



**Public-Private Partnership Participation in Road Infrastructure Construction  
Projects in Tanzania: Challenges and the Way Forward**

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**Abstract**

*Developing countries face inadequate resources for funding road infrastructures. This has amalgamated the public and private sectors into a mutually beneficial relationship through Public Private Partnerships (PPPs). Although extensive documentation exists on PPPs globally in various sectors, studies examining the challenges to PPPs in Road Infrastructure Construction projects in Tanzania are inadequate. This study aimed to address this shortfall. Purposive sampling was used to select 20 respondents for the study. A qualitative research design was used in the study, and data were collected through semi-structured interviews, focus group discussions, and document reviews. Thematic analysis was employed to analyze the data from interviews and focus group discussions. Over two-thirds of the interviewed respondents revealed that lack of preparedness, limited information on available opportunities for PPP projects, and inadequate capital market were among the main challenges facing PPPs on road infrastructure projects in Tanzania. The study calls for improving the institutional framework to enhance private sector participation in PPPs in road projects.*

**Keywords:** Public-Private-Partnerships, Public-Private-Partnerships Regulations, Road Transport Infrastructure, Financing

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**Introduction**

Building modern, sustainable, and reliable road infrastructure is significant in meeting the rising aspirations of billions of people around the globe and in developing economies. Significant investment in road infrastructure helps to raise economic growth rates with new economic opportunities and facilitates investment in human capital (World Bank, 2019). Over the last few decades, governments in the region

have been increasingly using Public-Private Partnerships (PPPs) to finance and manage complex operations in public investment, especially in providing transport infrastructure (Macário *et al.*, 2015). While the practice has been around for millennia, the term “PPPs” was coined and popularized in the 1970s when neoliberal ideas began questioning the previously central role of the government in the context

of poor economic performance (Jomo *et al.*, 2016). Public-private-partnerships in modern environments are one of the practical tools for mobilizing private and public investment in large infrastructure projects (Macheret & Epishkin, 2017; Freidina, 2017; Obratsova & Kamenik, 2017; Shibayeva *et al.*, 2017). This is because the gap between the demands for infrastructure and public services and financial and budgetary constraints is constantly widening (Khmel & Zhao, 2015).

From a public policy standpoint, the prime objective of a PPP is to promote an improvement in the efficiency and quality of a given service to the citizen and attract private resources into public services while allowing public money to be allocated to other critical areas and diminishing long-term pressures on public finances (Jomo *et al.*, 2016). Regardless of the commonness of tactics, projects under PPPs are determined by the country (region) of the project and guided by the institutional environment and its industry affiliation by taking into consideration the level of risks, the capital intensity of projects, the time of their payback, the level of organizational and technological complexity, and other parameters (Makarov & Plotnikov, 2018).

The growing trend of PPPs is related to the benefits demonstrated and attained by various countries such as the United Kingdom (UK), Australia, China, India, the United States of America (USA), and Malaysia (Li *et al.*, 2005a; Zou *et al.*, 2008; Babatunde *et al.*, 2015). In the USA, private sector partners take on increased responsibility for road designs, construction, and financing to deliver large-scale transportation infrastructure, particularly roads (Siemiatycki, 2009). The PPPs have also increased in Africa to facilitate various projects, particularly

water, education, and health because of the shorter payback period. These projects attract many investors. In essence, employing PPPs brings unique and improved implementation and management techniques. However, among other weak institutional mechanisms, these partnerships in some countries are a big challenge (United Nations Economic Commission for Africa, 2017).

In the East Africa Region, Kenya has benefited from PPPs at 29 percent, followed by Rwanda at 14 percent (African Development Bank, 2017). In Tanzania, the government is implementing PPPs with the PPP Policy Guides approved in 2009, the PPP Act 2010 (as amended), and the PPP Regulations 2020. The Tanzania National Roads Agency (TANROADS) plays a crucial role in overseeing road infrastructure projects in the country. The TANROADS and other relevant government agencies are responsible for identifying, developing, and implementing PPP projects in the road sector (URT, 2020). However, road infrastructure in Tanzania has not benefited from PPPs in comparison to the education, health, and water sectors (Mihayo, 2016; Swere, 2016; Kavishe *et al.*, 2018; Mgaiwa., 2016). Therefore, the contribution of PPPs to road infrastructure has remained minimal, particularly in the construction stage. Available literature indicates that most PPPs have been implemented in operation and service delivery (post-construction) (Komba, 2020). This raises the question; what are the challenges of PPPs in road infrastructure construction? and what is the way forward? That is the gap this study sought to fill.

### **Literature Review**

The government of Tanzania has made several efforts to enhance the private sector's participation in infrastructure

development through PPPs. Among other reforms, are establishing PPP policy, reviewing the institutional framework to accommodate stakeholder's constructive opinions, and creating awareness of the PPP concept (World Bank, 2016). However, PPPs have experienced many challenges with minimal contribution, particularly in road infrastructure (World Bank, 2019). Several studies related to PPPs have been conducted in the education, water, and health sectors because of shorter payback periods, leaving behind the transport sector, particularly the construction of road infrastructure. While there has been comprehensive documentation about the PPPs in different sectors of the Tanzanian economy, there is little empirical literature on road infrastructure. Therefore, this research was conducted to determine the challenges associated with PPPs in road infrastructure development and build a foundation for long-term success in PPP transport infrastructure projects.

There is no standard definition for PPPs, nations and different organs define PPPs in different contexts. In this study, the concept of PPPs entails an arrangement between the public and private sector entities, where the private entity renovates, constructs, operates, maintains, and manages a facility in whole or in part, following specified output specifications (PPP Policy, 2009). There are several approaches to explaining PPPs in project implementation and management. This study was guided by the theory of change which presents a "clear picture of the intended result from an action and explains how program activities and results are connected and contribute to the achievement of results at different levels" (Reeler, 2007). The theory of change implies that if the government implements a PPP project by inviting the private sector to develop an infrastructure, there is a clear possibility for transformation in that

economic sector. Numerous studies indicate that PPPs are a source of economic development, however, the adoption of PPPs in developing countries, among other things, is challenged by the limited knowledge and skills required for PPP practitioners during the feasibility and subsequent implementation process (Chileshe & Kavishe, 2021; Kavishe *et al.*, 2018; Mihayo, 2016). Nonetheless, competencies and framework models required in PPP projects differ according to the context and the nature of the organization in a given PPP project. A case study conducted on the Ministry of Work, Transportation, and Communication in Tanzania by George (2020) discovered that poor management skills in governance projects affect the implementation of PPPs in Transportation Infrastructure Projects.

The implementation of projects under PPPs is guided by a specific organization's governance policies and operations. The study further discovered that management greatly influences the effectiveness of road transport infrastructure. The study recommended the Ministry to provide adequate screening of staff to ensure that only those with expertise are engaged in PPP projects and the provision of quality training and workshops relevant to the Tanzania environment to enhance efficiency in the PPP projects and achieve expected results (Kavishe, & Chileshe, 2018).

Institution preparation and setup is another factor that enhances the effective and successful accomplishment of PPPs in all sectors, mainly the transport sector (Komba, 2020; Kavishe, & Chileshe, 2018). A study by Komba (2020) on PPPs and institutional setup in public transport service delivery, in the case of Bus Rapid Transit (BRT) in Tanzania, observed effective follow-up of institutional setups, including

accountability and conflict resolutions among the factors for effective PPP implementation. The study further discovered that the Dar es Salaam BRT, Dar Rapid Transit (DART) Agency, and Land Transport Regulatory Authority of Tanzania (LATRA) were doing their part as directed and instructed in the rules and regulations of PPPs. These include maintaining the BRT infrastructure, price regulations, and being accountable in their day-to-day public transport service delivery activities. This is among the outstanding achievements in strengthening PPPs. However, it must be remembered that the milestone in service delivery is still facing some setbacks. Thus, the current study explored the challenges and the way forward of PPP participation in road network infrastructure construction projects in Tanzania.

### **Methodology**

This study was qualitative in nature; hence this approach was employed to explore the challenges of PPP on road network infrastructure construction projects and the way forward. A case study research design was used to ensure the in-depth exploration of the information with why and how questions to capture feelings and attitudes that could not be gathered by quantitative research design. Semi-structured interviews, focus group discussions (FGDs), and documentations review were employed to gather information from the respondents.

The study utilized a non-probability sampling approach. A purposeful sampling technique was used to select a sample of twenty (20) respondents. Ten (10) were practitioners involved in road infrastructure projects' management from the private sector located in Dar es Salaam City. Furthermore, three (3) respondents were road experts working with TANROADS,

two (2) respondents were from the Ministry of Works and Transport (MoWT), and the other five (5) were transport infrastructure stakeholders from The Tanzania Road Association (TARA). This was so because the researchers intended to target a particular group of people with knowledge and experience in the management of road projects through PPPs to facilitate the capturing of pertinent information regarding the challenges of PPPs in road infrastructure, particularly in construction, and the remedial measures that can be used to alleviate those challenges.

Whilst primary data were collected through interview guides, and secondary data were captured from the published sources through documentation reviews (desk research). Data was analyzed using thematic analysis due to its reflexivity in making the researcher's subjective experience at the center of making sense of the data. The key informants were stakeholders from different institutions dealing with transport issues, particularly roads such as the National Institute of Transport (NIT), MoWT, and technical staff from TANROADS and TARA. Dar es Salaam City was chosen as the study area because it is where most road infrastructure projects and construction works are undertaken. To ensure the study's validity and credibility, the researcher spent enough time in the natural setting with respondents to collect relevant information through respondents' interpretation and experiences with the phenomena (Yin, 2019). The researcher used more than one source of data collection method to enhance the trustworthiness of the findings. A research permit was obtained from all institutes that data collection was obtained before data collection.

### **Results and Discussions**

#### **Challenges of PPP in road infrastructure management**

***Payback period***

During data collection, over two-thirds of the interviewed respondents and data from documentation reviews showed that PPPs are a viable avenue for the government to finance development projects, especially in the transportation sector. However, road infrastructure takes a long time to recover the cost of investment. Again, over two-thirds of all respondents from the interviews and FGDs revealed that private institutions preferred investing in short-term and quick-return projects to the transportation infrastructure whose long-term returns are associated with high risks. One respondent commented that:

*“Projects related to road infrastructure take too long to be completed. Most private institutions hesitate to inject their capital as they think that government might fail or take too long to recoup the investment capital injected in road projects” (Road Expert).*

These findings imply that most institutes are unprepared to develop road infrastructure due to long-term returns. These findings are consistent with those of Maposa & Munanga (2021) also revealed that financial risks are among the factors that lead to many investors not participating in road construction projects. In addition, in some cases Government taking too long to repay the investors in their invested capital contributes to the low participation of the private sector to participate in road PPP arrangements. Hence, partnering with public partners in road projects, to them, is entirely not desirable.

***Inadequate information regards to available opportunities on PPP projects***

During data collection, over two-thirds of the respondents pointed out that most private sectors had inadequate information about opportunities available in PPPs such as the avenues for unsolicited proposals to

undertake road infrastructure projects in the transport sector. During an FGD, it was revealed that:

*“Most investors lack proper information regarding opportunities in PPPs. We all know that information is power as it creates confidence to engage in any activity. However, in reality, little is known about how and why they have to engage in PPP projects, particularly in road infrastructure development” (Officer, TARA).*

This finding was also noted by Bengesi *et al.* (2016) and Kavishe *et al.* (2018) who reported that the lack of information regarding projects that need the involvement of the private sector in all sectors was a challenge for the implementation of PPPs. These findings imply that inadequate communication from the government limits the private sector from playing its role in community development. Again, data from the documentary reviews revealed that under the PPP regulations, procurement is done through both solicited and unsolicited bids. For solicited bids, a request for qualification is issued, and a short-list is determined that will be given a request for proposal. For unsolicited bids, the investor carries out a feasibility study that has to be approved, and competitive tender follows when the investor is given preference. The winning investor signs a contract with the contracting authority, in this case, TANROADS. However, over two-thirds of interviewed respondents from the private sector were not adequately informed. Perhaps if this knowledge/information could have been imparted to the private sector, it would have sensitized and enticed private parties to participate in the PPP projects.

### ***Inadequate capital market***

The inadequate capital market was also reported by interviewees as another challenge that hinders PPPs in most projects. During the FGDs, the PPP technocrats and stakeholders from both public and private sectors admitted that when it came to the transport infrastructure, financing the financial market (Money & Capital Markets) was burgeoning and nascent but could not adequately facilitate the implementation of road PPP projects. During the data collection, fifty percent of the respondents revealed that legislations were not favorable to investors and lenders as manifested in an unattractive debt–equity ratio to lenders. Again, data from the documentary analysis revealed that the funding for transport infrastructure projects depended on the extent of equity contribution, and the 70:30 ratio was preferred. These findings align with those of Freidina (2017) and Khmel & Zhao (2016) which also acknowledge less support from capital markets.

Eighty percent of the respondents from the FGDs and interviews admitted that no road network transport project had fully been implemented under the PPP arrangement. During the FGDs, one respondent pointed out that:

*“Up to this moment, Tanzania hasn’t started implementing a PPP project for road infrastructure. Nevertheless, a feasibility study is being completed for Kibaha–Mlandizi–Chalinze–Morogoro toll expressway. Maybe this project will be constructed under the PPP” (Officer from TANROAD).*

Another respondent added that:

*“The government is also preparing a Pre-Feasibility Report and Concept Note for Igawa -Uyole – Songwe-Tunduma (218 km) and Uyole – Songwe Bypass (48.9 km) Toll Road. If the Pre-*

*Feasibility Study Report is approved, a transaction advisor will be procured to prepare the Feasibility Study Report and Tender documents for Igawa -Uyole – Songwe- Tunduma (218 km) and Uyole – Songwe Bypass (48.9 km) Toll Road” (Officer from MoWT).*

Interviewees and focus group discussants pointed out that the private sector doubted the government’s loyalty in keeping up with its commitments and obligations as stipulated in PPP contracts. This observation was also presented by Maposa & Munanga (2021) who noted that the government, in most cases, remained in a dilemma of how to budget for the multi-year outlays required by PPPs without actually receiving multi-year allocations for those projects. This may, in turn, cause the government to default on some payments. Other challenges unpacked by this study included the government’s hesitation in agreeing to balance sharing risks, the lack of skilled and experienced negotiators in the public sector, the bureaucratic attitude, and the time taken in government decision-making. The findings align with those of Shibayeva *et al.* (2017) and Siemiatycki (2009) which revealed that the lack of skilled and competent manpower in all project procedures was among the challenges that continue to weaken the PPPs in the road projects infrastructure.

### **The way forward**

Analysis of the primary and secondary data obtained through interviews, FGDs, and document review implied that the availability of a clear PPP Policy and frameworks can encourage and entice prospective investors to partner with the government and other contracting authorities to implement PPP projects in the road infrastructure (Komba, 2020). This ensures the private parties of security, protection, safeguard, and assurance for the

investment capital they commit and puts into the PPP infrastructure projects. The study also noted that government officials' adherence to the country's code of ethics and principles of good governance are crucial in attracting private sector participation. Furthermore, joint ownership of contractual agreements and timeliness in decision-making are vital for PPP projects. Others are capital market development and developing confidence for the private sector to invest in long-term, high-risk projects with the goodwill of contributing to growth.

To accommodate more stakeholders' views captured during the study, to augur well with the recent reviews in the PPP Act CAP 103 RE 2018, and issuance of the subsequent PPP Regulations in 2020, the government of the United Republic of Tanzania has to continue creating a more enabling environment for PPP project implementation, including availing strong and supportive political leadership, appropriate institutional framework, PPP legislation, PPP Centre, enhancing Contracting Authorities PPP expertise, and creating accessible information bureau and database for PPP viable projects. A web-based portal should be formed from which private sector actors can conveniently access information on PPP projects. Moreover, the government must intensify capacity building and public awareness programs to stakeholders on all matters concerning the implementation of existing and potential PPP projects.

The private sector should commit to creating a shared understanding of the concept of PPPs as stipulated by the National PPP Policy and search for available PPP prospects. There should be a thorough, inclusive, comprehensive, and transparent procedure for procuring PPP projects in transportation infrastructure. Furthermore, there should be a competent

team of experts to monitor the development of project proposals and feasibility studies to set comprehensive public comparator tests on different projects. This will reflect the actual project costs (i.e., value for money) and set standards for private companies to follow. Efforts should be geared towards widening the capital market to accommodate capital flows across boundaries to support big projects. This should create an enabling environment for the establishment and growth of the local capital market, which will provide loan capital to investors in the private sector at competitive interest rates. The participation of the private sector in long-term PPP investments considers the project's viability - which depends on the assurance of reliable data for project appraisal. Thus, the government should improve the reliability and accessibility of statistics to ensure the proper identification of viable PPP projects. There should be a PPP mechanism for supporting local contractors in transportation infrastructure projects, including tax waivers on the importation of capital goods aimed at operationalizing such projects. These findings align with those of Bengesi *et al.* (2016) who insisted on support to local investors.

## **Conclusion**

Public-Private Partnerships have become a widely acceptable and viable financing model for infrastructure projects worldwide. Although most developing countries have not embraced PPPs compared to developed nations due to time, cost, and quality standards needed. From this research, it can be concluded that outlined challenges are limiting road infrastructure from benefiting available opportunities from PPP like other sectors. Again, due to its nature of complexity and the payback period of road infrastructure

private investors are hesitant to invest in projects that involve many parties which leads to bureaucracy. For road infrastructure to benefit from PPPs there is a need for an enabling environment. Among other projects, it includes creating a clear policy and regulatory framework encouraging investors to partner with the government to give them a sense of security in investments and provide transparency for the infrastructure projects. In other words, the government has to create a win-win situation for both parties for sustainable road infrastructure projects.

### Recommendations

The study recommends the government to strengthen the legal and regulatory framework to provide clarity, streamline approval processes, and address any inconsistencies in promoting innovative financing mechanisms. In addition, there is a need to explore alternative funding sources and develop financial instruments to attract private investment, improve risk assessment and management frameworks, and ensure a fair and balanced allocation of risks between the public and private sectors. This will improve risk assessment and management frameworks and a fair and balanced allocation of risks between the public and private sectors to attract different investors. Furthermore, investing in capacity-building programs to enhance the technical expertise and knowledge of relevant government agencies involved in PPP implementation is paramount. The study recommends future studies on road infrastructure construction projects management under PPPs using mixed study methods to strengthen these findings.

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