PEREZ-GUERRERO TRUST FUND FOR ECONOMIC AND TECHNICAL COOPERATION AMONG DEVELOPING COUNTRIES

Final Report on

Public Private Partnership Livelihood Projects in Africa: Policy and Performance

China-Africa Business Council

2020.11 Beijing, China

Foreword

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I have been working on promoting China-Africa relations for close to 10 years, together with a group of experienced and insightful colleagues and friends. The China-Africa Business Council (CABC) which I am proud to currently lead, is a prominent national chamber of commerce and the largest business council that promotes trade and investment, as well as business networks across China and Africa.

Working with our membership of over 1,200 (as of Oct. 2020), companies and organizations, CABC is dedicated to narrowing information gap between China and the continent, and building platforms for exchanges of the business community from both sides. In our years of doing so, we have seen cooperation models between Chinese companies and their African partners transform, as economic cooperation between China and Africa consolidates and extends.

It is high time we pay more attention to the rise of private actors in Africa. As we see it at CABC, the investment of Chinese privately-owned enterprises (POEs) in Africa have and need to continue to go through four concurrent and significant changes: from a self-initiated to a multi-entity cooperative model; from unilateral investment to a win-win bilateral cooperation model; from the low end to the high end along the value chain; and from traditional sectors to emerging, frontier sectors. This report explores what further changes a PPP model of cooperation both represents and can bring to this model of cooperation. African governments and private sector entities are increasingly asking Chinese and other partners to explore PPPs – it is time for us to respond effectively and invest prudently yet innovatively.

This research report is aimed at contributing to this evolution, compiled by an experienced team from diverse backgrounds, who have strong expertise on China-Africa cooperation, and are proficient in exploring data and excellent networks across Africa and China. I am excited to see this Perez-Guerrero Trust Fund project coming to a conclusion with this well-rounded report. I believe it is not only a review of past research and facts, but also a reflection of cases and opinions from interviewees and survey respondents. It provides salient recommendations for Chinese investment partners, African governments and other stakeholders.

Notwithstanding challenges that past and current PPPs have faced, I personally hope together we can create a PPP model that brings the best of this experience to innovate, make key development projects feasible and most importantly impactful for the poorest people and countries, to help meet the UN's Sustainable Development Goals. This is the ultimate goal we must all be focused on, now.

2020.11 Beijing

Acknowledgements

This report has been produced by the China-Africa Business Council (CABC), a business platform established initially as a UNDP program in 2006 to promote the economic and technological cooperation between China and African countries. CABC now has over 1,200 members, most of whom are Chinese privately-owned businesses with operations or distribution channels in African countries, or who are interested in establishing such linkages.

Firstly, CABC would like to extend its appreciation to the core team for this work, namely, Bai Xiaofeng, Sandrine Nduwimana and Zhou Yufang, as well as additional input from Kaze Naomi Carmelle and Isaac Banda.

Secondly, CABC would like to thank the Embassy of South Africa in Beijing, the Embassy of Rwanda in Beijing, the Kenya Investment Authority, the Kenyan Ministry of Industry, Trade and Cooperatives, Vision 2030 Secretariat, the Kenyan office of the African Development Bank, the Rwanda Development Board, the Rwandan Ministry of Finance, the Rwandan Ministry of Infrastructure, the China-Africa Development Fund and the Rwandan office of the World Bank who all provided invaluable data and support for this report, especially during the fieldwork and data collection phase. Also, CABC member companies and partners on the ground provided strong support to the filed investigation and survey studies of this report.

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Chapter 1: Introduction

Purpose of the report

The public-private partnership (PPP) model has emerged as a conduit for facilitating development within the continent of Africa. As a means of achieving the Sustainable Development Goals (SDGs) to secure African livelihoods, PPP projects present an opportunity to foster impactful change. China plays an integral role, as a leading global economic power, the world's largest implementer of South-South cooperation and a prominent actor in Africa. The collaborative effort and commitment made by the public sector coupled with private financing presents an efficient and affordable approach to implementing development initiatives for local communities across Africa.

The purpose of this report is to present the findings of an extensive research study conducted by the China-Africa Business Council (CABC) geared towards understanding good practices, challenges and opportunities of PPP ventures between China and African countries. Drawing on information collected from 71 stakeholders, through in-depth interviews and surveys, the report gives a holistic perspective on the state of PPPs between African nations and Chinese partners. This research report is also helpful in identifying and devising new collaborative initiatives centered on implementing the SDGs to build sustainable communities. Furthermore, this report is meant to bridge existing gaps in the information available to potential investors (in particular Chinese companies "going out"), policymakers and government officials.

Methodology

This research report employs a mixed method approach in order to harness insightful information from a range of stakeholders directly related to the African public sector and Chinese private investors. The four methods employed include desk research, surveys, in-depth interviews through key informant interviews and case study analysis.

Extensive **desk research** was conducted to understand the nature of PPPs and how they have functioned in the Global South as a conduit of economic development. Having identified Kenya, Rwanda and South Africa as case studies, the desk research provides extensive background on the economic, enabling environment created for investment opportunities and the role of Chinese private investors.

Surveys were designed with specific questions that sought to understand the perspectives of African stakeholders from the public sector, focusing on their needs and their challenges. The second part of the survey was administered to both active and aspirant Chinese foreign enterprises with investment projects in African countries. The survey was undertaken by 23 individuals, providing insightful information from a range of experiences.

Simultaneously, key informant **interviews** were identified with specific stakeholders to further assess the level of involvement, interest, general perception of public-private partnerships in Africa. 23 individuals were interviewed over a course of 2 weeks' time.

Finally, a strength of this report lies in the **case studies** presented from the three target countries of Kenya, Rwanda and South Africa. These case studies give practical examples on PPP ventures involving Chinese enterprises in African countries. This serves as a means for demonstrating the opportunities, lessons learned and the impact of PPPs in contributing towards the realization of a range of SDGs.

Structure of the report

The report is divided into six chapters in which the succeeding chapter (2) is an introduction to PPPs. Chapter 3 is an overview of PPP projects within the continent of Africa. Given the diversity and the different economic landscapes across the continent this chapter will provide a historical background to PPPs and their current trends within the continent. Chapter 4 focuses on the role of Chinese actors and their engagement and history with the PPP model. Given the purpose of this report is to shed light on potential opportunities, this chapter also offers a section on China's potential role in addressing future opportunities and challenges.

The case studies are presented in Chapter 5 and provide an in-depth analysis of the PPP environment in Kenya, Rwanda and South Africa with an emphasis on China's collaborative role. The last chapter offers overall observations drawn from the research study offering recommendations for future PPP initiatives for a range of stakeholders, including African governments and Chinese enterprises.

Chapter 2: PPP projects: An introduction

Defining PPPs

The term Public-Private Partnership (PPP) is understood from various perspectives; however, all schools of thought place an emphasis on a sense of cooperation or an agreement that is made between the public and private sector. The IMF's definition, for example, specifies infrastructural assets and services supplied by the private sector[1], while the EU recognizes the private sector as "economic operators".[2] On the other hand, the US General Accounting Office specifies that PPP projects can be defined as a contractual relationship in which multiple roles are played by the private sector as a partner in either renovating, constructing, operating, maintaining or managing a system.[3]

Various countries also define the PPP model in their own terms, including the three countries which constitute the case studies in this report. For instance, **a PPP in Kenya is a "performance-based contract under which the private sector supplies public services over time and is paid by the public sector, end user or a hybrid of both"**[4], while South Africa's formal definition of a PPP is a "contract between a government institution and a private party, where the private party performs an institutional function and/or uses state property in terms of output specifications; substantial project risk (financial, technical, operational) is transferred to the private party; and the private party benefits through unitary payments from government budgets and/or user fees".[5]

Recognizing the diverse cases presented in this research report and the varying ways in which PPPs are perceived, this research report uses the World Bank's definition as a standard. This definition states that a PPP is "a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance."[6] This definition is

[1] IMF, 2004. *Public-Private Partnerships*.

[2] European Commission. *Public-Private-Partnership*.

3 General Accounting Office, 1999. *Public-Private Partnerships: Terms Related to Building and Facility Partnerships*.

[4] Adapted from the Public Private Partnerships in Kenya Trade Mission, http://trademission.kenyagreece.com/wp-content/uploads/Public-Private-Partnership-in-Kenya.pdf

[5] National Treasury PPP Unit, 2007. *Introducing Public Private Partnerships in South Africa*.

[6] World Bank. *What are Public Private Partnerships?*

applied throughout the research report, thus any reference to PPPs is conceptualized according to this definition.

The PPP concept

The term PPP is often used to describe agreements reached between different types of public and private sector entities in a wide range of activities. There is currently no single, internationally recognized definition, and the specific implementation rules for the same type of agreement in different countries are not the same, neither is the name uniform. The common denominator of the projects known as the PPP model is the long-term agreement reached between the public sector (government) and private entities for the purpose of providing public (facility) services, which generally contains the following core features: a long-term contract, profit and risk sharing, private capital investment, the public sector and asset transfer. Table 1 details these core features.

Table 1: Core features of the PPP model

Core features	Description
Long-term contract	A long-term agreement is reached between the public sector and private entities in which a private company provides or participates in the provision of a certain public (facility) service.
Profit and risk sharing	Private companies will get a source of income, which may come from government budget expenditures or user fees, or a mixture of the two. While transferring profits, the public sector also transfers risks to the private sector, such as demand risks and operational risks.
Private capital investment	Private companies not only participate in construction or operation, but also often invest capital, the proportion of which depends on the contract.
The public sector	In addition to providing a certain percentage of funds, the public sector must also build the necessary policies and systems to ensure the availability of necessary resources for projects such as land (in some cases) provide necessary financing facilities, and carry out quality supervision and risk monitoring and so on.
Asset transfer	After the contract expires, the assets are transferred to the public sector. After the expiration of the PPP contract, the ownership of the project assets will be transferred to the public sector.

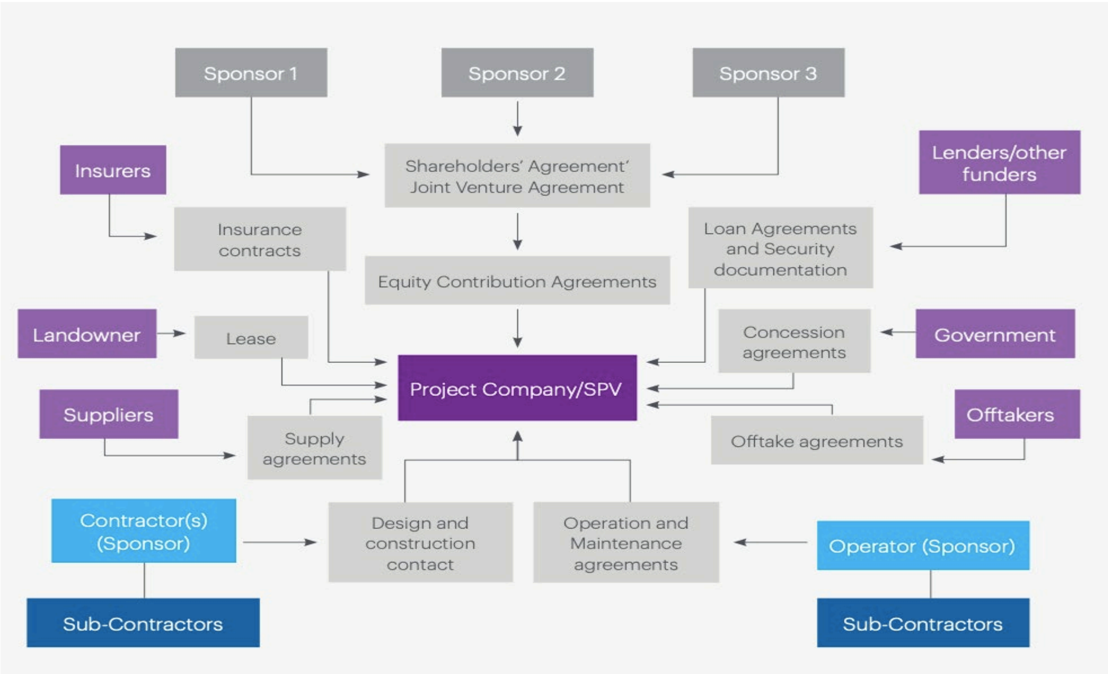
Source: Compiled by CABC from CADFUND Report

PPP structures

The structure of PPPs varies throughout Africa. Each country, under their respective PPP units or government branches, have crafted their own PPP structures, to suit their developmental agendas and capacities. Most countries, however, view affordability and risk transfer as the defining criteria when it comes to structuring the projects.[7] Under affordability, the project must be within the reasonable budget of the financer, and the financer must be able to pay equity, which can be short or long-term, depending on the project agreement. Under risk transfer, the goal is to transfer as much risk as possible to the private sector. However, it is recognized that the private sector will only take on the risks it can control, such as construction, but not those it cannot control, such as land acquisition for a new road.[8]

Figure 2.1 shows a typical PPP structure, consisting of key parties and contracts in a project, although, not all of these parties and contracts will necessarily appear in all projects. Table 2 outlines the key differences between a PPP, a privatization project and Engineering Procurement Contracts (EPC).

Figure 2.1: A typical PPP structure



Source: Cuthbert & Choudhary, 2018, p. 11.

[7] Yescombe, 2017. *Public-Private Partnerships in Sub-Saharan Africa: Case Studies for Policymakers*.

[8] Ibid.

Table 2: Key differences between PPPs, privatization projects and Engineering Procurement Contracts (EPC)

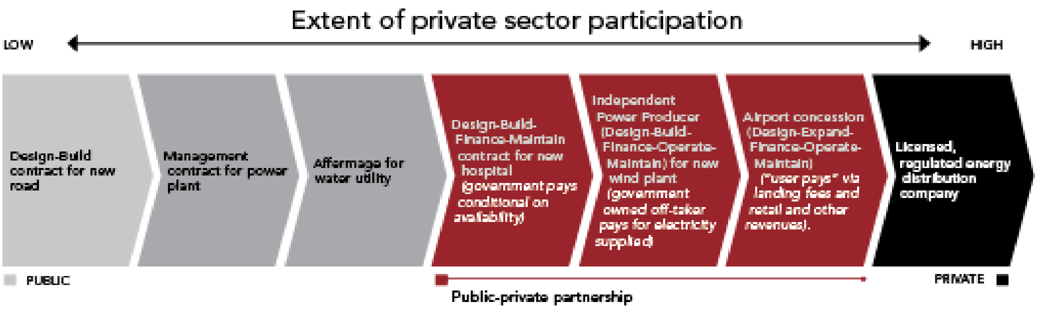
	PPP	Privatization project	EPC
Ownership of assets	Ownership of public assets will eventually belong to the public sector.	The control and even property rights of public assets belong to the private sector.	Ownership of public assets belongs to the public sector.
Project financing scheme	Capital is completely or partly raised by private actors through the issuing of private equity bonds and borrowing from banks.	The private sector bears the entire financial burden and funds the project.	The public sector bears the entire financial burden and funds the project.
Responsibility	The public sector bears the ultimate responsibility and obligation to provide corresponding public services.	In the privatization model, the private sector bears all responsibility.	The public sector bears the ultimate responsibility.
Profit and risk	Profit and risk are shared between the Public and private sector.	The private sector bears the profits and risks.	Profits may be at risk, but private capital is basically not affected by risks.

Source: Compiled by CABC

Examples of PPP contract types

Figure 2.2 below, illustrates various contract types and the extent of private and public sectors participation from lowest to highest levels, respectively.

Figure 2.2 Extent of private sector participation



Source: PPP Knowledge Lab

Examples of PPP projects

The public–private partnership model has been implemented in numerous countries and are primarily used for infrastructure projects, such as the building and equipping of schools, hospitals, transport systems (toll roads, dams, etc.), water and sewage systems.

A view of the Dakar-Diamniadio toll road.

Baynes hydroelectric dam plans.

PPPs and the Sustainable Development Goals

Figure 2.3 PPPs and SDGs

Source: World Bank, 2016

The implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals is an ever-pressing challenge for all countries, but in particular developing countries. The SDGs are cross-cutting and ambitious, and require a shift in building partnerships. They also require a significant change to the level of both public and private investment in all countries. The financing required for new infrastructure (including clean water, healthcare, and access to energy for all) is huge, amounting to about USD 5 trillion per year globally.[9] Given limited government resources, a considerable amount of private finance will be required to fill this gap. Public-private partnerships (PPPs) have been described by the World Bank as a model by which to attract these additional resources.

However, in order for PPPs to support the achievement of the SDGs in developing countries, they must "add value for money". In other words, they should improve the coverage, access and quality of a given service to the citizen in a cost-efficient manner compared to the alternative of publicly procured and financed projects.

According to the World Bank[10], the evidence suggests that PPPs have often tended to be more expensive than the alternative of public procurement, and in a number of instances they have failed to deliver the envisaged gains in quality of service provision, including its efficiency, coverage, and development impact. In other words, they have often failed to yield "value for money". This includes not just the financial costs and efficiency gains deriving from a project but also its longer-term fiscal implications as well as the broader welfare benefits for society, such as the impact on poverty and sustainable development. Therefore, when designing and implementing PPP projects it will be important for all stakeholders to consider the wider impact on the cross-cutting SDGs.

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[9] World Bank Blogs, 2016. *Public-private partnerships and the 2030 Agenda for Sustainable Development*.

[10] World Bank Blogs, 2018a. *SDGs and PPPs: What's the connection?*

Chapter 3: PPP projects in Africa

The African continent is rich in natural resources and boasts a growing, young and entrepreneurial-minded population. It has untapped potential, which, if harnessed correctly and efficiently, could usher in a new era of sustained economic growth for its citizens. Nevertheless, the lack of modern infrastructure is a significant impediment for many African countries, hindering the ability to achieve economic goals. There is a growing demand for PPPs, therefore, to overcome such impediments. Countries could tap into private capital to implement their development and infrastructure agendas.[11]

This chapter explores the historical and contemporary context of PPPs throughout the continent, drawing attention to countries which have established successful PPPs, alongside those currently implementing supportive PPP frameworks. It also includes an analysis of investment levels and composition.

History of PPPs in Africa

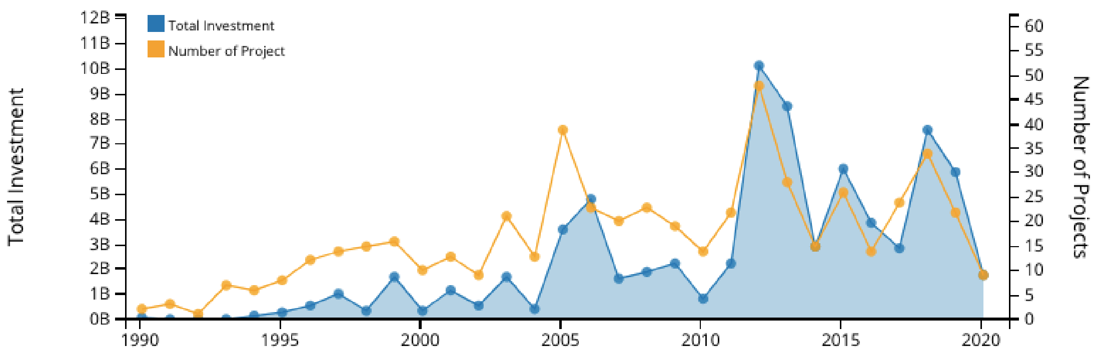
Globally, the numbers of PPPs have increased steadily since the 1970s and 1980s. This is attributable to demands for governments to provide basic public services to their citizens.[12] However, around the world, many governments find difficulties financing large projects due to high levels of public debt. Subsequently, PPPs served as an attractive instrument to supplement funding deficits.

African countries have followed this global trend, resulting in the consequent growth of PPPs throughout the continent since the 1990’s as shown in Figure 3.1.

[11] World Bank Blogs, 2018b. *Infrastructure & Africa’s development – the PPP imperative*.

[12] Khatleli, 2020. *Guidelines for implementing PPPs in SADC*.

Figure 3.1 Graph showing the evolution of total investment and number of projects from 1990 to 2020 in Sub Saharan Africa



Source: World Bank PPI Visualization Dashboard.

Influenced by the Washington consensus[13], and in particular in response to rising debt levels in poor countries as a result of the oil price shock in the late 1970s, key international actors such as the World Bank and the IMF championed the advantages of PPP projects, as part of "Structural Adjustment Programs.[14] Their view at the time was that PPP projects could support the development of local private capabilities while reducing government budgets, particularly in developing countries. Furthermore, they also believed that PPPs would deliver more efficiency by virtue of the profit-driven motivation – even for large utilities such as energy and water. Hence, a wave of privatization began in the 1980s and continued into the 1990s in many developing countries.

However, many of these were a disaster. Formerly public services were moved into private hands and mismanaged – setting user prices too high or restricting access to non-paying citizens, many of whom as a result fell into further poverty. An independent evaluation from the World Bank in 2015[15] showed that, over 10 years, of the 128 PPPs evaluated, no positive outcomes were found. Furthermore, a study based on 20 years of PPP projects showed that for roads projects, "There [was] no clear evidence that [the PPP] has helped improve the overall performance of the [road] sector significantly in a lasting way. More generally, as the private sector seeks affordability it leads to less access for the poor through the price crowding

[13] The Washington Consensus is a set of economic policy recommendations for developing countries in general and Latin America in particular, that became popular during the 1980s. The term Washington Consensus usually refers to the level of agreement between the International Monetary Fund (IMF), World Bank, and U.S. Department of the Treasury on those policy recommendations. All shared the view, typically labelled neoliberal, that the operation of the free market and the reduction of state involvement were crucial to development in the Global South.

[14] World Bank. *Government Objectives: Benefits and Risks of PPPs*.

[15] World Bank IEG. *World Bank Group Support to Public-Private Partnerships*.

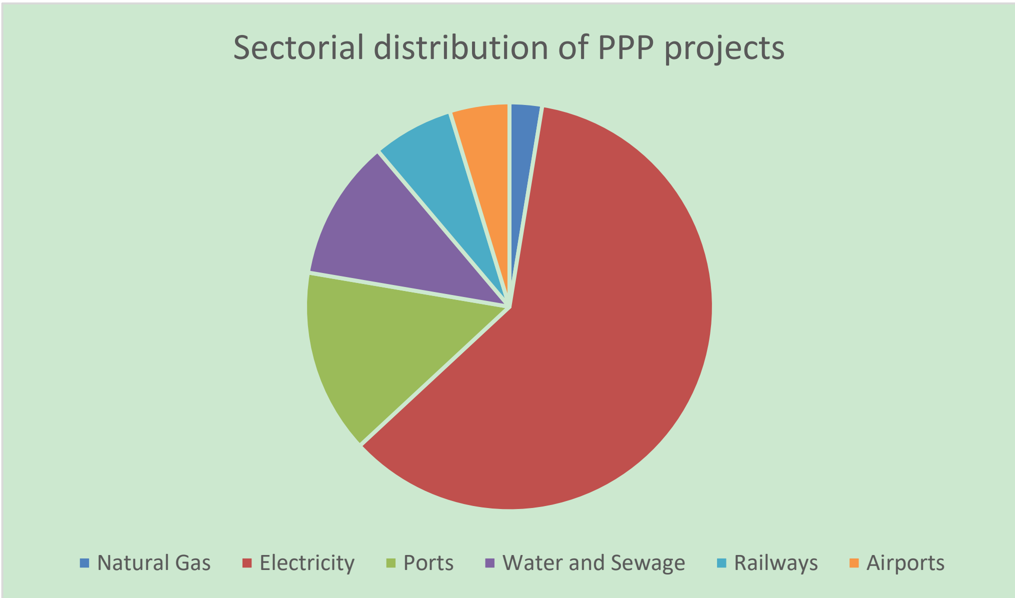
effect".[16] A study more recently of 10 PPPs across the world implemented in the 2000's concluded that they "failed to provide value-for-money, transparency and/or humane infrastructure projects"[17].

The question is, given Africa's urgent need of infrastructure development, is there a model of PPPs – including in partnership with China – that could avoid these negative results, and instead help meet the SDGs by 2030? We explore this below.

Current context of PPPs in Africa

Between 1990 to 2019, African governments invested an estimated USD 74.812 billion into PPPs.[18] An estimated total of 479 PPPs have been implemented throughout the continent, with 409 of them still ongoing. The majority of PPPs are concentrated in the energy sector, particularly electricity, as shown in Figure 3.2. However, Africa still receives some of the lowest investment into PPPs compared to other regions as shown in Figure 3.3.

Figure 3.2: Pie chart of the sectorial distribution of recent PPPs across Africa



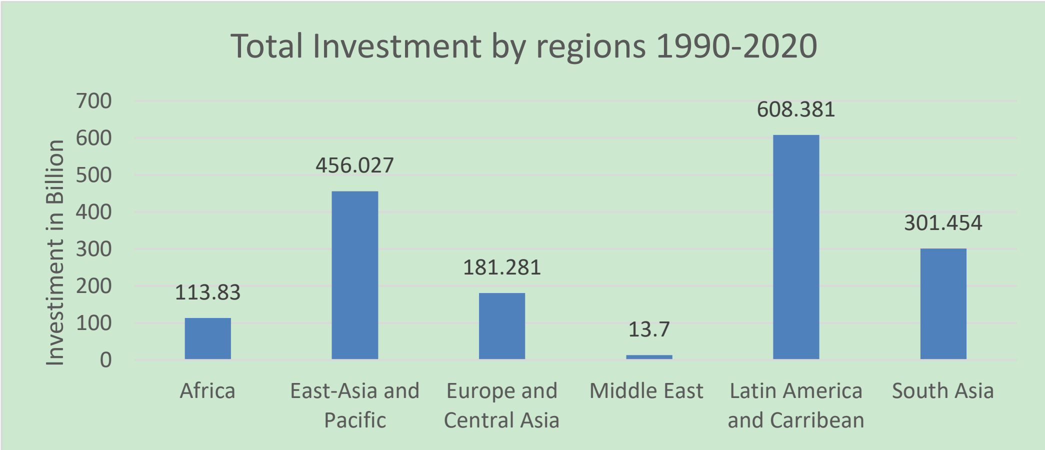
Source: UNECA, 2019.

[16] Estache & Philippe, 2012. *The impact of private participation in infrastructure in developing countries: Taking stock of about 20 years of experience*.

[17] https://www.boell.de/en/2018/12/11/history-repppeated-how-public-private-partnerships-are-failing

[18] World Bank. *PPI Visualization Dashboard*.

Figure 3.3: Bar chart of the total investment in PPPs by regions in USD billion

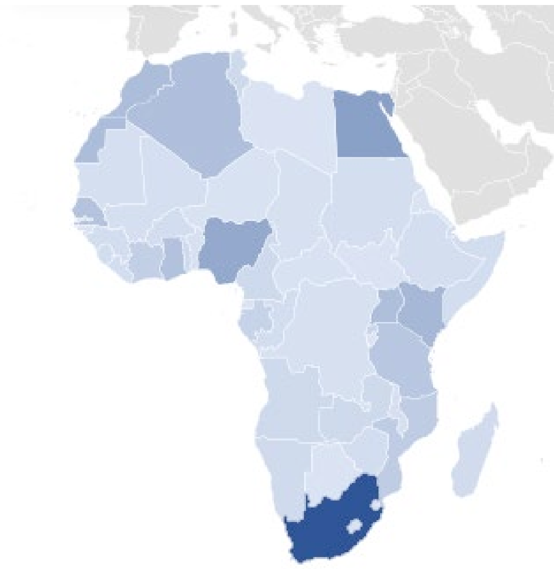


Source: World Bank, 2019.

As of 2019, 15 countries have implemented more than 10 PPPs in their respective nation[19]. As shown in Figure 3.4, in each African region, there is at least one nation with an established PPP agenda. This regional dispersion could positively impact neighboring countries if the benefits of PPPs are demonstrated and encourage others to do the same.

Figure 3.4: Map of African countries that have implemented more than 10 PPP projects (left), Table of repartition of PPPs in Africa 1990-2020 (right)

Region	Number of countries	Countries
Eastern Africa	4	Kenya, Rwanda, Uganda, Tanzania
Central Africa	1	Gabon
Northern Africa	3	Algeria, Egypt, Morocco
Southern Africa	3	Mauritius, Mozambique, South Africa
West Africa	4	Côte d'Ivoire, Ghana, Nigeria, Senegal



Sources: UNECA, 2019 (left), Compiled by CABC from World Bank (right)

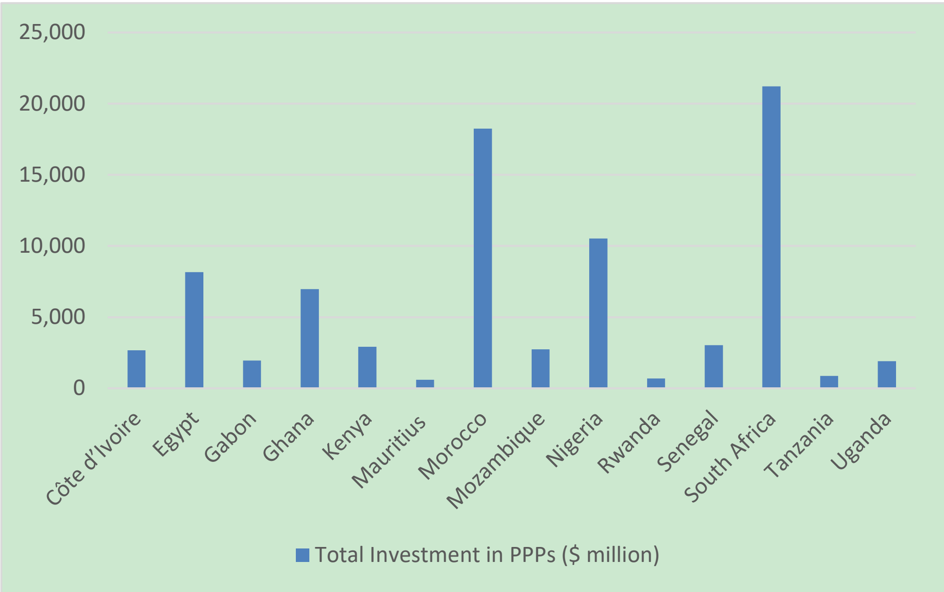
[19] UNECA, 2019. *An Overview of PPPs in Africa*.

So far, South Africa has led the PPP trajectory in Africa by not only implementing some of the earliest successful projects on the continent,[20] but also by setting out a comprehensive framework on how PPPs function and operate. This was one of the first of its kind globally.[21] The first PPP projects undertaken in South Africa were in the road transport sector, and even health.[22] Overall, South Africa has undertaken the highest number of PPPs with a total of 84, followed by Nigeria with a total of 42.

The PPP model has also seen success in various sectors in Kenya, including the Bujagali Hydropower Plant, the first large hydropower PPP in Africa.[23] Nigeria also in implemented some of the earliest PPP projects in Africa. This includes the Murtala Muhammed Domestic Airport project in Lagos, the Tinapa business and leisure resort in Cross Rivers State and numerous port terminal concessions.[24]

In terms of PPP investment, South Africa has the highest amount at USD 21.218 billion, followed by Morocco with a total investment of USD 18.245 billion, as shown in Figure 3.5. Uganda stands out as a country where diligence in public legislation has led to large levels of investment in various projects. As of 2018, Uganda had a total of 28 projects reaching final closure and had seen USD 1.9 billion in project investment.[25]

Figure 3.5: Total investment in PPPs (USD millions)



[20] Cuthbert & Choudhary, 2018.

[21] This involved passing the Public Finance Management Act in 1999, as well as publishing the Public Private Partnership Manual in 2004.

[22] Khatleli, 2020.

[23] Ibid.

[24] Cuthbert & Choudhary, 2018.

[25] Vanpeursem, 2019. *Case for Collaboration: Public-Private Partnerships in Sub-Saharan Africa*.

Source: UNECA, 2019.

Meanwhile, Rwanda has witnessed increased PPPs due to the transparent guidelines for PPP development, which are easily accessible from the Rwanda Development Board website. As of 2018, 10 PPP projects are reaching closure and had seen USD 694 million in investment.[26] Nevertheless, PPP projects are concentrated in a few countries, with South Africa, Nigeria, Kenya and Uganda accounting for 48% of the total infrastructure projects in Africa.[27] The clustering is associated to some degree with countries' domestic banking sectors.

Financing of PPP projects in Africa

The structure of PPPs varies throughout Africa. In recent years, there has been a significant increase in external financing of PPPs from foreign investors and multinationals. South Africa is a favorable choice due to sufficient market depth for PPP financing, with well-regulated, well-capitalized banks, alongside a large domestic market for hedging instruments. Morocco's banking sector also has reasonable financing capacity to fund PPPs but limited experience. Similarly, Kenya has some domestic finance and risk instruments. In the remaining countries, local markets for private infrastructure finance are developing slowly, but hedging instruments are less robust and there is a heavy reliance on external funding.[28]

There have also been increasing numbers of domestic investors. These domestic investors use local currencies, and thereby contribute to reducing foreign exchange mismatches that can make user-pay projects difficult in emerging markets. Encouraging local currency investment is, for example, a top priority for Kenya's PPP unit (see later). Their view is that this will facilitate Kenyans to invest in long-term, stable assets and hence encourage participation from the domestic population as well as local institutional investors.[29]

Theoretical challenges of implementing PPPs

In the past, PPPs have been formed in sectors that are associated with public services – from provision of clean drinking water to energy to waste management. By their very nature, these are goods that tend to have two key economic challenges – or market failures – associated with them, hence the private sector tends not to be willing or easily able to provide them on its own.

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26 Vanpeursem, 2019.

27 World Bank Blogs, 2018b.

28 EIU, 2015. *The 2015 Infrascope: Evaluating the environment for public private partnerships in Africa*.

29 KPMG, 2019. *Watering the green shoots: Africa's evolving PPP environment*.

First, they might be "natural monopolies". A natural monopoly arises when there are extremely high fixed costs of distribution – for example when large-scale infrastructure is required to ensure supply, such as cables and grids for electricity or internet supply, or pipelines for gas and water supply, and networks for rail and underground. These costs are also known as "sunk costs", and they tend to deter entry and exit because they are so large. Hence, typically only one "actor" – the state or a company – is willing to provide them and recoup (or subsidize) the large investment cost over a long period of time.

Second, they might be associated with public goods – which are associated with an economic problem known as the "free-rider effect". Street lighting or waste provision is a key example. These goods are "non-excludable" – i.e. if it is produced, then anyone can consume it, and one person consuming the good doesn't decrease the availability of the good for someone else. People expect (or hope) to get the good for free and hope (or expect) someone else to pay. Hence, governments often provide these goods, for free.

Thus, based on these two problems, aiming to create a PPP is to deliver a fairly radical outcome - to try to spread investment costs such that they are not sunk too far, as well as to provide goods as close to free as possible, while still making a return. Thus, even in theory, making PPPs work is challenging.

Practical challenges of implementing PPPs

In addition to this, and arguably because of the economic challenges set out above, especially in contexts of poverty, PPP projects are difficult to execute, requiring robust and complex regulatory and institutional architectures, high levels of technical capacity, political will and social consensus. Skills in financial analysis and modelling, structuring of transactions, expertise in commercial law, and sector knowledge, to name a few, are also important, and the burden of building the PPP environment falls heavily on the government. It must identify and select appropriate projects, issue transparent tenders, structure robust contracts, and have checks and balances in place to ensure the proper execution of these projects.[30]

Therefore, some governments are not willing to fully bear this burden either due to a lack of resources or a lack of institutional support to initiate and maintain such projects. Some governments also lack a harmonization of laws, procedures and practices across government institutions (line ministries) and levels of government (federal/national and subnational), when it comes to defining the general environment of PPPs. This lack of inconsistency weakens coordination even within

[30] EIU, 2015.

the government, which leads to an overall broken PPP system.[31]

Other practical challenges associated with PPPs include political and legal uncertainty, lack of transparency, civil instability or simply a lack of political will.[32] These apply to all international partners. Also, large government contracts are very complex and demanding and are therefore prone to corruption through abuse by unscrupulous individuals, firms or politicians, unless controlled by disciplined, highly transparent procedures[33]. More challenges remain across the board with communication and trust between the companies and the locals.[34] Some countries are also hesitant to embark on PPPs as a result of prior bad experiences.[35]

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31 Ibid.

32 DevelopmentAid, 2019. *Experts Opinion – Public-private partnerships in Africa: Challenges and opportunities*.

33 Farlam, 2005. *Working together assessing public-private partnerships in Africa*.

34 Vanpeursem, 2019.

35 World Bank Blogs, 2018b.

Chapter 4: Chinese involvement and experience in PPP projects in Africa

China plays a significant role in South-South Cooperation. For years, Chinese public investment in the African livelihood sectors has contributed to capacity building and job creation. Furthermore, in recent years, the introduction of private capital into some projects has been more and more sought after and welcomed.

However, to date, there are a lack of studies on the number and nature of PPP projects carried out with Chinese government funds and private capital. To understand the challenges and complexities of developing Chinese PPPs in Africa, this chapter firstly provides an overview of the trends in China's engagement with FDI and loans in Africa. It then outlines the insights from the CABC survey and interviews with Chinese companies, resulting in a valuable database for exploring potential PPP cooperation.

China in Africa: an overview of recent trends

China-Africa: The background

Chinese investment to Africa has developed rapidly over the past 20 years and Chinese FDI has played an important role in infrastructure connectivity across the continent. This is in part due to strong commitments by the Chinese government to invest in infrastructure. In January 2015, China and the African Union signed a "Memorandum of Understanding on Infrastructure Construction Cooperation between China and Africa". Within the strategic framework of the African Union's "Vision 2063", China committed to strengthen cooperation with African countries in railway, highway, regional aviation and cooperation and thus help advance the integration process of African countries. Moreover, at the 2018 Beijing Summit of the Forum on China-Africa Cooperation, China (FOCAC), the "Eight Actions" were launched, on the basis of promoting the "Ten Major Cooperation Plans" between China and Africa, including the "Implementation of Facilities Connectivity Action" as well as "China-Africa Foundation Facility Cooperation Plan".[36]

These plans focus on encouraging Chinese companies to participate in "going out" and supporting the development of Africa's infrastructure construction through integration of investment, construction and operation, focusing on strengthening

[36] FOCAC Summit, 2018.

cooperation in energy, transportation, information communications, and cross-border water resources. They also aim to help implement a number of key interconnection projects with Africa; supporting the construction of a single air transport market within Africa as well as more direct flights between China and Africa; facilitating the issuance of bonds by African countries and financial institutions in China; and supporting African countries to make better use of resources such as investment banks.

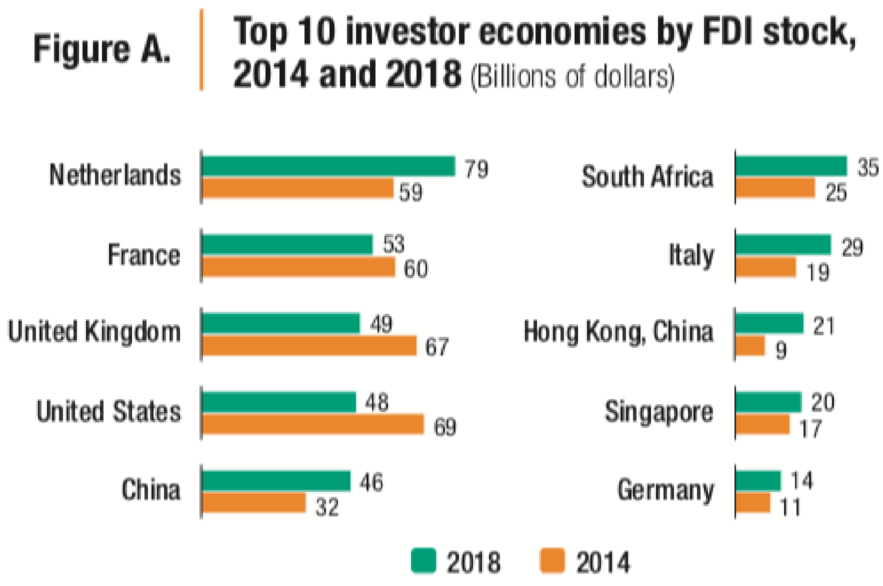
China-Africa FDI: The trends

Due to this commitment by the Chinese government to invest in Africa, Chinese FDI into Africa has increased from USD 500 million in 2003 to USD 46 billion in 2018. Loans have also increased from USD 1.7 billion to USD 8.9 billion (Figure 4.1). However, it is worth noting that amount of loans peaked in 2015 and in spite of an upward trend in FDI, the year-on-year growth rate has been declining. Furthermore, when comparing Chinese FDI into Africa to other major investors, Chinese FDI currently ranks fifth, behind the Netherlands, France, the USA and the UK (Figure 4.2). This shows opportunities for Chinese companies to increase their investment into the continent to match that of other major investors.

Figure 4.1 China's FDI from 2003-2018

Source: Development Reimagined, 2020.

Figure 4.2: FDI inflows into Africa



Source: UNCTAD, 2020.

When looking at the number of Chinese companies operating in Africa, according to MOFCOM, China had nearly 2,000 overseas enterprises in Africa in 2010, accounting for 12.1% of all Chinese companies "going out"[37]. By 2018, China had established more than 3,600 foreign companies in Africa, accounting for 8.6% of companies "going out" (Figure 4.3). Furthermore, MOFCOM notes most of these were private SMEs. This data can be further compared with those from private consultancy firm McKinsey – who estimated in 2017 that over 10,000 Chinese-owned firms are currently operating throughout the African continent. These numbers reflect the increasing amount of FDI into Africa from China, albeit at a slowing pace over time (see Figure 4.1 above).[38]

[37] MOFCOM, 2010. 2010 Statistical Bulletin of China'*s Outward Foreign Direct Investment*.

[38] McKinsey, 2017, Dance of the lions and dragons: How are Africa and China engaging, and how will the partnership evolve? https://www.mckinsey.com/featured-insights/middle-east-and-africa/the-closest-look-yet-at-chinese-economic-engagement-in-africa

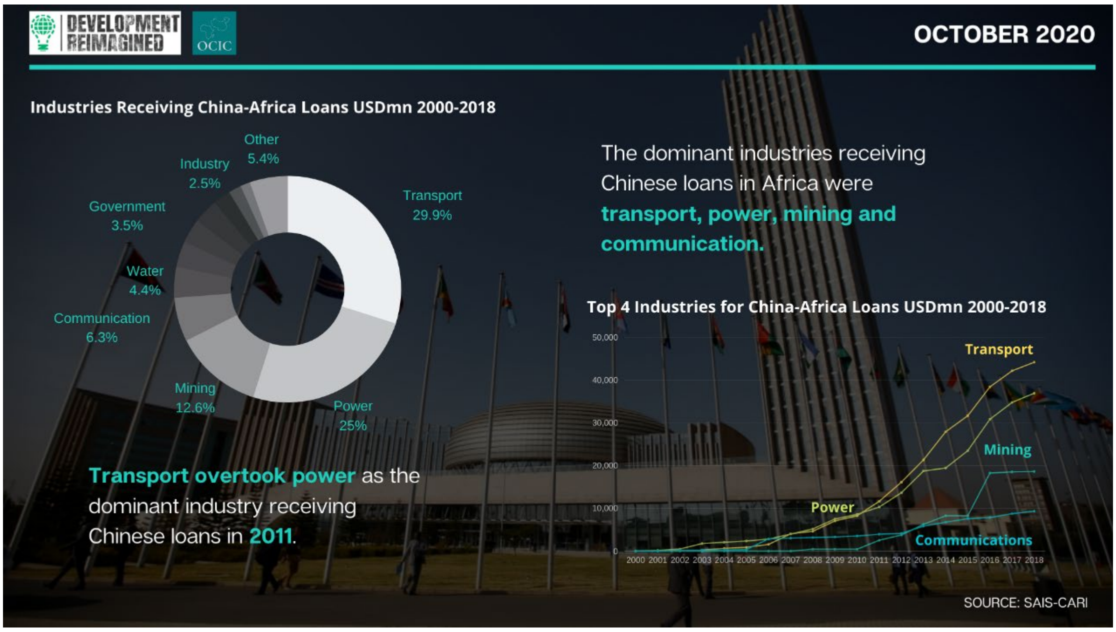
Figure 4.3: Levels of investment flows, stocks and enterprises 2010-2018

	2010	2018	Difference
Investment flows	US$2.11 billion	US$5.38 billion	US$3.27 billion increase
Investment stocks	US$13.04 billion	US$46.1 billion	US$33.06 billion increase
Number of overseas Chinese enterprises	nearly 2,000	more than 3,600	1,600

Source: Compiled by CABC from MOFCOM reports.

Since 2000, the dominant industries receiving Chinese loans in Africa have been the transport, power, mining and communication industries (Figure 4.5). These industries are heavily tied to infrastructure development and highlight the preferred type of industries Chinese stakeholders are most likely to be engaged with.

Figure 4.5: Industries receiving China-Africa Loans



Source: Development Reimagined, 2020

China’s engagement in Africa’s PPP to date

Since China's reform and opening up, the country has achieved many achievements in the field of infrastructure construction and has accumulated rich experience in the application of the PPP model. According to the statistics of the PPP Center of China’s Ministry of Finance, as of the end of June 2019, the National PPP Integrated Information Platform Project Management Database had a total of 9,036 projects with an investment of USD 2 trillion, and a total of 5,811 projects with an investment of USD 1.3 trillion, with a landing rate as high as 64.3%.[39]

Due to this strong domestic experience, the Chinese government is now encouraging enterprises to participate in infrastructure construction in Africa through an integrated approach of “investment, construction, and operation”. Many Chinese companies have begun to move in this direction, taking the PPP model that meets China’s advantages while at the same time meets the needs of Africa as an important form of cooperation.

It is also further possible that – due to China’s own experience in poverty reduction and providing public goods at scale within China to populations that were once very poor – Chinese companies may innovate in their delivery of PPPs – either by providing new equitable delivery models that have not been experimented with before in Africa, or new forms of joint financing.

However, so far it seems that Chinese PPP engagement models in Africa are currently not particularly different from other international descriptions/definitions of PPP models. Chinese enterprises’ participation in African infrastructure projects is mainly divided into the three following models:

Model 1. The engineering, procurement, and construction (EPC) model, in which projects that drive engineering with a small equity investment, a model often adopted by engineering companies. In the process of transforming from traditional EPC to the integration of investment, construction and operation, engineering companies can lock in large-scale engineering contracts and obtain engineering profits through small equity investment, and they can also accumulate management experience through joint operations with other partners to help the industry.

Model 2. The direct investment model, that is, the entire process of participating in project investment operations through equity investment. Most industry investors also tend to obtain control of projects through direct investment.

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[39] CPPPC, 2020. *National PPP Integrated Information Platform Project Management Database Annual Report 2019*.

Model 3. The PPP model, in which asset holders and operators are separated, which is usually implemented by simultaneously establishing project asset companies and operating companies. The advantage of this model is that the government can ensure the control of key infrastructure resources by participating in asset companies with a large share ratio; enterprises with large share ratios participate in operating companies and small share ratios participate in asset companies, which not only help obtain operational service income, but also reduce the investment risk.

Thus, Chinese companies have carried out PPP cooperation with local governments and international financial institutions in such projects as Guinea's 450 MW Souapiti Dam, Ethiopia's photovoltaic power plant projects, the Djibouti Port and Free Trade Zone and the Kenyan standard gauge railway project and a new toll highway in Kenya (the latter two are detailed in Box 1 and 2). In most of these, the partnership model is a well-established – not particularly innovative or specific to Chinese investors, except for Chinese risk appetite, which appears to be higher by their very existence.

Box 1: The Kenya standard gauge railway project

Opened in 2017, built to link the capital, Nairobi, with the attractive coastal town Mombasa. It is recorded to be the first of a series of planned railway links in the East African region planned, constructed and operated by the China Railway and Bridge Cooperation (CRBC). It is a USD 3.2 billion worth project, 472km in length. Since Kenya's independence, the SGR is Kenya's biggest infrastructure project, followed by the USD 1.5 billion Chinese-built railway line linking Nairobi to Naivasha which was opened in October 2019.

The project has received both criticism and praise. Critics note the high cost. A report by Kenya's transport ministry tabled in parliament in 2018 says that the railway made a loss of USD 90.3 million in its first year of operation. Those in favor highlight the reasonable price that is being charged for passenger journeys (comparable to overland bus journeys), the importance of the project for much needed regional connectivity and therefore economic growth, and question whether rail projects globally do make short-term returns.

SGR construction site (Source: CABC member company)

Box 2 The Nairobi Expressway Road Project

Recently, it was announced that the China Road and Bridge Corporation (CRBC) through its local arm "Moja Expressway Company" will build the Nairobi Expressway Road Project at a cost of over USD 540 million. In addition to the design, sourcing for financing and undertaking construction work, it will operate the road for 27 years and earn its investments through the collection of toll fees.[40] This is the first major road project in Kenya to be carried out through a PPP model. It is expected to be completed by December 2022, helping alleviate traffic congestion in the Nairobi municipality.

As with the case of the SGR, this news also received a mixed reaction. On the one hand, it was viewed as a great achievement for the Kenyan Government to have successfully closed a PPP deal, a model that is currently considered to be a way to continue with mega projects without pushing higher debt levels. On the other hand, some critics are nervous that the high fees charged by investors might be prohibitive for many ordinary Kenyans[41].

[40] The Standard, 2020. *Jubilee's new magic bullet for mega infrastructure projects*.

[41] Ibid.

Source: The Nairobi Expressway Road Project

Chinese companies' experiences, views, and opinions on PPP projects in Africa

In order to understand the scope and challenges for Chinese investment into PPPs in Africa, a survey was shared with the member companies of CABC. 23 companies responded to the survey, showing a keen interest to understand more about the landscape of PPPs in Africa. More information on the survey, including the full set of questions, is provided in Appendix 1.

Figure 4.6: Survey results – How long have you operated in Africa for?

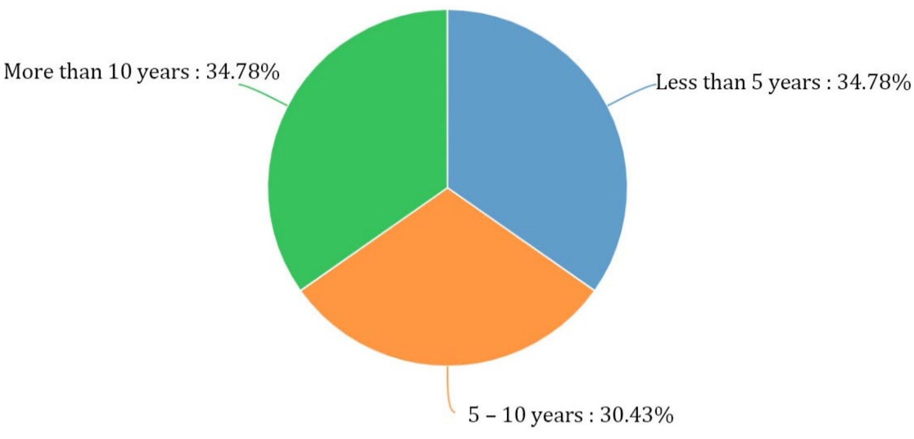
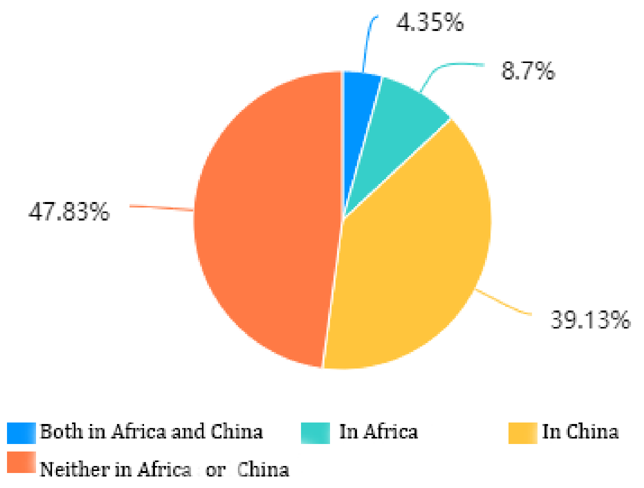


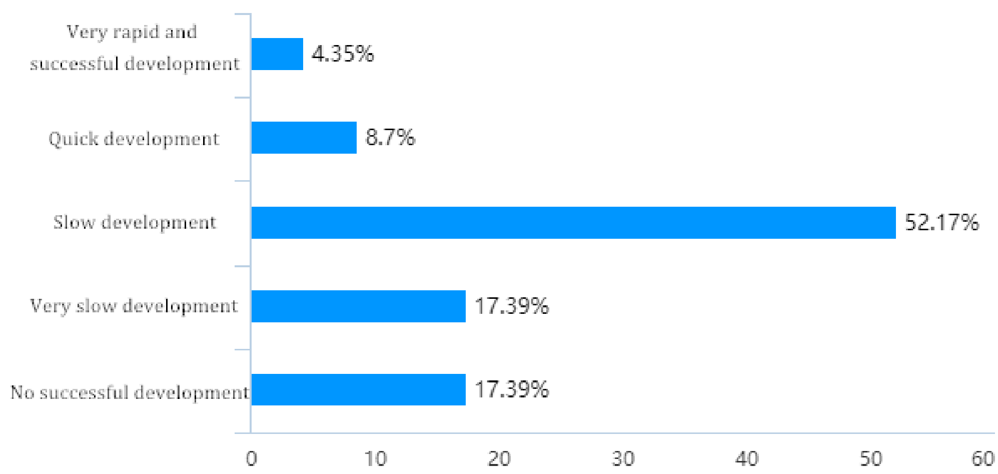
Figure 4.7: Survey results – Where does your organization have experience of PPP projects?



Figures 4.6 and 4.7 show that 34.78% of companies surveyed have been operating in Africa for more than 10 years and of those who responded, only 13.05% have been involved in any PPP projects in the African continent. This suggests there could be room and appetite for greater involvement in PPP projects in Africa.

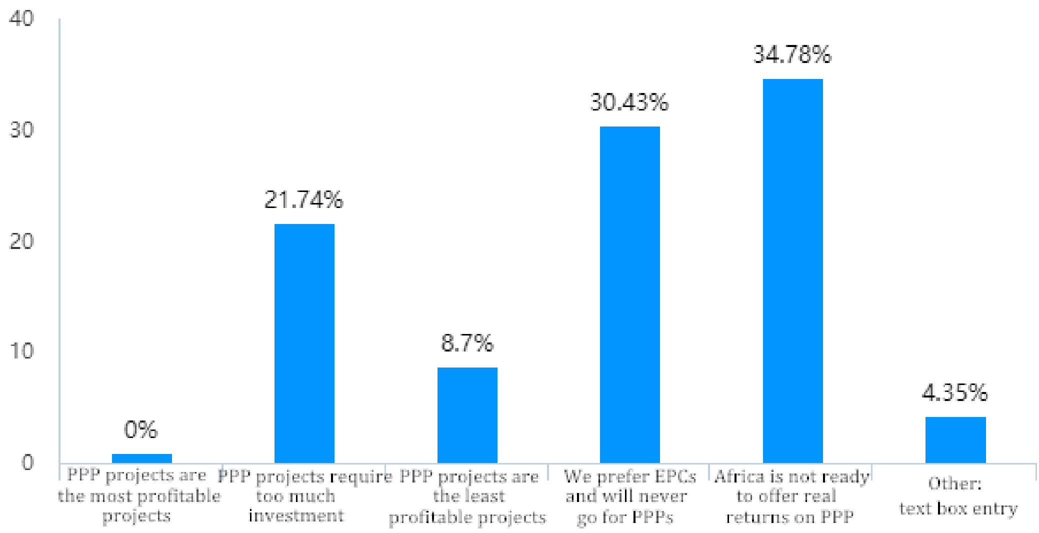
Indeed, as can be seen in Figure 4.8, those same 13.05% of respondents were also the only survey takers to determine that PPP projects in Africa have developed faster than "slow". All of those who are yet to join PPP projects in Africa think their development is slow or without successful development at all.

Figure 4.8: Survey results – In general, how have PPP projects developed in Africa in the past decade, especially in comparison to China?



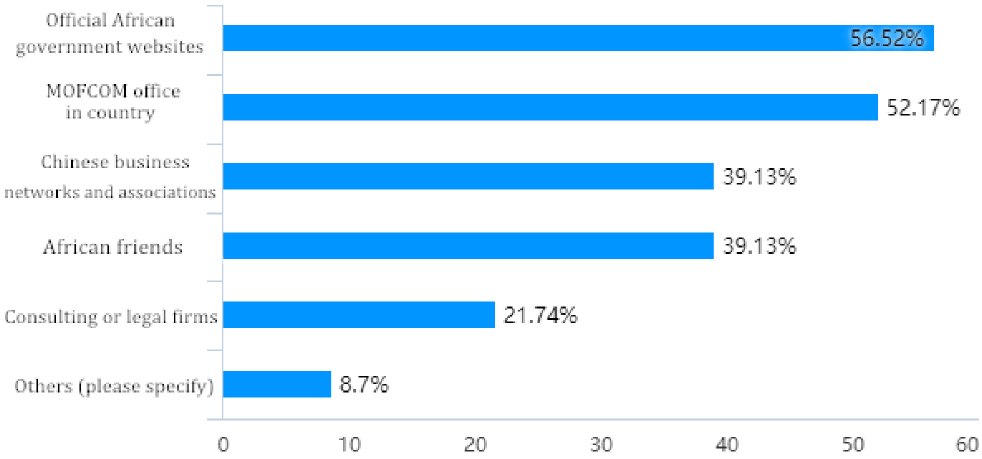
In general, companies had a relatively negative view of the profitability of PPP projects with 34.78% of respondents indicating "Africa is not ready to offer real returns on PPP projects". This view may be a good indication of why the level of investment in PPP projects remains low.

Figure 4.9: Survey results – How do you view PPP opportunities in terms of profitability?



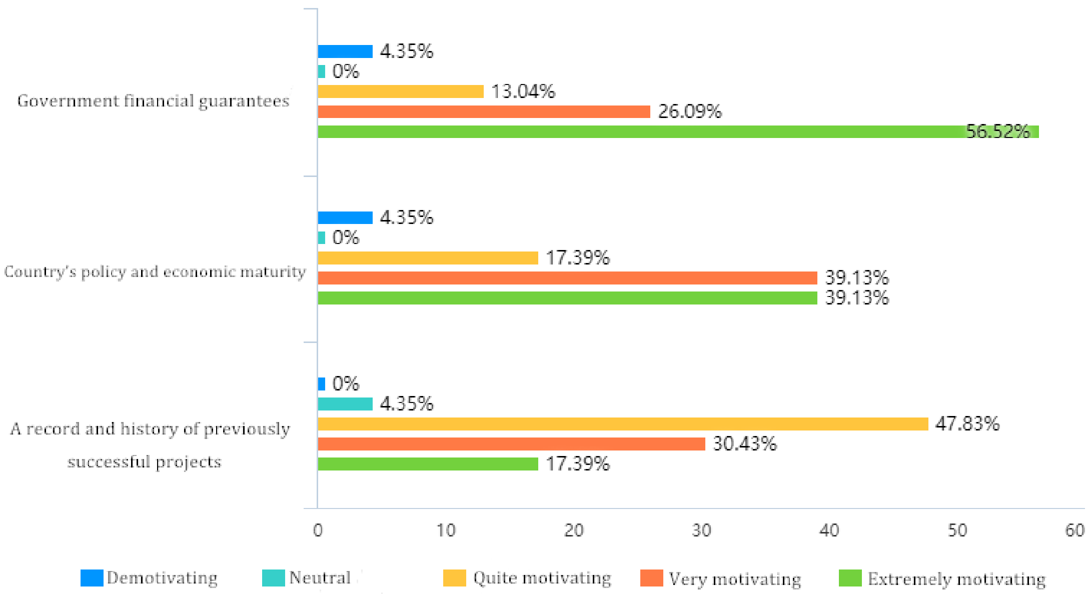
With regard to how Chinese companies access information on PPP projects in Africa, over half of respondents indicated that official government sources (both Chinese and African) are their biggest source of information, followed by Chinese business networks and associations and information from "African friends".

Figure 4.10: Survey results – What are your main information sources on potential PPP projects in Africa that you can invest or participate in? (Multiple choice)



Those who do invest - or hope to invest - in PPPs in Africa noted that their biggest motivation would be government financial guarantees. A record and history of previously successful projects was deemed significantly less motivating than government financial guarantees or a country's political and economic stability, suggesting that African countries with "immature" economies and a lack of successful PPP experience could structure PPPs in such a way that Chinese enterprises would be interested in participating in.

Figure 4.11: Survey results – What would motivate you to join a PPP project the most?

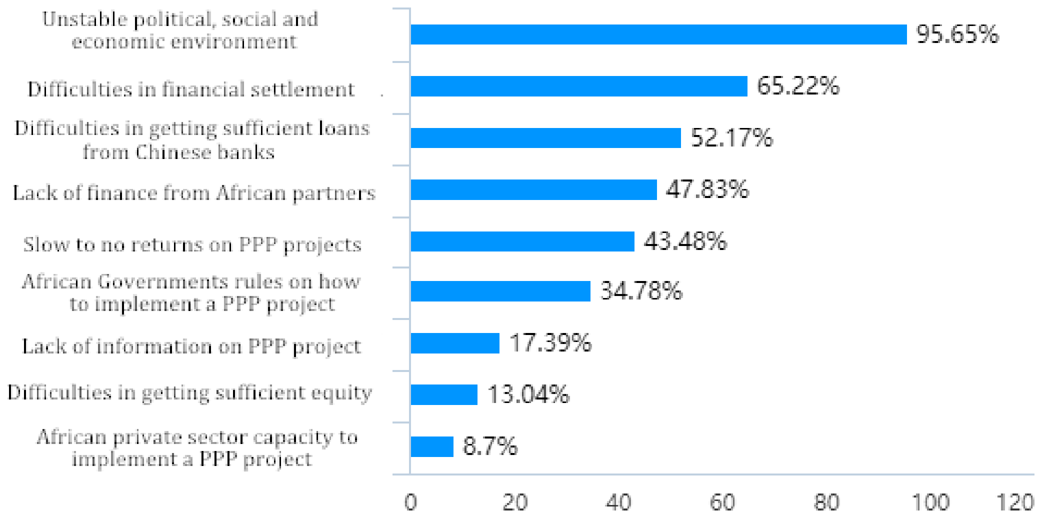


Overall challenges

The study's in-depth interview and survey findings revealed similar challenges to those outlined in Chapter 2, namely fierce competition, high risk environment and risk-adverse behavior from Chinese financing institutions.

Unstable political, social and economic environment

Figure 4.12: Survey results – What do you consider to be the biggest challenges for Chinese companies in implementing PPP projects in Africa? (Multiple choice)



Competition from other foreign investors

The perception of Chinese enterprises surveyed is that foreign investors, mainly from Europe, Arab and other countries have obtained more projects, especially in the power sector (Figure 4.13). Currently, China's infrastructure cooperation with Africa is still dominated by EPC contracting. With the changes and pressures in the economic environments in both Africa and China, the challenges faced by various participants in the African infrastructure field under this model are rising.

More specifically, as Chinese enterprises on the ground expressed, the scarcity of projects creates fierce competition and thus puts them at a disadvantage compared to other international companies. Although the return on investment of PPP can be considerable, they are often unwilling to go through the risk of losing on bids. From the early development to project feasibility studies, land site selection, and so on, all these stages are undertaken through competitive bidding or agreement negotiations.

Figure 4.13: Survey results – How do you view competition with other international companies in trying to negotiate PPPs? (Multiple choice)

Factor	Subtotal	Proportion
Companies from Europe and the US seem to have an advantage	17	73.91%
Certain Chinese companies with rich resources have an advantage	10	43.48%
Fair competition	5	21.74%
The language barrier is a problem for us	3	13.04%
There is no competition, it's all based on "guanxi"	1	4.35%
Others (please specify)	0	0%
Number of Valid Applicants	23	

Lack of financing

Financing is difficult. The debt capital of PPP projects mainly comes from international and other multilateral financial institutions, European and American development financial institutions. Limited by the capabilities and risk control requirements of these institutions, the debt capital of these years has been concentrated in the field of new energy, and the scale is small. Financing of medium and large projects is still difficult. Chinese financial institutions generally do not accept these project financing structures and their risk appetite has been declining over the past years. In addition, due to the weak financial resources of African governments, it is often difficult to share related project risks (such as on the new Kenyan Highway Project – see Box 2 above), which only adds to the difficulty in project financing.

Figure 4.14: Survey results – What do you think is the main reason why PPP projects fail?

Factors	Subtotal	Proportion
Lack of financial guarantees	13	56.52%
Poor governance	6	26.09%
The market is fragmented and too small	2	8.7%
Other: text box entry	2	8.7%
Number of Valid Applicants	23	

Lack of legal and professional services

The supporting legal system for the PPP model is not yet thorough. Some African countries have promulgated PPP-related legislation, while others have only promulgated policies on the development of PPP projects, lacking special PPP legislation and management institutions. Some problems were also exposed during the implementation process. For example, government officials did not strictly follow the relevant procedures stipulated by the PPP laws and policies, and there were hidden operations in the bidding and other procedures; multinational projects need to consider the coordination of PPP legislation and policies in different countries. PPP laws and regulations at the central and local levels are often in conflict and need to be coordinated.

Although the survey did not explore the challenges of working with Chinese companies, it is also worth noting that some companies have faced criticisms for their practices in Africa and this may also have an impact on the successful completion of PPP projects.

A 2017 McKinsey report[42] noted that "On balance, we believe that China's growing involvement is strongly positive for Africa's economies, governments, and workers. However, there are areas for significant improvement". For example, there have been instances of labor and environmental violations by Chinese-owned businesses. These range from inhumane working conditions to illegal extraction of natural resources including timber and fish. Also, of those companies surveyed in the McKinsey report, only 44 percent of local managers at the Chinese-owned companies we surveyed were African, though some Chinese firms have driven their local employment above 80 percent.

With an understanding of Chinese enterprises perceived challenges and motivators, a deep dive into three case study countries (Kenya, Rwanda and South Africa) in Chapter 5, can provide further context to help investors understand the current status of PPP projects and key actors involved.

[42] McKinsey, 2017. *The closest look yet at Chinese economic engagement in Africa*.

Box 3: The China-Africa Development Fund’s view on the scope for PPPs in Africa

The China-Africa Development Fund, China's earliest equity investment fund in Africa, has been actively exploring cooperation avenues in infrastructure between African countries and Chinese companies. Up to now, the China-Africa Development Fund has invested in 9 infrastructure projects with an investment amount of over USD 400 million, covering power, ports, logistics, parks and aviation, all of which belong within the broad PPP category.

Among them, the Nigerian Lekki Free Trade Zone, developed in cooperation with China Railway Construction and Lagos State in Nigeria, has leveraged the respective advantages of the government and enterprises and mobilized all parties through the PPP development model of government equity participation and enterprise participation. As of the end of 2018, a total of 133 registered enterprises had entered the park, and a total of 2.81 million square meters of land were sold. The land continued to increase in value and achieved good operating results. In addition, the China-Africa Development Fund has also established China Overseas Infrastructure Development and Investment Corporation (COIDIC) in conjunction with leading enterprises in the field of infrastructure in China, becoming the first professional platform in China to engage in the preliminary development of overseas infrastructure projects.

According to CAD fund, the overall scale of equity investment involving Chinese investors is relatively small, and financing still needs to innovate and develop new forms of cooperation.

Chapter 5: Case studies (Kenya, Rwanda, South-Africa)

Three African countries (South Africa, Rwanda and Kenya) were chosen as the target countries for a deep dive into PPPs on the continent. The case studies aim to provide a comprehensive overview of the history, context, laws, regulations and structures of PPP projects in order to inform investors (in particular Chinese companies "going out") on the opportunities and challenges of partnering on PPPs.

Semi-structured interviews were conducted from January to July 2020, with various stakeholders, from governmental institutions to private companies, both local and Chinese, by representatives from CABC. The interviewees were selected based on previous cooperation and good relationships with CABC, allowing for frank discussion and deep insights. However, it is acknowledged that this self-selection may also create biases. Each stakeholder answered 6-7 questions (for detail, see Appendix 2) designed to dive into the country's structure they operate in and to understand key perceptions and challenges.

The three case study countries are all members of the African Union (AU) and the regional economic communities relevant to their geographic location: Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC) and the Southern African Development Community (SADC)[43].

South Africa is a country with comprehensive laws and regulations on foreign investment, ranking among the top in terms of investment environment across the continent. Rwanda has one of the best "Doing Business" rankings in Africa. Kenya is among the most active countries advocating PPP projects and improving its PPP laws.

However, these three countries also represent different development patterns and stages - including different socio-economic classifications, levels of PPP development and challenges to sustainable development due to their geographic make-up. As such, they offer a valuable sample of growth and development patterns in Africa. Their basic characteristics are summarized in Table 3 below.

Table 3: Comparison of 3 Case Studies

[43] Membership data taken from the UNECA website.

	Rwanda	Kenya	South-Africa
Population (2018)[44]	12,952,218 million	53,771,296 million	59,308,690 million
Socio-economic development classification[45]	Least Developed Country Landlocked Developing Country	Developing Country	Developing Country
Political Stability: *Estimate of governance (ranges from approximately -2.5 (weak) to 2.5 (strong) governance performance*[46]	0.12	-1.16	-0.28
GDP in current US $ (2018)[47]	9.509 billion	87.91 billion	368.3 billion
GDP per capita in current US $ (2018)[48]	772.94 (Low Income Country)	1,710.51 (Lower Middle-Income Country)	6,374.03 (Upper Middle-Income Country)
Human Development Index (2018)[49]	0.536, No. 157	0.579, No.147	0.705, No. 113
Ease of doing business Index (1 to 190) (2019)[50]	38	56	84
Foreign Direct Investment (FDI) Inward Stock in US $ (2019)[51]	2.631 billion	15.7 billion	150.9 billion
FDI Inflows in US $ (2019)[52]	420 million	1.6 billion	4.6 million
FDI Inflows from China in US$ (2018)[53] – Total FDI to Africa $5.4 billion	45.42 million	232.04 million	642.06 million

[44] World Population Review.

[45] UN-OHRLLS.

[46] World Bank, 2017a. *Political Stability and the Absence of Violence*.

[47] World Bank. *GDP (current US$)*.

[48] World Bank. *GDP per capita (current US$)*.

[49] UNDP, 2018. *Human Development Index (HDI)*.

[50] World Bank. *Ease of Doing Business rankings*.

[51] Santander Trade. *FDI*.

[52] Ibid.

[53] Ibid.

Trade in US$ (2017)[54]	Exports	2.85 billion	8 billion	2.34 billion
	Imports	3.67 billion	7.98 billion	5.25 billion
Trade with China in US$ (2018)[55] – total trade $185bn	Imports from China (Total - 104.95bn)	165.17 million	5.20 billion	1.63 billion
	Exports to China (Total - 80.34bn)	39.96 million	174. 20 million	8.55 billion

These case studies have been supported with data drawn from desk research. The information is correct as of November 2020, and is subject to change thereafter.

The case of Kenya

Summary

- Kenya remains a growth outperformer in Africa, with its GDP accounting for more than 50% in the region total.
- However, given the Government of Kenya's insufficient resources to meet infrastructure requirements PPP projects will play a pivotal role, particularly in electricity generation and transmission, rail and road networks and water access and irrigation.
- The Public-Private Partnership Unit (PPPU), a Special Purpose Unit within the National Treasury (Ministry of Finance) of the Government of Kenya, serves as the core of PPP expertise, is responsible for the systematic coordination of all the PPP projects review and approval process.
- The government is also aiming to provide investors with a clear, transparent, fair and competitive process for PPPs, including Project identification, selection, prioritization, preparation, appraisal, procurement, approvals and procurement of project advisors.

Introduction to Kenya

Kenya, a country famous for its classic savanna safaris, scenic landscapes and vast wildlife preserves, is located in East Africa. It borders the Indian Ocean, which historically opened doors for Arabian and Asian traders to bring goods to the continent for centuries. After being a British Colony for over 40 years, its independent Republic was formed in 1963.

[54] Santander Trade *FDI*.

[55] Ibid.

With a growing population of over 52 million and a rapidly expanding economy, Kenya aims to become a middle-income country within 10 years. As such, Kenya has a flourishing market economy and functions as the commercial, economic, technological, and logistic hub of East Africa. Additionally, it is a regional financial center that has a strong industrial base and well-developing road infrastructure. Moreover, Kenya's urban areas have a young, dynamic, well-educated, English-speaking population with a high potential for employability.

Figure 5.1: Map of Kenya

The current context of Public-Private Partnership projects in Kenya

Prior to COVID19, Kenya's economy was the second largest in East Africa, alongside being one of the fastest-growing economies in Africa. Economic growth averages at 5.7% and Kenya has enjoyed recent economic expansion thanks to a stable macroeconomic environment, positive investor confidence and a resilient services sector. Especially notable were Kenya's horticultural and tourism sectors.

The private sector has high potential, given the fact that it accounts for 70 percent of total employment, 80 percent of gross domestic product (GDP), and most of the nation's export earnings.[56] Moreover, according to the World Bank's 2020 Doing

[56]IFC Insights: Kenya's Growth? Three Promising Areas, Dec 2019

Business survey, Kenya ranks as the third-highest African country, following Mauritius and Rwanda.

Nonetheless, Kenya has faced several challenges. These include a significant deficit in the infrastructure sector, an increased demand for quality and affordable services from citizens, including transport, water and sewage, telecommunications, power and social services. This has led to developing programs to foster private sector participation in infrastructure investments to help address the funding gap in the sector and reduce associated risks.

Given the Government of Kenya's (GOK) insufficient resources to meet infrastructure requirements (approximately USD 4 billion per year)[57], PPP projects play a pivotal role, particularly in electricity generation and transmission, rail and road networks and water access and irrigation.

While the Kenyan PPP law was only enacted in 2013, the 2017 Budget Policy Statement highlights that private investment in public infrastructure has been taking place since 1996, with the first such investment being in the energy sector.[58] Kenya then issued PPP Regulations in March 2009. On 27 August 2010, Kenya adopted a new Constitution, introducing reforms, which triggered significant changes to the institutional structure of the Kenyan state. A key element of the devolution reforms was the empowerment of County Governments to develop infrastructure projects locally.

On January 14, 2013, PPP legislation was signed by President Mwai Kibaki with the aim to provide GOK bodies with the legal capacity to enter into contracts with the private sector, create certainty and investor confidence, reduce negative impacts on risk profiles of PPP projects, provide a clear approval process for PPPs and increase the capacity for funding for key infrastructure development projects in line with Vision 2030. The passing of the PPP Act thus led to a boost in private sector interest in these partnerships.[59]

Government plans for PPPs

The GOK considers PPPs to be an important factor to help bridge the existing

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https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/insights/kenya-prospects

[57] worldbank.org, 2018. *Kenya: Enabling Private-Sector Participation in Infrastructure and Social Services*

https://www.worldbank.org/en/about/partners/brief/kenya-enabling-private-sector-participation-in-infrastructure-and-social-services

[58] World Bank Blogs, 2017a. *Public-Private Partnerships: How does Kenya fare?*

[59] Ibid.

infrastructure funding gap in areas such as energy generation, road expansion and construction of hostels for various training institutions as well as affordable housing in urban centers and the management of solid waste. Other priority projects include oil exploration. The GOK equally envisions PPPs as a way to increase the efficiency and effectiveness of public services in the country according to the different needs found in the various sectors. The GOK believes this is key to the country's economic development, and provides potential for new jobs for unemployed Kenyans.

As aforementioned, part of the GOK's biggest aim and priority plan is to address issues related to affordable housing, universal healthcare, growing manufacturing and food security. The construction industry is one of the key focus areas in Kenya where the GOK is continuously looking for private sector partnerships and is driven primarily by two key infrastructure sectors: transportation and building/housing.

To further increase the movement of Kenyans, ease the transportation of goods and reduce the burden of congestion on their roads, the Government has been spending a substantial amount on ensuring ongoing projects are completed. As of 2015, an estimated USD 55.6 billion in investment into infrastructure development for Kenya was planned, the majority of which will focus on telecommunications and power generation infrastructure. Agribusiness and manufacturing are other equally key investment opportunities with significant potential. Kenya participates in regional and global trade opportunities, such as the African Continental Free Trade Area (AfCFTA) and the African Growth and Opportunity Act (AGOA), the core economic policy and commercial engagement between the US and Africa which provides eligible sub-Saharan African countries with duty-free access to the US market. These initiatives highly contribute to Kenya's integration efforts into the global economy.

Figure 5.2: Kenya – Infrastructure investments, 2012-2020

	SECTOR	AMOUNT IN USD M
1	Energy (power and others)	19,808
2	Ports	4,800
3	Roads	9,000
4	Water and sanitation	4,567
5	Railways	7,248
6	Airports	906
7	Tourism	2,050
8	ICT	7,850
9	Local Government	2,000
10	Housing	2,901
11	Public Works	1,000
12	Lamu Transport Corridor	3,723
	TOTAL NEEDS	62,176
	AVAILABLE -GOK (2012-2020)	25,000
	FUNDING GAP	**37,000**

Source: Ministry of Finance, Kenya.[60]

Analyzing the country's private sector and the scale of investments in Kenya helps to understand the Government's plans for PPPs. Throughout 2019, the country attracted 54 projects totaling USD 2.9 billion in announced investments, according to fDi Markets, a Financial Times data service that tracks greenfield cross-border investment. This growth highlights a general rise across for the continent in foreign direct investment that supports new projects.[61]

The GOK has also been actively implementing reforms to attract FDI, and in this objective, has improved the reliability of the electricity supply by modernizing its existing infrastructure. Kenya has further invested USD 2.9 billion USD into private infrastructure in the last 5 years.[62] Other important aspects where the country has made notable changes are registering property, getting credit, protecting minority investors, tax payment and resolving insolvency.

The current legal and regulatory framework for PPPs in Kenya has enabled the Government and its agents to implement an effective PPP process, and through this, some PPP projects were closed while others are at various stages of implementation.[63]

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[60] Public Private Partnerships in Kenya,
http://trademission.kenyagreece.com/wp-content/uploads/Public-Private-Partnership-in-Kenya.pdf

[61] IFC insights,
https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/insights/kenya-prospects

[62] Global Infrastructure Hub. *Kenya: Country Infrastructure Summary*.

[63] National Treasury of Kenya,
https://www.treasury.go.ke/aboutus/senior-management/594-ag-director-general-public-investments-portfolio-management.h

The GOK is also looking to broaden innovation and technology in the country through partnerships, such as the signed agreement with Center for Effective Global Action (CEGA) at the University of California, Berkeley, along with The Rockefeller Foundation, and the United Nations, to inspire future action and support for the delivery of Kenya's Big Four agenda, namely, food security and nutrition, affordable universal healthcare, affordable housing and enhancing manufacturing. Since 2017, Kenya is strategically partnering with the UN System in the Sustainable Development Goals Partnership Platform in collaboration with development partners, private sector, philanthropy, academia and civil society; with the aim to re-imagine development of the country, while promoting a culture of innovation and experimentation.[64] The Platform has become a lead initiative under Kenya's new UN Development Assistance Framework 2018-2022 for the optimization of SDG Partnerships, Financing and Innovations in support of Government Development Priorities in line with Kenya's Big Four Agenda.

The structure and scale of Kenya's Public-Private Partnership projects

Structure

The PPP Law Act implemented in 2013 by the Kenyan Parliament also establishes institutions that will regulate, monitor and supervise the implementation of project agreements. Similar to several other economies, the implementation of the Act involves, among others, one key feature, which is the creation of the Public-Private Partnership Unit (PPPU), a Special Purpose Unit within the National Treasury of the Government of Kenya (Ministry of Finance). The PPPU, which serves as the core of PPP expertise, is responsible for the systematic coordination of all the PPP projects review and approval process, and is designed to promote the flow of bankable, viable and sustainable projects that further the Kenya's National Policy on PPPs. The PPP Unit, working in close collaboration with the Public Debt Management Office, processes actual requests by project developers, negotiates the terms of the Government Support Measures instrument, and submits, through the Principal Secretary of the National Treasury, the negotiated Government Support Measures to the Cabinet Secretary for approval and issuance.[65]

The GOK has established a clear institutional framework for development and approval of PPP projects, namely, the cabinet, the PPP Committee, the PPP Secretariat, the contracting authorities and the role of Treasury in fiscal risk

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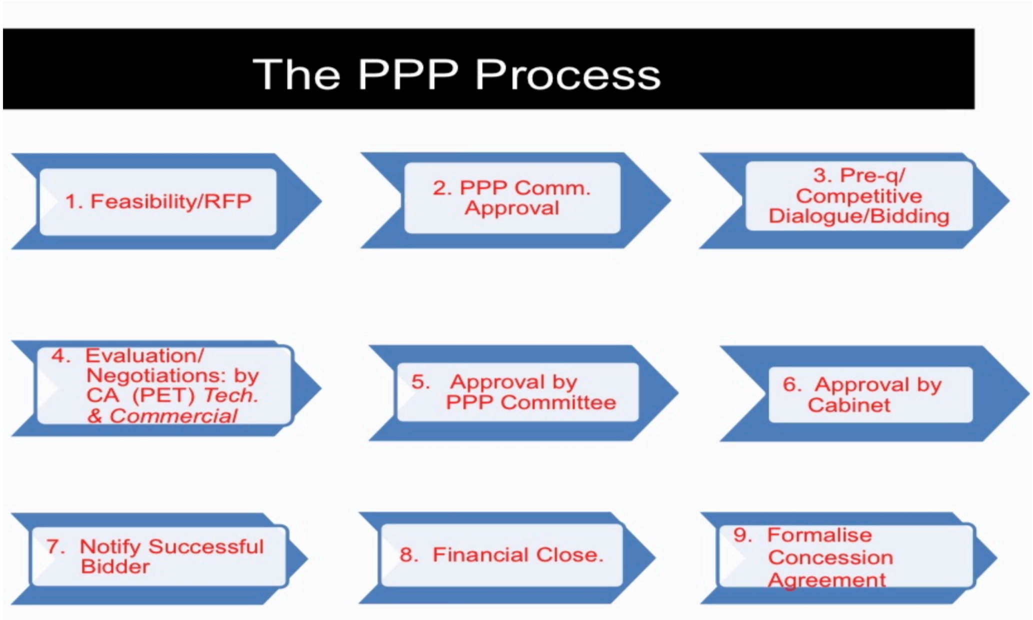
[64] UN Kenya, 2018. *UNDAF, 2018-2022*.

[65] Government Support Measures Policy, treasury.go.ke, Oct 2018,

https://treasury.go.ke/guideline.html?download=877:government-support-measures-policy management and contingent liabilities (as shown in Figure 5.3). The GOK is equally providing to investors a clear, transparent, fair and competitive process for PPPs, including Project identification, selection, prioritization, preparation, appraisal, procurement, approvals and procurement of project advisors.

Figure 5.3: The PPP Process in Kenya



Source: Ministry of Finance, Kenya[66]

In 2016, the Kenyan government started working with the World Bank Group to enhance transparency and accountability in PPPs and to therefore improve its business environment with the launch of the PPP Disclosure Portal in June 2018. The PPP Disclosure portal is an online tool that makes all non-confidential information relating to PPP contracts available to the public. The Government will also assemble bankable projects before going to the market and will utilize the Privately Initiated Investment Proposals (unsolicited) method of procurement when there is an urgent need for continuity and where there is intellectual property/innovation.

Scale

According to Stanley Kamau, the former Director of Kenya's PPP Unit, who also established the current legal and regulatory framework for PPPs in Kenya: "the country has emerged from the initial stages of building and strengthening the regulatory and institutional framework for PPPs at various levels, and has now moved

[66] Diagram adapted from the Public Private Partnerships in Kenya, http://trademission.kenyagreece.com/wp-content/uploads/Public-Private-Partnership-in-Kenya.pdf

on to the actual implementation of an ambitious project pipeline."[67]

According to PPP Knowledge Lab, there is a total number of 32 infrastructure projects in Kenya, with 27 currently active PPP projects, in a wide range of sectors.[68] Further information on PPP projects in Kenya is provided in Appendix 4.

Figure 2.4: Largest projects in infrastructure

Largest projects Most recent projects

PROJECT NAME	SECTOR	FINANCIAL CLOSURE YEAR	INVESTMENT ($US MILLION)
Aldwych Lake Turkana Wind Farm	Electricity	2014	$762.94
Kenya-Uganda Railways	Railways	2006	$404.00
Ormat Olkaria III Geothermal Power Plant	Electricity	1999	$324.00
Kipeto project	Electricity	2018	$300.00
Kwale Sugar plantation	Electricity	2013	$200.00
Aeolus - Ngong Wind Project	Electricity	2013	$171.00
Athi River Medium Speed Diesel (MSD) Power Plant (81MW)	Electricity	2013	$156.00
Rabai Power Plant	Electricity	2008	$155.00
Modogashe-Habaswein-Samatar and Rhamu-Mandera roads	Roads	2018	$147.92
Triumph HFO Power Plant	Electricity	2012	$140.00

Source: PPP Knowledge Lab

Energy

Among several electricity infrastructure projects in Kenya, one is the tall, white wind turbine project of Lake Turkana Wind Power (LTWP), situated in northern Kenya. The LTWP project, approximated to cost USD 600-700 million and is currently Africa's largest wind energy power plant. It stands as the largest private investment in Kenya to date.[69] LTWP generates up to 310 MW(megawatt) and provides around 17 percent of the country's installed energy capacity. Through this achievement, Kenya demonstrated itself as a global leader in renewable energy development, and shows its resoluteness for green energy reliance, with approximately 70 percent of its installed capacity coming from renewable sources (incl. hyrdo).

Healthcare

The GOK's goal is to ensure continuous improvement of health systems and to expand access to quality and affordable healthcare to tackle the high incidence of non-communicable diseases that affect the region. In 2015, the GOK selected GE Healthcare as one of its main partners to deliver a seven-year Managed Equipment Services Partnership (MES) to provide Kenya's 46 million population with access to

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[67] World Bank Blogs, 2017a. *Public-Private Partnerships: How does Kenya fare?*

[68] PPP Knowledge Lab. *Kenya*.

[69] Africa Up Close, 2019. *Public-Private Partnerships in Africa: Some Lessons from Kenya's Lake Turkana Wind Power Project*.

teleradiology services across 98 Ministry of Health hospitals in Kenya's 47 counties. This partnership has aimed to increase access to affordable healthcare for all residents and enable earlier diagnosis and treatment of various diseases. The project represents one of the government's flagship programs to decentralize specialized healthcare services from national referral hospitals to a county (local) level.[70]

Project administrators cite the success of the project in improving access to specialist radiology training for medical staff, increasing the skillset of healthcare workers, and better workflow efficiency, such as a faster process of scanning patients and higher efficiency in treating patients. Other highlights of the projects cited are considerable larger numbers of patients visiting hospitals and a rise in the use of different types of radiology services (x-rays, ultrasound and mammography exams which have helped to increase capacity for breast cancer screening, a leading cancer killer in Kenya).

Additionally, evaluations suggest a 50 percent improvement in access to radiology services recorded across three pilot hospitals in the first five months after the installation of the new equipment. The project outcome has been shared with other African countries, and is seen by the World Bank as a helpful example of how risk-sharing procurement models such as PPPs can be adapted to create a new type of partnership to successfully address healthcare challenges.

[70] World Bank Blogs, 2017b. *Transforming Kenya's healthcare system: A PPP success story*.

The case of Rwanda

Introduction to Rwanda

Summary

- A key aspect of Rwanda's Vision 2020 is to develop a private sector-led economy. The Government is focused on private sector-led development to achieve its aim of reaching lower middle-income status by 2035 and reducing the country's reliance on foreign aid.
- Rwanda has implemented significant reforms to improve its business environment and the ease of doing business for the private sector alone or in partnership with the Government. These reforms include developing a comprehensive PPP framework including guidelines for the private sector, and implemented new laws and reduced costs and requirements especially for small and medium startup businesses.
- The Rwanda Development Bank (RDB) has been nominated by the Government as the Secretariat to the PPP Steering Committee and the PPP Unit which is also in the RDB. The Government also designated RDB as the lead negotiator for negotiations relating to PPP agreements.

Figure 5.5: Map of Rwanda

Source: freeworldmaps.net

A small, landlocked, emerging democracy, Rwanda is on the rise among African countries as a key regional player. The country is a prominent member of the East African Community (EAC) and borders the Democratic Republic of Congo, as well as its closest East African neighbors; Tanzania, Uganda, and Burundi. With a population of 12.3 million (2019)[71] and one of the fastest growing GDPs in the world, Rwanda now aspires to reach Middle Income Country (MIC) status by 2035 and High-Income Country (HIC) status by 2050. Rwanda is an ambitious and thriving nation. The success of Rwanda is often correlated to the longtime leadership of President Kagame, who has been able to make important economic and structural reforms and sustain its economic growth rates over the last two decades. He also initiated important reforms in the African Union when chairperson from 2018-2019.

The current context of Public Private Partnership projects in Rwanda

Rwanda is in an advantageous position to solicit investment and attract new national and international markets, which can be successful through PPPs. PPPs are not a new concept in Rwanda, though their legal, regulatory and institutional structure is still in its early years. Prior to the enactment of the law for PPPs by the Government of Rwanda in May 2016[72], all projects were contracted by government agencies according to sector-specific legislation, as well as the public procurement law. However, Rwanda also engaged in a number of contracts and awarded contracts to private operators to provide key public services through PPPs. According to Clare Kamanzi, CEO of the Rwanda Development Board (RDB), Rwanda was 100 percent reliant on aid in 1994, but today has become a country that is now only dependent on aid for about 14 percent of its budget. On average, the private sector now creates about 38,000 jobs per year, many of which are targeted toward Rwanda's young people.[73]

Government plans for PPPs

In Rwanda, public investments have been the main driver of growth, and although Rwanda's economic growth has been impressive over the last decade, the growth slowdown of 2016 and 2017[74] continued to highlight the limits of the public sector-led growth model. The Government of Rwanda (GOR) and the RDB believe that the private sector will play a bigger role in helping to ensure economic growth,

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[71] National Institute of Statistics of Rwanda. *Size of the resident population*.

[72] Rwanda Development Board, 2018. *Public Private Partnership Guidelines*.

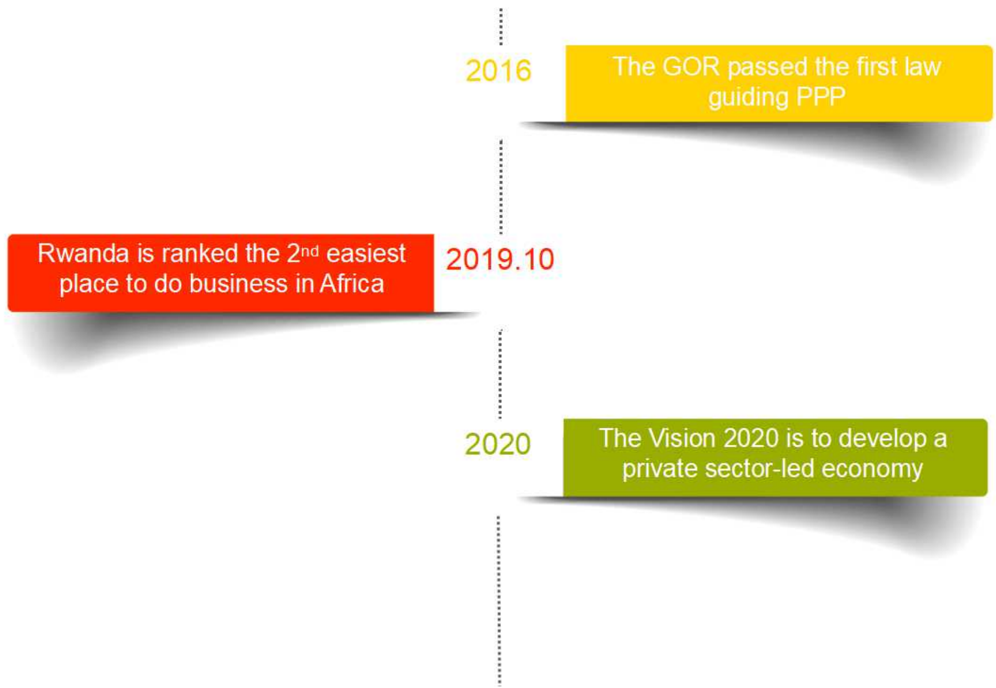
[73] International Monetary Fund, 2019. *Finance & Development: Clare Akamanzi explains how Rwanda is encouraging private sector development*.

https://www.imf.org/external/pubs/ft/fandd/2019/06/pdf/private-sector-development-in-rwanda-trenches.pdf

[74] World Bank, 2017b. *Rwanda Economic Update: Sustaining Growth by Building on Emerging Export Opportunities*.

while acknowledging the need to balance the divergent needs of the commercial private interests with the government's objectives of inclusive growth.

Figure 5.6: Rwandan government's plans for PPPs



Source: compiled by CABC

In 2016, the GOR passed its first law establishing guidelines for future contracts between the government and the private sector. Currently, the government is working with all stakeholders, including the private sector to further streamline and strengthen PPPs.

The GOR considers that the private sector can play an important role in supporting accelerated delivery of strategic national investments via Public Private Partnerships. The GOR believes that PPPs can benefit the economy mainly in areas such as quality infrastructure assets and services, and has opened doors to PPPs to contribute to attaining GOR's goals in Vision 2020, Vision 2050 and the Economic Development and Poverty Reduction Strategy.[75]

Furthermore, a key role of the RDB is promoting and attracting potential partners for PPP projects. RDB's PPP team also leads the negotiation process in collaboration with the Ministry of Justice for legal opinion.

A key aspect of Rwanda's Vision 2020 is to develop a private sector-led economy. The

[75] Rwanda Development Board, 2018.

GOR is focused on private sector-led development to achieve its aim of reaching lower middle-income status by 2035 and reducing the country's reliance on foreign aid. It is in this context that Rwanda has implemented significant reforms to improve its business environment and to ease doing business for the private sector alone or in partnership with the Government. These reforms include developing a comprehensive PPP framework including guidelines for the private sector, and implementing new laws and reducing costs and requirements, especially for small and medium startup businesses. Rwanda has therefore maintained its position as the second easiest place to do business in Africa and is now 38th globally, according to the 2020 World Bank Doing Business report released in October 2019. Rwanda ranked second in Africa after Mauritius and maintained first position in the East African Community.[76] Rwanda is also the only low-income country in the Top 50 countries included in the report.

On the one hand, the GOR has significantly improved partnerships with partners such as USAID in terms of support with funds and capital for Rwanda's development efforts, including human capital, a robust private sector, and building accountable institutions.[77] On the other hand, to increase the competitiveness of the Rwandan economy, the GOR is using a Value Chain Approach to focus on sectors that hold the biggest potential for contributing to Rwanda's overall development objectives, while alleviating the pressures on the Rwandan economy in the medium-term through increased job creation, a dynamic private sector and a more resilient current account balance.[78]

The World Bank Group's portfolio in Rwanda currently includes 18 national projects and 4 regional operations with a net commitment of about USD 1.9 billion. Put simply, the bank's main work is that of technical and financial support to Rwandan national projects through concessional loans in various industries, including infrastructure in rural and urban areas, energy, health and education. While the World Bank (WB) primarily deals with public projects, the International Finance Corporation (IFC) is the arm that works directly with the private sector. Project financing is usually 4-5 years, and technical support focuses on policy reforms and impact development. The WB Group's work on PPPs is mainly with the RDB in forming the regulatory framework for the country's PPP law.[79]

The structure and scale of Rwanda's Public Private Partnership projects

[76] Rwanda Development Board, 2020. *Rwanda maintains 2nd position in Africa in 2020 World Bank Doing Business Report*.

[77] US Embassy in Rwanda, 2020. *USAID Commits 605 Billion RWF to Rwanda's Development*.

[78] PSDYE Sector Working Group Secretariat, 2017. *Private Sector Development and Youth Employment Strategy, 2018-2024*.

[79] Interview with Yasser El Gammal, then country manager, January 2020.

Structure

Aiming to grow economically and achieve optimum gains from private participation in infrastructure projects, fair allocation of risks amongst the private and government partners and the balancing of gains to both parties is considered crucial, given the substantial contingent liabilities that could devolve on the GOR from PPP projects.

Acknowledging these requirements and to facilitate PPPs, the GOR enacted LAW No14/2016 of 02/05/2016 for Governing PPPs in Rwanda.[80] The Law defines the types of PPP arrangements and potential sectors; identifies institutions to be involved; outlines processes for the procurement of PPP projects; delineates roles for institutions; and institutionalizes the governance framework for PPPs. The GOR, through the RDB, established a series of guidelines to provide an overview of the concepts and procedures to be followed, and requirements to be met, for the successful implementation of PPP projects.

PPP Institutional framework

The RDB has been nominated by the GOR as the Secretariat to the PPP Steering Committee (PPPSC) and the PPP Unit, also in the RDB. The GOR also designated the RDB as the lead negotiator for negotiations relating to a PPP agreement. The RDB therefore supports the committee in discharging its functions of approval and oversight of PPP projects, and to issue general Guidelines for the procurement of PPP projects and advise the GOR on matters related to PPPs.

The RDB has established a PPP framework that has the aim to help enhance institutional capacities through the development of sector strategies (including a fiscal risk management framework); help with the pipeline assessment and prioritization; specialist advisory support to priority projects; and provide capacity building through the development and roll-out of training programs for decision makers and technical staff involved in PPP projects.

PPP projects are welcomed and seen in Rwanda and overseas as a suitable step to attract further domestic and foreign investors by efficiently sharing inherent project risks, and thereby making investing in the provision of public goods and services more attractive for private partners.

The institutions and committees involved in the PPP project development and implementation process, according to Article 6 of the PPP Law, are: the PPP Steering Committee (PPPSC), the Contracting Authority (CA), and the Rwanda Development Board (RDB). In addition to these, other institutions and committees such as the

[80] Rwanda Development Board, 2018.

Public Investment Committee (PIC), the Ministry of Finance and Economic Planning (MINECOFIN), the Ministry of Justice (MINIJUST) and the Rwanda Utility Regulatory Authority (RURA) for the sector it regulates will also play an important role in the PPP process in accordance with other laws, regulations and policies of the GOR.

Process and approval

All PPP projects in Rwanda go through various stages to approve tender documents, selection of bidders (shortlisted bidders) and processing of procurement up to the selection of the preferred bidder (refer to the Law Governing PPPs). The process is broken down into five stages:

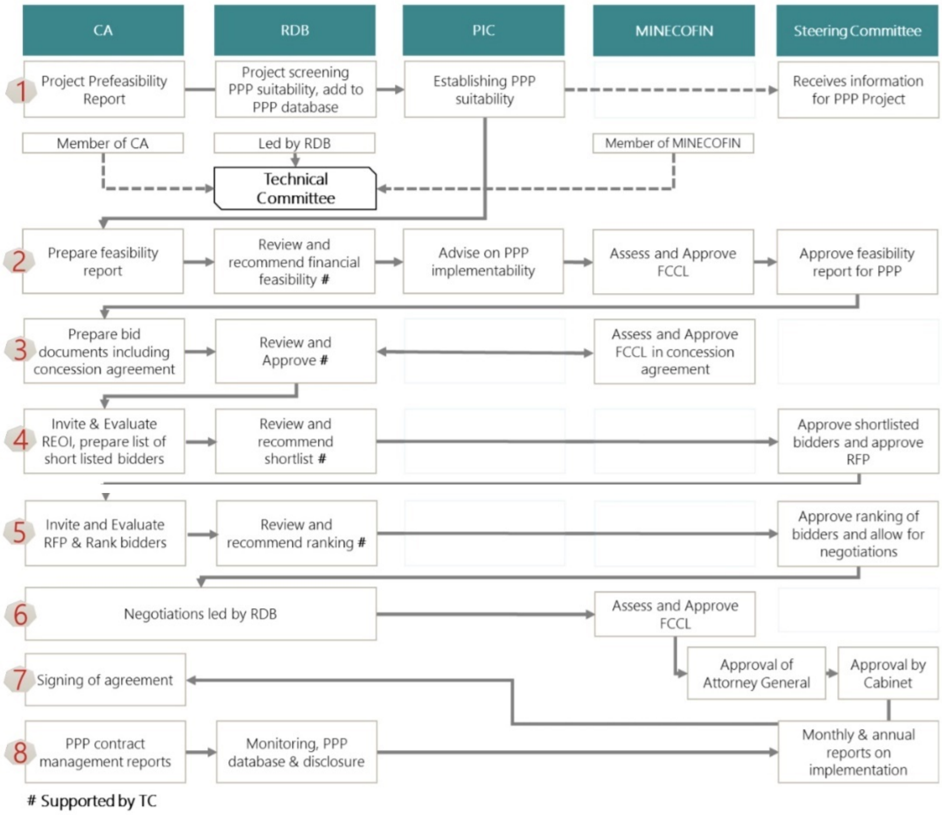
1. Project screening by RDB.
2. Approval of full feasibility.
3. Approval of implementation.
4. Implementation and monitoring.
5. Ex-post evaluation (operation).

Figure 5.7: Process of approval

Source: compiled by CABC

The RDB, with the institutions and committees mentioned above, oversees the process and approval of the PPP projects, as shown in Figure 5.8.

Figure 5.8: Process for PPP-based procurement in Rwanda



Source: Rwanda Development Board, 2018.[81]

Scale

In 2016, some of the areas ripe for PPP investment model include the Nyabarongo II Hydropower generation, the Mutobo water supply project, the Rwanda International Trade Fairs and Exhibition Park, Muvumba Multipurpose Dam, among others.[82] Currently, several projects are being implemented under the PPP arrangement in ICT, energy, water, transport and agro-processing sectors.

In 2017, some of the projects developed under joint ventures between government and the private sector were Kivuwatt (between Contour Global, an American firm, and the government); Akanyaru Valley Peat project (between YUMN Ltd[83] and the government); GigaWatt (between Global Rwanda Limited and the government),

[81] Public Private Partnership Guidelines, Official Gazette n°29bis of 16/07/2018. https://rdb.rw/wp-content/uploads/2018/08/PPP-Guidelines.pdf

[82] Interview with the Economic Planning Minister of Rwanda, January 2020.

[83] YUMN Ltd is a group that includes a Turkish coal trading firm Hakan Madencilik A.S, an energy company Quantum Power and a project development firm Themis. It is constructing the 80 MW peat-fired power plant on a Build, Operate, Own and Transfer (BOOT) basis with a 26-year of power purchase agreement.

Olleh Rwanda (between Korea Telecom Corporation and the government) and Africa Improved Foods, as delivered by a consortium of Royal DSM[84], the Dutch Development Bank (FMO), DFID Impact Acceleration Facility, managed by CDC Group plc[85], the IFC, and the government.

Project name	Sector	Financial Closure Year	Investment
Muvumba Multipurpose dam[86]	Water supply	-	USD 101.3 million
Nyabarongo II Hydropower generation[87]	Electricity	2025	USD 214 million
Moboto water supply project[88]	Water supply	-	USD 121.5 million
Kivuwatt by Contour Global[89]	Electricity	2015	USD 325 million
Akanyaru Valley Peat project (Hakan and government)[90]	Community building	2020	USD 400 million
GigaWatt (Global Rwanda Limited and government)[91]	Electricity	2014	USD 23.7 million
Olleh Rwanda (Korea Telecom Corporation	Telecomms	2018	USD 10 million

[84] Royal DSM is a global science-based company in nutrition, health and sustainable living.

[85] CDC Group plc is a development finance institution owned by the UK government.

[86] Afrik21 (September 2019),
https://www.afrik21.africa/en/rwanda-state-invests-e98-million-in-muvumbas-multipurpose-dam/

[87]The international Journal on hydropower & DAMS (February 2020),
https://www.hydropower-dams.com/news/rwanda-signs-financing-agreement-for-nyabarongo-ii-project/
Rwanda Energy group.
https://www.reg.rw/what-we-do/projects/project-details/view/nyabarongo-ii-multipurpose-project/category/generation/

[88] The New Times Rwanda (May 2012), https://www.newtimes.co.rw/section/read/52905

[89] PowerTechnology Projects. https://www.power-technology.com/projects/kivuwatt-project-lake-kivu-kibuye/

[90] Rwanda Energy group (January 2016),
https://www.reg.rw/media-center/news-details/news/the-government-of-rwanda-signs-80mw-peat-to-power-deal-with-hakan/
The New Times Rwanda (May 2017), https://www.newtimes.co.rw/section/read/212125

[91] Rwamaga Solar Power Station sourced from wikipedia English.
https://en.wikipedia.org/wiki/Rwamagana_Solar_Power_Station

and government) and Africa Improved Foods[92]			
Rwanda International Trade Fairs and Exhibition Park[93]	International trade	2020	USD 60.8 million

Energy

In Rwanda, the electricity access was 34.7 percent in 2018, according to the Sustainable Energy for All (SE4ALL) database[94], while the target has been for 70 percent of households to have access by 2020, to be met through a combination of energy resources. According to the Rwanda Energy Group (REG), as of September 2020, the electricity access rate has reached 56.7 percent of Rwandan households including 41.3 percent connected to the national grid and 15.4 percent accessing through off-grid systems (mainly solar).[95] 100 percent access to electricity is targeted by 2024 with 52 percent on grid and 48 percent off grid (38 percent standalone solar and 10 percent micro-grid).[96] With the aim to provide safe, reliable, efficient, cost- effective and environmentally appropriate source of energy as the best long term solution, Rwanda has been exploring renewable energy resources including geothermal and hydropower energy as alternative energy sources in the past decade.[97] Geothermal projects have already been identified in four locations including at Gisenyi, Kinigi and Karisimbi, which are across the dormant volcano areas in north western Rwanda, as well as Bugarama, in the Western part of Rwanda. These efforts depend heavily on foreign investment. Hydropower development focuses mainly on micro-projects that will power small villages and hospitals.

The Ministry of Infrastructure, which is in charge of policy and the evaluation of human, water and transport energy, has an important mission to ensure universal power coverage by 2024. It is estimated that it will cost USD 50 million to generate this amount and that the WB could potentially finance 50 percent of it at a low interest rate. The rest will need to be financed in cooperation with the private sector.

The gap in energy needs cannot be overstretched. 83 percent of the cooking sector for instance still uses firewood, which implies a significant amount of tree cutting.

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92 Commsupdate:https://www.commsupdate.com/articles/2019/12/02/usd10m-upgrade-for-rwandan-4g-network

93 Spatial Solutions: https://www.spacial-solutions.com/en/projects/ritep/

94 World Bank. *SE4ALL Global Tracking Framework*.

95 Rwanda Energy Group: Electricity Access https://www.reg.rw/what-we-do/access/

96 Electricity Access – MININFRA. http://www.mininfra.gov.rw/index.php?id=312

97 Rutagarama, 2018. *Geothermal Resource Exploration in Rwanda: A Country Update*. 7th African Rift Geothermal Conference.

Therefore, the Ministry's energy department has been working on a biomass strategy, which aims to transform the cooking sector by introducing methane gas, and thus reduce firewood usage to 42% percent by 2024.[98] Currently, only 7 percent of the cooking sector uses methane gas, according to the interview from MINIFRA Energy sector.

Water and Sanitation

Although PPPs seem to be mostly directed to energy projects on the African continent, the public drinking water service is essential in Africa. Kigali, the capital city of Rwanda, is preparing a project to entrust drinking water supply of more than half of its population to Kigali Water Limited (KWL). The project is to build a drinking water plant with a daily capacity of 40,000 m^3, one third of the total volume of drinking water produced for the city. KWL plans to produce drinking water from surface waters, with the support of several development partners. The project is progressing well and its promoter plans to deliver the project in 2020.[99]

PPP Projects in infrastructure

Figure 5.9: Largest Projects in infrastructure

PROJECT NAME	SECTOR	FINANCIAL CLOSURE YEAR	INVESTMENT ($US MILLION)
HQ Peat-fired Power Plant	Electricity	2017	$345.00
Kigali Bulk Water Supply Plant	Water and sewerage	2017	$60.00
Musanze Hydropower Plant	Electricity	2017	$17.00
Kigali Waste-to-Energy Power Plant	Treatment/ Disposal	2015	$1.13
Gishoma Biomass Power Plant	Electricity	2014	$36.00
Agahozo-Shalom Youth PV Solar Plant	Electricity	2014	$24.10
Rwanda Mountain Tea Giciye SHPP	Electricity	2012	$12.00
KivuWatt	Electricity	2011	$142.00
Gisenyi Methane Gas Plant	Electricity	2010	$16.00
Aggreko 10 MW Power Station Rwanda	Electricity	2005	$1.58

Source: PPP Knowledge Lab

[98] FAO Regional Office for Africa, 2019. "Rwanda envisages to reduce household reliance on wood fuel". http://www.fao.org/africa/news/detail-news/en/c/1195960/

[99] Afrik21, 2019. *Green Economy and Sustainable Growth in Africa*.

Examples of Successful PPP Projects

1: Kigali Bulk Water:

Forming part of Rwanda's national strategic economic development and poverty reduction program, the Kigali Bulk Water Supply Project (KBW) is fundamental to the government's aim of 100 percent water availability, contributing to Rwanda's ongoing economic development. This project is aiming to supply clean water to 500,000 domestic, commercial and industrial customers. The private partner in the USD 60 million Kigali bulk water project is a subsidiary of Dubai-based Metito Group, an international water management company active in emerging markets. The water supplied by the concessionaire will be sold to the government-owned water utility after a 27-year period of building, operating and maintaining the facility.

The KBW project is significant for Rwanda, Africa's PPP promoters and investors. It is one of the first PPP water supply and treatment projects to be undertaken in sub-Saharan Africa.[100] The financial closure of the project was announced in January 2017[101], positioning KBW among a handful of PPP projects now successfully completed in the eastern part of the continent, and brings hope for a new flow of infrastructure investment.[102]

There are various lessons learned and still being acquired from the KBW PPP project, with the need to develop a comprehensive PPP framework being one of the major examples seen in the experience with this project. Among others, coordinated blended finance, an impact focused dynamic, good and clear communication between stakeholders are also important. Regular in-country meetings between the government, lenders and developers also helped steer an inclusive, consultative path through delicate PPP negotiations.[103]

2: KivuWatt

The KivuWatt Project involves the construction of an integrated methane gas extraction facility and independent power plant in two phases. The project extracts potentially deadly methane found in Lake Kivu's deep waters to generate electricity. Construction work for the 25 MW Phase I of the methane gas-fired power plant began in August 2011 and the start-up and commissioning were initiated in June

[100] Principles for Responsible Investment, 2019. *PRI Awards 2019 case study: Kigali Bulk Water Supply Project*.

[101] https://www.waterworld.com/international/potable-water/article/16203048/kigali-bulk-water-supply-project-in-rwanda-kickstarts-water-ppps-in-subsaharan-africa

[102] (Ministry of Infrastructure, mininfra.gov.rw, Dec 2017)

The New Times Rwanda, 2019. *Watering the green shoots: Africa's evolving PPP environment,* https://www.newtimes.co.rw/business/watering-green-shoots-africas-evolving-ppp-environment

[103] World Bank Blogs, 2018c. *Kigali Water: Lessons from one of sub-Saharan Africa's first water PPPs*.

2015. Construction on Phase II, which will add an additional 75 MW, is expected to start in six months after the full-commissioning of Phase I.[104]

The project is being implemented by KivuWatt, a subsidiary of ContourGlobal, of which the headquarters are in the UK and has an operating income of USD 292.1 million (2019).[105] ContourGlobal is a growth platform for acquiring and developing wholesale power generation, with 107 power plants so far and long-term contracts diversified across fuel types and geographies, it operated in 18 countries, over 3 different continents.[106] The combined investment for the two phases is estimated to reach USD 325 million, of which USD 142 million has been earmarked for Phase I.[107]

In addition to gas extraction and power generation, ContourGlobal is also working with the local population in Rwanda, training and developing local workers to use more sustainable farming or fishing practices, and raising awareness in areas such as disease prevention and water quality tests. ContourGlobal has also been funding charitable projects, for example, donating materials for schools and building a library for the Gasura primary school in Kibuye, where the power plant is located.

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104 Power Technology. *KivuWatt Project, Lake Kivu, Kibuye*.

105 ContourGlobal, 2020. *FY 2019 Preliminary Results Presentation*.

106 Taken from the ContourGlobal official website at: [https://www.contourglobal.com/]

107 Power Technology. *KivuWatt Project, Lake Kivu, Kibuye*.

The case of South-Africa

Summary

- In 2000, the PPP unit was established within the Treasury Department to prevent fiscally irresponsible PPPs from being set up and to maintain investor confidence in the viability of such partnerships.
- A detailed Public Private Partnership Manual was published in 2004 and has since been updated frequently to reflect changes to law and policy. It systematically guides public and private parties through the phases of the regulated PPP project cycle for national and provincial governments, unpacking policy and providing procedural clarity.
- There has been a number of PPP projects that have been implemented in South Africa to date. Since the formal inception of PPPs in South Africa in 1998, a total of 33 PPP projects valued at USD 6 billion have been undertaken.

Introduction to South Africa

South Africa held its first ever democratic elections in 1994, following the end of the Apartheid era which lasted over 45 years. In post-Apartheid South Africa, there was a great need for structural and policy reform to combat the severe disparities that existed in people's rights, wealth and skills, and most importantly to ensure economic growth and development. Furthermore, a shift in the philosophy of the state, from "government" to "governance", took place and new mechanisms such as concessions and privatization began to emerge in the second half of the 1990s.[108]

Since the beginning of the new century, South Africa has enjoyed high economic growth rates, making it the second largest economy in Africa after Nigeria. It now is a member of the group of the large and fast-growing emerging economies, called BRICS,[109] and remains the only African member state of the G20.

[108] Burger, 2006. *The dedicated PPP Unit of the South African National Treasury*. p. 1.

[109] Bruchez, 2014. *Public Private Partnerships (PPPs) in South Africa*. University of Bern.

Figure 5.10: Map of South Africa

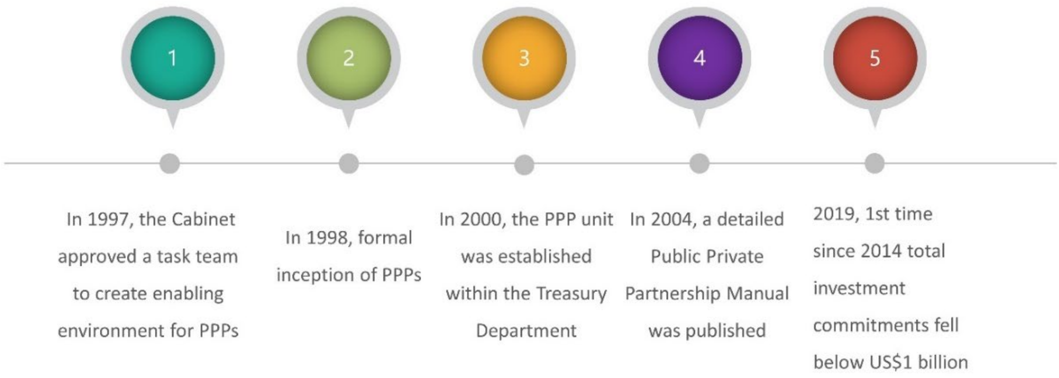
Source: Map from theodora.com.

The current context of Public Private Partnership projects in South-Africa

As PPPs became a popular global mechanism to bring greater efficiency and sustainability to public services during the 1990s, South Africa quickly adapted this mechanism by establishing a formal PPP structure within their National Treasury. In 1997, the South African Cabinet approved an inter-departmental taskforce to create a package of policy, legislative and institutional reforms to create an enabling environment for PPPs.[110] The pivotal moment for PPPs in South Africa, however, came in 1999 with the passing of the Public Finance Management Act (PFMA) in parliament.

[110] World Bank Open Learning Campus, 2016. *Value for Money: Identifying/Screening PPP Proposals in South Africa.*

Figure 5.11: South African PPPs development timeline



Source: compiled by CABC

The PFMA was enacted "to regulate financial management in the national government; to ensure that all revenue, expenditure, assets and liabilities of that government are managed efficiently and effectively; to provide for the responsibilities of persons entrusted with financial management in that government; and to provide for matters connected therewith."[111] It outlined some critical provisions and stipulations that gave formal definition to PPPs in the nation. PPPs were defined as a **"contract between a government institution and a private party, where the private party performs an institutional function and/or uses state property in terms of output specifications; substantial project risk (financial, technical, operational) is transferred to the private party; and the private party benefits through unitary payments from government budgets and/or user fees**".[112]

The PFMA further defined the qualifying factors for PPPs, which included risk transfer to the private sector, affordability, and value for money (VFM). All PPPs in South Africa were required to undergo an approval process to ensure fulfillment of these qualifying factors.

In 2000, the PPP unit was established within the Treasury Department to prevent fiscally irresponsible PPPs from being set up and to maintain investor confidence in the viability of such partnerships.[113] Further responsibilities include the development, formulation and promotion of PPP policy, formalization and standardization of PPP processes, assurance that international best practices are followed, and the provision of PPP training for both the public and private sectors.[114]

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[111] See the Public Finance Management Act at: [http://www.treasury.gov.za/legislation/PFMA/act.pdf]

[112] National Treasury PPP Unit, 2007. *Introducing Public Private Partnerships in South Africa*.

[113] World Bank, 2007. *Public-private partnerships units: Lessons for their design and use in infrastructure*. p. 48.

[114] See the Public Finance Management Act at: [http://www.treasury.gov.za/legislation/PFMA/act.pdf]

A detailed Public Private Partnership Manual was published in 2004 and has since been updated frequently to reflect changes to law and policy.[115] It systematically guides public and private parties through the phases of the regulated PPP project cycle for national and provincial government, unpacking policy and providing procedural clarity. It further sets rigorous risk-assessment standards by which the government will make affordable project choices so that there is the best leverage of private investment for quality public services. The manual also outlines a special plan that ensures black economic empowerment in PPP's, not only in the equity and management of the contracted private parties, but in their subcontracting and in the projects' local socio-economic impacts.[116]

Government plans for PPPs

Since the inception of the institutions and documents mentioned above, the number of partnerships between the public sector, the private sector, communities and civil society in South Africa is said to have grown steadily.[117] The South African government has touted PPPs as possible solutions to service delivery shortfalls in a variety of sectors, including education, transport, and health.[118] Despite a USD 152 billion[119] deficit in infrastructure funding, the government recognizes that PPP projects allow the government to move the cost of funding projects onto a private sector partner in exchange for long-term financial benefit, and minimal-to-no-risk to the public purse.[120] The government therefore remains fully committed to making sure that more partnerships between the public and the private sectors are enacted to ensure better and more efficient delivery of public services to South Africans. This is reflected in Finance Minister, Trevor Manuel's statement that PPPs provide the public with "[with] better, more cost-effective services; the private sector gets new business opportunities. Both are in the interests of the nation".[121]

The structure and scale of South Africa's Public Private Partnerships

Structure

115 World Bank Open Learning Campus, 2016.

116 National Treasury PPP Unit. *Public Private Partnership Manual*.

117 Bruchez, 2014.

118 South African History Archive, 2015. *Public-Private Partnerships: A legal spider web*.

119 Global Infrastructure Hub, Infrastructure Outlook, 2020

120 Mail & Guardian, 2019. *PPPs can fund public infrastructure – essential in the African context*.

121 National Treasury PPP Unit, 2007.

The project cycle, as shown in Figure 5.12, covers the two main periods of a PPP: the Preparation Period and the Project Term. The PPP Preparation Period contains phases I to III of the project cycle: Inception, Feasibility Study and Procurement, and then concludes with the signing of the PPP agreement. The Project Term contains phases IV to VI: Development, Delivery and Exit. The project cycle therefore serves as an important mechanism that each PPP needs to undergo to ensure an efficient, comprehensive, as well as credible execution process. The PPP manual also gives guidance on managing a PPP agreement, auditing PPP's, accounting treatment for PPP's, and project finance.[122]

Figure 5.12: South African PPP Project Cycle

Source: National Treasury PPP Unit, 2004.

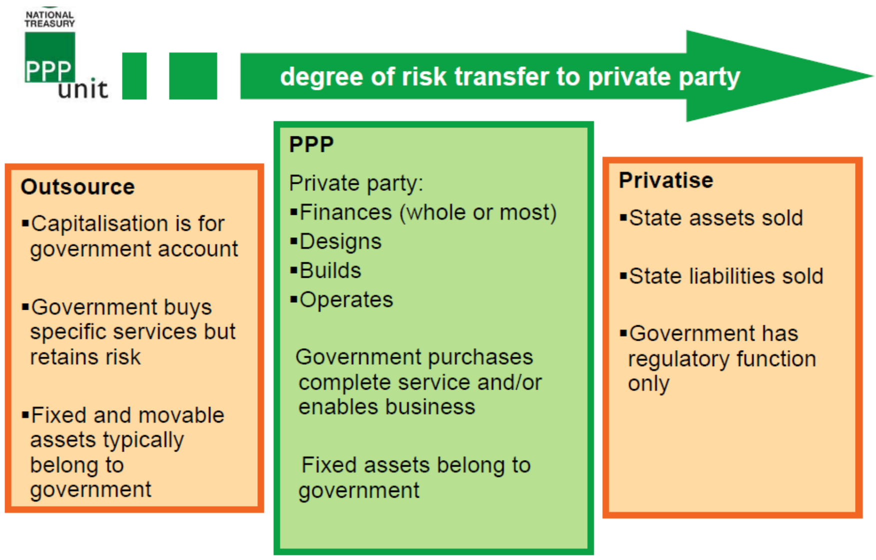
PPP Institutional Framework

The extent of risk transfer is a critical part of the PPP agreements that occur in South

[122] National Treasury PPP Unit. *Public Private Partnership Manual*.

Africa. Optimal risk allocation is one of the key values for money (VFM) drivers in any PPP delivery model.[123] With efficient risk allocation, the public agency is relieved of bearing certain risks that it cannot otherwise manage, such as cost overruns during the construction phase, construction delays or long term maintenance of the asset. On the other hand, efficient risk allocation ensures the private party that the project is financeable and has an attractive risk-return ratio.[124] In South Africa, the problem of risk allocation is solved as illustrated in the Figure 5.13 below, which essentially highlights the degree of risk transfer to the private party.

Figure 5.13: Risk Transfer to the Private Party



Source: National Treasury PPP Unit, 2007.

The PPP finance structure is also an important part of understanding the overall structure of PPPs in South Africa. The PPP manual is not entirely prescriptive about the financing structure of PPPs, as it is assumed that these will vary widely from project to project and sector to sector, and will be closely linked to the funding sources that can be secured for each deal. However, as is expected, PPPs should involve the private party raising both debt and equity to capitalize the project. The *National Treasury's Standardized PPP Provisions* have been developed for this typical PPP financing structure and sources of funding.[125] The Standardized PPP Provisions also include the promotion of a common understanding of the technical, operational and financial risks that are typically encountered in PPPs, a common understanding of how such risks must be transferred or shared among the parties involved in the

[123] Andersen, A, 2000. *Value for Money Drivers in the Private Finance Initiative*. Arthur Andersen Enterprise LSE.

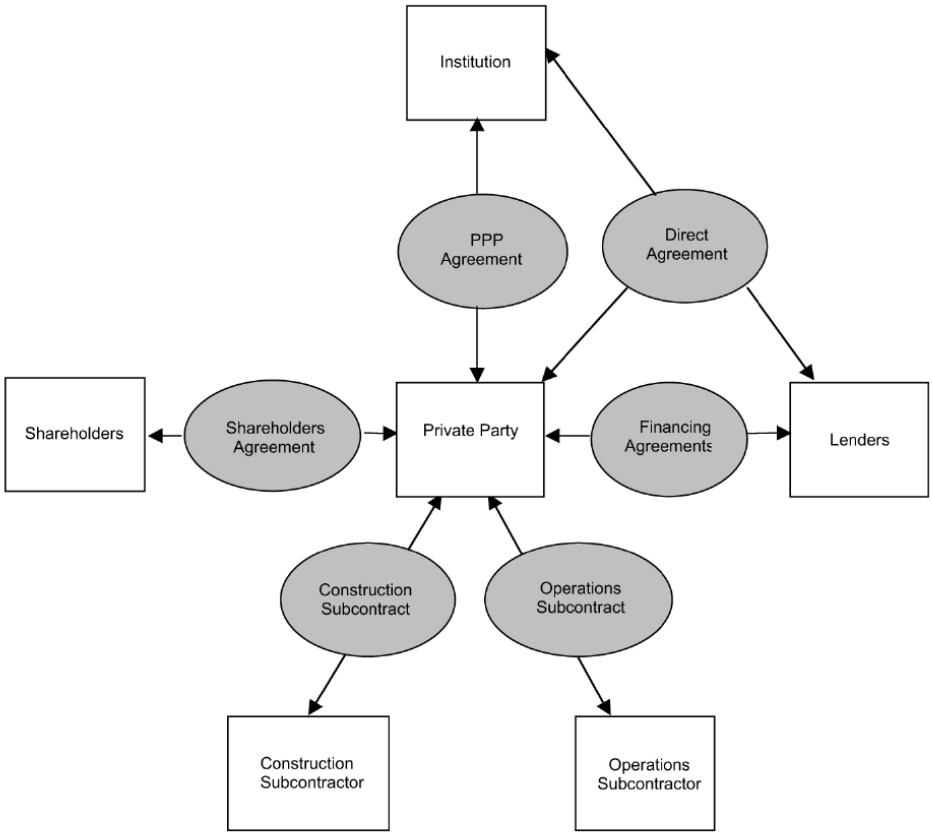
[124] Hovy, 2015. *Risk Allocation in Public-Private Partnerships: Maximizing value for money*. International Institute for Sustainable Development.

[125] National Treasury PPP Unit. *Public Private Partnership Manual*.

delivery of PPP's, a consistent approach to risk transfer, risk sharing and value for money across PPPs failing within the same sector, and a reduction of the time and cost of negotiation of the parties involved in a PPP, as briefly mentioned earlier.[126]

The following organogram shows the funding structure that is currently adopted by PPP projects, as stipulated by both the PPP Manual and the National Treasury Standardized PPP Provisions.

Figure 5.14: Funding structure of PPPs



Source: National Treasury, 2004.

Again, this structure is adopted with the full knowledge that it may not be necessarily appropriate for all PPP projects, such as those that are not highly capital intensive, as opposed to those that are highly capital intensive and therefore require funding sources with relatively low costs. In the instance that this structure is not appropriate (i.e. if the project is not highly capital intensive) then there are alternative funding structures that can be adopted, such as the following:

- *Corporate Finance*: a private party arranges the funding necessary to meet

[126] National Treasury, 2004. *Standardized PPP Provisions*.

the capital and other expenditure requirements of a project from its own balance sheet resources, or those of its shareholders and related parties.

- *Capital Contribution by the Institution*[127]: the Institution and/or other public sector bodies may contribute a substantial portion of the capital required for a project, usually in the form of grants, with certain tax implications that must be considered, particularly in relation to value-added tax (VAT).[128]

Scale

There have been a number of PPP projects that have been implemented in South Africa to date. Since the formal inception of PPPs in South Africa in 1998, a total of 33 PPP projects valued at USD 5.8 billion have been undertaken (see Appendix 3). Of the USD 54.6 billion planned for public sector infrastructure spending over the next three years, PPP projects account for USD 1.2 billion, which is 2.2 percent of the total public sector infrastructure budget estimate, making PPPs in South Africa tightly managed and regulated.[129]

However, by 2019, the country had only minimal investment commitments at USD 972 million. It was the first time since 2014 that total investment commitments had fallen below USD 1 billion.[130] The significant decrease can partly be attributed to a financial and operational crisis involving the national power agency, Eskom. Eskom's semi-annual results, announced at the end of 2018, highlighted 89 percent lower profitability than had been recorded in the previous year, mainly due to its unsustainable debt level.[131] However, with recent plans by the government to unbundle and reform the national power agency, there is a positive prospect for investment in PPP's to bounce back in the coming years.

Examples of successful PPP projects

There have been many success stories in South Africa of how PPPs have not only met the criteria of affordability, value for money and appropriate risk transfer, but have also gone on to make a tangible difference in the trajectory of the country and attained positive outcomes in the lives of the citizens. Two examples are elaborated on here, but to see more, see Appendix 3.

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[127] These Institutions comprise constitutional institutions, national and provincial departments and those national and provincial government enterprises and national and provincial public entities that are listed from time to time in Schedule 3 to the PFMA unless specifically exempted pursuant to section 92 of the PFMA or Treasury Regulation 16.10.

[128] National Treasury, 2004.

[129] Mail & Guardian, 2019.

[130] World Bank, 2019.

[131] Financial Times, 2018. *Eskom's debt is draining South African growth*.

1: The Gautrain Project

Originally initiated in 2006, the project was considered the most promising sign of the burgeoning activity in the infrastructure PPPs market.[132] The Gautrain is a high-speed train that links Johannesburg, Pretoria and the OR Tambo International Airport, creating this important transportation link which makes up the economic powerhouse of South Africa.[133] It was the first-ever rapid rail system in Africa and the first-ever world-class public transport system for Gauteng Province. The rail system has helped to ease traffic congestion between Johannesburg and Pretoria, as well as make travel to and from OR Tambo International Airport more bearable.[134]

2: South Africa's Renewable Energy Independent Power Producer Program (REIPPP)

The program was launched in 2011 by the Department of Energy to enhance South Africa's power generation capacity.[135] In the program, companies are encouraged to generate power independently using renewable resources, the government then buys this energy and channels it towards the national power agency, Eskom, and in the end ordinary South Africans are able to benefit from a reliable power output.[136] Since the launch of the program, USD 16 billion in private sector investment has been committed for 79 awarded projects, totaling 5,243 megawatts (MW) of renewable energy.[137] On top of providing more energy for South Africans, the project also saw a reduction of tariff rates for solar and wind over a short period of time, encouraged development in many rural parts of the country and also contributed in the achievement of some of the climate goals that were set by the South African government,[138] under the National Climate Change Adaptation Strategy, which seeks to create a low-carbon, climate resilient economy.[139]

Overall challenges and prospects for the case study countries

The overall challenges and prospects for potential investors to consider have been summarized in Figures 4.14 and 4.15.

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[132] Levinsohn & Reardon, 2007. *Municipal PPP projects in South Africa: Obstacles and opportunities*. IP3's Public-Private Partnership Information Series, May 2007. p. 4.

[133] Bruchez, 2014.

[134] Business Media MAGS. *The Value of Public-Private Partnerships*.

[135] Ibid.

[136] Ibid.

[137] Partnership on Transparency in the Paris Agreement. *South Africa's Renewable Energy Independent Power Producer Procurement Programme*.

[138] Ibid.

[139] Polity, 2020. *South Africa's National Climate Change Adaptation Strategy Approved*.

Figure 4.14: Challenges of PPPs in the three countries

Challenges	Kenya	Rwanda	South-Africa
Government's debt burden	Debt to GDP currently at 68%. The government's debt burden could threaten the pace of infrastructure development and decrease the level of investor confidence in the market	Debt to GDP currently at 65%. Rwanda, although a fast growing economy, has low domestic savings & skills du to high poverty rates which affect tax revenue collection	Debt to GDP currently at 81.8%.
Financial closure	PPP projects seek a third party financing. Failure to secure a financial support is often quite common on top of the hard terms and conditions of lenders, among other requirements. This is often due to projects not being bankable, a lack of full identification of project risks, and gaps in project planning and implementation	The high cost of financing, energy and infrastructure remains a challenge related to the fact that Rwanda is a landlocked country and still developing.[140] The government and the relevant institutions in charge of investment and strategies such as RDB are implementing reforms and working on reducing these costs.	New projects decline due to delays and cancelled projects in the health and security sectors, as well as increasingly restrictive international regulatory requirements on banks which limit their ability to provide debt funding.[141]
Corruption/transparency/ political interference	Transparency International's (TI) 2018 Global Corruption Perception Index ranked Kenya 144 out of 180 countries, one place behind its rank in 2017. The reasons cited were historical lack of political will, little progress in prosecuting past corruption cases, and the slow pace of reform in key sectors were reasons.	Was not raised as a significant issue	A study conducted to explore the performance of PPP's in South Africa found out that the main barrier to PPP project success was political interference.[142] According to our survey, unstable political, social and economic environment was picked as the biggest challenge by 95% of our respondents.
Security	Instability in border countries has intensified security concerns and led to increased security measures aimed at businesses and public institutions around the country. Tensions rise occasionally within and between ethnic communities. Regional conflict, most notably in Ethiopia, Somalia, and South Sudan, sometimes extend to affect Kenya	Was not raised as a significant issue	Was not raised as a significant issue
Environment and social impact	Environment and social impact (policy implementation and legal enforcement issues)	Was not raised as a significant issue	Was not raised as a significant issue
Local government Capacity or bureaucracy	Funding for feasibility study (the local government often lacks financial capacity to run the necessary and needed feasibility studies)	Negotiation capacity gaps. A number of "first decision" making and "learning as you go", since no prior experience	There have been some reports of poor planning, inadequate systems and lack of proper skills. Additionally, there is a substantial amount of bureaucracy, which is often cumbersome both for the public and private sector
Solicited PPP versus unsolicited demand	PPP platform is a public one which can be accessed by anyone showing interest. While this fosters transparency and fair competition among participants during public procurement process, the level of engagement can often be lower than desired	The unsolicited requests are much harder to coordinate	-
Implementation process	The implementation stage faces all kinds of difficulties, particularly, information gaps between the communities and the local government, the impact of policy change and failure to communicate these changes while the project is still being implemented. Often the projects developed do not include an exit close leading to future complications when there is a contract breach	Coordination challenges both at the institution and individual level	PPPs are usually associated with high transaction costs, due to their long-term character, their ownership and financing structures and their risk-sharing features.[143] These features have made them become less attractive, and sometimes even impracticable for small undertakings,[144] which would otherwise not yield a good return on the investment

[140] (IMF, June 2019)
[141] South African Government 2018 Budget Review
[142] (Seeletse, 2016)
[143] (Bruchez, 2014)
[144] (Sadka, 2007, p.488, as cited by Bruchez, 2014)

Figure 5.15: Prospects of PPPs in the three countries

	Kenya	Rwanda	South Africa
Gov.	**the Big 4 development agenda** Affordable housing, universal healthcare, growing manufacturing, food security.	**Article 5 of the PPP Law** Transportation, social affairs, tourism, natural resources, telecommunication...	**identify ways of implementation** fast planning, easy regulation, enlarge the pool of funds...
Market	**opportunities in various sectors** energy projects, telecommunication potentials, construction related areas...	**opportunities in new sectors** MICE, service-based sectors, knowledge and service hub...	**economic rebound** mining production, manufacturing production, PMI increased...
Plan	**list of PPPs** 80 projects, 14 trillion by fiscal year 2021	**sustaninable goal-No Poverty** 70% population in agriculture; highest potential sector-construction, real estate, agribusiness, tourism...	**facility for projects** hybrid financial solutions, effective management...

Towards Kenya, the majority of our interviewees on the ground as well as our survey respondents held a positive view. Kenya's ambitious development agenda dubbed 'the Big 4' aims to address issues related to affordable housing, universal healthcare, growing manufacturing and food security. Kenya's regional energy sector has significant potential (including offshore gas fields), with direct (within the territory) and indirect (inputs and exports from ports) benefits. More than half the population of Sub-Saharan Africa is to be subscribed to mobile service by 2025, and the expansion of the airport also provides opportunities. Given Kenya's vision, the country is developing its PPP framework and anticipating to spend 14 trillion on projects under the PPP model by the end of the fiscal year 2020/21.	In Rwanda, potential sectors for PPPs in infrastructure and services are provided in Article 5 of the PPP Law: Transportation, energy, social affairs, tourism, natural resources and environment, telecommunication and information technology, etc. Rwanda is equally promoting a new sector called MICE, which stands for Meetings, Incentives, Conferences, and Exhibitions, and it is already accounting for about 10 percent of the tourism receipts. Rwanda has many advantages such as an expanding mining potential which remains to be explored, new reforms to ease business in the country and to attract private investors, political stability and the reputation of being one of the least corrupt countries in Africa. There is immense opportunity for PPP projects to contribute to sustainable goals such as No Poverty and Growth.	In South Africa, the government has identified some ways to boost the implementation of PPP projects. These include reducing the time to complete project planning and easing the regulatory regime. It has also recently introduced a facility for large and strategic infrastructure projects which will encourage the use of hybrid financial solutions comprising a combination of grants, debt and equity sources from public and private institutions, and concessional loans from multilateral development banks. The latest data from Stats SA shows that mining production increased by 40.6% (quarter-on-quarter, seasonally adjusted) in Q3 2020,10 while manufacturing production climbed by 32.9% (quarter-on-quarter, seasonally adjusted).

Chapter 6: Recommendations and conclusions

The aim of this report is to help Chinese stakeholders understand the landscape of PPPs and build their capacity to ensure PPP projects deliver the maximum possible development impact in African countries.

Why? Chinese stakeholders – through both their attitude to risk as well as their knowledge of a country that has delivered key public goods to poor people at scale including with PPPs – have major potential to help innovate this area previously fraught with challenges.

It is important to do so. Many countries in Africa are facing an infrastructure financing gap. The African Development Bank estimates Africa's infrastructure financing needs at up to USD 170 billion a year by 2025, with an estimated external financing gap of up to USD 68 to 108 billion a year.[145] Therefore, PPPs are seen as a key element in narrowing this gap by crowding in external private sector investment in infrastructure, without leading public debt to rise.

Although the infrastructure financing deficit is a challenge, and while PPPs have both theoretical and practical implementation challenges – in particular as experienced in the privatization trends in developing countries in the 1980s and 1990s – there is arguably a new opportunity for the development and adoption of innovative PPPs.

Indeed, the case studies (Kenya, Rwanda and South Africa) have demonstrated how African countries in all stages of development are working hard to encourage and facilitate PPPs – and there are some projects which appear to be currently supporting local development plans, especially in the transport and energy sectors and even health.
Can this be extended with Chinese investors? By analyzing the survey from Chinese companies operating in Africa, as well as gathering direct views from African governments and Chinese stakeholders involved in the coordination of PPP projects, this report has shed some light on the potential for PPPs with China to contribute towards the achievement of the SDGs.

Policy recommendations

While the main audience for this report are enterprises exploring the feasibility of PPPs across Africa, this report may serve as a useful resource for both Governments

[145] African Development Bank, 2020. *Supporting Public Private Partnerships in Africa: African Development Bank ready to scale up*.

in Africa and other stakeholders interested in the role of PPPs for social and economic development. Based on the findings from the desk research, survey and interview questions, we suggest three groups of actors can take concerted action: African country governments, investment partners such as China, and other stakeholders involved in PPP implementation. Recommendations are therefore provided for each in turn below, drawing on the research and the team's own deep expertise on Chinese enterprises operating in Africa.

Recommendations for investment partners – in particular Chinese enterprises "going out"

Can Chinese investment partners make responsible PPP investments that support the achievement of the SDGs in Africa? Based on the findings in this report, we recommend three key actions that could help do so.

1. **Listen to the needs of African Governments**

BY their very nature, PPP projects require large, sunk investments. Identifying the project that will be the most value for money and also have the biggest impact on achieving the SDGs is complex. Therefore, it is suggested that development partners and investors recall China's own experience, as well as listen to the needs of Africa governments and work **with** local partners to understand both the theoretical and practical challenges and opportunities of different projects.

2. **Listen to and Communicate with the public**

Communication and engagement with the public is also very important to determine optimal pricing. For example, often PPP prices for tolls or rail projects are set too high and therefore companies risk not get enough people using them after completion. Prior engagement with the public, and scenario forecasting during the initial project scoping will help to understand the pricing landscape.

3. **Think carefully when identifying risks – especially political**

Actively using the professional experience of experienced international organizations such as law firms, accounting firms, professional technical consulting companies, public relations consulting companies, is the typical move. However, it is also important that Chinese companies do not overestimate risk – especially political risk. Many foreign investors have negative views of political institutions in Africa and China, and evidence on this is not always clear. Thus, as far as possible, independent African organizations to provide such services should be sought, to provide objective, practical support. This will also contribute towards job creation and supporting African countries to achieve the SDGs.

4. **Identify and actively avoid social and environment risks**

It is important to consider the country where the project is located, understand the environmental and social context in the country (e.g. vulnerable communities or marginalized ethnic groups) and avoid any negative impacts. Early social and environmental assessments of each project are an absolute necessity.

5. **Use China's experience to explore PPPs in new sectors**

It is clear that PPPs can and have played a big role in the transport and energy sectors. These can both contribute to the continental economic growth through increased value addition activities (value chains) in the sub-sectors such as agro-processing and pharmaceuticals. However, it is also possible for PPPs to be used to improve communication infrastructure, to deliver new models of distributed energy, or in other sectors. China's experience and models can inform new ideas, and Chinese companies should offer these in discussion with African governments.

6. **Explore innovative financing models**

The financing of PPP projects in the infrastructure sector is mostly based on bank borrowings and bond issuance. It would be good to explore ways such as asset securitization and the establishments of sub-funds to further expand financing channels and direct more capital to participate in investment.

7. **Invest in diverse talent**

The investment operation of PPP projects in Africa can be complicated, especially if they are across countries or even different regions within a country. It is necessary for companies to invest in an all-round diverse team with professional skills in law, investment, technology and language. This will also significantly contribute towards job creation and supporting African countries to achieve the SDGs.

Recommendations for African governments seeking investment for PPP projects

In order to attract investors (in particular Chinese stakeholders) and make sure projects have the biggest sustainable, long-term impact, it is essential to provide a sound and stable yet cautious policy environment.

1. **Do not underestimate the theory – negotiate well**

Many PPPs in the 1980s and 1990s failed for good reason. They went against economic theory. There is a risk of doing the same in the coming years. Governments need to learn from the past, learn from each other, and be cautious in determining which sectors to advance PPPs in, as well as negotiate carefully on the specific structure of the PPPs to ensure the public – to whom they are ultimately accountable – are being properly served by the private sector.

2. **Make long term plans**

At present, most African countries have formulated mid- and long-term infrastructure development plans. Translating these into plans that also coordinate with industrial development or other aspects of economic growth potential can help to entice the private sector to invest in a vision for long-term growth, which will facilitate the PPPs ultimate success.

3. **Think about communication and market PPPs more clearly**

Investors (in particular Chinese partners) are most likely to gather information about PPP from government websites or through local connections. Therefore, it is essentially that infrastructure needs are clearly communicated and shared with potential development partners. It is also important to market PPPs and their stable structures more clearly to attract investors.

4. **Be more transparent with citizens about PPP projects**

Some PPP projects have faced criticism from citizens due to worries over debt and high costs. It is therefore important to be transparent with the public about investors, costs and the benefits of the project (including how this will support the achievement of the SDGs) from the very beginning. This will help hold all parties involved accountable and avoid tension in the future.

5. **Improve relevant legal protections**

Investors have highlighted that uncertainty and lack of legal protection are some of the biggest barriers preventing investment into PPP projects. Therefore, the rights and obligations of public institutions and private investors participating in the PPP, their respective risk sharing and benefit distribution need to also be clearly stipulated and strictly implemented.

Recommendations for other stakeholders interested in PPP projects in Africa

It is important that African governments are not pushed into PPPs, simply to avoid being classified as debt distressed. PPPs need to be focused where they can truly add value, and ensure use (not just access) by the poorest people.

1. **Ensure Local ownership**

It is important that those involved in PPP partnerships can adapt their structures to encourage PPPs that are joint partnerships between local and international partners. It is always local partners should be designing the PPPs and seeking international partnership rather than the other way around. Where ideas for PPPs are shared, they should be shared with clear, demonstrable evidence against a baseline of public provision (not just no provision). This will have the biggest sustainable, long term impact.

2. Strengthen financial institutions

Chinese financial institutions can strengthen close ties with international financial institutions. African infrastructure PPP projects often involve in-depth participation of development institutions such as the World Bank, African Development Bank, and African Finance Corporation. Under their policy support, combining commercial financing with development funds can effectively expand project-financing sources and improve the project success rate. There is also room to explore new cooperation models. For Chinese enterprises' participation in small-equity ratios or operation-oriented project models, Chinese financers can explore cooperation through debt and quasi-debt, and increase support on the debt side through shareholder loans, convertible bonds, preferred stocks and so on.

3. Utilize the full potential of Existing Incentives

The China-Africa Development Fund can utilize its advantages in bridges and ties to promote the integration of Chinese partners into the PPP model and support traditional EPC companies transform into an integrated investment, construction and operation, and form a whole infrastructure industry chain operation management system. The fund can also help integrate industries such as ports, highways, railways, parks, electric power, minerals and other industries to form project clusters. Additionally, larger financial institutions such as China Development Bank Group can help encourage the implementation of Africa's PPP model by seizing opportunities of cooperation in infrastructure and help provide comprehensive financial solutions to support projects.

Appendices

Appendix 1: Survey questions

Background

The following survey serves to inform our study on public-private partnership projects (PPP) carried out by African governments in collaboration with Chinese private investors. Our findings will be an integral part of the final report which will benefit foreign investors like you, relevant governmental agencies, financial institutions and chambers of commerce in the target three countries and strives to provide recommendations to maximize the impact of PPP projects on economic development in various countries of Africa, thus contributing to a healthy private sector and job creation for local communities

We thank you in advance for the time you will take out of your schedule to complete this survey and support our work.

Survey for Chinese companies in implementing PPP projects

1. **How long have you operated in Africa for?**

- Less than 5 years
- 5 – 10 years
- More than 10 years

2. **How would you define a Public-Private Partnership (PPP)?**

(Key words: Government commitment, private capital, special purpose vehicle, financial body, etc.)
Text box entry

3. **Has your organization been involved in any PPPs?**

In Africa: Yes/no
In China: Yes/no

If Q3 = yes for Africa:

4. **Please provide the following information for each of your largest PPP projects in Africa:**

Project name	African country	Sector	Size of project (USD value)	Size of China contribution (USD value)	Your organization's involvement
Project 1:					
Project 2:					
Project 3:					
Project 4:					

If Q3 = yes for China and Africa:

5. **What lessons from your experience with PPP projects in China are most applicable to Africa? (non-compulsory)**

   Text box entry

If Q3 = yes for China and Africa:

6. **What are the main differences between the PPP projects in Africa and China that you are involved in?**

   Text box entry

7. **In general, how have PPP projects developed in Africa in the past decade, especially in comparison to China?**

- Very rapid and successful development
- Quick development
- Slow development
- Very slow development
- No successful development

8. **How do you view PPP opportunities in terms of profitability?**

- PPP projects are the most profitable projects
- PPP projects require too much investment
- PPP projects are the least profitable projects

- We prefer EPCs and will never go for PPPs
- Africa is not ready to offer real returns on PPP
- Other: text box entry

9. What are your main information sources on potential PPP projects in Africa that you can invest or participate in? (can select multiple answers)

- Official African government websites
- MOFCOM office in country
- Chinese business networks and associations
- African friends
- Consulting or legal firms
- Others (please specify) _________________

10. What would motivate you to join a PPP project the most?

Factor	De-motivating	Neutral	Quite motivating	Very motivating	Extremely motivating
Government financial guarantees	☐	☐	☐	☐	☒
Country's policy and economic maturity	☒	☐	☐	☒	☐
A record and history of previously successful projects	☐	☐	☒	☐	☐
Others: Text box entry	☐	☐	☐	☐	☒
Others: Text box entry	☐	☐	☐	☐	☒

11. What would motivate you to join a PPP project the most? Specify your answer.

12. What do you consider to be the biggest challenges for Chinese companies in implementing PPP projects? (multiple choice)

- Slow to no returns on PPP projects

- Unstable political, social and economic environment
- African Governments rules on how to implement a PPP project
- African private sector capacity to implement a PPP project
- Lack of finance from African partners
- Lack of information on PPP project
- Difficulties in financial settlement
- Difficulties in getting sufficient loans from Chinese banks
- Difficulties in getting sufficient equity
- Others (please specify) _________________

13. How do you view competition with other international companies in trying to negotiate PPPs? (can select multiple options)

- Fair competition
- The language barrier is a problem for us
- Companies from Europe and the US seem to have an advantage
- There is no competition, it's all based on "guanxi"
- Certain Chinese companies with rich resources have an advantage
- Others (please specify) _________________

14. How do you view cooperation with the recipient government in the implementation of a PPP project?

- Most governments in Africa have strong capacity to implement a PPP successfully, even better than China
- Most governments in Africa lack capacity to implement a PPP successfully, especially compared to China
- Cooperation with the recipient government, though essential, is no guarantee for a successful implementation
- Other: text box entry

15. What do you think is the main reason why PPP projects fail?

- The market is fragmented and too small
- Poor governance
- Lack of financial guarantees
- Other: text box entry

16. Do you have any additional thoughts or recommendations?

Appendix 2: Interview questions

For our in-depth interviews with governmental and multinational organization, our discussions were based around the following:

1. Brief introduction of CABC: A Beijing-based, Africa-focused chamber of commerce and 2020 report on PPPs.
2. Brief introduction of the organization's public-private projects in the country where they operate.
3. Discussions on past successful PPP projects and examples which can be highlighted in the report
4. Discussions on the challenges for recipient countries in implementing PPP projects, Chinese PPP projects in the country where they operate and non-Chinese PPPs, etc.
5. Reporting to what extent do recipient countries report on Chinese implemented PPP projects/what are the volumes of implemented Chinese PPPs (only if available).
6. Opportunities for investment promotion agencies such as CABC to support their efforts in promoting current key PPP projects.
7. Implications and recommendations: what recommendations are there for monitoring, adjusting and harmonize recipient country's system with China's development cooperation/business practice methods?

For our in-depth interviews with Chinese companies, our discussions were based around the following:

1. Brief introduction of CABC: A Beijing-based, Africa-focused chamber of commerce and 2020 report on PPPs.
2. Brief introduction of the company's investment projects in the country where they operate
3. Discussions on current PPP projects examples which can be highlighted in the report, if any.
4. Discussions on the challenges for Chinese infrastructure projects in the country where they operate and their general perception on investment in PPP projects, etc.
5. Information source: where do they source thorough information on PPP projects and what channels are in place to get them involved in various projects?
6. Opportunities or ways in which investment promotion agencies such as CABC can support their efforts in engaging PPP projects.
7. Implications and recommendations: what recommendations are there for adjusting and harmonize recipient country's system with China's development cooperation/business practice methods?

Appendix 3: Further information on PPP projects in South Africa

1. The N4 toll road from South-Africa to Mozambique

The rehabilitation of the N4 toll road forms part of the Maputo Development Corridor (MDC) project, between Johannesburg and Maputo, which also includes other modes of transport. Projects such as the MDC are seen in a larger context of a Spatial Development Initiative (SDI) by the South African government to promote development where export-oriented economic potential exists with the assistance of the private sector. The initial plan was to upgrade and rehabilitate 390km of existing road in South Africa and a further 50km to Maputo, but the project was later extended to a total of 630km. The original agreement began in 1997 as 30-year concession but was later amended to add the concessionaire's responsibility over the N4 road section of now a 630km toll road. The cost of the initial contract was about USD 660 million over 30 years with USD 1.5 Billion to be allocated in the first 3.5 years. The risk of financing was entirely borne by the Trans-African Concessions (TRAC), although both South Africa and Mozambique guaranteed debt. This PPP is a good example of a toll road that involved two neighboring countries' cooperation despite unfavorable political environments in both countries that could have made their relationship difficult.[146]

2. Mbombela (Nelspruit) Water and Sanitation Concession

The Nelspruit Transitional Local Council signed a 30-year concession with the Greater Nelspruit Utility Company to inject capital and management resources into the water and sanitation operations in 1999. A year later, the Mbombela Local Municipality took over, effectively doubling the population of the municipality. In 1999, it had been estimated that 45 percent of the then 45,000 households in the concession area had no access to water supply. Based on a world bank supported study conducted ten years later, the new infrastructure allowed 94 percent of the 74,000 households received water with 88 percent accessing on a daily basis. The study also assessed that the investment in extending and upgrading infrastructure and the concessionaire has been a good one. The concessionaire has spent virtually 100 percent of the capital grant funding allocated to it by the municipality. However, there have been challenges as well, including that of risk allocation. The financial basis and risk allocation as initially set up in the original agreement changed significantly with the new national policy of "free basic services" in 2000 led to unsatisfied customers with their water and sanitation demands. Consequently, the concessionaire amended the contract and did not commit to further investment of its own funds and eliminated two large annual payments to the municipality.

[146] World Bank, 2009. *Toolkit for Public-Private Partnerships in Roads and Highways*.

Full list of the 33 PPP projects completed in South Africa

There are various types of PPP projects based on the contractual arrangements involved. These include;

- Design, finance, build, operate and transfer (DFBOT)
- Design, finance and operate (DFO)
- Design, build, operate and transfer (DBOT)
- Equity partnerships
- Facilities management projects

Project Name	Government institution	Type	Date of close[1]	Duration	Financing Structure	Project value R million	Form of payment
Transport							
SANRAL N4 East Toll Road	SANRAL	DFBOT	Feb-1998	30 years	Debt: 80% Equity: 20%	3 200	User charges
SANRAL N3 Toll Road	SANRAL	DFBOT	Nov-1998	30 years	Debt: 80% Equity: 20%	3 000	User charges
SANRAL N4 West Toll Road	SANRAL	DFBOT	Aug-2001	30 years	Debt: 80% Equity: 20%	3 200	User charges
Northern Cape fleet	Northern Cape Department of Transport, Roads and Public Works	DFO	Nov-2001	5 years	Equity: 100%	181	Unitary payment
Chapman's Peak Drive Toll	Western Cape	DFBOT	May-2003	30	Debt: 44%	450	User charges and

Road	Department of Transport			years	Equity: 10% Govt: 46%		guarantee
Fleet management	Eastern Cape Department of Transport	DFO	Aug-2003	5 years	Debt: 100%	553	Unitary payment
National fleet management	Department of Transport	DFO	Sep-2006	5 years	Equity: 100%	919	Service fee
Gautrain Rapid Rail Link	Gauteng Department of Public Transport, Roads and Works	DFBOT	Sep-2006	20 years	Debt: 11% Equity: 2% Govt: 87%	31 800	User charges and patronage guarantee
SANRAL Gauteng Freeway Improvement Plan Toll Road	SANRAL	DFBOT	Oct-2007	20 years	Debt: 100%	20 000	User charges
Water and sanitation							
Dolphin Coast water and sanitation concession	Kwa-Dukuza Local Municipality	DFBOT	Jan-1999	30 years	Debt: 21% Equity: 18% Govt: 61%	130	User charges
Mbombela water and sanitation concession	Mbombela Local Municipality	DFBOT	Dec-1999	30 years	Debt: 40% Equity: 31% Govt: 29%	189	User charges
Correctional services							
Mangaung and Makhado maximum security prisons	Department of Correctional Services	DFBOT	Aug-2000	30 years	Debt: 88% Equity: 12%	3 600	Unitary payment

Information technology							
Information systems	Department of Labor	DFBOT	Dec-2002	10 years	Equity: 100%	1 500	Unitary payment
Social grant payment system	Free State Department of Social Development	DFO	Apr-2004	3 years	Equity: 100%	260	Unitary payment
Office accommodation							
Head office accommodation	Department of Trade and Industry	DFBOT	Aug-2003	25 years	Debt: 80% Equity: 8% Govt: 12%	870	Unitary payment
Head office accommodation	Department of International Relations and Cooperation	DFBOT	Jan-2005	25 years	Debt: 81% Equity: 19%	1 959	Unitary payment
Head office accommodation	Department of Education	DFBOT	Aug-2009	27 years	Debt: 90% Equity: 10%	512	Unitary payment
Head office accommodation	Department of Environmental Affairs	DFBOT	May-2012	25 years	Debt 49% Equity: 15% Govt: 36%	2 731	Unitary payment
Head office accommodation	Statistics South Africa	DFBOT	Mar-2014	24 years	Debt 54% Equity: 9% Govt: 37%	2 533	Unitary payment
Head office accommodation	City of Tshwane	DFBOT	Mar-2015	25 years	Debt: 86% Equity: 14%	2 005	Unitary payment
Head office accommodation	Department of Rural	DFBOT	May-2017	27	Debt: 54%	3 991	Unitary payment

	Development			years	Equity: 10% Govt: 36%		
Health							
Inkosi Albert Luthuli Hospital KwaZulu-Natal	Department of Health	DFBOT	Dec-2001	15 years	Debt: 70% Equity: 20% Govt: 10%	4 500	Unitary payment
Universitas and Pelonomi Hospitals colocation	Free State Department of Health	DFBOT	Nov-2002	16.5 years	Equity: 100%	81	User charges
State Vaccine Institute	Department of Health	Equity partnership	Apr-2003	4 years	Equity: 100%	75	Once-off equity contribution
Humansdorp District Hospital	Eastern Cape Department of Health	DFBOT	Jun-2003	20 years	Equity: 90% Govt: 10%	49	Unitary payment
Phalaborwa Hospital	Limpopo Department of Health and Social Development	DFBOT	Jul-2005	15 years	Equity: 100%	90	User charges
Western Cape Rehabilitation Centre and Lentegeur Hospital	Western Cape Department of Health	Facilities management	Nov-2006	12 years	Equity: 100%	334	Unitary payment
Polokwane Hospital renal dialysis	Limpopo Department of	DBOT	Dec-2006	10 years	Equity: 100%	88	Unitary payment

	Health and Social Development						
Port Alfred and Settlers Hospital	Eastern Cape Department of Health	DFBOT	May-2007	17 years	Debt: 90% Equity: 10%	169	Unitary payment
Tourism							
SANPARKS tourism projects	SANPARKS	DFBOT	Apr-2000	Various years	Equity: 100%	270	User charges
Eco-tourism Manyeleti three sites	Limpopo Department of Finance, Economic Affairs, Tourism	DFBOT	Dec-2001	30 years	Equity: 100%	25	User charges
Cradle of Humankind Interpretation Centre Complex	Gauteng Department of Agriculture, Conservation, Environment and Land Affairs	DBOT	Oct-2003	10 years	Equity: 100% opex Govt: 100% capex	39	User charges
Western Cape Nature Conservation Board	Western Cape Provincial Government	DFBOT	Jul-2005	30 years	Equity: 100%	40	User charges

1. Refers to a phase in which all contract conditions of the financing established between governments, private party and lenders is finally closed.

Source: National Treasury

Note - *Govt: government; Capex: capital expenditure; Opex: operational expenditure; Dept: department; Unitary payments: government payments for infrastructure and related services*

Appendix 4: Further information on PPP projects in Kenya

- PPP projects in the transport sector: the famous Nairobi Expressway, Kenya's first double-decker road, Nairobi-Nakuru-Mau Summit Highway, the second Nyali Bridge, and Lamu-Garissa-Isiolo highway, among others. Procurement is on-going for the Second Nyali Bridge and the much-awaited Nairobi-Nakuru-Mau Summit Highway. Operation and maintenance for the Nairobi Southern Bypass, Thika Road, and Nairobi-Mombasa Highway are ready for tendering.

- Projects in infrastructure sector: The Lamu Port and Southern Sudan-Ethiopia Transport (LAPSSET) Corridor, which will open up a cross-sector abundance of opportunities for the construction of rail, roads, airport, housing and utility infrastructure; as well as Kenya's first technology city, Konza City, which is expected to be East and Central Africa's first ICT metropolis. This project is part of the country's Vision 2030 blueprint and expected to generate about 17,000 direct high-value jobs, and 68,000 more indirect jobs once completed. The Konza Technology City costs USD 14.5 billion and targets business process outsourcing, software development, data centers, disaster recovery centers, call centers, light manufacturing industries and research institutions.

- In the health sector, construction of a 300-bed private hospital at the Kenyatta National Hospital has been tendered. In addition to this construction project, there are undergoing preparations for procurement of transaction advisor for the Pwani University Teaching and Referral Hospital, Amenity Wing at Kisii Teaching and Referral Hospital, Cancer Centre at Meru Teaching and Referral Hospital, and Upgrading of Nyamira Level 5 Hospital.

- In the education sector, PPP project agreements have been signed for Kenyatta University student hostels, while Moi University student hostels, University of Embu student hostels, and South Eastern Kenya University student hostels are at RFP (request for proposal) stage of procurement. Projects for Egerton University and KTCC are also ready for tendering.

- In water and environment, the Nanyuki Bulk Water Supply is ready for tendering. Meanwhile, a feasibility study has been completed for Murang'a Water Supply, and Nakuru Integrated Solid Waste Management. In the tourism sector, a feasibility study has been completed for the proposed Nairobi International Convention and Exhibition Centre.

- In manufacturing, negotiations with the private party are on-going for the Dongo Kundu Special Economic Zone, and the Naivasha Special Economic Zone, insomuch as preparations for procurement of transaction advisor are underway for Muguga Agri-City in Kiambu.

- In agriculture and livestock, project structuring for procurement is on-going regarding the proposed Export Quarantine Station & Livestock Export Zone.[142]

[142] Construction Review Online, 2020b. *Top ongoing mega projects in Kenya*.

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