

GREEN PUBLIC PROCUREMENT AS POTENTIAL LEVER OF GREEN GROWTH¹

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Abstract

In the past two decades, public procurement changed significantly from compliance to a strategic function in a majority of highly developed countries becoming a strong lever that promotes green growth. EU legislation created favorable legal preconditions for the application of green public procurement (GPP) in member states (MS) in all phases of the procurement process. However, some recent research show that uptake of GPP was low and fragmented in MS with weak enforcement of the public procurement rules allowing environmental considerations. To promote GPP adoption of GPP in practice, governments have to work on closing implementation gaps. That includes, besides creating a favorable legal framework, establishing a centralized governmental body that would lead and coordinate reforms in this area as well as developing an evaluation methodology to detect the strengths and weaknesses of a public procurement system. Strategies and annual action plans for the development of public procurement system that includes GPP, as an integral part should be prepared accompanied by close monitoring of progress in their implementation.

Keywords: sustainable public procurement, green public procurement, green growth, implementation gap

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1. Introduction

In the majority of highly developed countries, public procurement became a strong lever for promoting green growth since governments around the world spend an estimated US\$11 trillion in public contracts every year, representing approximately 12 percent of global GDP (Bosio et al, 2020). Such significant purchasing power is used by governments as a tool for achieving economic, social, and environmental goals as well as for the creation of markets for green solutions, thereby stimulating the private sector to develop their expertise and services (C40 & ARUP, 2015).

Broad transformation of public procurement led to Sustainable Public Procurement (SPP) which could be marked 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 lifecycle basis in terms of generating benefits not only to the organization, but also to society and the economy, whilst minimizing damage to the environment” (UNEP 2011).

Public procurement is increasingly used by the OECD countries as “a smart governance tool to achieve non-procurement policy objectives of economy, efficiency, and environmental protection” (OECD, 2015a). In other words, SPP means that governments not just shift the focus of procurement from seeking the lowest price to achieving “Value for Money” (VfM), but use the procurement function strategically to achieve policy objectives linked to the three pillars of sustainable development: economic, environmental and social as well. The major goals of SPP are the promotion of green growth; environmental protection; reduction of social inequalities, development of small and medium-sized enterprises (SMEs); promotion of minority and women-owned businesses; support for innovations, and responsible business conduct.

On the other hand, GPP is a component of SPP that uses public sector purchasing to achieve the general environmental goal of “reducing environmental impact throughout the whole life cycle” (EC, 2008). Over the past decade, GPP has shifted from “do less harm” to a more proactive approach whereby public procurement is used to achieve specific environmental objectives (World Bank, 2021).

In spite of widely recognized role of GPP in promoting green growth, recent researches show that uptake of GPP was low and fragmented in the EU member states with weak enforcement of the public procurement rules allowing environmental considerations. Thus the challenge for policy makers is to detect factors of “implementation gap” and to find ways on how to overcome them.

2. Literature overview

2.1. EU regulatory framework for green public procurement

Since 2014, the new European Commission (EC) Directive 2014/24/EU (hereafter: Directive) deployed a “demand-side policy of public procurement” to achieve strategic economic, societal, and environmental goals in the EU (EC, 2010). However, elements of the Green Public Procurement concept could be traced back to 1986, when the Single European Act (SEA) was introduced to enable the reaching of the EU goals and targets including those related to environmental protection. The European Commission 2020 Strategy (EC, 2010) and Renewed Sustainable Development Strategy (EU, 2006) identified green public procurement as an essential market-based instrument for attaining the EU’s economic and environmental objectives (Pouikli, 2021).

European Commission defines green procurement as “a process whereby public authorities seek to procure goods, services and works with reduced environmental impact through their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured” (EC, 2008). This definition brought “Life Cycle Cost” (LCC) into public procurement legislation and practice.

Green goods, services, and works can be distinguished by the low impact on the environment across the life cycle of the products used. The product life cycle costs encompasses six phases from “cradle to grave”: starting with raw material extraction; manufacture of the product; transportation to site; use of the product in production of other products to deliver a service or in construction; maintenance; and end-of life disposal. Approximately 80 percent of the environmental impacts are generated in raw material extraction and manufacturing (World Bank, 2021).

The Directive provides concrete mechanisms LCC to be embraced by saying “the most economically advantageous tender from the point of view of the contracting authority shall be identified on the basis of the price or cost, using a cost-effectiveness approach, such as life-cycle costing which covers parts or all of the costs over the life cycle of a product, service or works”.

It could be concluded that the Directive created legal preconditions for the application of GPP in all phases of the procurement process, starting with planning what procurement subject is going to be purchased till the selection of the most favorable bid that takes into account costs of environmental impact incurred during the life cycle period.

2.2. Implementation gap in green public procurement

European Commission pointed out that GPP “should play a bigger role for central and local governments to respond to societal, environmental and economic objectives, such as the

circular economy” (EC, 2017). The question is to what extent MS and contracting authorities at the national and local levels across the EU exploited the abovementioned opportunities in practice.

Valuable insight into GPP uptake by EU institutions and national and local governments was provided by Badell & Rosell (2021). The main finding of the research was that there was a significant difference in GPP use among different levels of public authorities. The local public sector is the front-runner in GPP adoption, with 8.41 percent of tenders adhering to green criteria. It is followed by national governments (5.31%), while EU institutions are lagging far behind with only 2.65%.

Such low and fragmented uptake together with the weak enforcement of the public procurement rules allowing environmental considerations demonstrate that the current framework failed to serve as an effective lever to promote the essential organizational and behavioral changes in the majority of MS. Hence, the GPP state of play reveals that “it still remains an underdeveloped (and unexplored) field in practice” (Pouikli, 2021).

With the cognition that advanced and favorable legislation is far from being enough for wider use of GPP, the question is what should be done to fulfill “green growth” objectives in practice. The difference between regulation and expected outcomes of their application in practice was defined as an implementation gap (SIGMA/OECD, 1998). In other words, it could be said that the implementation gap is the deficit between the set of legal norms and the capacity to implement and enforce them. In the next chapter, we will focus on major factors that create an implementation gap in public procurement.

3. Research

3.1. Factors of green public procurement uptake

Testa et al. (2012) confirmed the relevance of awareness for the adoption of GPP in practice. Moreover, Ahsan and Rahman (2017) investigated the challenges of GPP implementation in the Australian public healthcare sector and they identified a lack of senior management support as an important factor that may limit the uptake of GPP.

Research of influence of legislation on public procurement performance in Serbia, concretely on the effectiveness of procurement measured by the number of days to complete procedure, estimated that influence of legislation is only 23% while remaining depend on other factors, such are: 1) organization of public procurement function 2) corruption and “Echo corruption”, 3) administrative capacities of contracting authorities, and 4) motivation of employees engaged in public procurement (Cudanov et al, 2018). Although the last mentioned research is not dealing with green procurement directly, it could be useful to put light on factors with a significant impact on the effectiveness of policy measures and instruments in public procurement in general. Thus, the factors should be considered relevant for GPP as a specific form of public procurement.

3.1.1. Awareness

According to Testa et al. (2012) awareness of GPP initiatives and tools is a highly powerful instrument that influences choice in favor of GPP thus increasing the number of tenders that are adopted with the inclusion of environmental criteria. The more a public administration is informed and acquires competence and know-how in developing GPP practices, the more it is ready to introduce green criteria in the tenders. This relation between awareness and uptake of GPP is confirmed by numerous practical examples showing that information campaigns, sensitizations on GPP opportunities, and training courses for purchasers are actually increasing the capability of contracting authorities to adopt and effectively “use” environmental criteria in their purchasing strategies and decisions.

3.1.2. Organization

Research that included 100 randomly chosen contracting authorities in Serbia and interviewed public procurement officers (PPOs) proved that procurement officers in Serbia were interested primarily in form, feel detached, and demotivated (Jovanovic et al, 2022). In such a situation it is hard to expect them to opt for a more complex and thus more demanding GPP.

To develop GPP, it is important to clearly specify ‘who is accountable for what’ within the contracting authority. Moreover, PPOs’ tasks should be linked to the performance goals of procurement, including GPP. To increase the positive motivation of PPOs (i.e. their perception of benefits from the procurement process), it is necessary to introduce rewards for success either in the form of material stimulus or recognition (Jovanovic et al, 2022).

3.1.3. Motivation of employees

Besides competence, motivation is the second crucial factor that determines the contribution of public procurement officers to public procurement performance. If public procurement officers operate in an environment with a focus on formal compliance and with little or no recognition of performance indicators such as: purchasing goods and services of higher quality and lower impact on the environment, the economy of procurement (lower life-cycle costs), etc. than officers will have no incentive to make additional efforts to meet any of the objectives.

According to the research (Jovanovic, 2020), PPOs consider higher motivation as the most relevant factor that would stimulate them to upgrade procurement performance (86% of respondents claimed that). However, the research results confirmed that only 9% of the interviewed officers received some award for their successful work. Out of those awarded, 60% consider that the reward was inadequate. In other words, only 3.6% of the interviewed officers were satisfied with how they were rewarded for success.

In parallel with positive incentives, there are negative incentive instruments (sanctions). Research proved that sanctions were much more applied than positive incentives when PPOs are concerned. Namely, 34% of officers expected to be sanctioned in case they failed which is a much higher rate than that of their superiors (only 14%). When concern of not failing to meet formal requirements is dominant, there is hesitation on the PPOs side to embrace the new practice, including the one related to GPP due to the increasing risks that novelties bring.

To overcome mentioned limitations on motivation, it is necessary to change both organizational models as well as reward and incentive schemas. Regarding organization, more decentralization in decision-making is needed. Organizational goals of contracting authorities should be set to reflect the “green” aspect of procurement. Moreover, a transformation from negative incentives (sanctions) towards positive ones, such as recognition and rewards is required to establish more balanced and better-motivated motivation patterns for PPOs.

3.2. Development patterns of green public procurement

Adoption and development of GPP varied among countries during the past two decades. Highly developed countries in North America, Europe, and East Asia were early uptakers of GPP (World Bank, 2021). In these countries, the GPP reforms started with the creation of a legislative framework that enabled GPP implementation. Application of GPP was initially voluntary, left to the discretion of the procuring agencies, but governments gradually expanded the range of products for which GPP became mandatory. Stimulating regulation was accompanied by the setting up of a central procurement agency that is in charge to apply GPP practices across the government. This concept characterized by governments that “lead by example” in changing green consumption choices across society is marked as a “top-down” approach.

On the other side, in some countries such as the Latin American ones, local self-governments were the first that implemented GPP (World Bank, 2021). Cities and municipalities are close to the environmental impacts such as air and water pollution, waste management, flooding, and loss of green space that urged environmental action. Moreover, cities participate two-thirds of the total energy consumption and are responsible for three-quarters of carbon dioxide (CO₂) emissions from global final energy use which indicates how important local authorities are for achieving global environmental goals (REN21, 2021). Moreover, many local self-governments incorporated “green” aspects in their local economy and procurement policies. The model with a leading role of local self-governments in applying GPP could be considered a “bottom-up” approach.

A significant advantage of the “bottom-up” approach is that it is more flexible in promoting innovative practices. On the other side, limited potential in scaling up GPP practices is its major weakness. When adoption of GPP practices is voluntary and thus limited to willing contracting authorities prepared to take the initiative in the absence of binding regulation room for dissemination is limited. Furthermore, the lack of obligatory national legislation

results in different practices at the local level thus complicating suppliers' engagement with the public sector limiting the further scale of GPP adoption.

Regardless of whether the initiative for GPP comes from the top or bottom level of government, it is important to have a central body (Public Procurement Agency – PPA) that will promote the adoption of green procurement across the government. In many countries, environmental agencies were the first to promote the GPP agenda as a means of achieving environmental goals. However, since environmental agencies have limited authority over procurement practices, a whole-of-government approach requires that PPAs take on a leadership role.

Arguments for PPAs leading role in promoting GPP are summarized in the World Bank study: “PPAs have the authority to develop the enabling framework and implementing tools needed to drive GPP adoption across the public sector. PPAs can mandate the application of GPP in specific product categories. They can put a structure in place for GPP systems to operate efficiently by reforming procurement laws and regulations, establishing GPP institutions, developing training opportunities, and creating supporting tools for implementation, such as environmental criteria, LCC tools, framework agreements, and marketplaces. PPAs are best placed to develop GPP tools that can be used by authorities across government and to promote procurement approaches that reduce the administrative burden on each contracting authority” (World Bank, 2021).

That was confirmed in the case of Serbia where the Public Procurement Office (PPO), as a central policy body, was the leading institution in promoting GPP. The PPO recommended provisions to the new Public Procurement Law that enabled wider use of ecological criteria in the process of selection of bids. Furthermore, the PPO prepared guidelines for contracting authorities on how to apply environmental criteria as well as models of tender documentation. Finally, workshops where the models were presented and explained to contracting authorities how to apply them in practice.

4. Discussion

4.1. Relevance of Life Cycle Costs and Most Economic Advantageous Tender for green public procurement uptake

GPP should be considered as a part of wider public procurement reforms that transform procurement from a compliance to a strategic function. Prerequisites for GPP are the adoption of an advanced “Value for Money” concept as well as a “Life Cycle Costs” approach that would include environmental impacts.

LCC enables procurement authorities to include into evaluation the impact of purchased subjects on the environment through costs they generate during the entire period of their exploitation when selecting the most favorable bid. That is a significantly different approach compared to the alternative one when bids are selected solely based on bidding prices.

In many cases purchasing goods and services have “hidden” indirect costs that originate from their influence on the environment generated during a period of exploitation, which could significantly exceed purchasing price. Thus it is important to internalize externalities, which LLC allows, unlike the “lowest price” model. Only by using LCC, procuring authority would be able to calculate all real costs of purchased goods, services, or works imposed on the society.

It is not possible or economically feasible to eliminate all environmental impacts across the product life cycle. However, GPP seeks to align procurement with environmental policy objectives by addressing the most significant environmental impacts and those that can be mitigated cost-effectively. In that way, GPP helps governments to achieve their environmental policy goals such as reduction of pollution, improving resource efficiency, promoting more sustainable production and consumption, stemming biodiversity loss, increasing resilience, and reducing the emission of greenhouse gases (GHGs) that contribute to climate change.

GPP is a powerful lever that could be used in several ways. Firstly, purchasing authorities could implement environmental considerations when deciding on a purchase. Secondly, when preparing technical specifications, which define required goods or services characteristics, a contracting authority may formulate them in terms of performance or functional requirements that would include environmental aspects.

Moreover, under certain conditions defined in the Directive, purchasing authorities may require goods or services with specific environmental, social, or other characteristics regarding: a) the technical specifications, b) the award criteria, or c) the contract performance conditions (Pouikli, 2021). The Directive allows contracting authorities in the EU member states (MS) to block a tenderer when they find negative environmental (and/or social) impacts of their tender. However, an adequate selection of award criteria provides a significant opportunity for green public procurement (Martinez-Romera & Caranta, 2017).

GPP requires the use of the most economically advantageous tender (MEAT) criteria. To apply MEAT criteria in an objective, non-discriminatory way, it is important to calculate environmental costs accurately, expressed in monetary form thus making bids comparable. The Directive enables the use of MEAT criteria and links it to LCC by saying that the MEAT should be calculated based on the price or cost, using life-cycle costing that covers parts or all of the costs over the life cycle of a procurement subject.

However, one of the key challenges is the increased cost of GPP since the “greening” of goods and services that governments procure require significant private sector investments resulting in a rise in procurement costs. A recent study by World Economic Forum indicated that 40% of public procurement-related emissions could be abated for less than \$15 per tonne of CO₂ (WEF, 2022). Their approximation of the total costs of decarbonization at the global level is that the efforts of the world’s governments to reach net-zero emissions will increase procurement costs by between 3% and 6%.

To stimulate producers (suppliers) to adopt new business solutions requiring additional investments, governments may use “green premiums” thus providing them with funds for

technological innovation. This instrument may be considered as an alternative to a carbon tax, which would incentivize suppliers to make a green transformation of their goods and services to avoid the tax.

A significant challenge for green reforms is the lack of transparent data on the effects and costs of public sector activities' impacts on the environment. Complete and transparent datasets covering emissions resulting from public sector operations and procurement are generally lacking even in highly developed countries, making it difficult or impossible to set emissions baselines, define realistic, achievable targets, compare data across products and sectors as well as track progress. The situation is much worse in developing countries with the additional problem of discrepancies between different official sources of data.

Pandemic crises created additional constraints related to the costs of green growth. Increased government spending worldwide caused by pandemic means that the added costs of green public procurement would have to compete with other governmental priorities. This is especially true at the local level, where budgets are particularly restricted and where the great majority of public funding already goes to such critical priorities as health. It is therefore essential that procurement officials at every level of government engage in discussions about the fiscal trade-offs that may be necessary when increasing purchases of greener goods and services.

In the majority of countries, public procurement is decentralized, making it difficult to create coherent GPP strategies across all levels of government. On average, less than half of 2019 public procurement spending in OECD countries took place at the centralized level which indicates how important is to establish effective coordination among different levels of government as well as among procuring agencies operating at national and sub-national levels (WEF, 2022).

4.2. Strategies for green public procurement development (Strategies for promotion of green public procurement)

To be able to track progress in the implementation of LCC and MEAT criteria, as well as other aspects of GPP reforms, governments have to apply an adequate assessment tool. One of such tools is the OECD's Methodology for the Assessment of Procurement Systems (MAPS). The MAPS assesses procurement systems against four criteria: 1) Value for Money, 2) Transparency of procurement processes, 3) Fairness and non-discrimination and 4) Governance of procurement processes. The abovementioned criteria are applied across four pillars of the public procurement system: 1) Legal, regulatory, and policy framework; 2) Institutional framework and management capacity; 3) Procurement operations and market practices and 4) Public accountability, integrity, and transparency (OECD, 2022).

Based on assessment findings regarding achieved standards, weaknesses, and strengths of a public procurement system, governments prepare national public procurement strategies and annual action plans for the strategy implementation. An integral part of the strategy and

action plans should be the adoption and development of GPP. Strategies and action plans provide a framework for the implementation of reforms. They authorize procuring agencies to adopt GPP practices and hold those responsible for GPP accountable for progress in implementation.

Strategies and action plans for public procurement reforms that include GPP can be developed at the national, subnational, and contracting authorities' levels. National strategies are mandatory with the widest coverage and highest impact thus being most important. The preparation of national strategies and action plans starts with an assessment of the current status of the public procurement system as well as of constraints and opportunities for its improvement. GPP should be considered an integral part of that process. It is common practice that a "policy body" such as a PPO has a leading role and coordinates the preparation of the strategy and annual action plans for the strategy implementation.

In the early phase of GPP uptake voluntary approach with a gradual expansion of GPP is advised. Application of GPP practices typically starts at a central procurement body that procures selected subjects on behalf of contracting authorities at a national level. In the beginning, GPP procurement subjects are those that are less complex, highly standardized, and widely used by the public sector, such as office equipment, ICT equipment, vehicles, etc. Due to the high level of standardization and "buying at large" effect on purchasing prices benefits of GPP are visible serving as arguments for expanding the new, "green" procurement practice. Application of GPP practices can be mandatory for some product categories and voluntary for others. Once positive experiences in the implementation of GPP became recognized, the number of mandatory categories should be gradually increased over time.

GPP reforms usually start with simple environmental criteria, such as the application of eco-labels in specific product categories. In many EU countries, the EU Eco-label criteria are inserted directly into technical specifications and/or award criteria. A copy of the eco-label certificate is seen as full verification that the selection criteria are met. In later phases of GPP implementation, more complex environmental criteria can gradually be introduced.

The roadmap for GPP adoption could have several steps. The first step should be to determine a baseline. Further activities would be to set up targets as well as to adopt green procurement regulations. The next step is to design value chains/sourcing strategies for procurement categories with the highest impact on the environment. In the next step procurement standards would be defined. Close cooperation with suppliers in finding a cost-effective model for their green transformation is needed as well. Finally, tracking the performance of GPP and using feedback as inputs for a rethinking of implemented solutions and finding ways for improvement in the future should be part of the roadmap.

5. Conclusions

EU legislative framework provides favorable conditions for the implementation of GPP. However, recent researches show that uptake of GPP was low and fragmented in member states with weak enforcement of the public procurement rules allowing environmental considerations. There are several factors of the “implementation gap” understood as the difference between regulation and expected outcomes of their application in practice. They are: 1) organization of public procurement function 2) corruption and “Echo corruption”, 3) administrative capacities of contracting authorities, 4) managerial capacities, 5) motivation of employees engaged in public procurement, and 6) awareness of GPP benefits and available tools for its implementation.

Closing above mentioned implementation gaps and promotion of GPP usually starts with the adoption of required legislation and setting up of a central procurement body that would be in charge to apply GPP practices across the government. This approach is called “top-down” since it is led by the central government. In the alternative “bottom-up” model, local self-governments have a leading role in applying GPP through their economic and procurement policies. Local initiatives proved to have limited potential in scaling up GPP practices since the adoption of GPP practices is voluntary and thus limited to willing contracting authorities prepared to take the initiative in the absence of a national regulatory framework. In both cases (whether top-down or bottom-up scenario), a gradual (“step-by-step”) approach to promoting GPP is advised. GPP reforms should proceed incrementally, building on operational experience. They entail successive improvements in the enabling framework, operational tools, and approaches as the scope and scale of GPP operations expand.

To be able to track the progress of GPP reforms and changes in strengths and weaknesses in practice, governments have to apply an adequate assessment tool. Based on assessment findings regarding achieved standards, weaknesses, and strengths of a public procurement system, a government prepares a national public procurement strategy and annual action plan for the strategy implementation. An integral part of the strategy and action plans should be the adoption and development of GPP. Strategies and action plans provide a framework for the implementation of reforms. They authorize procuring agencies to adopt GPP practices and hold those responsible for GPP accountable for progress in implementation.

Recent reviews of procurement reforms highlight the importance of raising awareness early on and tackling biases that can hinder GPP adoption (Andhov et al, 2020 & Luyckx and Pál-Hegedus Ortega, 2020). This requires proactive change management over an extended period. Consistent messaging from political leadership and senior management is critical. So too is stakeholder engagement, providing stakeholders with the opportunity to voice their concerns and priorities, identify the most promising opportunities, avoid pitfalls, and build on private sector experience. Broad-based training should build the case for GPP, address stakeholder concerns, and help stakeholders identify opportunities.

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