 19 of 2017). It is developed in collaboration with relevant ministries, industry associations, and companies. While adherence to SIH is voluntary, it provides a framework for implementing green industry practices. SIH certification primarily applies to companies as a whole, assessing their overall production processes and management systems. The SIH covers efficient use of raw materials, renewable energy, optimized production processes, product quality, effective management systems, and waste management technology.

Companies can apply for certification through a green industry certification body that meets SNI ISO 17065 standards, with over 16 recognized bodies available (Ministry of Industry Regulation No. 14 of 2020). Certification involves a document review and compliance audits, allowing certified companies to use the Green Industry logo for 4 years. In the updated GPP product reference list, the MoEF has specifically included cement certified under the SIH, indicating that SIH certification is a criterion for selecting environmentally friendly construction materials for GPP.

5.2.6 Other Schemes

In the latest SPP guidelines, NPPA also listed several other schemes and tools that procuring authorities can use to integrate environmental criteria in the procurement process, including the following:

Life-Cycle Costs for Goods, Construction, and Infrastructure

Through life-cycle costing, procurers can consider not just the purchase price for goods, works, and services but the associated costs throughout the entire life cycle. This method considers the economic life, price, and operational and maintenance costs within a certain period of utilization/operation. Life-cycle costing can also include the cost of environmental externalities, such as GHG emissions and pollution. For government construction and infrastructure projects, the financial cost calculation method is used to calculate capital expenditure investment costs and costs throughout the operation/use.

Environmental Management System

An environmental management system (EMS) is one of the types of tools mentioned in the NPPA SPP guidelines. A key aspect of an EMS is its reliance on the plan-do-check-act cycle. This involves planning to mitigate environmental impacts, implementing actions, checking results, and acting on findings to improve performance. ISO 14001, the international standard for EMS, provides a framework for effective environmental management. While participation is voluntary in Indonesia, the government increasingly uses these standards for environmental quality assessments (MoEF, 2022). According to the Badan Pusat Statistik (Central Bureau of Statistics), in 2021, 2,729 companies in Indonesia were certified with ISO 14001, although data on its use in GPP is unavailable.

Box 2. Case study: Implementation of an EMS in the construction of a Public Works Department office building, Riau Province

Riau Province, Indonesia, undertook a sustainable construction project for a new Public Works Department office building. This building, the first in Sumatra to apply green building principles, showcases Riau's commitment to sustainable development.

On this project, green procurement practices were implemented, particularly through the use of an EMS. The Public Works Department office of Riau Province, as the owner of the work, required the contractor to implement the EMS in all processes of the new building's construction to create an environmentally sound office building (Rizal et al., 2016). This approach aimed to optimize energy use, minimize resource consumption, and reduce environmental impact.

However, the implementation faced challenges. The contractor's top management showed limited commitment to environmental policies (Rizal et al., 2016). Despite that, the implementation of EMS in the construction of the new Public Works Department office building in Riau Province marks a significant step forward in the region's commitment to sustainable development.

Other Environmental or Sustainability Standards

Procurers may also require that the suppliers are certified in accordance with other environmental or sustainability standards, such as ISO, social labels such as Fairtrade or other relevant international or UN standards, for example, the Eco-Management and Audit Scheme, GIZ Sustainable Infrastructure Tools, IISD Sustainable Asset Valuation, among others.

Box 3. Case study: Case study of toll road construction above the sea (Bali Mandara Toll Road)

The Bali Mandara Toll Road is a 12.7-kilometre road built over the sea. Constructed between March 2012 and May 2013, this project included GPP from the start (Okita, 2020, p. 83). This project utilizes environmental impact assessment (AMDAL), which is used in Indonesia to evaluate the potential environmental impacts of proposed projects and is required during the planning phase of the procurement.

From the planning phase of the procurement, it is required that

- precast piles and floors, manufactured off-site to minimize water pollution from casting, be installed in the sea.
- landfill that wouldn't harm mangroves be used, and to further offset the project's footprint, some 15,000 mangrove tree seedlings were planted around Benoa Bay.

However, unforeseen shallow water depths necessitated a change in construction methods after the contract was awarded. The contractor, demonstrating environmental responsibility, opted for temporary limestone backfilling, which is a natural material compatible with the seabed ecosystem (Okita, 2020, p. 83). This decision was in accordance with the environmental management plan stipulated in the AMDAL and contract documents, ensuring that adjustments maintained minimal environmental impact (Okita, 2020, p. 83).

In conclusion, the Bali Mandara Toll Road exemplifies GPP principles through its rigorous adherence to environmental specifications outlined in the procurement process. The project's use of AMDAL ensured that environmental considerations were integrated into every aspect of the project, and the continuous monitoring and control mechanisms further ensured ongoing compliance and minimized environmental impact.

5.3 GPP Challenges in Indonesia

Implementing GPP in Indonesia presents various challenges that hinder its widespread adoption and effectiveness. These challenges span from limited knowledge and capability among key stakeholders to issues related to product availability, cost concerns, and insufficient government support. Other than the general constraints mentioned above, factors like procurer risk aversion, the huge need for investment, lack of incentive schemes, and inadequate monitoring and reporting mechanisms further complicate GPP across the country. The following section will discuss Indonesia's specific challenges in advancing the uptake of its GPP practices.

5.3.1 Limited Knowledge and Capability

Authorities face challenges due to personnel's limited understanding of GPP principles, causing limited progress in the implementation of green procurement in government institutions (Suliantoro & Fitriani, 2022). There is a gap in effective implementation and understanding at the operational level. At the operational level, many practitioners still struggle with comprehending the intricacies of sustainable procurement, such as understanding the standard operating procedures for environmentally friendly products (Saputra, 2023). Similarly, on the industry side, various associations have demonstrated a limited knowledge of SPP. For instance, they have difficulties understanding the information on the public procurement processes and the provisions for green labelling (NPPA, 2018).

5.3.2 Limited Availability of Products

The market currently offers a limited selection of eco-friendly products, which presents a significant barrier to the widespread adoption of GPP/SPP. Specifically, the use of eco-labels in Indonesia remains predominantly focused on forest products, indicating a narrow application of this environmental initiative (Aristeus, 2019). Moreover, the transition of industries to green practices has been minimal; over the past 5 years, on average, only 0.03% of total industry players have shifted toward green industry standards annually (Hermansyah et al., 2023). This slow progression underscores the challenges in expanding green industry practices within the broader market.

5.3.3 Cost Concerns

The issue of the price of environmentally friendly products, which are typically more expensive than their non-environmentally friendly counterparts, poses a significant barrier for many institutions looking to make the switch (APRSCP & SWITCH-Asia, 2020; Puspita et al., 2023). However, it is important to note that some green products are priced competitively within the market, suggesting that the perception of higher costs is often based on misperceptions rather than reality (APRSCP & SWITCH-Asia, 2020). This disparity in pricing perception highlights the need for better market awareness and education about the actual costs of environmentally friendly products. Importantly, institutions need to consider not just upfront costs but also implement appropriate budgeting practices that consider life-cycle costs.

5.3.4 Procurer Risk Aversion in Indonesia's Voluntary GPP Environment

From the interview with the NPPA and the Ministry of Public Works and Housing in Indonesia, it is evident that there are significant challenges in implementing GPP due to concerns about compliance and risk aversion among procurers. The NPPA highlights that procurers are granted the freedom to define their environmental criteria and adjust procurement procedures accordingly. However, this autonomy comes with its own complexities. Many procurers are hesitant to employ these environmental standards, concerned that doing so might invite scrutiny from public auditors over issues related to

competitive practices and adherence to procurement regulations. Conversely, the Ministry of Public Works and Housing reveals that tender committees are generally only willing to implement green criteria when these standards are explicitly mandated by regulation. There is a reluctance to adopt such criteria voluntarily due to fears of being perceived as biased or favouring specific companies.

5.3.5 Investment Requirement

Transitioning to green production requires significant investment, including costs related to certification and labelling, which can deter industry participation (APRSCP & SWITCH-Asia, 2022). For instance, the Ministry of Industry has been encouraging industries to adopt green practices. A major challenge arises for industrial companies that have not implemented green practices from the outset, often referred to as the "Brown industry." Efforts to "green" the Brown industry are considerable because these companies face substantial challenges in adhering to green industry principles. For example, they must conduct technology audits, energy audits, and water use audits to enhance efficiency. If these evaluations reveal practices that are not sufficiently green or do not meet green industry standards, companies must undertake a restructuring, which often involves considerable costs (Ministry of Industry, 2023).

5.3.6 Lack of Incentive Schemes

The lack of attractive incentives hampers motivation among suppliers, which slows the uptake of GPP in Indonesia (APRSCP & SWITCH-Asia, 2022). Incentives are crucial not only for providers who are already implementing green practices but also for those industries that aspire to adopt environmentally friendly practices. Currently, the Ministry of Public Works and Public Housing is exploring options to find incentives for sustainable construction, which will play a vital role in promoting sustainability among suppliers.

5.3.7 Limited Monitoring and Reporting Mechanisms

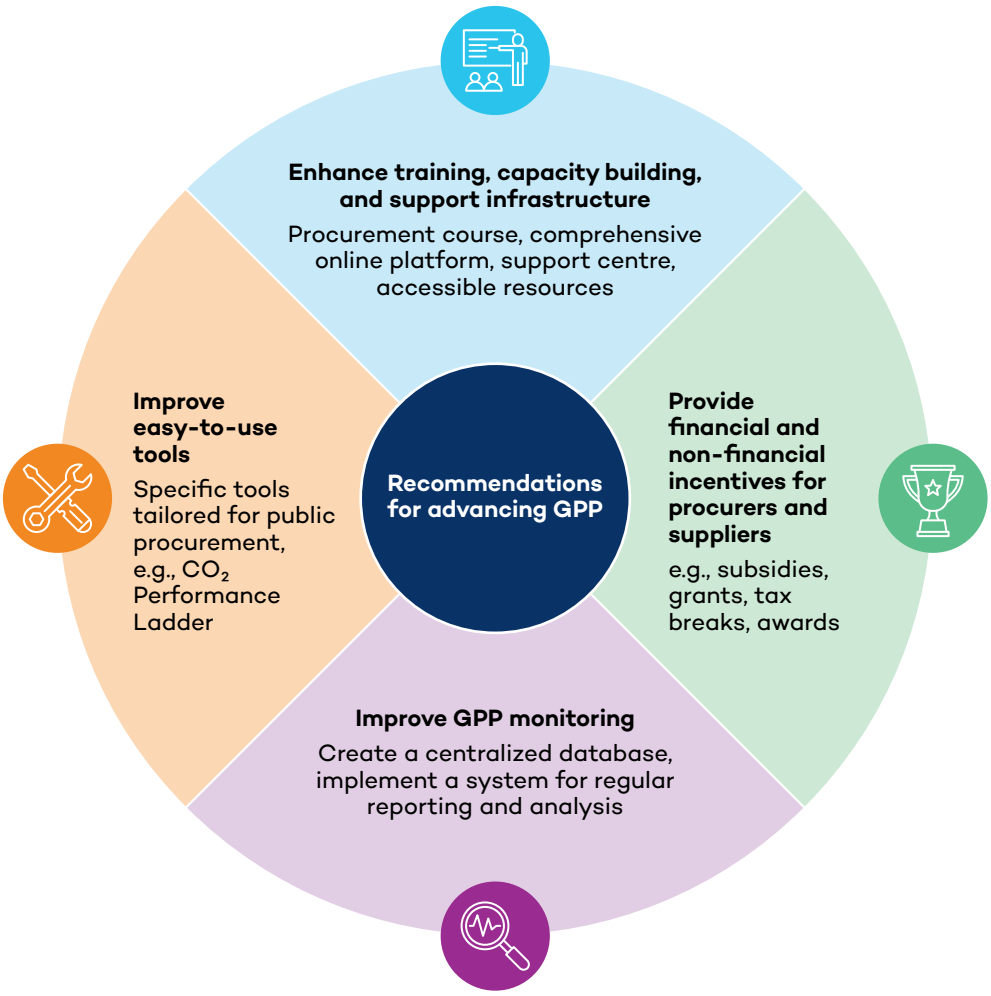
Indonesia currently lacks a formal mechanism in place for monitoring and reporting of GPP practices. However, the NPPA is making progress in this area. The NPPA's recent efforts include introducing new SPP guidelines that mandate the collection and processing of data on sustainability criteria implementation. These guidelines aim to integrate sustainability metrics into data collection processes, marking a significant step forward. Despite these advancements, the practical application remains in its early stages. A key issue is the fragmentation of data across various platforms and the lack of standardized reporting methods. This disjointed approach hampers efforts to understand the true impact of GPP initiatives, making it difficult to quantify successes or identify areas needing improvement.

6.0 Recommendations for Advancing GPP in Indonesia

As Indonesia continues to strengthen its commitment to sustainable development, GPP emerges as a critical tool for driving environmental innovation and economic transformation. While the country has established a foundation for GPP through policy frameworks and initial implementations, particularly in goods and services procurement, there remains significant potential for expansion and improvement.

The recommendations presented in this section aim to address the current challenges and opportunities in Indonesia's GPP landscape. We present four key recommendations informed by consultations with Indonesian stakeholders and international best practices, as shown in Figure 4. By implementing these recommendations, Indonesia can accelerate its progress toward a more sustainable and environmentally conscious procurement system. This approach will not only support the country's green economy and help achieve its environmental objectives but also position Indonesia as a regional leader in GPP.

Figure 4. Recommendations for advancing GPP in Indonesia



Source: Authors' diagram.

6.1 Recommendation 1: Improve easy-to-use tools

Indonesia can enhance the implementation of GPP by providing procurers and suppliers with practical tools that allow the integration of environmental requirements into procurement processes. For example, third-party-verified eco-labels can be instrumental in mainstreaming GPP. Expanding Indonesia's existing Type 1 eco-label (Ramah Lingkungan) or adopting internationally recognized eco-labels, such as Blue Angel or EPEAT, could strengthen the credibility and comparability of green claims. Third-party verification is essential to avoid greenwashing, ensure consistent standards, and reduce the technical burden on procurers.

Given the vast number of labels already available in Indonesia, adopting a scheme that unifies various sustainability certifications under a common framework could further simplify the procurement process. A unified scheme would make it easier for procurers to identify, select, and verify green products, works, and services. For instance, Malaysia's MyHIJAU Mark provides a valuable example of how such a framework can streamline procurement and foster trust in green products and services.

Additionally, Indonesia could explore tools that incentivize suppliers to invest in sustainability. These tools could use mechanisms like award advantages, thus rewarding bidders who demonstrate strong environmental performance through tools such as environmental management systems or eco-label certifications.

6.1.1 International Best Practice Examples: Tools for GPP– The CO_2 Performance Ladder and MyHIJAU Mark

The CO_2 Performance Ladder in Belgium

The CO_2 Performance Ladder (the Ladder)[1] is both a carbon management system designed to help organizations reduce their emissions and a GPP tool that provides suppliers with an award advantage in procurement processes. Widely used in the Netherlands and Belgium, the Ladder has proven effective in reducing carbon emissions, with over 5,000 certified organizations. Since 2011, the instrument has been owned and managed by SKAO, a non-profit organization based in the Netherlands.

Procurers in Belgium began using the Ladder with a 4-year pilot phase (2019–2023) that integrated it into 24 public tenders across infrastructure, construction, and environmental projects. Contracting authorities that participated in the pilot reported no significant price increases or issues in tender processes and intend to keep using the tool for low-carbon procurement in the future. For contracting authorities, the Ladder provided a structured approach to incentivize contractors to reduce emissions in their own organizations and supply chains, addressing the issue of how to encourage and objectively evaluate environmental performance in procurement processes. Other benefits of the Ladder include that it was developed specifically for use in public procurement (Bechauf et al., 2023) and can be combined with other sustainability standards and reporting requirements (SKAO, 2024).

[1] For more information, see the official CO_2 Performance Ladder website: https://www.co2performanceladder.com/

MyHIJAU Mark in Malaysia

The MyHIJAU Mark, initiated by the Malaysian government, consolidates nationally and internationally recognized eco-labels under a single platform (One Planet Network, 2024). By providing a centralized seal of approval, MyHIJAU simplifies the identification of green products and services for public procurement. With over 15,000 registered products and services as of 2023, the scheme ensures credibility by validating multiple certifications based on life-cycle assessments. This approach benefits both procurers (by reducing complexity in verifying sustainability claims) and suppliers (by increasing market access through a unified recognition system) (One Planet Network, 2024). MyHIJAU has demonstrated how grouping certifications can expand the market for sustainable products and services while fostering trust and ease of use in public procurement processes (One Planet Network, 2024).

6.2 Recommendation 2: Enhance training, capacity building, and support infrastructure

To advance GPP implementation in Indonesia, an integrated approach combining training, capacity building, and accessible support systems is crucial. Detailed training modules tailored to different stakeholder groups within the procurement ecosystem, including procurers, technical experts, managers, auditors, suppliers, and industry networks, should be developed and implemented. These programs must cover the understanding and utilization of GPP tools, effective application of regulatory standards, and best practices in sustainable procurement. Capacity building should extend beyond traditional methods to include seminars, partnerships with academic institutions, public-private partnerships, and supplier engagement programs, fostering a deep understanding of GPP principles and practices across the entire procurement ecosystem.

To support ongoing learning and implementation, a comprehensive online platform should be created as a one-stop resource for GPP practices. This platform would include tutorials, e-learning modules, up-to-date legal documents, policy information, a searchable database of green products and services, best practice case studies, and forums for knowledge sharing. Additionally, a dedicated support centre or helpline staffed by GPP experts would provide immediate assistance to procurement officials. Ensuring all materials are user-friendly and accessible will broaden the reach and effectiveness of the GPP initiative across different levels of government and sectors. By integrating these elements—specialized training, comprehensive capacity building, a robust online platform, dedicated support, and accessible resources—Indonesia can create a holistic support system to educate and assist stakeholders in implementing GPP effectively.

6.2.1 International Best Practice Example: How Lithuania's Competence Centre transformed green procurement

Lithuania's success in boosting its GPP from 5% to 94% by value in just 3 years offers valuable insights. The Public Procurement Office and the Ministry of Environment and Innovation led strategic reforms focusing on establishing comprehensive support and capacity-building mechanisms. The Public Procurement Office created a sustainability unit dedicated

to green initiatives, offering resources like training sessions, a helpdesk, podcasts, and specific guidance for high-impact sectors. Coordinated by the Sustainable Procurement Competence Centre, these efforts enabled Lithuania to respond effectively to queries, track GPP uptake, and tailor guidance to sectors needing improvement (Open Contracting Partnership, 2023).

The Competence Centre quickly addressed the overwhelming number of queries from contracting authorities. They hired more staff and ensured their guidance met real demand. This proactive approach ensures sustained engagement and compliance, setting a valuable example for other countries aiming to implement or improve their GPP strategies.

6.3 Recommendation 3: Provide financial and non-financial incentives for procurers and suppliers

It is crucial to provide both financial and non-financial incentives for procurers and suppliers to encourage adoption. Financial incentives could include subsidies, grants, and tax breaks that reduce the initial costs of green products, making them more competitive with conventional alternatives. These measures can significantly lower the barrier for industries and procurement officials, motivating them to opt for environmentally friendly options.

Non-financial incentives are equally important. Recognizing and rewarding organizations that achieve sustainability goals can foster a culture of green procurement. This could be through awards, certifications, or public recognition, which not only enhance the reputation of the organizations involved but also inspire others to follow suit. By combining these incentives, governments can create a supportive environment that promotes widespread adoption of GPP practices.

6.3.1 International Best Practice Example: GPP incentives in South Korea

In South Korea, the government uses a combination of economic, regulatory, and reputational incentives to encourage GPP implementation (Korea Environmental Industry & Technology Institute, 2019). Public institutions, business operators, and relevant organizations demonstrating excellence in GPP may receive government rewards, such as environment-related subsidies from the Ministry of Environment, prioritized for top-performing local governments.

Performance evaluations by the Ministries of Economy and Finance and Ministry of Interior and Security are crucial in incentivizing GPP. GPP is a key criterion in these evaluations, influencing institutional ratings. Annual GPP records are assessed, linking performance with financial bonuses or corrective actions. High-performing institutions receive commendations and bonuses, while underperformers must submit improvement plans or face leadership changes. Local governments and public enterprises can earn special grants, tax incentives, and individual rewards for outstanding GPP performance. On top of that, reputational incentives are also available, for instance, in the form of GPP awards that recognize significant contributions to GPP and environmental conservation (Korea Environmental Industry & Technology Institute, 2019).

6.4 Recommendation 4: Improve GPP monitoring

To ensure the effective implementation and continuous improvement of GPP in Indonesia, it is crucial to establish robust monitoring mechanisms. These mechanisms enhance transparency, demonstrate political commitment, and legitimize the promotion of GPP by various stakeholders.

A comprehensive monitoring system should cover three key aspects. The first is institutionalization, which tracks how well GPP is integrated into organizational structures and processes, including the existence of GPP policies, role assignments, and procurement procedures. Second, outputs should be measured, involving the tracking of procurement activities, such as the number of tenders with green criteria and the value of contracts with sustainability requirements. Finally, outcomes should be assessed by measuring the actual environmental impacts of GPP, including reductions in GHG emissions, waste generation, and resource consumption.

Monitoring outcomes is particularly important to understand GPP's effectiveness. This includes evaluating environmental benefits and economic advantages like cost savings over product life cycles. By quantifying these impacts, policy-makers can demonstrate tangible benefits, justify investments, and make informed decisions about future procurement strategies.

To support this monitoring system, Indonesia should develop an integrated data collection approach. This could involve creating a centralized database that tracks procurements using different eco-labels and establishing standardized reporting protocols for various government agencies. Additionally, implementing a system of regular reporting and analysis would ensure ongoing evaluation and improvement of GPP practices.

6.4.1 International Best Practice Example: Monitoring GPP implementation in Malaysia

Since 2014, the Malaysian government has been actively monitoring GPP by tracking expenditures on prioritized product and service categories under its GPP Long-Term Action Plan 2016–2030. All products and services must meet established GPP criteria, which conform to several national and international eco-labeling standards, modified to ensure a sufficient supply of products. Monitoring is performed annually using a spreadsheet managed by the Ministry of Energy, Science, Technology, Environment & Climate Change, particularly through the Malaysian Green Technology and Climate Change Corporation. This process includes comprehensive procurement details, such as product category, budget, green criteria, costs, etc. (GIZ, 2022b)

In recent years, enhancements have been made to the Ministry of Finance's e-procurement system to better facilitate GPP data collection and management. Additionally, the environmental benefits from green purchases have been assessed since 2016, and GPP performance is reported biannually to key governmental bodies, focusing on specific product and service groups. These reports are analyzed to evaluate GPP outcomes, including CO_2 emissions reductions, and findings are presented at the GPP Steering Committee Meetings (Malaysian Green Technology and Climate Change Corporation, 2021).

7.0 Conclusion

Indonesia has demonstrated a strong commitment to GPP through its robust policy framework and the dedication of key authorities. The country has made notable progress, particularly in implementing GPP for goods and services, with various tools and initiatives already in place. These efforts reflect Indonesia's recognition of GPP as a powerful lever for achieving its sustainability goals and fostering a green economy.

However, further action is needed to fully harness the potential of GPP and position Indonesia as a regional leader in sustainable practices. There is a pressing need to mainstream GPP across all public authorities, bridge the implementation gap between policy and practice, drive green market transformation, and address procurement areas with significant environmental impacts. These challenges, while substantial, present opportunities for Indonesia to innovate and lead in sustainable procurement practices.

The recommendations outlined in this report offer practical solutions for addressing these challenges and capitalizing on the opportunities. Indonesia can significantly advance its GPP implementation by exploring easy-to-use tools like the CO_2 Performance Ladder, enhancing training and capacity building, providing financial and non-financial incentives for procurers and suppliers, and improving GPP monitoring.

Putting these recommendations into practice will require concerted effort and collaboration across various stakeholder groups, including government agencies, procurement officials, suppliers, and industry partners. By scaling up GPP, these stakeholders can drive innovation in green technologies, create new markets for sustainable products and services, reduce environmental impacts, and contribute to Indonesia's broader sustainability goals.

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Appendix A. Interview Guide

Topic 1: Introductory Question

1. Please start by introducing yourself and your involvement/experience with public procurement and/or infrastructure?

Topic 2: Procurement Landscape / Low carbon procurement

1. What are current priorities in green and sustainable public procurement in your country/agency?
2. Is low-carbon procurement in particular a priority? If so, in what sectors? Any examples?
3. What factors are hindering the reduction of carbon emissions and the implementation of low-carbon procurement?
4. How do you keep track of GPP and carbon savings? Is there a tool or system in place to do this?

Topic 3: Tools

1. We would like to know more about what kind of tools are used for GPP in your country. Which, if any, of the tools listed below are currently used for green public procurement? What about certifications or eco-labels in particular? Do procurers and private companies have experience with using GPP tools?

   (Examples include: life-cycle costing-based tools or calculators, International Organization for Standardization (ISO) standards, sector/product-specific GPP criteria (either the EU GPP criteria directly or bespoke GPP criteria at the national or subnational level), carbon footprint tools, Environmental Management Systems, eco-labels for specific categories of products or services, Environmental Product Declarations, Environmental Spend Analysis etc.)

2. Are you aware of the use of low-carbon tools in infrastructure procurement, in particular?
3. Could you please elaborate on the specific stage within the procurement process at which sustainability criteria are incorporated? Additionally, is it possible to assess tenders on the basis of environmental criteria within the award criteria?
4. Do you see demand for new tools among procuring agencies and suppliers?
5. What barriers and success factors do you see for establishing new tools for GPP, such as the CO_2 Performance Ladder?

Topic 4: Stakeholders and Way Forward

1. Do procuring agencies engage with private sector companies through networking, dialogue and information-sharing? Are there companies/sectors that are particularly keen on GPP?

2. Could you identify specific areas within GPP where progress has been particularly challenging or slower than anticipated? Furthermore, we are interested in understanding the kind of support or advisory services that would be valuable in addressing these challenges. Are there specific types of expertise, tools, or collaborations that you believe could make a significant difference in overcoming obstacles and accelerating your GPP efforts?
3. Is there anything else you find relevant to mention?
4. Are you aware of any people involved in GPP that we should talk to?

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