

PalArch's Journal of Archaeology
of Egypt / Egyptology

**PUBLIC-PRIVATE PARTNERSHIP AS A TOOL FOR SUSTAINABLE
DEVELOPMENT**

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Aloke Vatsyayan¹, Prof SC. Bhel², PUBLIC-PRIVATE PARTNERSHIP AS A TOOL FOR
SUSTAINABLE DEVELOPMENT,-- PalArch's Journal Of Archaeology Of Egypt/Egyptology
17(16), 170-179. ISSN 1567-214x

**Keywords: public sector participation, PPP models, Public-Private Partnerships,
infrastructure, sustainable development.**

ABSTRACT

PPP is a public-private partnership that's utilized all around the globe. The word, on the other hand, is very vague and may refer to a wide range of different methods. A growing number of countries are using public-private partnerships (PPPs) to build new infrastructure and provide public services to citizens. PPPs have received a great deal of attention from academics because of their unique approach to public procurement. Thus, stakeholders are frequently perplexed, making collaborative development, evaluation, and/or monitoring of PPP projects challenging.

Introduction

PPP is a general word used to represent a wide range of arrangements that allow the private sector to participate in the supply of public infrastructure and services. It is between between complete privatization and conventional government procurement. The concept of public-private partnership (PPP) is always changing because it reacts to the institutional, legal, investment, and public procurement settings of various countries. [1]

A long-term collaboration between the public and private sectors is known as a public-private partnership (PPP, 3P, or P3). Typically, private money is used to fund government projects and services up front, with taxpayers and/or end users reaping the benefits over the life of the PPP contract. Public-private partnerships are widely utilised for infrastructure projects throughout the world. They have been used in the construction, provision, operation, and maintenance of educational institutions, health care facilities, transportation networks, and water and sewage systems.[2]

This PPP aims to enhance scientific and technical capacity as well as create a competitive industry for the smooth operation of the local as well as international markets. The following responsibilities are divided among the partners as part of this partnership: "Rules of play" are set by governments, which create an enabling institutional environment for the activities of everyone involved, while also promoting fundamental knowledge creation (through public research centres, academies and universities), providing a database on developed technology and allowing businesses to build new technologies using their own R&D and turn scientific ideas into reality. [3]

In the areas of infrastructure and public services, such as transportation, water and sewage, energy and environmental protection as well as health care, PPP has been extensively used. The conventional disadvantages of government procurement have been addressed by several nations and areas adopting PPP. A continuous increase in the number of public-private partnership (PPP) initiatives has been seen in industrialised nations such as the UK, Australia, Portugal, and Spain. PPPs are also being used by developing nations for the construction and operation of their own infrastructure. [4]

One of the methods for advancing social cooperation in vocational education and training is public-private partnerships (PPPs). PPPs in the skills sector are relevant if they concentrate on results – benefiting learners – and manage the risks that are inherent in any type of public-private collaboration on public policy, according to evidence from 23 case studies. [5]

LITERATURE REVIEW

Ahmed M. Selim & Amr Soliman ElGohary (2020) To establish successful PPPs for smart infrastructure project phases, the study presents a clear picture of stakeholder roles and highlights PPP challenges, characteristics, state models and agreement methods in particular with the high cost of these projects to reach a set of recommendations aiding in improving efficiency, quality and affordable costs to achieve sustainability whether in retrofitting or in new urban sprawl. [6]

Nan He, Yijing Li, **Huimin Li**, Ziqi Liu, and Chengyi Zhang (2020) In order to identify the key variables and their interconnections in the sustainability accomplishment of water PPP projects, a comprehensive literature study and structured interview were used, as well as the social network analysis (SNA) technique. Consequently, seven stakeholder groups and 18 key factor nodes were discovered, and they were then categorised into four difficulties for attaining long-term viability and sustainability. Environmental awareness promotion and responsible citizen behaviour are two of the biggest difficulties, but the quality of the project's construction, ecological designs, and technological advances are also important. With these results, water PPP stakeholders will have helpful references for reducing risks and aiding efforts to improve sustainability performance. [7]

Md. Nazmul Haque, Mustafa Saroar, Md. Abdul Fattah, Syed Riad Morshed (2020) This study examines the role of public-private partnerships (PPPs) in achieving the Sustainable Development Goals (SDGs) in Bangladesh's Khulna city. In Khulna's CBD, researchers studied 4.6 km of road medians that were landscaped as part of a public-private partnership (PPP) initiative. Primary data were gathered via site visits, field surveys, and interviews with PPP project partners in addition to secondary data

gleaned from government databases. Road users were satisfied with the landscaping done on the medians, with 89% of them saying so. Similarly, 86% of those polled said they felt more at ease and secure when driving now. Road medians that are well-maintained enable drivers to cross at regular intervals, reducing the likelihood of an accident. Private companies have put up advertising billboards in the middle of the road, saving the government BDT 10.82 million annually.[8]

RA Ojelabi, OI Fagbenle, AO Afolabi, PF Tunji-Olayen, and LM Amusan (2018) This research looks at the role of public-private partnerships (PPPs) in attaining Bangladesh's Khulna city's Sustainable Development Goals (SDGs). 4.6 km of road medians that were landscaped via a public-private partnership (PPP) project in Khulna's CBD were examined by researchers. In addition to secondary data collected from government databases, site visits, field surveys, and interviews with PPP project partners gathered primary data. Eighty-nine percent of drivers said they were happy with the planting on the medians. Similarly, 86% of those surveyed stated they now feel more safe and at peace while they are driving because of the changes. Maintaining road medians allows vehicles to cross the road more often, decreasing the risk of an accident. Due to private businesses erecting advertising billboards along highways and byways, the Bangladeshi government saves BDT 10.82 million yearly. [9]

Irina Zapatrina (2016) According to the 2030 Agenda for Sustainable Development, the article aims to examine ways of improving international institutions' approaches to technical support for developing economies via Public-Private Partnership (PPP). New difficulties and characteristics of SDG-focused PPP models in emerging markets are examined, as well as perspectives on developing 2030 Agenda SDG implementation mechanisms, including the responsibilities of international organisations, governments, and civil society.[10]

Understanding sustainability in the context of PPPs

Defining sustainability

Sustainability is often seen as a three-dimensional term that encompasses social, ecological, and economic aspects as well as the environment. There are numerous policies and evaluation techniques that use the "triple bottom line" or "three-pillar" approach, and it generally fits in with "technology optimism" and "trickle down" ideas. The Brundtland Report spawned the generally accepted notion of sustainability's three pillars: social, environmental, and economic. There are many interpretations of the term, from the status quo to reformist and radical ones. It grew more disputed throughout time. According to Hopwood, Mellor and O'Brien (2005), three broad perspectives on the nature of society's political and economic institutions, as well as human-environment interactions, must be mapped to achieve sustainable development. It's "[the view] that it can be achieved within the current structures" – status quo; that fundamental reform is required but without a complete rupture with the existing arrangements – reform; and that as the roots of the problems are the very economic and power structures of society, radical transformation is required.

Framework for assessing sustainability in infrastructure projects

Measurement problems must be addressed before sustainability promises can be put into effect. Since it's almost impossible to provide a complete evaluation of sustainability, sustainability indicators are critical for establishing goals, tracking progress, and comparing relative success. Diverse attempts have been undertaken throughout the last few decades to create indicator sets.

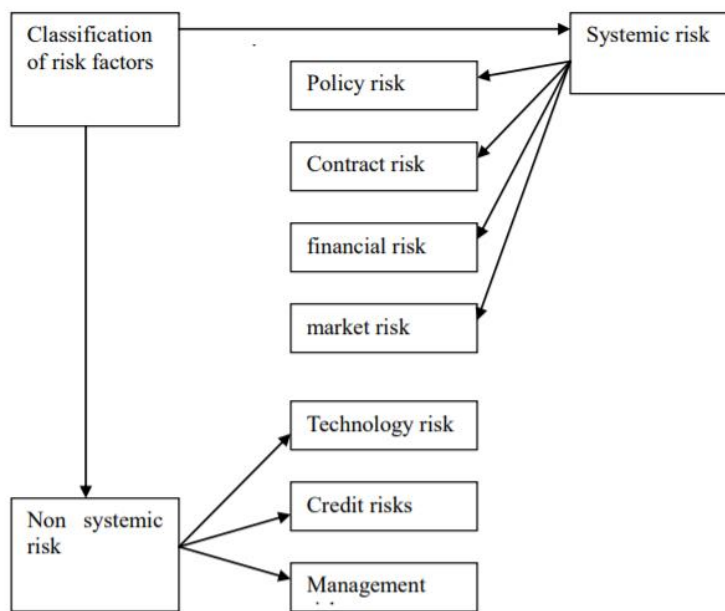


Figure 1. Classification of risk factors of PPP

THE SUSTAINABLE DEVELOPMENT GOALS

A new global agenda for the next 15 years was officially endorsed by more than 150 world leaders at the United Nations headquarters in New York on September 25, 2015. The Sustainable Development Goals (SDGs) in the 2030 Agenda for Sustainable Development are the outcome of a two-year-long consultation process. The agenda paints a hopeful picture of the future, one in which hunger and poverty are eradicated, gender equality is realised, and high-quality education is provided for all children. "Ours is the final generation that can stave off the worst impacts of climate change and the first generation with money and knowledge to eliminate poverty," UNDP administrator and former New Zealand prime minister Helen Clark said in New York".

The SDGs have their origins in the Century Development Goals, which global leaders adopted in New York at the turn of the millennium (MDGs). There was a logical progression from the Millennium Development Goals, which ended in 2015, to the new Sustainable Development Goals (SDGs). The SDGs, on the other hand, go considerably further. Those objectives broaden the scope of the development agenda to encompass the necessity of achieving economic growth while also combating climate change (UNDP, 2015). They also broaden the scope of the discussion to include all nations, not just those in the lower and medium income brackets. Despite the fact that the new objectives' primary focus is on reducing poverty, many of them are relevant to nations with a higher economic level. Simply put, the SDGs are the first global strategy for the future of the planet and all of its inhabitants that has garnered universal support. Both the MDGs and the SDGs share a fundamental belief: that humanity can achieve sustainable development if it works hard enough and invests enough money in the effort required. In other words, progress that satisfies present-day demands without endangering future generations' capacity to satisfy their own needs.

The Private Sector and PPPs

According to the United Nations, private enterprise is critical to achieving the 2030 Agenda's goals. There are two reasons for this: first, the private sector may provide an appealing financing source for a plan that is out of reach for national governments acting alone, and second, the actions of private business impact people's everyday lives and development results all over the world. Businesses must learn to move beyond charity and voluntary corporate social responsibility (CSR) in order to align themselves with Africa's and the world's ambitious goal, all while preserving profitability. This is a major undertaking.

First and foremost, businesses can contribute to the post-2015 agenda by abiding by the rules of good business: abiding by the law, adhering to basic human rights and labour standards, and refusing to pay bribes or taxes. This fundamental procedure may be advanced by focusing on particular instances of the development process being engaged by the private sector. When it comes to PPP, debates tend to be too general and theoretical, making them useless to business. A better approach would be to have government agencies and companies talk about how they might adapt or learn from other existing collaborations for current initiatives. For instance, the UN Global Compact and multinational consulting company KPMG's SDG Industry Matrix shows how PPPs in support of the SDGs may be created. Each of the 17 Sustainable Development Goals (SDGs) is broken down into possibilities for companies working in that industry, with specific examples provided in the SDG Industry Matrix.

Public-private partnerships for policy implementation

PPP contracts, for example, are intended to help leverage capital and the private sector's (potential) innovation capacity to meet economic and social development needs while working within a constrained budget. Public authorities have been experimenting with these and other mechanisms to meet the challenge of "doing more with less" over the last two decades.

PPPs for long-term infrastructure have been a popular choice throughout this time period (Hodge and Greve, 2017). This concept was developed in the UK during the New Public Management movement in the early 1990s for outsourcing the delivery of new physical infrastructure and as a political alternative to privatisation (Broadbent and Laughlin, 2003). An infrastructure PPP is a long-term financial contract that utilises special purpose vehicles to obtain the required money to construct a capital-intensive project and then leverages the project's revenue flow to repay the borrowed funds. This concept has recently been regarded an important asset class for long-term investors such as pension funds, providing investment possibilities. In addition to its ability to complete projects on-time, within budget, and to the necessary quality standard, its outcomes remain hotly disputed (Hellowell and Vecchi, 2015; Reeves, 2013; Siemiatycki, 2011). (Vecchi and Cusumano, 2018).

PPP, on the other hand, has a wider definition that includes policies, programmes, and projects (Vecchi, Caselli, and Corbetta, 2015). (Rosenau, 1999). Policy formation often results from interactions between the public and private sectors, or better still, between business and government, with official and informal lobbying playing an important role. For example, public-private venture capital schemes or governmental programmes designed to assist economic growth in the event of a market failure via a fund-matching strategy are examples of partnerships at the programme level. At the project level, infrastructure-based service partnerships are the most prevalent kind of partnership, although social impact bonds are also on the rise.

The business sector, which has been progressively incorporating social and environmental considerations into investment choices in recent years, has supported this new approach. Due to this, many social impact investment methods have emerged, including venture philanthropy, impact investing, responsible or environmental investing, society and governance investing, and creation of shared value.

Goals and characteristics of PPP in infrastructure management

When it comes to infrastructure management, the primary goal of public-private partnerships (PPPs) in industrialised nations is to design, build, finance, maintain, and operate infrastructure. Usually, the goal is to make public sector service delivery more efficient. These are often assessed as part of what are known as "value for money tests" and then audited by the appropriate agencies. Other objectives include bridging public partner liquidity constraints while executing urgent construction or modernization activities involving infrastructure that is required by the general public and other users, depending on the level of priority. A PPP has many key features that are thought to improve efficiency over "traditional" procurement. These include: a

- (i) The lifecycle approach,
- (ii) The risk transfer with a balanced risk allocation,
- (iii) The creation of incentive structures and leveraging of innovation potential through results-oriented performance description and remuneration,
- (iv) The use of private expertise and capital,
- (v) The long-term relationships on a partnership basis and, in particular, governed by contractual provisions.

Even in Germany and almost everywhere else in Europe, efficiency benefits as a key justification for the use of PPP as a procurement technique seem to be of considerably less significance than pure finance or liquidity in Asia and Latin America. For example, toll highways, water supply projects, and waste disposal PPPs are examples of user-financed PPPs. Obtaining private money to execute infrastructure improvements is often a top priority, at any cost. In order to fulfil the enormous need for infrastructure development, high-growth nations such as China and India, who are presently experiencing a boom similar to Western Europe's economic boom in the 1960s and 1970s, may and must be able to afford such a strategy. It is feasible to portray the resultant debt as an investment in future generations in a way that is not viable in nations with poor long-term growth rates.

Standardization and standards are necessary and useful for comparing PPP's unique objectives and features in every situation. PPPs used in various infrastructure sectors and subsectors vary considerably in Germany, for example, in terms of the aforementioned features and the regulations that regulate the partnership. There are notable exceptions to this rule, with the establishment of a standardization process for public-private partnerships (PPPs) based on a shared understanding of PPPs and PPP competence centers only in the social infrastructure and road sectors.

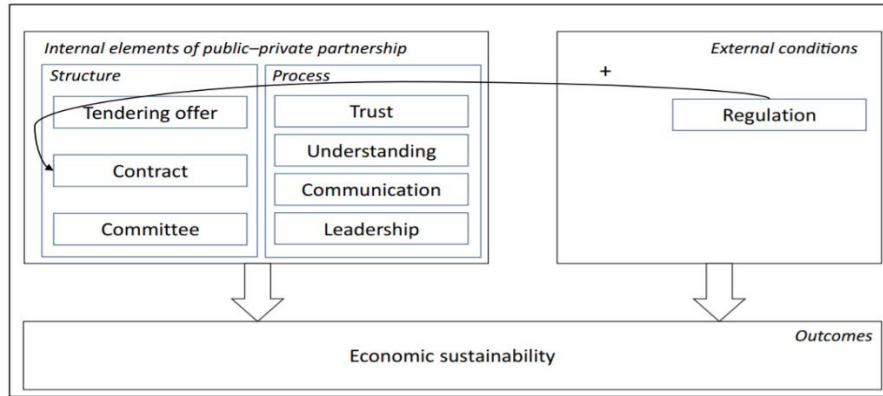


Fig. 2 Conditions and elements contributing to economic sustainability in public-private partnerships

Sustainable Development of Public-Private Partnerships

Sustainable development public-private partnerships have been in existence for decades at all levels, from the local to the global. Some of these changes are due to a shift in public policymaking. According to this theory, governments are shifting from providing public policy to enlisting the help of private actors, rather than relying solely on them. These public-private partnerships engage private players in a variety of policy-making processes, including agenda-setting, negotiation, resource supply execution, monitoring, and/or enforcement. Private players take on a major policy role in these kinds of public-private collaborations. It's possible to make the case that public policymakers still have sway in this kind of public-private cooperation. Functions that public actors cannot or do not execute as effectively as private actors are carried out by private actors. More conventional command and control strategies benefit from public-private collaborations. On the other hand, a new kind of public-private partnership is emerging, in which independent public or private policy tools are integrated under new governance structures and arrangements. Rather, it is a collaborative style of governance in which independent policy players combine their efforts on all aspects of the policy-process with less structure and direction. Unlike the first kind of public policy-making, this extends much beyond the usual service supply performed by private actors.

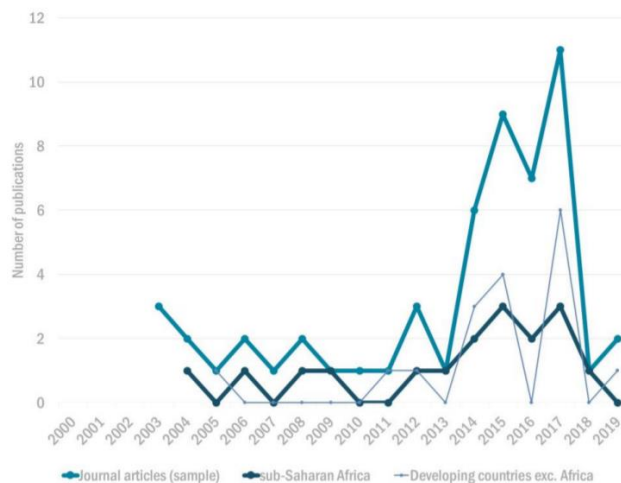


Figure 3. Number of publications on challenges or barriers to PPPs (2000–2019)

Public-private partnerships have grown in importance with the establishment of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs). 'People, planet, and prosperity' are the goals of the UN agenda. Education, health, economic development, social welfare, environmental preservation, and natural resource management are all included in the 17 Goals. The 17 objectives are broken down into 169 specific milestones that must be met by 2030 or sooner. While the Millennium Development Goals set a foundation, the Sustainable Development Goals seek to fill up the gaps left by those goals. Between the Millennium Development Goals and the Sustainable Development Goals, a key distinction is that the former were designed primarily for governments, while the latter are intended for a wide range of stakeholders, including the business sector. An important change in approach between the Millennium and Sustainable Development Goals is the understanding that engaging and integrating private players in policy processes is the most effective way to accomplish policy goals.

Concerns about sustainability are an essential initial consideration in developing public-private partnerships. In other instances, this sustainability emphasis is at the heart of an initiative's foundation, thus it doesn't present much of a problem since the concept of sustainability is fundamental to the organisation. Existing public-private partnerships, on the other hand, have found it necessary to include sustainability considerations into their operations in many instances. It's tough to establish long-term sustainability if they don't accomplish this well enough. In their article (*Toward Sustainable Development? A Bibliometric Analysis of PPP-Related Policies in China between 1980 and 2017*), Cheng Chen, Dan Li, and Caixia Man take a look at this topic. Chinese central government policy papers on public-private partnerships, published between 1980 and 2017, are subjected to a quantitative bibliometric study. They provide a framework for evaluating the papers' sustainability components. Sustainability is operationalized in accordance with the three conventional axes of environmental, social, and financial well-being. In the bibliometric study, policy papers are used, which include data on the documents' date, title, policymaking departments, content, and current status as effective policies. An analysis of the history of public-private partnerships (PPPs) finds three distinct historical phases and the role of sustainable development in each: Phase I (1980–1997) encourages foreign investment in public infrastructure, Phase II (1998–2008) encourages the marketization of urban public utilities, and Phase III (2009–2017) involves the institutionalization and extensive application of PPPs to solve the country's local debt crisis. When it comes to public-private partnerships (PPP), according to the aforementioned policy priorities, the pattern has changed from a complete absence of sustainable development policies during the first phase to a few attempts at sustainable development during the second phase and finally to a tendency toward policies that favour sustainable development during the third phase. It turns out that sustainable development principles are by-products of PPP-related policies meant to promote economic growth and solve public financial problems, rather than the ultimate objectives. This suggests that in order to make sustainable development a key objective of PPPs, a fundamental shift in how PPPs are seen as governance schemes rather than practical economic tools is needed. PPPs.

CONCLUSION

Functions that public actors cannot or do not execute as effectively as private actors are carried out by private actors. More conventional command and control strategies benefit from public-private collaborations. However, a new kind of public-private cooperation is beginning to develop. This article examines the extent and manner in which Flemish public procurers presently take sustainability concerns into account and how sustainability considerations might be encouraged in PPP infrastructure projects.

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