



# Driving sustainability through public procurement of infrastructure

## Background

The critical role of infrastructure in enabling countries' development was reiterated by the global community when, in September 2015, the United Nations Sustainable Development Summit adopted the Sustainable Development Goals (SDGs). SDG 9 directly encourages the development of quality, reliable, sustainable and resilient infrastructure to support economic development and human well-being, with a focus on affordable and equitable access for all. Viewed more broadly, infrastructure has been shown to support achievement of 92% of the SDG targets, across all 17 Goals.<sup>1</sup> Infrastructure is planned, procured, delivered and decommissioned by a combination of public and private sector entities across its life cycle, but it is the public sector that is the primary sponsor of most infrastructure projects and it accounts for the majority of global infrastructure investment.<sup>2,3</sup> Sustainable public procurement (SPP) therefore plays a significant role in improving the sustainability of infrastructure investment.<sup>a</sup>

Despite being essential for achieving the SDGs, infrastructure development can often undermine them if not implemented correctly. For example, the existing stock of infrastructure and its use accounts for more than 70% of the world's greenhouse gas (GHG) emissions,<sup>4,5</sup> and infrastructure construction uses vast amounts of natural resources. When sustainability is not factored

into decision-making, infrastructure can exacerbate environmental challenges like climate change, entrench social inequalities, and create an unsustainable burden of debt for future generations.<sup>6</sup>

We must find new ways of planning and developing infrastructure systems that deliver services more sustainably.

The world needs approximately \$94 trillion in infrastructure investment by 2040 to meet sustainable development needs and ensure that no one is left behind.<sup>7</sup> If this investment follows a "business-as-usual" approach, we risk locking in damaging forms of capital, technology and patterns of economic and social activity that will last for decades and become progressively more unsustainable.<sup>8</sup>

It is therefore imperative that sustainability considerations are embedded across the entire infrastructure life cycle to minimize negative impacts on people and the planet and ensure that the benefits from infrastructure development are fully realized.<sup>9</sup>

The procurement phase occurs relatively early in the infrastructure life cycle and presents a critical opportunity to embed sustainability into infrastructure development.<sup>10</sup>

Addressing sustainability concerns early in the life cycle is not only much more cost-effective than trying to address sustainability later in the life cycle. Sustainable, data-driven procurement practices also help governments to ensure that sustainability considerations from the

a. SPP has its own specific target (12.7) within SDG 12 (Ensure sustainable consumption and production patterns).

upstream phases of the life cycle (e.g. strategic planning, project prioritization) are translated effectively into downstream phases (e.g. design, construction, operations and maintenance, decommissioning). And because public procurement makes up a significant portion of public budgets (average of 12% of GDP in OECD countries), it provides an opportunity to influence change at scale.<sup>11</sup>

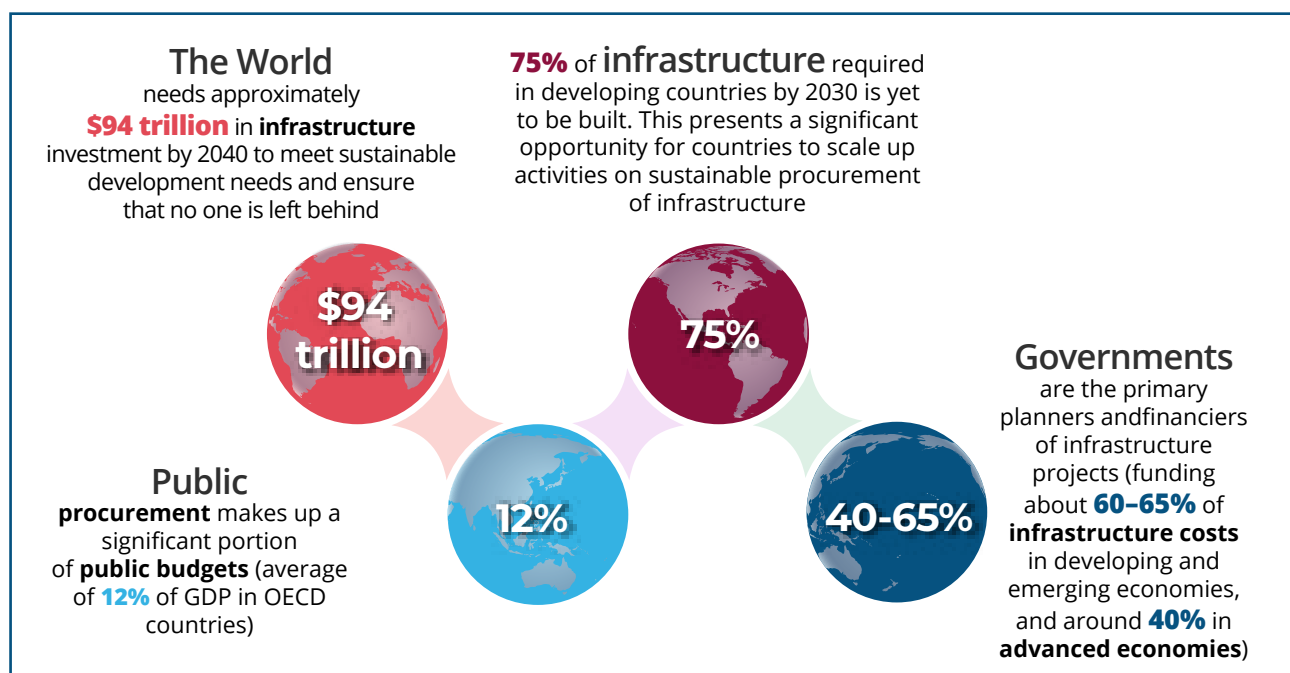
The COVID-19 crisis has added urgency to the situation, as infrastructure investment plays a major role in many countries' post-COVID-19 recovery plans as a means of stimulating economic growth and creating jobs. There is understandably a need to realize these benefits quickly, but it is also important not to sacrifice sustainability for speed of implementation (nor is this trade-off always necessary).

At the fourth session of the United Nations Environment Assembly in March 2019, Member States called upon UNEP to help facilitate coordinated efforts in all regions to promote the development of sustainable infrastructure as a means of ensuring sustainable consumption and production. Member States were invited to develop and implement sustainable development policies that promote resource efficiency and resilience and were encouraged to promote public procurement practices that

are sustainable, in accordance with national policies and priorities.<sup>12</sup>

The early successes of some countries in integrating sustainability into infrastructure procurement clearly demonstrate that it is possible to deliver sustainable outcomes, provided that sustainability is built into the process as early in the infrastructure life cycle as possible – a key requirement for sustainable procurement processes as well.<sup>13</sup> The fact that 75% of infrastructure required in developing countries by 2030 is yet to be built presents a significant opportunity for countries to scale up activities on sustainable procurement of infrastructure, which will accelerate the shift toward low-carbon and resource-efficient development pathways.<sup>14</sup>

To do this, there is an urgent need to build a multistakeholder global partnership for strategic procurement. This could help scale up current practices of mainstreaming sustainability into public procurement and showcase that SPP is a transformational tool, not just a transactional process. Addressing existing challenges and perceptions requires combined top-down and bottom-up approaches and facilitating flows of information, knowledge and best practices for successful implementation of sustainable procurement of infrastructure projects.



## KEY MESSAGES

### 1. Public procurement plays a central role in ensuring the sustainability of infrastructure through its power to transform markets.

Effective SPP policies can facilitate and enable socioeconomic development and green growth of a country, because they drive innovation and provide signals for—and influence the actions of—private investors.<sup>15</sup> Both the need for strong SPP frameworks and the resulting transformative potential of public procurement as a driver for sustainability are recognized in SDG target 12.7, which highly encourages countries to promote SPP practices.<sup>16</sup> SPP plays a particularly important role in infrastructure development, as governments are the primary planners and financiers of infrastructure projects (funding about 60–65% of the cost of infrastructure in developing and emerging economies, and around 40% in advanced economies) and therefore have a considerable potential to shape the market and leverage their expenditures by incorporating sustainability measures into purchasing decisions.<sup>17</sup> These sustainability measures can include, for instance, environmental measures, such as minimizing impacts to natural habitats, employing low-carbon technologies and using recycled construction materials, but also socioeconomic requirements, like compliance with human rights, creation of employment opportunities, inclusion of disadvantaged groups and accessibility for all.<sup>18</sup>

### 2. Social, environmental and macroeconomic aspects of infrastructure projects should be integrated into the entire procurement process, from needs assessment to award criteria and contract execution.

The implementation of sustainable procurement has been hindered by the lack of sustainability criteria in procurement procedures and a lack of objective methods to assess these criteria.<sup>19,20,21</sup> In many countries, procurement policies only allow the use of *lowest price* as the definitive evaluation criteria, rather than a *whole life approach* that focuses on best value and incorporates environmental sustainability impacts—whether positive or negative—into decisions. While there are other factors that may influence decision-making, the basic motivation behind infrastructure projects is the need to provide services that enable social and economic development. The lowest price of delivery as a selection criterion does not necessarily align with social and macroeconomic objectives, and in many cases undermines them. Failure to include environmental sustainability criteria further contributes to this problem, as well as having additional negative impacts beyond the specific objectives of any particular infrastructure project. Proper application of life cycle costing (LCC) could address these risks by factoring in the cost of externalities.<sup>22</sup>

### 3. There is a particular need for new methodologies for capturing social benefits in procurement decisions.

The most common social criteria in public procurement (in the construction industry at the international level) are worker health and safety. However, these two criteria do not sufficiently capture the broad range of social benefits and services provided by infrastructure.<sup>23</sup> In general, there is a lack of consistent, clear and practical definitions about how the social sustainability of infrastructure should be defined, measured and assessed.<sup>24</sup> The government of the state of Victoria in Australia has created a Social Procurement Framework with the aim to ensure that value for money considerations includes clear social criteria, as well as environmental and economic ones.<sup>25</sup> Similarly, the Social Value Act, introduced in the UK in 2013, requires government agencies to weigh 10–20% of tender on social value, but research suggests that only 25% of local authorities have embedded social value in their corporate procurement strategies.<sup>26</sup> Methodologies should be forward-looking and proactive, allowing appropriate criteria to be identified and incorporated at the earliest possible stage of the procurement process.

#### **4. In developing countries, there is a need to increase awareness about existing tools, guidelines and best practices for SPP, to make them available to procurers, and to adapt them for use by all levels of government.**

There is a range of tools being used to support sustainable procurement decisions for infrastructure projects in different countries. Examples include the European Union's [most economically advantageous tender \(MEAT\)](#) evaluation criteria for procurement, the Netherlands' [DuboCalc](#) tool and Germany's [Toolbox for Sustainable Procurement](#) in the water and information and communications technology (ICT) sectors. However, the application of procurement tools in developing countries is often more limited. This can be due to lack of awareness, mismatches with local policies, inadaptability to local contexts, or simply not being available in local languages. An absence of robust methodologies to quantify the benefits of sustainability means that sustainable infrastructure solutions are often perceived as being too expensive and are therefore not considered by procurers. A centralized, internationally accessible database of tools and information for SPP (e.g., the proper application of LCC) is needed, and it should be coupled with capacity building and technical assistance for developing countries. One area of promise is the emergence of tools that use historic and current engagement data—such as the United Nations Office for Project Services (UNOPS) [DRIVE<sup>b</sup>](#) tool—to provide unique insights into procurement sustainability criteria at the firm, national and global levels. Tools like this can promote a more strategic and targeted approach to public procurement.

#### **5. Sustainability rating and certification schemes for infrastructure projects can enable procurers to embed sustainability into infrastructure contracts by making it a contractual obligation to obtain a certain certification.**

While not designed specifically as procurement tools, these schemes can be effective tools for procurers. The buildings and built environment sector has been a front runner in incorporating sustainability into infrastructure development. Over the last three decades, the sector has successfully developed and adopted voluntary green rating systems and certifications such as BREEAM, LEED, GREEN GLOBE, HQE, GREEN STAR, DGNB and CASBEE, among others, to reduce its resource use and environmental impacts. According to the [World Green Building Trends 2016](#) report, green building in construction at a global level is doubling every three years.<sup>27</sup> However, uptake in developing countries has only recently started to grow. The exponential growth in urban built environments in China and India have led both countries to launch their own green building rating system, GBAS and GRIHA, respectively.<sup>28</sup> There are also several certifications schemes, such as [ENVISION](#), [SuRe](#), [INVEST](#), and the [CoST](#) standards that can be applied by procurers to infrastructure projects in other sectors for mainstreaming sustainability into infrastructure contracts.

#### **6. Performance-based specifications can be useful components of sustainable procurement.**

By enabling procurers to specify a desired performance level as the output, this approach allows for the integration of environmental and social considerations into tenders and encourages private sector innovation.<sup>29</sup> Performance-based specifications do not define how that output should be reached, but instead describe expected targets. However, to be an effective tool, an adequate monitoring and enforcement system must be in place to verify compliance with the agreed level of performance during the lifetime of the contract. Stockholm County Council used this tool for the development of a university hospital. In the tender documents, Stockholm County Council formulated functional requirements based on six project objectives, rather than prescriptive solutions, including sustainability criteria.<sup>29</sup>

<sup>b.</sup> Delivering Responsibility in Vendor Engagement (DRIVE)

## **7. Broad stakeholder engagement and consultation is needed to mainstream sustainability into procurement of infrastructure.**

Apart from the critical role of public institutions and design and construction contractors, there is a need to recognize the important role that funding partners and other stakeholders play in embedding sustainability in procurement of infrastructure. As major financers of infrastructure in developing countries, multilateral development banks (MDBs) are well-placed to encourage the establishment of sustainable procurement practices for projects they are financing.<sup>30</sup> With an increasing share of private investors funding infrastructure projects, there is also a need to understand and develop a sustainable procurement framework for infrastructure assets procured through the public-private partnership (PPP) model that makes the most of the positive role the private sector can play in delivering sustainable infrastructure solutions. Policymakers should be mindful of the role sustainable procurement can play, as different interpretations are apparent in different countries and there is no “one-size-fits-all” approach to sustainable procurement.<sup>31</sup>

## **8. Better coordination at the international, national and local levels is required to fully integrate sustainability into infrastructure procurement.**

Many initiatives, strategies and action plans on mainstreaming sustainability in infrastructure procurement have been introduced by stakeholders around the globe. Many of them have common objectives but are implemented independently of each other. This has resulted in fragmented solutions that miss the opportunities for more synergistic approaches to addressing implementation challenges at all levels. There is a need for adoption of both top-down, systemic approaches as well as bottom-up approaches. A top-down approach can involve development banks, international institutions, or other countries engaging with governments to bring about policy change conducive to mainstreaming sustainability in procurement of infrastructure, while a bottom-up approach can focus on empowering procurers with the right tools, knowledge and information. There is also a need for better coordination within each level of government and amongst different stakeholders at the national and sub-national levels.

## **9. Procurement of infrastructure must be informed by needs-based, and integrated, strategic planning of infrastructure investments.**

SPP must be complemented by strategic planning processes that consider all available options for meeting service needs—including alternatives to the construction of new grey infrastructure—and align infrastructure investments with national and global sustainable development objectives. This requires planners to think beyond single projects to consider the cumulative environmental, social and economic impacts (positive and negative) of multiple infrastructure systems in different sectors and locations across their entire life cycles, and how infrastructure can be delivered in a way that maximizes sustainability benefits and minimizes negative impacts.<sup>32</sup> If decisions are made to procure infrastructure that is inherently unsustainable, then there will be a limit to the positive impact that SPP policies will be able to make.

## **Acknowledgements**

This policy brief was developed by the Sustainable Infrastructure Partnership (SIP) and the Interest Group on SPP in Construction/Infrastructure of the UNEP One Planet Network as part of shared efforts to scale up the transition towards sustainable procurement of infrastructure. The organizations would like to thank Alice Jetin Duceux (UNEP), Anna-Sophia Elm (UNEP), Peter Head (Resilience Brokers), Mervyn Jones (RWS), Sanjay Kumar (Indian Ministry of Railways), Dominic MacCormack (UNEP), Marcus McKay (UNOPS), Rowan Palmer (UNEP), Graham Pontin (FIDIC), Joseph Price (UNEP), Marie-Aimée Salopiata (UNEP), Lukas Von Schuckmann (UNEP One Planet Network), Scott Thacker (UNOPS) and Farid Yaker (UNEP) for their contributions.

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