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POLICY BRIEF: PUBLIC-PRIVATE PARTNERSHIPS FOR LOCAL CLIMATE ACTION

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Rapid urbanization demands innovative solutions for infrastructure, energy, and waste management. Public-private partnerships (PPP) offer a strategic approach for cities to mobilize investments, share risks, develop know-how, and improve service efficiency by collaborating with the private sector. As complex undertakings, PPPs face challenges, including regulatory and financial risks and difficulties in balancing profitability with sustainability. Addressing these challenges requires clear policies, institutional capacity-building, and strong governance frameworks. International institutions can play a crucial role in supporting PPPs through funding and expertise. The PWD and Kwasiadwaso Market Projects in Accra, Ghana, demonstrate how PPPs can modernize urban infrastructure while addressing sustainability concerns.

INTRODUCTION

Rapid urbanization is changing the global sustainability landscape, presenting both new opportunities and challenges for sustainable development. By 2050, more than two-thirds of the world's population is projected to live in urban areas, with most of this growth occurring in lower and lower-middle income countries [1]. This unprecedented growth brings mounting pressure on infrastructure, escalating energy demands, and increasing waste generation. These dynamics highlight the urgent need for innovative and resilient urban solutions.

Cities play a critical role in driving economic growth and social progress; however, public sector resources often fall short of addressing the complex needs of urban systems. For instance, only 16% of cities, particularly in the Global

North, are able to finance crucial infrastructure projects through their own resources [2]. The sustainable development of urban systems requires comprehensive and integrated solution-oriented approaches since they encompass interconnected networks of transportation, energy, water, and social services.

In this context, public-private partnerships (PPP) emerge as an effective tool to address development challenges and foster innovation, efficiency, and resilience in cities. Through PPPs, cities can gain access to additional financial resources, mitigate risks, enhance project efficiency, develop project development skills, and foster community involvement [3]. By combining public sector resources with private sector innovation and expertise, PPPs can facilitate the adoption of advanced technologies, thereby promoting sustainable practices and enhancing urban resilience [3].

This policy brief explores the role of PPPs in advancing urban sustainability by enhancing service delivery, mobilizing private investment, and integrating cutting-edge technologies. By analysing the role of PPPs and presenting actionable recommendations to address potential pitfalls, this brief, using the example of Accra, Ghana, aims to help governments, private entities, and other stakeholders effectively leverage PPPs for sustainable urban development.

PARTNERSHIPS FOR SUSTAINABLE CITIES

Public-private partnerships are collaborative agreements where public entities partner with private sector organizations to jointly

design, finance, build, operate, or maintain infrastructure or services. The fundamental principles of PPPs include [4]:

1. **Shared investment:** Both parties invest financially in the project, through materials acquisition or manpower allocation, as well as expertise and knowledge sharing.
2. **Societal and commercial purpose:** The partnership contributes to both social objectives and potential commercial returns.
3. **Optimal risk allocation:** Risks are distributed between parties to allow investments that the public sector alone might not be able to afford.

Partnerships can take several forms. Responsibility for these can be split between the public and private sector. Typically, there are several elements to a PPP project, including designing a project, building it, financing it, or operations and maintenance (O&M). The public sector entity may already own an asset or in most cases, for new projects, ownership of the asset is transferred to the public entity at the end of the contract period.

The private partner can earn revenue from either the end user or from direct government payments, or a combination of both. Some of the more common PPP models include [18]:

Service contracts are perhaps the 'loosest' form of a PPP, where a private firm is hired by a public entity to provide a specific service. These are typically short-term contracts, and most of the risk is borne by the public sector. **Leases** are where the private actor leases a public asset, generating revenue through its operations and paying the public entity a leasing fee. These are

longer term contracts. The risks are therefore borne by both partners.

Operation and maintenance (O&M) contracts are long-term, performance-based contracts where the private sector partner takes over the operations and maintenance responsibilities of an infrastructure asset.

Design/build-operate-transfer (D/BOT) models are rather long-term and transfer a great amount of risk to the private actor, who takes responsibility for designing, building, and/or operating an asset. At the end of the contract, the asset is returned to the public entity.

Joint ventures, where both the public and private partner hold a significant stake in project implementation and responsibilities are shared. Typically, a new entity/company, called a 'special purpose vehicle' (SPV) is created for project implementation to insulate the parent entities from project-related risks.

Many more possibilities exist, depending on the requirements of each partner, the specifics of the project, and the revenue source. This allows PPPs to serve various functions in the context of sustainable urban development, such as:

3.1 Enhancing urban services

Public-private partnerships have been deployed successfully to improve urban services across key sectors including renewable energy, waste management, water supply, and transportation systems [3].

However, there is a need to balance the profit-driven motivations of private partners with

the long-term sustainability goals of public infrastructure projects [5]. For example BOT models in urban transit have helped expand service coverage. To ensure a successful project implementation, PPPs should also mitigate public-private governance risks, such as continuing to ensure equitable access to services [5].

3.2 Access to finance

Some financial mechanisms that involve private actors—such as green bonds, blended finance, or impact investing [6]—allow cities to access additional capital and reduce project risks. For instance, the public sector can contribute through tax revenues or asset transfers, while the private sector can contribute through technical and commercial expertise, cutting-edge technologies, and potential investment capital [4].

Such partnerships can help mobilize private investment to bridge the financing gap for public projects. For instance, low carbon climate resilience infrastructure often involves high upfront costs and long-term horizons, which are challenging for public budgets alone to achieve.

Cities can address these challenges by attracting private capital and expertise, which can enhance project financial feasibility, optimize resource allocation, and integrate value-for-money (VfM) principles [3]. Mechanisms such as "value capture" strategies have proven useful—for instance, the leveraging of land-value appreciation from infrastructure investments has helped fund urban green spaces and transit systems [7].

3.3. Innovation and technology

Public-private partnerships can facilitate the

integration of technological innovations such as improved renewable energy systems, smart grids, and big data analytics, driving efficiency and effectiveness in urban service delivery. This can be through the improved access to financial resources that can be used for investments in advanced systems. Private partners may also have access to and better knowledge of advanced technologies that can be deployed in PPP projects, allowing for greater risk-taking.

CHALLENGES AND BARRIERS IN IMPLEMENTING PPPs

A project implemented as a public-private partnership can be complicated, owing to the size of the project, the number of partners involved, and complex financing and governance structures. It can bring with it a number of challenges, and the broader business and regulatory environment in a country can greatly influence the project's chances of success.

4.1. Regulatory and policy hurdles

A lack of clear and supportive regulatory frameworks for PPPs can impede their effective implementation. The absence of standardized guidelines often leads to delays in project execution and increased costs. Moreover, policy inconsistencies between national and local governments exacerbate coordination issues, making it difficult to align PPP projects with broader urban development goals [8]. The lack of institutional environments and governance mechanisms, such as inadequate enforcement, further hinders success [9].

4.2. Public perception and trust

Public skepticism towards private sector involve-

-ment in public services can hamper PPP implementation. There is a widespread belief that private companies prioritize profits over the quality and equity of service delivery, potentially resulting in cost-cutting measures that compromise standards [8]. Concerns over increased costs for users, inequitable access, and reduced service quality can undermine community support. Limited access to information regarding PPP agreements fosters distrust among stakeholders, and the perception of secrecy may lead to accusations of corruption [9, 10].

Therefore, transparency and accountability mechanisms are essential to building public trust and ensuring that PPPs prioritize the public interest over private profits [8]. These include open disclosure of contract details, regular performance audits, and citizen engagement in decision-making processes (sometimes called '4P' i.e. public-private-people partnerships). Moreover, fostering dialogue and aligning the goals of the public and private partners can mitigate cultural clashes and promote trust [10]. Strengthened communication and engagement strategies, alongside awareness-raising about the benefits and safeguards of PPPs, can further bridge the trust gap.

4.3. Financial and risk issues

Balancing the financial objectives of public and private partners with the public's need for affordable and equitable services is a persistent challenge. Many PPP projects experience unexpected cost overruns due to inadequate risk assessments or unforeseen circumstances, leading to ineffective project implementation, missed value-adding opportunities, and reduced socio-economic benefits. Additionally,

fluctuating demand for services can lead to revenue shortfalls, threatening the financial viability of projects [3].

Smaller municipalities often struggle to secure private investment due to perceived risks or the limited capacity to manage complex financial arrangements, restricting the applicability of PPPs in under-resourced areas [11]. Private entities may prioritize projects with high returns over essential but less profitable services, such as affordable housing or rural infrastructure [8].

4.4. Environmental and social concerns

Although PPPs are supposed to promote sustainable development, environmental and social concerns often arise during their implementation [12]. Short-term financial priorities of private entities can sometimes conflict with long-term environmental and social objectives, leading to adverse results such as environmental degradation or inequitable service distribution [7].

The lack of comprehensive sustainability criteria in many PPP agreements exacerbates these challenges [13]. Projects may overlook critical factors such as emissions, resource efficiency, or social inclusivity. Fragmented accountability structures weaken and often dilute the focus on these objectives, hindering making it difficult to enforce compliance with sustainability goals [9].

To address these issues, PPP agreements should include explicit environmental and social benchmarks, with penalties for non-compliance and clear enforcement procedures. Additionally, incorporating third-party monitoring mechanisms and fostering community participation can ensure

that projects align with sustainability principles [12].

4.5. Capacity Constraints

Many public institutions, particularly in developing countries, lack the technical and managerial capacity required to implement and oversee PPPs effectively. Capacity limitations often result in poorly-negotiated contracts, inadequate project monitoring, and ineffective enforcement of compliance standards.

The absence of standardized procedures and robust evaluation frameworks undermines the accountability and efficiency of PPPs [9]. Furthermore, limited expertise in areas such as risk management, financial modeling, and stakeholder engagement hinders the ability of public entities to navigate the complexities of PPP projects.

Capacity-building initiatives are essential to overcoming these constraints [7]. Governments can invest in training programs, knowledge-sharing platforms, and partnerships with international organizations to enhance institutional capabilities. Additionally, fostering collaboration with a collaborative environment where private partners to share contribute expertise and resources can bridge capacity gaps and ensure the successful implementation of PPP project implementations [13].

MAIN INSIGHTS AND RECOMMENDATIONS

The successful implementation of PPPs for sustainable urban development depends on the adoption of good practices and addressing key barriers systematically. The following recommendations provide actionable insights

for governments, private sector partners, and international institutions:

For local and regional governments

- Establish clear regulatory frameworks and guidelines in line with national policy to facilitate the implementation of PPPs. These should address contract standardization, risk allocation, and sustainability benchmarks [9].
- Invest in capacity building programs to enhance the technical expertise and managerial skills of public officials involved in PPPs. This includes expertise in negotiation, monitoring, management, and compliance enforcement [7].
- Implement mechanisms for transparent stakeholder and community engagement and regular, transparent reporting to ensure public trust and support. This includes open accessible databases detailing project progress, financial transactions, and performance outcomes [12, 6].

For national governments

- Create incentives such as tax breaks, subsidies, or grants to attract private investment in sustainable infrastructure projects. Such measures can help reduce perceived risk for investors.
- Establish national guidelines to harmonize PPP practices, integrating multilevel governance and cross-sectoral implementation across regions. Encourage collaboration between national, regional, and local governments to align PPP projects with broader urban development strategies [15].
- Develop robust institutional structures, including dedicated PPP units in ministerial departments, to coordinate and oversee

project implementation and provide assistance as needed. These units should focus on risk management, stakeholder engagement, and aligning PPPs with national sustainability goals.

For private sector partners

- Adopt business models that align profitability with environmental and social objectives for a longer-term view of sustainability. Invest in sustainable technologies and practices that reduce resource consumption and carbon emissions [15].
- Actively involve local communities in project planning and implementation to ensure alignment with their needs and expectations. This can foster goodwill and improve project outcomes [7].
- Commit to transparent decision-making processes and equitable risk-sharing arrangements to build trust with public partners and the community [6].

For international and financial institutions

- Promote the use of green bonds, blended finance, and other innovative funding mechanisms that align financial returns with sustainability goals [4]. Provide grants, concessional and sustainability-linked loans, and technical expertise to support PPP projects in developing countries. Focus on capacity-building initiatives to strengthen local institutions [4].
- Create platforms for exchanging best practices, lessons learned, and innovative solutions among countries and stakeholders involved in PPPs [14].



GET TO KNOW: ACCRA, GHANA

The Public Works Department and Kwasiadwaso Market Projects in Accra, Ghana, exemplify an approach to urban development through public-private partnerships [16, 19]. This initiative, led by the Accra Metropolitan Assembly in collaboration with national ministries, aims to modernize and expand market infrastructure in the city. The project involves the reconstruction of two markets, addressing multiple urban challenges such as inadequate trading spaces, poor sanitation, and fire hazards.

With an estimated cost of USD 50.7 million over a 36-month-long construction period, the project incorporates modern amenities such as clinics, nurseries, banks, and police posts, enhancing functionality and safety.

From a sustainability perspective, the project conducted an environmental and social impact assessment (ESIA), ensuring compliance with national and international standards. The design incorporates a focus on energy efficiency and renewable energy integration, and utilises smart metering systems and solar energy installations. These features align with broader sustainability goals, reducing the markets' environmental footprint and support its continued operation in the long run.

The project's strengths lie in its comprehensive development approach, modern amenities, revenue generation potential, and phased implementation. However, it faces challenges



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such as financial viability concerns, with a modest return on investment of 10.98 percent that may deter external investment. Additional challenges include complex stakeholder management, potential displacement of existing traders, and the technical complexity of the multi-story design.

The project benefitted from Ghana's existing PPP frameworks, including the National Policy on Public-Private Partnerships developed by the Ministry of Finance and Economic Planning and the World Bank in 2011. This policy outlined the roles of the public and private partners in a project. It was eventually followed the passing of Ghana's Public-Private Partnership Act in 2020, creating an enabling national framework [20].

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