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BOTSWANA INSTITUTE FOR DEVELOPMENT POLICY ANALYSIS

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## BIDPA

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# TABLE OF CONTENTS

# ABSTRACT

In her quest to further graduate to the high-income status, Botswana seeks to invest more in infrastructure development for both productive and social use. An efficient and effective infrastructure provision is fundamental to excellent public service delivery and access. Sadly, Botswana, like many other world economies, has a challenge of having an infrastructure financing gap. One of the innovative ways to fill this gap is through public private partnerships (PPPs) with the capital market that has excess liquidity. Infrastructure PPPs are complex and capital intensive projects that require project finance experts to advise parties involved regarding returns and risks associated with each project. Various project-financing models can be designed to suit project specifications and they cannot be over-generalised for all PPP projects. Nevertheless, given the tight fiscal space, Botswana now, more than ever, should consider issuing PPP bonds and applying user changes model to finance economic PPP infrastructure for sustainable and inclusive economic growth.



**Keywords:** PPPs, capital market, project financing, Botswana.

**JEL classification:** E44, E47, E62

# 1 INTRODUCTION

Botswana is one of Africa's stable, peaceful, independent and democratic countries that graduated to the upper middle-income status. In her quest to further graduate to high-income status, Botswana seeks to invest more in infrastructure development for both productive and social use. Efficient and effective infrastructure provision is fundamental to excellent public service delivery and access. Sadly, Botswana, like many other world economies, has challenges of infrastructure development, including insufficient funds, poor planning and project selection, lack of implementation capacity, inefficient and ineffective service delivery, as well as inadequate maintenance of infrastructure. Furthermore, negative impacts on growth caused by the global financial meltdown and other macroeconomic environmental challenges associated with the attainment of the upper middle-income status (such as withdrawal of donor funding) led to reduced concessional financing and tight fiscal space. Moreover, instability in foreign markets for diamonds (which are the highest revenue earner for Botswana) reduced revenue collections and heightened foreign currency risk. There is also a disturbing trend of fiscal deficits in recent years. Thus in Botswana, provision of infrastructure using public finance alone is not sustainable in the long run, since significant financial resources are needed to construct new infrastructure, as well as maintain and upgrade the existing ones. Government should, therefore, seek support and contribution from other sectors of the economy, such as the private sector, to procure and finance infrastructure development. One of the ways in which government can collaborate with the private sector in infrastructure provision whilst maintaining fiscal stability is through Public-Private Partnerships (PPPs). PPPs can be used particularly to procure and finance both economic and social infrastructure that require large outlays of funds, such as hospitals, government offices, schools, railway lines, highways, water, electricity, bridges and sewage.

Several definitions of PPPs are given in the literature. Grimsey and Lewis (2002) define PPP projects as arrangements whereby private parties participate in, or provide support for, the provision of infrastructure, and a project results in a contract for a private entity to deliver public infrastructure-based services. In the European Union, PPP arrangements are defined as forms of cooperation between public authorities and the world of business, which aim to ensure the funding, construction, renovation, management or maintenance of an infrastructure or the provision of a service (European Commission, 2004). The South African National Treasury defines PPP as a contract between a public sector institution and a private party, in which the private party assumes substantial financial, technical and operational risk in the design, financing, building and operation of a project (SANT, 2004). According to the International Monetary Fund, PPPs are arrangements where the private sector supplies infrastructure assets and services that traditionally government provided (IMF, 2004). The Botswana Government (2019) defines in detail PPP as "a contractual arrangement between a governmental institution and a private party whereby the private sector party provides public infrastructure and/

or infrastructure related services and where the provision of such infrastructure and/ or infrastructure related services is:- (a) Based on measurable output (end result) specifications; (b) Governed by a payment mechanism that provides payment only on delivery of services at required standards; (c) Accompanied by a transfer of financial and operational risks with consequential financial effects; and (d) Demonstrates Value for Money to Government."

PPPs have not yet gained prominence in Botswana in spite of their advantages. Proponents of PPPs argue that PPPs drive economic growth and they can be used to solve development problems (Montanheiro, 2014; Botlhale, 2016). The PPP model allows the government to focus the scarce public resources on areas not covered by PPP projects (Guasch, 2004; Engel, et. al., 2009). The PPP procurement model provides higher value-for-money and boosts efficiency (Cruz and Marques, 2011). They further argue that PPP arrangements have the merit of bringing competition to infrastructure provision. Moreover, PPPs have added advantages of pooled resources in financial, managerial and technical expertise that can enhance infrastructure development needed for public service delivery (Grimsey and Lewis, 2002; European Commission, 2004; SANT, 2004; IMF, 2004). Thus, PPPs give access to additional sources of long-term investment finance, private sector analysis, innovation, incentives and project life cycle management.

Botswana depends heavily on external debt to finance its infrastructure developments, backed up by diamond revenues. However, the economy has changed to slow growth of diamond revenue and limited external debt allowance. One of the country's fiscal rules dictates that the level of public debt be limited to 40% of GDP, of which 20% at most could be domestic debt and 20% at most could be external debt. Domestic debt as a ratio of GDP stood at 6%, 6%, 8% and 8% in 2015/16, 2016/17, 2017/18 and 2018/19 financial years, respectively, compared to 17%, 14%, 17% and 15% for external debt during the same respective periods (MFED, 2018). Thus, Botswana faces two main challenges in sustaining infrastructure financing outside the Consolidated Fund[1]; firstly, the need for significant domestic capital debt and, secondly, the need for funds to periodically repay such debt. PPPs have the potential to overcome such challenges. Through PPPs, domestic resource mobilisation may be made easy. The domestic resource mobilisation approach refers to the use of domestic public and/or private savings for economic development investments (Aryeetey, 2009). The success of

1 *According to Botswana Constitution Chapter VIII, all revenues or other moneys raised or received for the purposes of the Government of Botswana (not being revenues or other moneys that are payable by or under any law into some other fund established for a specific purpose or that may by or under any law be retained by the department of Government that received them for the purposes of defraying the expenses of that department) shall be paid into and form one Consolidated Fund (Botswana Government, 1966).*

the domestic resource mobilisation approach is mainly based on an assessment of project cost, risk and return to the investor. Fortunately, there are various project financing techniques that can be used to assess costs, risks and associated returns prior to finalising PPP contracts. The higher the risks, the higher the returns; and all projects with negative returns are rejected outright. Project financing techniques are commonly used by international capital market investors (even locals) to select profitable investments. Local capital market players hold most private savings in the form of bank savings, pension and insurance funds. Unfortunately, investment opportunities in Botswana are limited; hence, local capital market players are currently engaged in cross border investments. Therefore, creating PPP financing models that will channel the existing domestic private savings from the capital market towards economic infrastructure capital investments in Botswana may lessen Government's financing burden and contribute towards inclusive and sustainable economic growth. Thus, PPP projects can be financed using direct loans, bonds, and other financial instruments as deemed appropriate. The PPP Policy and Implementation Framework (Botswana Government, 2009) acknowledges in sub-section 3.7 that *"Furthermore, involvement of the private sector, particularly citizen companies, in public service infrastructure provision enhances the role of the private sector in the economy of Botswana. Accessing private sector financing will develop and strengthen the Botswana financial capital markets and may stimulate additional foreign direct investment."*

Periodic debt repayments can then be financed through unitary payments and/or user charges. (Ireland Government, 2002). The unitary payment model implies that government itself repays the private sector loan that financed the PPP project; whilst under a user charges PPP contract, private sector debt repayments are made from collections of user fees (for example, road tolls). Whilst applying the user charges approach, government subvention can be added in case user fees collected are not sufficient to cover the loan repayment. The few PPP projects implemented in Botswana applied the unitary payments model instead of the user charges approach. The unitary payment model was suitable for the completed PPP projects, since those projects were used to provide office accommodation to government employees. However, provision of public infrastructure, such as roads, water, and electricity, can be financed through PPP user charges since the public can pay user fees directly to the private financier and eventually pay off the debt, instead of using the limited public funds.

The problem identified by this study is that the Botswana Government has given less consideration to PPP bond financing; but yet capital market funds are available and suitable for the long term financing needs of infrastructure investment. This study, therefore, seeks to find out ways in which the capital market can finance PPPs in Botswana.

Specific objectives for the study are to find out:

1. How much has been achieved in promoting PPPs in Botswana and why?
2. To what extent did the capital market finance PPPs in Botswana?
3. What can be done differently to promote the capital market's contribution to PPP financing in Botswana?

This paper is arranged such that section 2 presents literature review. Section 3 describes the study's methodology. In section 4, the author/paper presents findings and discussions. Section 5 demonstrates lessons learnt from other countries and, finally, Section 6 presents conclusions and policy implications drawn from the study.

# 2 LITERATURE REVIEW

## 2.1 Past Studies

Few studies on PPPs in Botswana exist (Botlhale, 2016; Molokwane and Tshombe, 2017). Botlhale (2016) used a desk survey methodology (secondary data) to argue the general importance of using PPPs in Botswana for economic development. He argues that the slow growth of PPPs and poor infrastructure provision in Botswana over the years is a result of a constrained fiscal space, weak legal-institutional framework, government inefficiencies in project implementation and lack of a favourable and an enabling environment for PPP operation (poor work ethics, inefficient government bureaucracy, and inadequately educated workforce). Molokwane and Tshombe (2017) presented a case study that demonstrated how PPP service contracts could be used to improve service delivery of the Water Utilities Corporation, in order to provide water to Lobatse town dwellers and surrounding villages. There is a dearth of literature that focus on Botswana's PPP funding models even in the wake of fiscal constraints faced by the country. This study, therefore, seeks to fill in the literature gap.

## 2.2 PPP Policy Documents Review

There are several policy initiatives taken by the Botswana Government over the years towards the development of PPPs. Major policy initiatives include: the adoption of the Privatisation Policy in 2000 (Botswana Government, 2000), the PPP Policy and Implementation Framework in 2009 (Botswana Government, 2009), establishment of the PPP Unit in 2016 and the 2012-2016 Financial Sector Development Strategy[2] (Botswana Government, 2012). The 2000 Privatisation Policy aimed at providing an optimal balance between the public and private sector contributions to achieve sustainable economic growth. The Privatisation Policy acknowledged PPPs as one of the strategies to engage the private sector in providing public infrastructure and related services. Notwithstanding this, in those years, the country was not desperate for financial resources since Botswana had fiscal surpluses and GDP growth was high. Since independence, Botswana's developments were government-led, using public institutions, public employees and public revenues. Therefore, privatisation was mainly adopted to promote efficiencies in public service delivery and strengthening a culture of citizen participation (private sector and individuals) in economic development.

In spite of the adoption of the Privatisation Policy, it seems Botswana has a cautious approach to engage in PPP projects. After the adoption of the Privatisation Policy in 2000, it took almost ten years to develop a PPP Policy and Implementation Framework in 2009; and only recently in 2016 did Government establish a PPP Unit (as the coordinator of PPP projects) in the Ministry of Finance and Economic Development. Specifically, the PPP Policy and Implementation Framework aimed at creating a conducive environment that would encourage and attract private sector investors to play a greater role in procuring and financing infrastructure projects. The PPP Policy and Implementation Framework re-iterates the need for private sector participation in sub-section 3.5, which reads, *"PPPs are important in the context of the Botswana economy in terms of the strategic and operational choices they offer to Government. They are strategic in the form of fostering economic growth by developing new commercial and investment opportunities for citizen investors, foreign direct investment, and increasing competition in the provision of public services. They are operational in terms of providing opportunities for efficiency gains in the form of better quality and more cost effective delivery of services by private sector participants."*

2 *It is not yet known whether the Botswana Government has formally adopted the 2012-2016 Financial Sector Development Strategy or not.*

Another policy instrument formed in relation to PPP developments in Botswana was the 2012-2016 Financial Sector Development Strategy (FSDS). The FSDS particularly made commitments to actively engage the capital market investors in the developments of PPPs in Botswana. Sub-section 4.27 of the FSDS reads, *"The Government will also focus attention on capital market development outside of issuing its own bonds by ensuring that this objective is factored into its own future investment projects and those of parastatals and companies where the Government has a significant ownership stake. To date, the Government has made very limited use of Public Private Partnerships (PPPs), and major government-sponsored investment projects have often not provided financing opportunities for local investors. In these circumstances, it is not surprising that there is so much excess liquidity, or that pension funds invest extensively offshore. In the future, parastatals undertaking major investments in infrastructure, power supplies, etc. will be strongly encouraged to include domestic bond issuance as part of the financing for such projects."* Furthermore, the FSDS in sub-section 4.29 explains, *"The funding component of PPP projects will be designed to provide investment opportunities for a variety of capital market participants, and to further develop the market. This will include pension funds, insurance companies, banks, individuals, and foreign investors. The structuring of PPP funding will, therefore, include direct loans, bonds, and other financial instruments as appropriate."*

Sub-sections 4.27 and 4.29 of the FSDS (referred to in the paragraph above) clearly demonstrate that Government is aware that the capital market can provide alternative financing mechanisms for PPP projects, rather than only relying on the Consolidated Fund. Actually, the FSDS position strengthened the PPP Policy and Implementation Framework argument for using private sector resources, as stated in FSDS sub-section 3.6 that *"By entering into a PPP, the delivery of a public service infrastructure is enhanced by accessing the private sector's financial, managerial, professional and technical expertise. The necessary maintenance and operation of this infrastructure is also enhanced by private sector resources. This allows public services to be delivered more efficiently, which allows Government resources to be channelled into other areas where direct public investment and intervention is required."* Moreover, this initiative of using capital market funds towards PPPs was in line with the literature, which argues that the competition and the scrutiny of the capital markets done by the private sector make the use of capital resources more effective (Guasch, 2004; Engel, 2009).

The FSDS suggested that companies and parastatals where the Government has a significant ownership stake should raise funds for their PPP investment projects through the local capital market. In that way, funding of PPPs is expected to provide new investment opportunities to a variety of capital market participants, deepen and diversify the capital market, whilst at the same time enabling Government to deliver public infrastructure efficiently. The sustainable financing approach of using cash flow generated from infrastructure projects through user fees is not common in Botswana. Therefore, both government and private sector efforts are required to promote it.

## 2.3. PPP Financing Models

Countries develop project finance models for infrastructure investments that are unique to each country (Eduardo, et al., 2010). Traditionally, the Government of Botswana, as the contracting authority, also had the sole responsibility of being the financier of infrastructure projects since in the earlier periods the private sector was less developed than it is now. As a result, all cost over-expenditures, time delays and any other associated risks were borne by the Government. This traditional approach was limited and resulted in low coverage, poor quality and low reliability of infrastructure. However, most countries changed and engaged private sector resources in infrastructure development (PPPs). They also adopted a project-financing approach towards infrastructure investments. The shift towards project financing models meant that the financing burden is shared between government and the private sector and, as a result, project risks are also shared accordingly (Brealey, et al., 1996). In that way, PPPs enable government to fast-track infrastructure development, especially when government has insufficient funds, is over-indebted and lacking in skills at the time the infrastructure is needed.

There are different types of PPP projects as detailed in Annex 1. The same table also illustrates that ownership of PPP assets can belong to either the public or private sector, depending on contractual agreements. Similarly, project-financing models for PPP projects vary depending on contract specifications and loan repayment structure (Ireland Government, 2000). Capital amounts can be sourced from private investors through direct loans, bonds, and other financial instruments deemed suitable. Periodic repayments can then be made through: (a) user charges and/or (b) unitary payments. User charges are agreements that authorise the private sector (project financier) to recover project costs through collection of user fees from the public as payment for using the infrastructure over an agreed period of time. For example, payment of road tolls. In cases where user fees are not sufficient to repay the agreed instalments, the contracting authority (government) supplements and pays subventions to the private sector. On the other hand, the PPP unitary payments model refers to a PPP contract in which the private sector finances infrastructure projects (assets or services), but then government fully repays the project costs and no user fees are charged to the public. The unitary payments approach is usually applied for usage, availability and service provided by the PPP asset. Usage implies that government will pay the private sector depending on how much of the asset was used. Availability means that government will pay the financier when the infrastructure is made available as and when needed and it meets the agreed standards. Service payments made to the private sector depend on whether the service delivered is according to set quality standards.

Even though Botswana, like any other country, has an option of using user charges towards PPP infrastructure financing, the country has not yet fully taken advantage of this financing model. The PPP Policy and Implementation Framework sub-section 6.3 clearly states, "*This Policy requires that MFED recognises the financial commitment to pay the Unitary Charge for the duration of the PPP project life. It may be necessary to amend the current annual budgeting process*." If Botswana could charge user fees in some projects, it might remove the financing burden from the near-term government budget and take advantage of the long-term financing structure of the capital market that spreads costs of investments over a longer period. Thus, Government will then focus the limited public resources available to projects that cannot be financed through this model. Notwithstanding this, applying user charges in infrastructure provision over and above unitary payments in Botswana will call for several changes in the current institutional framework, culture and public mind-set that are dependent on infrastructure provision at government's cost.

## 2.4. Determinants of Infrastructure PPPs and their Associated Risks

Successful implementation of PPPs in infrastructure provision depends on several factors, such as an effective procurement system, project implementability, government guarantee, favourable economic conditions and available financial markets (Hardcastle et al, 2005). Sharma (2012) adds that infrastructure PPP projects are attracted to large market size, high incomes, macroeconomic stability, quality regulations and good governance. Botswana has very favourable economic conditions characterised by macroeconomic stability, quality regulations and good governance based on democratic principles. Moreover, Botswana's financial markets are available and ready to invest in infrastructure PPPs. Thus, Botswana has potential to successfully engage in infrastructure PPPs.

Certain risks that can hamper infrastructure PPPs have been identified in literature (Ireland Government, 2000; Bennett and Iossa, 2006; Meda, 2007; Cruz and Marques, 2011) as:

(a) Usage risks – potential users of a PPP infrastructure may not use such an asset in order to avoid the associated user charges. The public may rather choose to use an alternative asset if it is freely available for use.

(b) Production risks – forecasted user charges may not be sufficient to cover production costs such as planning, design, expropriation, construction, environmental, maintenance and major repairs, operation, technological and performance. To counter this risk, governments as contracting authorities often issue risk-free cash flow guarantees to the private financiers of PPP projects

(c) Commercial risks – user fees charged may not maximise returns nor achieve project intentions. For example, failure of road tolls to reduce traffic congestion. In addition, lack of capacity to deliver the required service and tight market competition may render the PPP asset less useful.

(d) Institutional risks – government policies that lack clarity and commitment to user charges application, exemptions and special treatments of certain groups of the population may hinder the implementation and success of PPP projects. Legal instruments that do not strictly enforce payment of user charges may lead to poor fee collections and failure of PPP contracts.

The Government of Botswana recognises these risks and the FSDS states, "…*PPP contracts are complex and need to be carefully designed so as to provide appropriate risk-sharing, rewards, and incentives, and to limit the fiscal commitments and contingent liabilities to the Government."* FSDS sub-section 4.28 says, *"The Government is strengthening a PPP unit in Ministry of Finance and Development Planning (MFDP) which will focus attention on these opportunities and help develop PPP approaches and contracts for the financing of suitable development projects. A robust programme will be developed which will: strengthen the legislative and institutional framework; support government processes for identifying bankable PPP projects and undertaking adequate upstream project development and preparation; and develop an effective PPP fiscal risk management framework. Government infrastructure bonds associated with individual projects that are commercially sound will be actively considered. The PPP guidelines will be reviewed and revised to strengthen them."* Furthermore, FSDS made a commitment to carry out appropriate public education campaigns to build awareness on capital market involvement in PPPs.

Exposure to these risks often causes both the public and private sector to demand full gains from the PPP contracts (Cruz and Marques, 2011). To some extent, using the project-financing technique, especially with the capital market as financiers, may help to overcome some of these risks. The market has financial management expertise in debt allocation and cost recovery as well as in project evaluation. Therefore, such selection techniques will enable rejection of projects with predicted negative cash flows and no break-evens.

# 3 METHODOLOGY

This is a qualitative study based on different data collection methods. Primary data collection method was applied in order to obtain in-depth knowledge of PPPs operations in Botswana from key informants using semi-structured interviews with open-ended questions. PPPs and capital markets are very technical subject areas that require certain expertise; therefore, a purposive sampling technique was used to select key informants responsible for ensuring PPP coordination and implementation, capital market players representing market regulators, investors, and banks. Secondary data collection (desk-top review) was used to review related literature based on past studies and Botswana's PPP policy documents. Key documents reviewed are the PPP Policy and Implementation Framework, 2009 and the 2012-2016 FSDS; and lessons were drawn from other jurisdictions that Botswana can use as a benchmark. Botswana aspires to be a developed economy; therefore, lessons on the PPP financing models were drawn from the developed nations of Australia, the Netherlands and Scotland. Developed nations have an added benefit of mature public and private sectors characterised by sound institutions with strong legal and regulatory frameworks that can provide good lessons for aspiring countries such as Botswana.

# 4 FINDINGS AND DISCUSSIONS

Findings of this study are according to the study objectives. The literature reviewed and stakeholders' interviews revealed the following findings.

## 4.1 How much has been achieved in promoting PPPs in Botswana and why?

Literature review has shown that there has been some achievement in promoting PPPs in Botswana, especially in PPP policy formulation. Policy documents reviewed demonstrate Government's acknowledgement of the important role of PPPs in infrastructure development. Since the formulation of the PPP Policy and Implementation Framework in 2009, only two PPP projects were achieved, being the Ombudsman and Land Tribunal Office Accommodation Project and the SADC Headquarters Office Accommodation Project. The Ombudsman and Land Tribunal Office Accommodation Project was a ten-year project that started in 2008 and it was handed over to Government in 2017. The project was funded by the private sector; and it comprised of office accommodation for 90 employees. Construction was completed within schedule (16 months). The unitary payments approach was used to repay the project cost. The SADC Headquarters Office Accommodation Project was targeted at providing office accommodation for between 250 and 400 SADC employees. Even though the construction is complete, the contract is still ongoing. Similarly, the project is based on the unitary payments model (responsibility of SADC member states), but the Botswana Government is only a guarantor (MFED, 2020). That is in case SADC member states fail to pay the unitary payment; the Government of Botswana will pay on their behalf and seek re-imbursement. This minimal achievement in PPPs demonstrates that implementation of the formulated PPP policies and strategies are still lagging behind in Botswana.

Interview respondents gave several reasons for PPP underperformance in Botswana. Lack of political will and commitment in driving PPPs is highlighted as one of the reasons for the limited current achievements. The private sector also seems to not be aggressively pursuing this opportunity, possibly because of fear of poor implementation capacity when dealing with government. The weak legal-institutional framework, poor work ethics, inefficient government bureaucracy and inadequately skilled workforce discourages private sector engagements in PPP deals. Limited understanding of infrastructure PPPs, lack of technical expertise in project financing techniques and lack of expert capacity for rigorous project evaluation are also highlighted as some of the causes of delays in PPP policy implementation. During the interviews, arguments were that Government views PPPs with a bit of disdain, because of misunderstanding of the costing parameters. PPPs work on a total cost basis, factoring in everything associated with the delivery of a project (like consultation/professional fees, arrangement fees, lending fees, construction fees, management fees, and others). The respondents further argued that often, Government would make comparisons on construction costs alone and not on total costs as charged by the capital market and that this approach by Government has created an impression that PPPs are expensive. Notwithstanding, Government has long had the capacity (Planning Officers' Manual) for rigorous project evaluation but the Manual may not be sufficient for PPP projects evaluation. Specifically, the FSDS revealed, *"…investments totalling around P40 billion (around 40 percent of GDP) in power generation infrastructure and mine developments have recently been undertaken by Botswana Power Corporation, Morupule Colliery, and Debswana, all of which are fully or partially government owned. Local financing opportunities were limited to bank loans of just over P1 billion (for Morupule Colliery), and there have been no bonds issued or investment opportunities for pension funds or other institutional investors; financing was largely from government or shareholder equity, or offshore loans…"* This explains stakeholders' frustrations that Botswana has not totally embraced the benefits of PPPs as evidenced by their infrequent use and the Government's current lack of commitment as shown by its reluctance to issue more ultra-long debt instruments to promote PPP infrastructure.

## 4.2 To what extent did the capital market finance infrastructure PPPs in Botswana?

The local capital market financed both the Ombudsman and Land Tribunal Office Accommodation and the SADC Headquarters Office Accommodation projects. Both projects applied the unitary payment approach.

## 4.3 What can be done differently to promote the capital market's contribution to PPP financing in Botswana?

Interview respondents are of the view that the local capital market is liquid enough and ready to invest in PPP projects and to help the Government in its endeavour to fund infrastructure; but the perceptions on the government side need to change to improve the entire concept of PPPs in Botswana. The interview respondents argue that legal and institutional framework support is very necessary, as well as well-drafted agreements that clarify allocation of risk and responsibilities. Respondents further explained that the funding approach is circumstance and facts-dependent. Economic PPP infrastructure (and not social infrastructure) would typically be ideal candidates for bonds capital finance type of deals wherein the debt repayment would come from the usage cash flows generated from the asset. Changing the potential economic infrastructure projects in Botswana, such as roads, so they could be pursued as economic PPP projects would take unprecedented political will, as well as cultural and mental transformation. However, it is possible. PPP financing for social infrastructure would ordinarily be from government revenues and taxes. However project-specific bonds can still help in this instance with the interest payment coming out of the government finances, but spread over a longer tenure. The Botswana Stock Exchange platform exists and it facilitates the raising of long-term capital for public or private sector entities in accordance to set capital market standards and the subsequent secondary trading of the issued securities. Thus, capital markets in general can play a key role in the raising of capital for all entities engaged in PPPs, if the partnership terms allow. Nonetheless, there is need for in-depth public private engagements to determine what the private sector's expected rate of return for doing PPPs would be and how that compares to the Government's opportunity cost of capital over the project life, if it wants to implement the project itself.

# 5 LESSONS FROM OTHER JURISDICTIONS

Botswana can learn from other countries identified by this study (Australia, the Netherlands and Scotland). The case studies are presented below. Even though these countries are developed nations, Botswana, as an upper middle-income country aspiring to be a high-income country, can draw some lessons towards developing its infrastructure PPP financing models. Botswana should benchmark from advanced countries with mature industries, efficient and effective PPP investment and financing models and avoid falling into traps that other developing countries are experiencing such as poor planning and implementation.

## Australia Case Study

Botswana can learn some important tips from the Australia case study (refer to BOX 1), including that PPPs can be used to improve the quality and efficiency in public service delivery, such as the national transport system. The PPP project reduced road congestion in Melbourne, especially on roads leading into the city centre. The project was a concession based on user fees and the government provided no additional subsidies, but rather reduced market competition for the private sector since no competing road system was allowed. Thus, clear contractual agreements minimise risks for both the public and the private sector. Another lesson is that project-financing techniques can be adapted to seasons when there are changes in traffic flows that can affect fees charged. Botswana's major cities suffer from traffic jams just as Melbourne did. Therefore, benchmarking from this model may help Botswana.

## BOX 1 Australia Case Study

Melbourne City Link

This £720[3] million project is the largest road project in Australian history. It links existing motorways that terminate at the city fringe and its aim is to significantly reduce journey times into the city centre and divert through traffic out of the city centre area. It comprises 22 kilometres of road works, an elevated six-lane bridge, and two three lane tunnels. The project is a Build, Own, Operate, Transfer (BOOT) scheme, and the Contractor is to finance the capital costs of the project through the collection of tolls from users of the facility. The project includes the world's largest electronic tolling system, with frequent users requiring a tagging device that will be used to deduct tolls from a pre-paid account. Occasional users will be able to buy day passes at garages and other retail outlets. Tolls for cars are less than 50 pence for the shortest journey and are capped at £1.50 for a single continuous journey irrespective of length. Tolls may be increased each quarter, but the increases are capped at the lower of either 1.065 per cent or the increase in the general inflation index. There are no government operating or debt subsidies and the concessionaire has accepted the risk of reductions in traffic volumes and associated toll revenues arising from incorrect traffic flow projections, adverse economic conditions, changing travel patterns and habits, and increases in the price of petrol. However, this risk is to some extent mitigated by State undertakings that it will not build a competing road system, and that associated freeways and principal traffic routes will be managed in a manner that maintains City Link as a central part of the road network.

Source: Ireland Government (2000) Are all the case studies from the same source, by Government of Ireland? This is what I observed; same source for all 3.

3 The source, Ireland Government (2000) translated the Australian currency (AUD), to the British Pound and Pence.

## The Netherlands Case Study

The Netherlands case study presented in BOX 2 is an illustration of an unsuccessful PPP. The project was a concession guaranteed by government. We learn that the actual output of the PPP project may not be as expected. This project shows that PPP contracts can fail to achieve what was initially intended and end up costing government some significant funds, which would otherwise have been used profitably in other development projects.

**BOX 2 The Netherlands Case Study**

The Wijker tunnel project, completed in 1993, was one of the first projects undertaken in the Netherlands using private finance. The risk transferred to the private sector was limited by a government guarantee in relation to traffic flows. The guarantee resulted in the public sector providing much greater funding than was originally anticipated, and the project became regarded as a failure as it did not offer value for money.

Source: Ireland Government (2000)

## Scotland Case Study

Lastly, we analyse the Scottish case study (detailed in BOX 3). This PPP project's objective was to solve the congestion problem by offering a private bridge. It was financed through a combination of user fees and unitary payments. This project demonstrates a very complicated PPP financing model that requires high expertise in project financing. The contractual management of the project was based on transparency and accountability, since the government's engineers were given access rights to the bridge to check its condition and to verify that the agreed inspection and maintenance programmes were being conducted to the agreed standards. Botswana can learn from this case study that successful PPPs require detailed planning, transparency and accountability from both the public and the private sector.

## BOX 3 Scotland Case Study

The objectives of the Scottish Office of Development Department in taking forward the Skye Bridge project were: early delivery of a privately tolled crossing to solve the problems of congestion and delay associated with the existing ferry service; satisfactory design of the crossing, taking into account the sensitivity of the environment; to finance the bridge through user tolls, set at an amount no greater than the existing ferry fare linked to inflation, with government funding the approach roads; and to achieve value for money through a tender competition for a Design, Build, Operate and Finance (DBOF) contract for the provision of the crossing, including the design and build of approach roads. The Department signed a contract with the Skye Bridge Limited consortium in 1991. Under the terms of the PPP contract, Skye Bridge Limited is responsible for constructing and maintaining the crossing, and is reimbursed through the collection of toll revenues. The Department is responsible for the capital and maintenance costs of the approach roads (capital cost of £6 million at 1991 prices), and for covering the cost of design changes and time delays resulting from the public inquiry (£3.8 million at 1991 prices). The contract period is limited to a maximum of 27 years, or as is expected to be the case, for a shorter period (currently expected to be some 14 to 18 years), until the total toll revenue collected by Skye Bridge Limited amounts to some £24 million (measured in constant 1991 prices and discounted to the 1991 base year over the lifetime of the project). The 27-year maximum concession period was established as the period required for the company to collect enough revenue to recover its total forecast costs, on the conservative assumption that traffic levels remained unchanged at 1990 levels. Skye Bridge Limited has accepted demand risk on the understanding that tolls may be increased by up to 30 per cent more than the rate of inflation, should actual toll revenue fall below an agreed threshold after 1997. However, in the first year of operation to October 1996, traffic levels were some 16 per cent greater than the previous year's ferry traffic. It is therefore considered very unlikely that toll revenues will need to be increased by more than the rate of inflation during the period of the concession contract. Under the terms of the concession, Skye Bridge Limited must supply the Department with annual revenue forecasts and quarterly reports on actual toll revenues and traffic flows. The Department has access rights to inspect and to audit the company's financial procedures. Skye Bridge Limited is also required to maintain the bridge in a serviceable condition, having regard to its 120-year design life, for the duration of the concession. The Department's engineers have access rights to the bridge to check its condition and to verify that the agreed inspection and maintenance programmes are being conducted to the agreed standards. In the event of a serious deterioration in the financial viability of Skye Bridge Limited, or its failure to comply with any of its obligations, the Department is entitled to terminate the agreement and to take control of the bridge. Ownership of the bridge is vested with the Secretary of State throughout the duration of the contract.

Source: Ireland Government (2000)

# 6 CONCLUSIONS AND POLICY IMPLICATIONS

## 6.1 Conclusions

Botswana is experiencing a very tight fiscal space arising from both internal and external environments. There is an existing infrastructure-financing gap and, as a result, quality infrastructure investment is compromised. The private sector is considered a key stakeholder in economic development and, therefore, Government has formulated privatisation and PPP policies and strategies in order to facilitate private sector contribution. Nevertheless, this study confirms past studies' findings that policies and reforms aimed towards PPP developments in Botswana are not implemented mainly because of government inefficiencies. An enabling institutional and legal framework is vital to the success of PPPs. Traditional models of financing infrastructure projects through unitary payments is not sustainable in the long run, given Botswana's current macroeconomic challenges of reduced mineral revenue collection and fiscal deficits. The capital market in Botswana has excess liquidity that can be harnessed for PPP infrastructure development. Even though funds are often invested abroad for risk diversification reasons, in Botswana, the market mainly invests its savings across borders because there are no profitable investment opportunities offered locally. PPPs offer the Government an alternative of using project-financing techniques that enable risks associated with infrastructure developments to be shared between the public and the private sector. This approach encourages the use of private sector finances and repayments of debt to be made from user charges, supplemented by government subventions in cases where user charges are not sufficient to repay the project cost. Typically, income-producing infrastructure is the most ideal for user charges based PPPs. The type of infrastructure suited to user charges structure would be toll roads, fibre networks, airports, railways and similar others.

## 6.2 Policy Implications

This study has six main policy implications: (1) there is need for Botswana to fully utilise the PPPs approach for infrastructure development; (2) Botswana should consider introducing user fees for infrastructure project usage in order to improve service delivery efficiencies, encourage equity financing and lessen the current Government burden; (3) Education campaigns on PPPs, especially the application of user charges, should be deliberately targeted towards politicians, policy makers and the general public to build awareness; (4) Government should take advantage of excess liquidity in the capital market and create investment opportunities in infrastructure development; (5) There is need to build capacity and expertise in the PPP office and promote collaborations with the capital market that will facilitate formulation of various project financing models for PPPs. Suitable project financing models can relieve Government of the financing burden that can otherwise be shared with the private sector, especially the capital market; and (6) Botswana should benchmark from advanced countries' efficient and effective PPP approaches and financing models that may lead to sustainable and inclusive economic development. All in all, PPPs are complex contracts and mainly require legal and project finance experts to advice parties involved regarding benefits and risks associated with the projects. Various project-financing models can be designed to suit project specifications and not be over-generalised for all PPP projects. Botswana does have potential to promote PPPs for infrastructure development.

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## Annex 1--- Types of PPP Projects

| Types of PPPs | Description | Legal ownership of assets |
|---|---|---|
| Public Work Contracts | The private sector only performs pre-determined tasks to the service provider, with no responsibility for the final service quality. | Public |
| Technical Assistance | A continuum of contracts exists between the private and public sectors to ensure an adequate quality level in a sub-system. | Public |
| Sub-Contracting or Outsourcing | The public sector contracts a private company to ensure a certain service, for which the private sector is entirely responsible. | Public |
| Management Contracts | Based on a set of objectives and targets, the private sector manages the service for the "owner". | Public |
| Leasing (Affermage) | The private sector assumes at its own risk the provision of the service, for which the public sector pays a lease fee. The private sector is not responsible for making investments. | Public |
| Build Operate and Transfer | The private sector is responsible for providing the service, and for financing the investments required. After the concession period, the assets return to the public sphere. | Public |
| Build, Operate and Own | The same as BOT, but without the transfer at the end of the period. | Private |
| Divestiture | Complete transfer of assets from the public sector to a private entity. | Private |
| Design, Build, Finance and Maintain Contract | The private sector provider is to provide and maintain the asset/infrastructure, but not to operate it. This is likely to be used to provide schools and similar infrastructure. In such cases, the public sector will want use of the asset, but will not require that the private partner provide the attendant service; e.g., in the case of a school, the public sector or the relevant patron would employ the teaching staff. | Public |

| | | |
|---|---|---|
| Design, Build, Finance, Operate and Maintain | The private sector to replace the public sector for the duration of the contract. These PPPs require the private sector to both provide and operate the asset/infrastructure. In the case of a water treatment plant, for example, this would require the private sector to staff the plant to ensure service delivery on behalf of the public sector contractor. | Public |

Source: (Ireland Government, 2000; Botlhale, 2016; Molokwane and Tshombe, 2017)

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