MOBILISING FINANCE FOR INFRASTRUCTURE

A STUDY FOR THE UK DEPARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID)

August 2015

Kenya country case study

Produced by:

Cambridge Economic Policy Associates Ltd.

ACKNOWLEDGEMENTS

This country report was produced by Cambridge Economic Policy Associates Ltd (CEPA) as part of research funded by the Department For International Development (DFID): Mobilising Finance for Infrastructure in Sub-Saharan Africa and South Asia.

The views expressed within it are those of CEPA and do not represent DFID's own policies or views. Any discussion of the content should therefore be addressed to the authors and not to DFID.

CEPA is grateful for comments on the research from Lily Ryan-Collins, Phil Outram, Andrew Maclean, Fernanda Ruiz- Nuñez, Fiona Stewart, Sameh Shenouda, Euan Marshall, Jay Koh, Brian Baxendale, Soumen Bagchi, Steven Lee, Sergio Dista and Paolo Craviolatti.

In addition, the overall research project has benefited from consultations with a wide number of stakeholders based across Sub Saharan Africa, India and elsewhere. CEPA would like to thank all consultees for their contributions to the report.

CONTENTS

ACRONYMS

ADF	African Development Fund
AFD	Agence Française de Développement/ French Development Agency
AfDB	African Development Bank
AICD	Africa Infrastructure Country Diagnostic
AIIM	Africa Infrastructure Investment Managers
BOO	Build-Own-Operate
CEPA	Cambridge Economic Policy Associates
DBFO	Design, Build, Finance and Operate
DCC	Diesel Combined Cycle
DEG	Deutsche Investitions- und Entwicklungsgesellschaft/ German Investment and Development Corporation
DFI	Development Finance Institution
DFID	UK Department for International Development
E&S	Environmental and Social
EAIF	Emerging Africa Infrastructure Fund
ECA	Export Credit Agency
EIB	European Investment Bank
EPC	Engineering, Procurement and Construction
EU-AITF	EU-Africa Infrastructure Trust Fund
EWASCO	Embu Water and Sanitation Company
FCCL	Fiscal Commitment and Contingent Liabilities
FinnFund	Finnish Fund for Industrial Cooperation
FiT	Feed-in Tariff
FMO	Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V./ Dutch Development Finance Company
GDC	Geothermal Development Company
GDP	Gross Domestic Product
GoK	Government of Kenya
HFO	Heavy Fuel Oil
IDA	International Development Association
IFC	International Finance Corporation
IFPPP	Infrastructure Finance/Public-Private Partnership
IFU	Danish Investment Fund for Developing Countries
IPO	Initial Public Offering
IPP	Independent Power Producer
JDA	Joint Development Agreement
JKIA	Jomo Kenyatta International Airport

KenGen	Kenya Electricity Generating Company
KETRACO	Kenya Transmission Company
KPA	Kenya Ports Authority
KPLC	Kenya Power and Lighting Company
KRC	Kenya Railways Corporation
L/C	Letter of Credit
LTWP	Lake Turkana Wind Power Limited
MDB	Multilateral Development Bank
MIGA	Multilateral Investment Guarantee Agency
NSE	Nairobi Securities Exchange
O&M	Operation and Maintenance
ODA	Overseas Development Assistance
OPIC	Overseas Private Investment Corporation
PAIDF	Pan-African Infrastructure Development Fund
PFF	Project Facilitation Fund
PIBO	Public Infrastructure Bond Offer
PIDG	Private Infrastructure Development Group
PIU	Project Implementation Unit
PPA	Power Purchase Agreement
PPARB	Public Procurement Administrative Review Board
PPI	Private Participation in Infrastructure
PPIAF	Public-Private Infrastructure Advisory Facility
PPP	Public-Private Partnership
PRG	Partial Risk Guarantee
PRI	Political Risk Insurance
PSP	Private Sector Participation
REIPPP	Renewable Energy Independent Power Producer Procurement Programme
RVR	Rift Valley Railways
SGR	Standard Gauge Railway
SOE	State-Owned Enterprise
SPV	Special Purpose Vehicle
SSA	Sub-Saharan Africa
TA	Transaction Advisors
VGF	Viability Gap Fund

EXECUTIVE SUMMARY

This report was produced by Cambridge Economic Policy Associates (CEPA) as part of a wide-ranging research programme funded by the Department for International Development (DFID) that explores the factors constraining the provision of private finance to support infrastructure investment in DFID's focus countries.

This report provides an overview of the market for infrastructure finance in Kenya (focusing on economic infrastructure sectors: energy, transport and water) using evidence gained from 22 consultations held with stakeholders (in the period December 2014 to February 2015) and complementary desk-based research.

The study provides background on the key policy reforms implemented by the Government of Kenya in an attempt to provide a framework more conducive for private finance; an overview of closed and pipeline transactions that have taken place across the different infrastructure sectors; and then sets out the findings on the main factors constraining increased private finance for infrastructure drawing largely on the views of stakeholders.

The findings of the analysis are summarised below.

Status of reforms and private finance transactions by sector

For each of the main economic infrastructure sectors, the research reviewed the extent to which the different sectors have been able to attract private finance. Figure ES.1 gives a summary overview of the different sectors, while Figure ES.2 provides examples of some of the projects that have been able to attract private finance.

As indicated in Figure ES.1 below, sectors have experienced varying degrees of success in attracting private finance, with mobile telephony and electricity generation being examples where projects have attracted significant private finance, although the latter has often relied extensively on lending from development finance institutions (DFIs) and risk mitigation products. On the other hand, the transport sector has had mixed success, while the water sector continues to rely on donor support and government subsidies.

Figure ES.1: Summary of progress in attracting private finance in economic infrastructure sectors

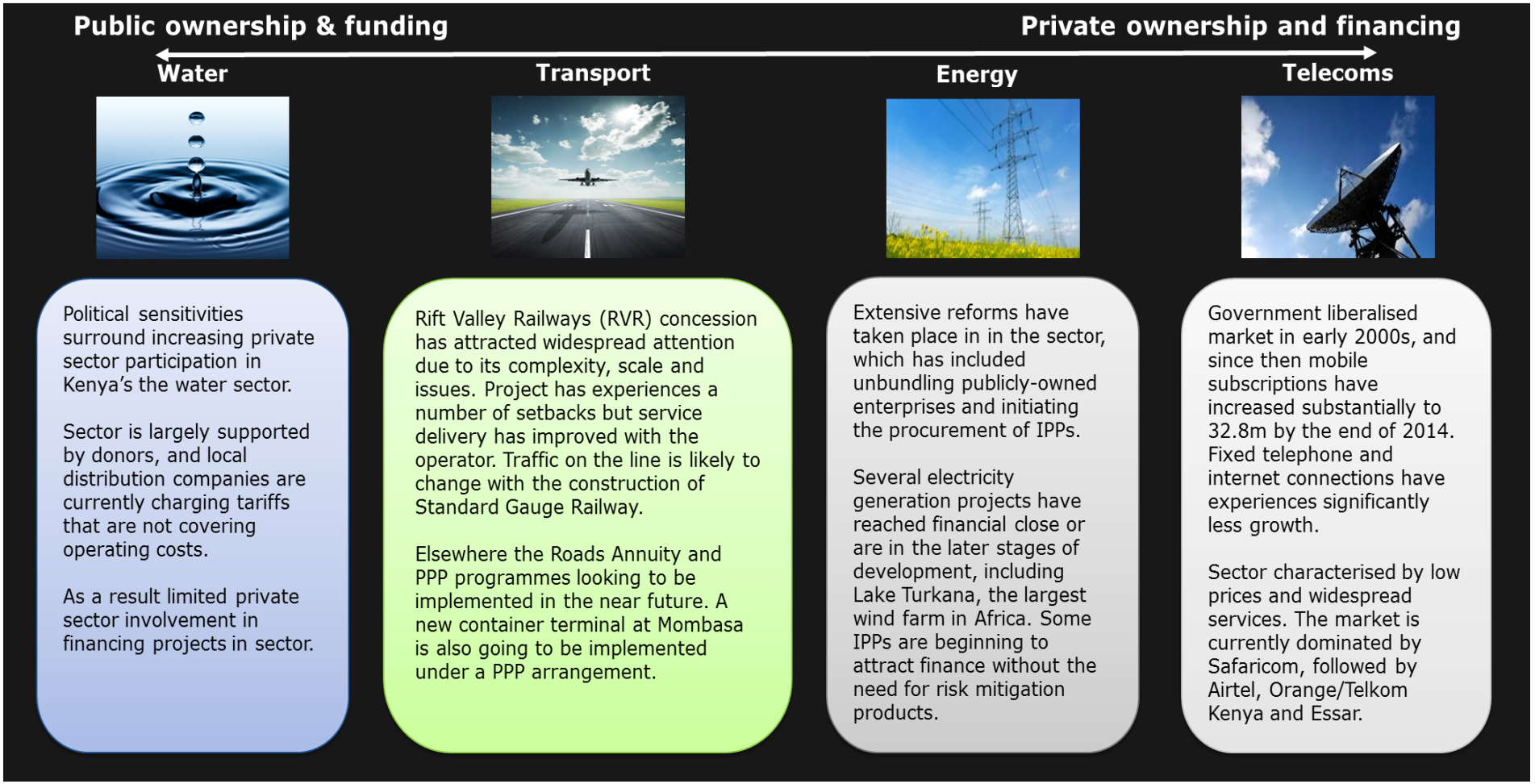


Figure ES.2: Examples of infrastructure projects that have received private finance

Olkaria III : US$445m Financial Close: 2012	
DFI debt US$310m	DFI support for this project was initially provided by a consortium of lenders led by DEG of Germany. However, the US Overseas Private Investment Corporation (OPIC) has since refinanced these lenders out of the deal and provided the extra financing for expansion.
Private sector equity	US-based Ormat technologies won the development rights for this project through a competitive tender.
Additional support The World Bank has supported Olkaria III's expansion with an IDA PRG. In addition the Multilateral Investment Guarantee Agency (MIGA) has been supporting the sponsor with political risk insurance since 2002.	

Kinangop Wind Farm: US$150m Financial Close: 2013	
Private Debt US$90m	Standard Bank and Kenyan subsidiary CfC Stanbic were the sole arrangers on this project.
Sponsor Equity US$49m	Africa Infrastructure Investment Managers (AIIM), who bought the 70% equity stake in the project from Aeolus.
DFI equity US$11m	Norfund were involved in the project during the development phase.

Lake Turkana Wind Farm: US$830m Financial Close: 2014	
Private Debt US$57m	Standard Bank, Nedbank, who both acted as arrangers on the deal, and Triodos Bank, whose loan was provided as an African Development Bank (AfDB) B loan.
DFI Debt US$505m	AfDB (DFI lead arranger), European Investment Bank (EIB), Proparco, FMO, PTA Bank.
DFI Subordinated Debt US$53m	DEG, PTA Bank, East African Development Bank (EADB), AfDB.
Other Mezzanine US$33m	EU-Africa Infrastructure Trust Fund (EU-AITF) preference share.
Private sector Equity US$114m	Aldwych International (lead sponsor), KP&P BV Africa, Vestas and Sandpiper.
DFI equity US$53m	Norfund, Finnfund and the Danish Investment Fund for Developing Countries (IFU)
Additional Support The project benefited from a partial risk guarantee (PRG) provided by AfDB's African Development Fund (ADF) that covered the transmission line connecting the farm to the main grid not being completed on time. Furthermore, the commercial debt provided by Standard Bank and Nedbank is covered by an EIB political risk guarantee. Danish export credit agency EKF also guaranteed a portion of EIB and AfDB's loans to the project.	

Thika Thermal Power PLant: US$146m Financial Close: 2012	
Private Debt US$37m	ABSA Capital provided a third of the debt for this project, which was the first commercial financing to be provided to an IPP in Kenya.
DFI Debt US$73m	AfDB and the International Finance Corporation (IFC)
Private sector Equity US$36m	The main sponsor of the project was Melec Powergen, with equity also being provided by a local partner.
Additional Support The project benefited from a PRG provided by the World Bank, and covered failure of Kenya Power to meet payments under the power purchase agreement. Furthermore, the commercial debt and equity was covered by political risk insurance provided by the MIGA.	

Although progress has been made in attracting private finance in the telecoms and electricity generation, there is still a considerable financing need in the other economic infrastructure sectors. This report also focused on providing some evidence on the main factors constraining the increased provision of private finance.

The findings from the consultations were that the main barriers to increasing infrastructure investment has been a lack of well-structured, bankable projects as opposed to access to sufficient finance, although the latter was noted as a key issue to consider going forward.

Barriers to investability/ bankability

As mentioned above, the consultations suggested that a lack of bankable projects is the key constraint to increasing private infrastructure finance in Kenya.

The reasons for the lack of bankable projects vary by sector. For example, private investment in the water sector has been severely limited by the inability to charge cost reflective tariffs due to the political sensitivities involved in doing so. Issues regarding appropriate tariffs were also raised as a concern for the roads subsector, with stakeholders noting that individuals having to pay tolls are likely to question why they are being charged for some roads and not others, especially if significant improvements are not made to the roads that they pay for. In other transport sectors, government commitment to PSP has not been as extensive, especially in the ports and airports sectors.

With regards to the IPP market, both international developers and DFIs pointed to the lack of developers with the appropriate skills and sufficient capital to ensure projects reach the bankability stage as being a key constraint. The lack of skilled local developers has resulted in many IPPs being developed by international organisations, which according to some stakeholders has significantly increased the cost of projects reaching financial close.

Some stakeholders had more general concerns about the role of DFIs in the ability of projects to attract private finance. They noted that IPP transactions have also taken a considerable amount of time because of the conservative nature of DFIs. For example, a number of DFIs are looking for the same credit enhancement facilities as commercial banks, while stakeholders felt that DFIs should be willing to take more risk on projects.

Recommendations emerging from the study

Given the importance of DFIs in the financing of private infrastructure in Kenya to date, many stakeholders argued that closing the infrastructure gap in Kenya using private sources will require a solution where DFIs play a central role. For example, the lack of project development capacity and funding currently present in the market could be alleviated by DFIs playing a more catalytic role in these early stage activities. Some DFIs such as Norfund are currently adopting this approach, while others are financing these activities through developers such as AIIM and Aldwych International, or through facilities such as the EU-Africa Infrastructure Trust Fund (EU-AITF).

However, the majority of the larger DFIs are currently not positioned to work on projects at such an early stage because their current skills and business model do not permit them to. Some of the DFIs consulted highlighted that they do have funds dedicated to providing early stage support work,

although developers mentioned that these were either too small or the market was not aware of them.

One method of developing bankable projects that has worked in other countries is adopting a programmatic approach. For example, many stakeholders noted the success that South Africa has experienced with its Renewable Energy Independent Power Producer Procurement Programme (REIPPP). As of 2014, the REIPPP Programme was able to attract US$14bn of finance to 64 projects totalling nearly 4GW of renewable energy.[1]

In Kenya programmes are currently being adopted in the roads sector and in geothermal power through the work of the GDC, and donor intervention could be used to help support such programmes. For example the initial support from donors for early stage drilling and planning work in the Menengai region is beginning to result in private sector projects being developed in the area. Interventions such as these could be considered by donors so that private sector investment can be benefit from the country's huge geothermal potential.

Regarding access to finance, stakeholders mentioned that one of the main constraints facing local financial institutions is the lack of financial products that are attractive to private investors. One of the main reasons for this is that existing investors into infrastructure projects are typically holding their positions to term and not – as is typical in more developed financial markets – refinancing their positions.

There are few incentives in place for DFIs to refinance out of projects as the flow of bankable projects in Kenya is currently not high enough for this to be worthwhile. If the bankability issues were addressed additional private finance could be attracted if investors offered deals to institutional investors or commercial banks once projects are operational and development and construction risk is no longer such an issue.

[1] PPIAF (2014), *South Africa's Renewable Energy IPP Procurement Program: Success Factors and Lessons.*

1. INTRODUCTION

This country study provides an overview of the market for infrastructure (focusing on the economic infrastructure sectors: energy, transport, water and telecoms) finance in Kenya using evidence gained from 22 consultations held with stakeholders and complementary desk-based research.

The report presents an overview into the developments of the infrastructure financing market in Kenya, which has experienced a high degree of private sector investment into infrastructure in recent years relative to other African countries. It examines the most recent infrastructure deals completed to identify the main factors that have enabled them to reach financial close. It also sets out stakeholders views on the key barriers to mobilising increased private finance for infrastructure in Kenya.

The report is structured as follows:

- Section 2 outlines the history of private sector financing in the country, including how the framework for private participation in infrastructure (PPI) has been developed. It also provides detail on public-private partnership (PPP) transactions that have taken place, projects currently in the pipeline and participants in the market.
- Section 3 describes the key barriers to projects achieving bankability.
- Section 4 presents the major constraints to domestic and international financing in Kenya, and outlines the constraints specifically facing banks and institutional investors.
- Section 5 outlines the conclusions from the consultations regarding the key constraints currently facing private sector financing in the country, and also describes stakeholder views with regards to possible policy interventions to address constraints.
- Annex A contains a list of stakeholders consulted as part of the process.
- Annex B provides some cases studies of projects that are being developed as PPPs or have attracted private finance.
- Annex C includes the references.

2. THE HISTORY OF PRIVATE FINANCING IN KENYA

This section outlines the development of the enabling framework for private sector investment in Kenyan infrastructure, paying particular attention to developments both within sectors and the overall PPP framework development. It also provides an overview of what PPP transactions have taken place in the key economic infrastructure sectors and how the current pipeline is developing. Lastly, it describes the key participants in the market that have provided debt, equity and mezzanine finance to infrastructure transactions.

2.1. The development of the investment framework

2.1.1. Sector specific policies to increase private sector infrastructure investment

Early developments to increase private sector participation (PSP) in infrastructure were largely sector specific. For example, Kenya has historically relied heavily on hydropower plants for its electricity generation capacity; however during the 1990s droughts resulted in severe power shortages that crippled the formal economy.[2] As a result of these shortages, the Government of Kenya (GoK, the Government) initiated a number of policies and reforms that restructured the sector and ensured that PSP was promoted and subsectors were unbundled. This involved splitting up Kenya Power and Lighting Company (KPLC), which has recently been rebranded as Kenya Power. In 1997 Kenya Electricity Generating Company (KenGen) was established as a separate entity and more recently Kenya Transmission Company (KETRACO) was established in 2008 to construct, operate, and maintain new, publicly-funded high voltage transmission lines. During the initial reforms of the 1990s, the Government also initiated the procurement of two independent power producers (IPPs).

Unbundling of government-owned assets has also taken place in the telecoms sector, which has resulted in a significant increase in overall investment and the number of users, particularly in cellular telephony (see section 2.2.1 for further details). Elsewhere, the Water Act (2002) and the amendment of the Public Road and Tolls Act (2007) also aimed to increase the amount of private sector activity in the water and transport sectors respectively.[3]

2.1.2. Development of a wider framework for PPPs

The development of a comprehensive investment framework for PPPs was initially driven by the Government's commitment to achieving the objectives of Vision 2030, the country's development blueprint that is focused on Kenya becoming a middle-income economy by 2030. To achieve this, Vision 2030 has set out a 10% per annum GDP growth target, and to realise these high growth rates the Government has emphasised the importance of enabling PSP in infrastructure in Vision 2030's First Medium Term Plan (2008 – 2012) and the Second Medium Term Plan (2013 – 2017).

The First Medium Term Plan (2008 – 2012) provided the basis for improving the institutional and regulatory framework for PPPs, which was driven by the adoption of the Public Procurement and Disposal (Public-Private Partnerships) Regulations (2009). These regulations outline what constitutes a PPP and also described the roles of the PPP Steering Committee and the PPP Secretariat, both of

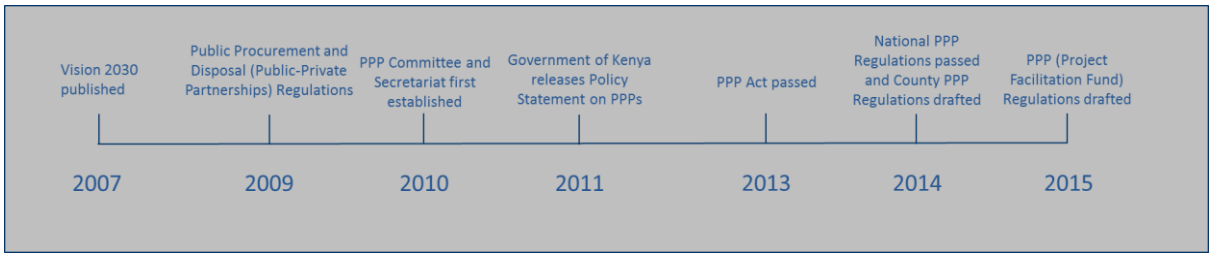
[2] Kapika and Eberhard (2013), *Power-Sector Reform and Regulation in Africa: Lessons from Kenya, Tanzania, Uganda, Zambia, Namibia and Ghana.*

[3] Government of Kenya (2011), *Policy Statement on Public Private Partnerships.*

which were established in 2010. While the regulations provided the institutional and regulatory basis for PPPs, this was based largely on the Public Procurement and Disposal Act (2005), which was implemented to manage how obsolete and unserviceable entities and equipment would be procured by public entities, and did not provide an explicit legal basis for PPPs in infrastructure. Therefore, to demonstrate the Government's commitment to PPPs a policy statement was released in 2011. The statement outlined steps the Government was looking to implement so that a more comprehensive framework for PPP development could be realised, and as such included the restructuring of the existing PPP Committee and the PPP Secretariat as well as developing a procurement processes for PPPs. Such policies were formalised with the passing of the PPP Act (2013). This Act established the current structure of the PPP Steering Committee and the PPP Unit (which replaced the PPP Secretariat), and also laid the foundations for establishing PPP nodes within the line ministries responsible for screening and proposing new PPP projects. In 2014, national PPP regulations were also passed into law, and draft regulations were drawn up for subnational PPPs in Kenya's 47 counties and are currently under review through public consultation. More recently, the Public Private Partnerships (Project Facilitation Fund) Regulations 2015 were drafted and are currently awaiting approval in parliament.

Figure 1.1. below provides a timeline for the development of the current legal, regulatory and institutional framework guiding PPP investment.

Figure 1.1.: Timeline of the enabling framework for PPPs in Kenya



Source: CEPA analysis.

Throughout the development of the enabling PPP framework the GoK has received support from a number of donors and international institutions. For example, the World Bank's Public-Private Infrastructure Advisory Facility (PPIAF) provided funding to support the development of the Public Procurement and Disposal (Public-Private Partnership) Regulations (2009), and in 2011 PPIAF also funded support to the PPP Secretariat to help establish the various PPP nodes. More recently, the World Bank (along with funds from bilateral donors such as DFID and the Embassy of the Netherlands) has been supporting the PPP Unit through its Infrastructure Finance/Public-Private Partnership (IFPPP) project, a US$40m International Development Association (IDA) credit which came into effect in 2013 to support the following:[4]

- Institutional support and regulatory reform (US$11.5m) – This includes supporting the current government institutions with technical assistance and training, funding public awareness campaigns, implementing the PPP Policy and Act (and other laws if necessary) and the development of financial products to assist PPPs in infrastructure (such as viability gap funds (VGF), guarantee instruments and a project facilitation fund (PFF)).

[4]The World Bank (2012), *IFPPP Project Appraisal Document.*

- PPP pipeline preparation (US$20m) – This component funds the necessary transaction advisors needed to transact PPP pipeline projects.
- Fiscal commitment and contingent liabilities (FCCLs) (US$5m) – This will ensure government FCCLs arising as a result of PPP transactions (such as annuity payments to private parties or sovereign guarantees to projects) are sufficiently monitored and managed.
- Programme management support (US$3.5m) – As part of this component, a Project Implementation Unit (PIU) has been established within the National Treasury to ensure the smooth running of the IFPPP project.

According to the latest Implementation Status & Results Report from December 2014, progress towards the achievement of the project development objectives and overall implementation progress have both been rated as moderately unsatisfactory.[5] This rating is largely a result of the delays associated with implementing the financing instruments to support PPPs, hiring transaction advisors for pipeline projects and establishing the FCCL framework. Since this review stakeholders noted that progress has improved, and therefore is likely to be rated higher in the project's next update.

2.2. Analysis of PPP transactions by sector

2.2.1. Telecoms

The telecoms sector in Kenya has experienced extensive growth since the early 2000s after the Government liberalised the market, particularly mobile telephony where subscriptions increased from 127.4k in 2000 to 32.8m in September 2014.[6] According to the Communications Authority of Kenya, Safaricom is the dominant mobile network provider with a share of 66.7%, followed by Airtel (16.5%), Orange/Telkom Kenya (9.2%) and Essar (7.6%).

Safaricom was established in 1997 as a subsidiary of Telkom Kenya, which at the time was a government-owned entity. Before mobile telephony was introduced, Telkom Kenya also benefited from being the sole provider of fixed line services. However, the increase in mobile phone use was placing significant financial pressure on Telkom Kenya as a company, in terms of the investment required for expansion. As a result of this, the Government privatised the company in 2007 whilst also reducing its share in Safaricom (which at the time was 60%).The International Finance Corporation (IFC) provided the Government with advisory support on both these transactions. Selling part of Telkom Kenya's ownership in Safaricom financed the Government's liabilities in the company, and as a result Telkom Kenya could be privatised free of major debts.[7] The unbundling of Telkom Kenya's stake in Safaricom also led to an initial public offering (IPO) of 25% of Safaricom in 2008, which was five times oversubscribed and raised more than US$800m. After a competitive tender was released, the 51% stake in Telkom Kenya was awarded to France Telecom (Orange) in 2007, bringing an additional private operator to the market alongside Safaricom, Celtel (now Airtel) and Econet (who also obtained its mobile licence in 2007).

[5] The World Bank (2014), *IFPPP Project Implementation and Status Report.*
[6] World Bank (2015), *World Development Indicators; Communications Authority of Kenya (2014), Quarterly Sector Statistics Report.*
[7] IFC (2013), *Public-Private Partnership Stories: Kenya: Telkom Kenya.*

The privatisation of Telkom Kenya and the reduction in the Government's ownership of Safaricom along with the introduction of other network providers has resulted in a competitive mobile phone market in Kenya characterised by low prices for consumers and widespread services being available. In relation to this, the mobile internet usage in Kenya has also benefited from a high amount of users, accounting for nearly all internet subscriptions in the country (~14.7m in September 2014).[8] The success of mobile telephony and data services has also resulted in significant increases in mobile money transfer products, including Safaricom's M-Pesa which currently has around 20m subscribers.[9] On the other hand, fixed line telephony and fixed/wireless internet subscriptions have not experienced the growth levels witnessed in mobile telephony, with under 193k fixed line telephone subscriptions and just over 100k fixed/wireless internet subscriptions in September 2014.[10]

2.2.2. Energy

The penetration rates experienced in mobile telephony and data services have not yet been realised in the energy sector. For example, while the electrification rate has increased by 20 percentage points since 2000, overall figures remain relatively low at 35% in 2014, and vary considerably between urban and rural areas.[11] Having said that, the energy sector has experienced a high level of PSP through investments in IPPs. The first transactions date back to 1995 when the Government offered two 20 year build-own-operate (BOO) contracts for the 74MW Kipevu II diesel fired plant and the Olkaria III 13MW geothermal plant, which began full commercial operations in 2001 and 2003 respectively. Whilst these projects were being developed, two 'stop-gap' seven-year power purchase agreements (PPAs) were signed for the 46MW Westmont Plant and the 44MW IberAfrica Plant to provide short-term solutions to power supply problems being experienced at the time. The tariff levels under these PPAs were particularly high because of their temporary nature and IberAfrica had to reduce their tariff by 50% during re-negotiations of the PPA and the Westmont PPA was discontinued.[12] To overcome potential shortages, the Government installed temporary power stations provided by Aggreko. While these plants have been useful for overcoming temporary shortages, stakeholders have noted that they have high tariffs associated with their PPAs, and therefore are not feasible long-term solutions to Kenya's power supply shortages. In order to overcome these deficits, the Government has continued to promote the development of IPPs. For example, the feed-in tariff (FiT) policy implemented by the GoK since 2008 (with revisions in 2010 and 2012) has supported investment in renewable energy projects by ensuring tariffs are sufficient enough to attract long-term investment.[13] A particularly interesting observation about IPPs in Kenya is that unlike other African countries, many of the projects have been tendered using a competitive bidding process. A summary of large-scale IPP transactions in Kenya to date is provided in the table below.[14]

[8] Communications Authority of Kenya (2014), *Quarterly Sector Statistics Report.*
[9] Communications Authority of Kenya (2014), *Quarterly Sector Statistics Report.*
[10] Communications Authority of Kenya (2014), *Quarterly Sector Statistics Report.*
[11] World Bank (2015), *World Development Indicators; Kenya Power (2014), Annual Report and Financial Statements Financial Year Ended 30th June 2014.*
[12] Kapika and Eberhard (2013), *Power-Sector Reform and Regulation in Africa: Lessons from Kenya, Tanzania, Uganda, Zambia, Namibia and Ghana.*
[13] Energy Regulatory Commission (2013), *Feed-in Tariff Policy in Kenya.*
[14] Aggreko plants have been excluded from the table due to the temporary nature of such plants.

Table 2.1: IPP Projects in Kenya to date

Project	Financial close	Capacity (MW)	Total cost (US$m)	Basis of bidding
Westmont	1996	46	35	Selective tender
IberAfrica	1996	56	64	Selective tender
Olkaria III/OrPower4	1999	13	60[15]	Competitive tender
Kipevu 2/Tsavo Power	1999	75	85	Competitive tender
Rabai	2008	90	155	Competitive tender
Mumias Sugar Cogeneration	2008	26	50	Direct negotiation
Olkaria III – expansion	2009	48	105	N/A
Triumph HFO plant	2012	83	145	Competitive tender
Thika power plant	2012	87	146	Competitive tender
Gulf Power Plant	2012	80	108	Competitive tender
Olkaria III – expansion and refinancing	2012	62	310	N/A
Kwale Sugar Plantation	2013	18	200	Direct negotiation
Kinangop Wind	2013	61	150	Direct negotiation
Lake Turkana Wind	2014	310	805	Direct negotiation

NB: Some figures have been converted into dollars based on current exchange rates, so may not reflect the exact cost of projects. Sources: Eberhard and Gratwick (2011); Kapika and Eberhard (2013); World Bank PPI Database (2015); IJGlobal (2015).

Because of the high activity experienced, the IPP market in Kenya is relatively well developed and is beginning to reach a stage where commercial financing has been attracted when appropriate assurances have been provided to lenders. The number of IPP projects has also enabled Kenya Power to be regarded by stakeholders as being a reliable off-taker that does not have to be backed by government guarantees for projects (although letters of comfort are still required in most cases). Furthermore, the history of IPPs has resulted in Kenya Power developing a credible team that understands the processes required in the development of PPAs, and market participants are also clear on the processes required in their development.[16] While a number of deals have closed in the IPP market, stakeholders pointed out on numerous occasions that projects have often taken a considerable amount of time and resources in order to reach financial close. One project that was noted by stakeholders for taking a particularly long time was the recent Lake Turkana project, which will be the largest wind farm in Africa and the largest single private investment in Kenya to date (see Annex B for further details regarding this project).

[15] The figure entered here covers the equity investment undertaken by Ormat Technologies both for the initial development and construction, while the figure for the first expansion refers to the senior debt obtained from lenders.

[16] Kapika and Eberhard (2013), *Power-Sector Reform and Regulation in Africa: Lessons from Kenya, Tanzania, Uganda, Zambia, Namibia and Ghana.*

While private sector activity in generation has been relatively high, other subsectors in the energy sector are still managed by state-owned enterprises (SOEs), most notably Kenya Power and KenGen. However, both SOEs have significant private sector ownership, with just under 50% of Kenya Power and 30% of KenGen being owned by various private enterprises such as commercial banks, institutional investors and individual shareholders through the companies being listed on the Nairobi Securities Exchange (NSE).[17] The 30% partial divestiture of KenGen was implemented in 2006 following support from PPIAF. In addition to this initial public offering (IPO), KenGen also successfully raised Ksh.25bn (US$335m) of local currency finance through the issuance of an infrastructure bond in 2009, the largest bond issuance sold in the country at the time. Box 2.1. below provides a summary of these KenGen activities.

Box 2.1.KenGen's success in attracting private finance

Kenya Electricity Generating Company (KenGen) and private finance

During the early 2000s the energy sector in Kenya faced problems supplying reliable and widespread power to its population, which was harming both businesses and domestic customers which in turn was reducing annual GDP growth by 1.5%.[18] In response to this, the government introduced widespread reforms to improve the delivery of services in the sector through increased PSP. This included the restructuring of Kenya's state-owned utility companies KenGen and KPLC.

To support these reforms, the government obtained support from PPIAF that funded a study analysing potential structures for the utilities going forward. Following this study, Kenya's energy sector stakeholders agreed on how KenGen would be restructured. Following PPIAF's support, an IPO of a 30% equity stake in Kengen took place, during which 659.51m shares were issued to 245,000 shareholders. The IPO raised US$109m in total and was heavily oversubscribed, and was the largest in Kenya's history.

In addition to the IPO, KenGen initiated the Public Infrastructure Bond Offer (PIBO) in 2009 to fund a 500MW expansion of generating capacity, particularly in geothermal energy. The PIBO was issued in Kenyan shillings and received widespread support from both local and international institutional investors, and was not supported by a government-backed guarantee. The bond provided a fixed net interest rate of 12.5% with ten year tenors, highlighting that non-Kenyan investors would be required to take long-term exchange rate risk on the bond. Interest was to be paid in the first two years of the bond and the principal amount would be redeemed every six months over the following eight years in equal instalments. Standard Chartered were lead arrangers on the deal, while KPMG acted as financial advisor and Standard Investment Bank was the leading sponsoring broker.[19] Initially, the bond had a nominal value of Ksh15bn (US$197m) and investors were allowed to make minimum investments of Ksh.100,000 (US$1,300). However, the bond was oversubscribed by 70%, and as a result KenGen exercised its option to increase the size of the bond to Ksh25bn (US$335m), which at the time was the largest bond offering in Kenya and second largest transactions in Kenya's capital markets history.

The PIBO demonstrated that private sector finance can be attracted to infrastructure investments that are well structured and bankable. This deal also shows that international institutional investors were willing to take exchange rate risk on bonds without any government-backed guarantee, suggesting that well-structured deals of this nature have the ability to attract local currency finance.

Source: African Capital Markets News (2009); KenGen (2009); Thompson Reuters (2009); PPIAF (2010).

With the expansion in Kenya's generation capacity, some stakeholders noted that it will be important for Kenya Power to ensure that it can handle the extra capacity coming onto the grid, which will mean that further network investment will be required.

[17] Kenya Power (2014), *Annual Report and Financial Statements Financial Year Ended 30th June 2014*
[18] PPIAF (2013).
[19] Standard Investment Bank is a financial services firm based in Kenya, and should not be confused with Standard Bank, the South African-based financial institution.

2.2.3. Transport

Experience of PPPs in the Kenya transport sector has been characterised by large scale concessions of various infrastructure with varying degrees of success. For example, the Rift Valley Railways (RVR) concession has attracted a significant amount of attention because of its complexity, scale and issues faced. Development work on the RVR concession was initiated during the 1990s by both the Kenyan and Ugandan governments as a result of huge debt being accumulated by operators, poor performance and high costs associated with the line. As a result of this, feasibility studies were conducted thanks to significant funding being provided by PPIAF between 2000 and 2002, while IFC Advisory Services were also brought into the project to structure the deal around 2003. Financial close however, was not achieved until December 2006 after the deal was sufficiently structured, procurement of the railway operator had been completed and the members of the consortium had been confirmed after initial consortium members pulled out. Once financial close had been achieved, the deal received Euromoney Project Finance Magazine's Africa Deal of the Year in 2007 due to its complexity and the innovative solutions that were involved to overcome issues faced during the development stage.[20] However, the operational performance and management of the line during the first few years of the concession resulted in the concessionaire recording huge losses. As a result of this, the ownership of the concession was restructured and a new majority shareholder was introduced to replace the incumbent. Since this restructuring took place, a significant investment programme has been underway which has attracted financing from development finance institutions (DFIs) and commercial banks, which has been credited by the Government of Kenya for ensuring that the right steps are being taken to turn around the shortcomings of the PPP.[21] While this could result in significant service improvements along the line, it will be interesting to see the impact of the new Standard Gauge Railway (SGR) line to the demand for RVR's services.

Aside from the experience of the RVR, little PSP has been undertaken in Kenya to date, with other examples being limited to concessions of the grain terminal at Mombasa and the cargo terminal at Jomo Kenyatta International Airport (JKIA), both of which closed in 1998. In the roads subsector, a feasibility study was conducted and confirmed the viability for a 106 km toll road on the Northern Corridor in the Greater Nairobi region, which initially received support for the World Bank in the form of a partial risk guarantee (PRG). However, the Bank withdrew support for the project in 2011 due to a breach in compliance procedures, and as a result the deal did not reach financial close. Despite its mixed success to date, the transport sector currently has a relatively well developed pipeline and therefore PPI is likely to increase significantly in the coming years (see section 2.3.2 for further details).

2.2.4. Water

As has been the case in other SSA countries, PSP in the Kenya water sector has been limited, although there have been some recent examples of water service providers such as Embu Water and Sanitation Company (EWASCO) obtaining commercial finance as a result of PPIAF support.[22] During consultations, stakeholders noted that almost all of the current water sector investment is being supported by donors, and local distribution companies are currently charging average tariffs of KES29.8m^3 against

[20] PPIAF (2010), *A PPP against the Odds: The Kenya-Uganda Rail Concession Fights for Survival.*
[21] Qualaa Holdings (22 September 2014), *Kenyan Government Hails Progress at Rift Valley Railways as First New Locomotives in More Than 25 Years Arrive for Service in East Africa.*
[22] PPIAF (2015), *PPIAF Support Helps Kenyan Water Utility Access Commercial Financing.*

operating costs of KES30.3m[3]. Although, stakeholders noted there are plans to increase PSP in the water sector, the political sensitivities associated with such actions limit the extent to which this can become a reality.

2.3. Analysis of current project pipeline

As outlined in the previous section, the nature of PSP in Kenya has varied significantly both within and between sectors, with mobile telephony and electricity generation being examples where a significant amount of private investment has been undertaken, while the water and sanitation and transport sectors have experienced relatively little activity. However, an analysis of the current project pipeline suggests that while investment in electricity generation is likely to continue in future, projects and programmes are being developed in the transport sector which suggests private sector investments have the potential to grow. According to the March 2015 update of the Kenyan PPP Programme, 69 projects are currently in the pipeline, covering transport, energy, water and sanitation, irrigation, property, and the health sector.[23] To understand the nature of upcoming projects, this section describes the projects that are currently in the later stages of development.

2.3.1. Energy

Progress in the development of electricity generation facilities in Kenya has been relatively successful to date, and the Government is looking to build on this towards its goal of increasing capacity by 5,000MW by 2016, as outlined by the Ministry of Energy and Petroleum through the 5000 + by 2016 Power to Transform Kenya initiative.[24] To achieve this, the Government is looking to build on previous private sector investments by facilitating the development of IPPs, and an analysis of the current pipeline suggests that market participants are also looking to increase their participation. Projects that are currently in the later stages of development (i.e. post-feasibility stage) are listed in the table below.

Table 2.3: Pipeline of late stage IPP projects

Project	Stage	Capacity (MW)	Cost (US$m)	Sponsors (Country)
Lamu coal plant	Transaction	1050[25]	2,000	• Centum Investment (Kenya) • Gulf Energy (Kenya) • China Huadian Corporation Power Operation Company (China) • Sichuan Electric Power Design and Consulting Limited (China) • Sichuan No. 3 Power Construction Company (China)
Akiira geothermal plant	Transaction	140	300	• Centum Investment (Kenya) • DI Frontier Market Energy & Carbon Fund (Denmark)

[23] PPP Unit (2015), *PPP Programme Pipeline.*
[24] Ministry of Energy and Petroleum (2013), *5000 + by 2016: Power to Transform Kenya Investment Prospectus 2013 – 2016.*
[25] Note that this figure refers to total capacity, whereas figures stating 960MW capacity for the Lamu plant are referring to net energy.

Project	Stage	Capacity (MW)	Cost (US$m)	Sponsors (Country)
Kipeto wind farm	Transaction	100	316	• African Infrastructure Investment Managers (AIIM) (Australia/South Africa) • IFC (International) • Craftskills Wind Energy International (Kenya) • Kipeto Community Trust (Kenya)
Sosian Energy Menegai geothermal plant	Transaction	35	100	• Sosian Energy (Kenya)
Quantum Power Menengai geothermal plant	Transaction	35	100	• Quantum Power (Australia)
Orpower Twenty Two Menengai geothermal plant	Transaction	35	100	• Ormat Technologies (US) • Symbion Power (US) • TransCentury (Kenya)
Limuru wind farm	Structuring	50	130	• TransCentury (Kenya) • Aperture Green Power (Kenya)
Dongo Kundu gas-fired plant	Structuring	700	1,440	Currently being tendered after recent cancellation.
Olkaria VI geothermal plant – Phase 1	Structuring	140	500	Currently tendering a preferred bidder, who will own 51% in the special purpose vehicle (SPV) while Kengen will own 49%.

Source: IJGlobal (2015); PPP Unit (2014); AFDB (2014); CEPA analysis.

Along with the recently closed IPPs, these deals will significantly add to Kenya's generation capacity, which as of 2013 was 1,664 MW.[26] However, increasing capacity by 5,000MW by 2016 is highly ambitious. A lot of the deals in the pipeline are building on the previous developments in the renewables sector. For example, the three 35MW Menegai geothermal plants are the first projects to be developed as a result of the state-owned Geothermal Development Company's (GDC) 400MW geothermal development in the region. This programme has received support from the African Development Bank (AfDB), Agence Française de Développement (AFD), the European Investment Bank (EIB) and the World Bank to fund initial drilling and exploration, which the Government has also committed a significant amount of funds to. According to some estimates, the Rift Valley in Kenya has the potential to generate 10,000MW of geothermal energy, which, if exploited would place the country among the world's leading nations for geothermal generation.[27] Another interesting observation is that many project's sponsors are Kenyan companies, indicating that the developments in the IPP market have resulted in the growth of local capacity.

[26] Ministry of Energy and Petroleum (2015), *National Energy and Petroleum Policy*.
[27] Ministry of Energy and Petroleum (2015), *National Energy and Petroleum Policy.*

2.3.2. Transport

Based on consultations with stakeholders and the current projects in the pipeline, the Government is placing the transport sector at the centre of its PPP programme. In particular, a number of key roads and bridges around the country are currently reaching stages where feasibility studies are underway, which has included:

- Construction of the 2nd Nyali Bridge, with Deloitte leading the consortium appointed as transaction advisors (TA).
- Dualling of the Mombasa – Nairobi highway, with PwC leading the consortium appointed as TA.
- The operation and maintenance (O&M) of the Nairobi – Thika road, with Intercontinental Consultants & Technocrats consortium appointed as TA.
- Dualling of the Nairobi – Nakuru road, with services commencing in February 2015.
- O&M of the Nairobi Southern Bypass, with services also commencing in February 2015.

According to consultations, these are the most developed economic infrastructure projects in which TAs are being funded through the World Bank's IFPPP Project.

Aside from these key roads, the Government has also initiated the procurement of the first 2,000 km of the Roads Annuity Programme, an ambitious programme that is looking to construct 10,000 km of paved roads in mostly rural areas. These roads will be funded either through tolls or annuity models where the holders of the design-build-finance and operate (DBFO) contracts are provided with periodical payments by the Government. According to stakeholders, the first phase of the Programme attracted a lot of interest from Chinese companies who are likely to be supported by their export credit agencies (ECAs), local private equity firms and commercial banks, although it was suggested that some of those showing interest may not fully understand the Programme at this stage.

In the rail sector, a PPP project involving the rehabilitation and expansion of the Nairobi commuter rail service has been in development since 2006, which currently has a joint development agreement (JDA) signed between Kenya Railways Corporation and InfraCo Africa. Despite the long period in which this project has been in development, stakeholders believed that financial close is unlikely to be reached in the near future. In order to identify the challenges faced during the development stages of this project, a case study has been developed in Annex A.

As regards the ports sector, construction of the new container terminal at Mombasa is currently underway, and is expected to be commissioned early in 2016. The terminal will be operated by a private company, alongside the existing Kenya Ports Authority (KPA) terminal. Procurement of the terminal's concessionaire began in March 2015, and a total of 19 international firms bid for the US$300m project.[28]

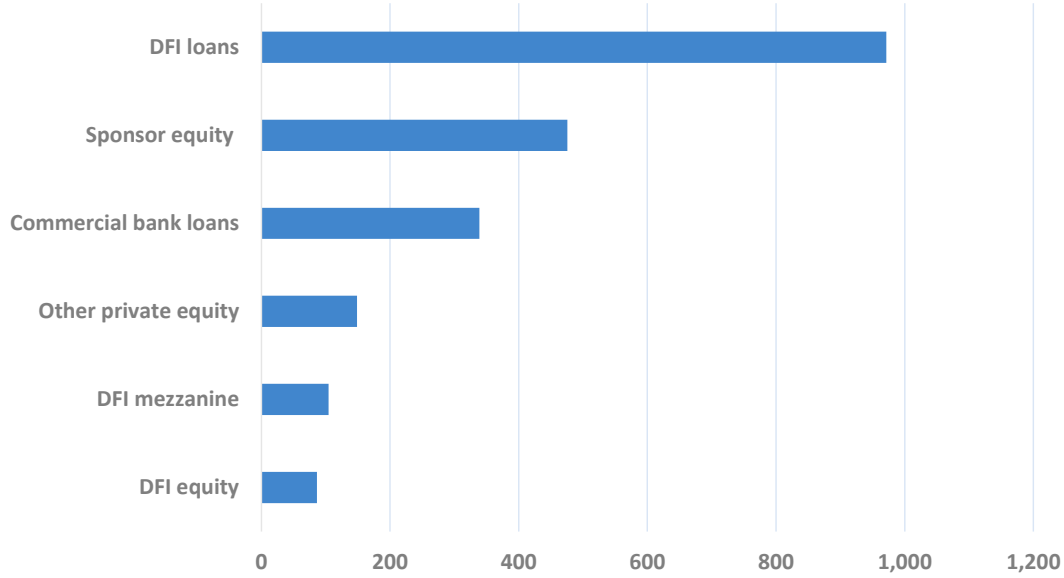
[28] Port Finance International (2015), *Mombasa's $300m terminal 2 tender attracts investors.*

2.4. Market participants investing in infrastructure

2.4.1. DFIs

The role of the DFIs in Kenya's infrastructure sector has been crucial in terms of the financing they have provided for IPP transactions, and is demonstrated in the figure below.

Figure 2.4: Financing commitments to IPPs in Kenya 1999 – 2014 (US$m)[29]



Source: CEPA Analysis.

DFIs have provided by far the most financing for IPPs in Kenya, with the majority of their financing coming in the form of senior loans. Based on these transactions, the DFIs that have been most active include the IFC and the European club consisting of Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V. (FMO), Deutsche Investitions- und Entwicklungsgesellschaft (DEG) and French DFI Proparco, while AfDB and the Overseas Private Investment Corporation (OPIC) have also provided significant debt financing for recent IPPs. While they have been one of the major players in the market, stakeholders noted that DFIs have generally played a more passive role and entered into projects during the later stages of their development and are relatively conservative on transactions. However, some DFIs do have funds that are dedicated to assisting in the early stage work on projects, including the financing of feasibility and environmental studies. Furthermore, DFIs such as Norfund have provided equity finance to a number of transactions, demonstrating their commitment to increase their participation in the development phase of projects. Norfund has also provided project preparation funds to facilitate the development of energy sector projects.

2.4.2. Commercial banks

The previous infrastructure transactions and the pipeline of projects in Kenya provides an interesting picture of who the main market players have been in the infrastructure space to date. While debt financing for infrastructure has traditionally been dominated by the DFIs, there is growing evidence that commercial financing is being drawn to the sector. Based on closed transactions, Standard Bank

[29] Note that the EU-Africa Infrastructure Trust Fund (EU-AITF) has been included as a DFI in this category.

has been particularly active in financing IPPs both via its South African operations and through its Kenyan subsidiary CfC Stanbic, providing debt financing on the Kinangop wind farm (US$90m), the Triumph power plant (US$28m) and the recently closed Lake Turkana project (US$25m, which is guaranteed by EIB). Furthermore, the Thika Thermal Power Project (closed in 2012) also obtained commercial financing from ABSA Capital, who provided US$36.67m in senior debt alongside the IFC and AfDB. This project was important as it was the first time that an international commercial bank had provided long term financing to an IPP in the country (see Annex B for further details on this project).[30]

The Thika project is a good example of where a PRG was used to attract private commercial investment to an infrastructure project, a common feature of project finance transactions across Africa. PRGs or other forms of political risk insurance (PRI) have been used as commercial financiers has traditionally not been willing to take uncovered risk on projects in Africa, which is primarily a result of lenders' views on the credibility of state-owned off-takers. During consultations with some commercial banks, a number of these institutions highlighted that without a credible off-taker for services in place, commercial financiers were unlikely to invest in projects. However, some transactions in Kenya have not required such cover for commercial lenders. For example, local commercial financing has also been used on the US$200m Kwale sugar cogeneration project, which was financed by a consortium of Mauritian and Kenyan based commercial banks who collectively provided roughly US$100m, without either a PPA or guarantee. This is because it is only the excess power that is sold to KPLC when it is available, with most of the output dedicated to the sugar refinery. The financing arrangements for this project illustrate what is possible when there is a robust private purchaser in place (that is, the refinery) and the potential for providing additional power to the grid through such hybrid models.

2.4.3. Local developers

As indicated in Table 2.3, there are a number of local project development companies now being established in Kenya who are taking significant proportions of equity on generation projects in the pipeline. Some of these institutions such as Gulf Energy have provided equity on previous transactions, suggesting that previous lessons learned have been important for developing new projects going forward. Gulf Energy, along with Centum Investment are the local sponsors on the development of the 1050MW coal plant to be located in Lamu, which once closed will surpass the Lake Turkana project as the largest IPP in Kenya. TransCentury has also been active in the development of projects and has provided engineering, construction and procurement (EPC) services on several transactions. TransCentury and Centum Investment are currently listed on the NSE, enabling them to raise equity capital on their balance sheet. Although the size of these companies means that corporate finance cannot be used to raise all the finance for their projects, having developers such as these in the market suggests that the energy sector could move to this type of financing later on.

2.4.4. International developers and equity funds

While local developers have been more active on recent projects in Kenya, the majority of projects included a significant amount of involvement from international developers and international private equity funds who have been active in the early stages of projects. For example, Aldwych International have been involved on a number of the high-profile IPP projects, including Lake Turkana and Rabai

[30] CFI.co (12 November 2013), *MIGA (World Bank): Energy in Africa – The Many Sides of Sustainability*

power plant. Aldwych received initial funding from the Shell Foundation and has since received extensive support from the Dutch DFI FMO, Aldwych Investment Group, the Emerging Africa Infrastructure Fund (EAIF), the Pan African Infrastructure Development Fund (PAIDF) and Harith. Institutions such as PAIDF receive backing from various commercial banks and DFIs and represent an innovative way of channelling private sector finance for infrastructure projects. Such methods of attracting private finance to infrastructure projects have also been adopted by African Infrastructure Investment Managers (AIIM), a joint venture between Macquarie and Old Mutual Investment Group which manages a number of funds financed by DFIs, institutional investors and commercial banks. AIIM participated in the development of the Kinangop Wind Farm which reached financial close in 2013 and has recently been involved in the development of the Kipeto Wind Farm, which is expected to reach financial close in 2015.

One company that has been particularly active in the development of geothermal projects in Kenya is Ormat Technologies, a US-based development company that established a subsidiary OrPower4 in Kenya and through this entity has developed and currently operates the Olkaria III plant. OrPower4 has also taken a majority stake in one of the 35MW Menengai projects currently being developed, indicating that it is seeking to play a key role in maximising Kenya's geothermal potential.

In transport, the Nairobi Commuter Rail project has been supported by InfraCo Africa, a facility of the Private Infrastructure Development Group (PIDG) that focuses on developing bankable projects by providing equity investments during the development phase and financing out of projects at close. InfraCo Africa is currently managed by eleQtra, a leading developer of infrastructure in emerging markets who are able to bring considerable experience to projects they invest in.

2.4.5. Chinese financing in Kenya

As indicated in Table 2.3, Chinese institutions are currently sponsoring the large Lamu coal plant currently in the pipeline. Given their involvement, some sources have noted that a large amount of the debt required for this project will be provided by the Industrial Commercial Bank of China.[31] According to stakeholders, this holistic method reflects the general approach that Chinese institutions adopt when approaching the market in Kenya.

While the Lamu project will result in a significant amount of private sector power being provided, the majority of Chinese investments in Kenya have been in public sector projects. For example, Chinese government financing has recently been provided for the new terminal expansion at JKIA and the tender for the project was also awarded to Chinese companies. Chinese financing and contractors are also working on the SGR line, with 90% of the financing being provided by China's EXIM Bank, with the remaining 10% coming from the GoK.[32] While stakeholders noted that the Chinese approach to infrastructure financing overcomes the long development periods associated with projects that have considerable involvement from the traditional donor community and Western developers, such projects were noted for being poorly prepared and not adopting adequate procedures regarding labour, procurement processes and other quality standards.

[31] IJGlobal (2015), *Chinese debt likely for Centum and Gulf's Lamu coal-fired.*

[32] Ministry of Transport and Infrastructure (2014), *Standard Gauge Railway: Forging the new frontier in railway development in Kenya and the region.*

3. BARRIERS TO INVESTABILITY / BANKABILITY

Despite the relatively high level of activity being undertaken by the private sector in some of the infrastructure sectors, many stakeholders noted that Kenya has not been on target for meeting their US$2.1bn per annum infrastructure financing requirements estimated by the World Bank.[33] In order for Kenya to close this gap using private sources, stakeholders noted a number of issues need to be overcome so that projects can reach the bankability stage, and this sections summarises the current constraints in the market, as cited by the stakeholders interviewed.

3.1. Government commitment to private participation

One of the key barriers that has traditionally limited PSP in infrastructure is the extent to which governments are committed to opening up particularly profitable sectors of the economy to the private sector. In this regard, a number of those consulted mentioned that the Government has largely looked at PPI as an alternative form of investment into the sector when public resources and / or donor funding is not available or if the Government feels such projects are less attractive, as opposed to selecting projects as PPPs when private sector participation is optimal.

Examples of where PSP can be beneficial in infrastructure sectors includes entities with high demand from industrial and business users due to their strategic location and where revenue streams are largely denominated in international currency. In Kenya, a number of observers have argued that the ports and airports sub-sectors could significantly benefit from PSP, particularly JKIA and the Port of Mombasa, as the opening up of these entities to private sector investment is likely to increase access to longer-term finance at lower rates as well as improved service delivery. Although some steps have been taken towards increasing PSP in the ports sector with the concessioning of the new container terminal and proposed bills to implement a landlord port model, fully private operation of entities such as JKIA and the Port of Mombasa is not likely in the medium term. It was also noted that private ownership of Kenya Power and KenGen could be increased in the near future given that their current operations are being run as if they are private sector companies and they already have a high degree of private ownership as a result of previous divestitures of shares.

While the Government's commitment in some areas was raised as an issue, their wider commitment to PPPs was commended, particularly at a high-level. As evident from the development of the enabling framework for PPPs in Kenya, steps have been taken by the Government to open up a number of sectors to PSP. It is also important to note that individuals consulted in Kenya emphasised the Government's commitment to a greater extent than individuals consulted regarding other countries studied. Stakeholders also suggested that it will be interesting to see how commitments differ between devolved regions going forward.

3.2. Government transparency and delays to projects

Transparency in the Government remains an important issue in Kenya that needs to be overcome. In particular, the nature in which Chinese involvement was brought onto the large scale infrastructure projects such as the SGR line and the JKIA expansion has not been clear. While many stakeholders

[33] Briceño-Garmendia and Shkaratan (2010), *Africa Infrastructure Country Diagnostic (AICD) Country Report – Kenya's Infrastructure: A Continental Perspective.*

understood why the Government would prefer to bring in Chinese financing for infrastructure over other forms, there have been concerns over whether corruption was involved in the tendering and financing of these projects.

More generally, stakeholders noted that some projects have lacked transparency regarding the acquisition of project rights, and in many cases failed bidders have implemented legal proceedings because of this. Such activities significantly contribute to delays, and in some cases such delays could be avoided if transparency was improved. In relation to this were problems with acquiring land rights from government. In particular, stakeholders mentioned that projects were significantly delayed because enforcement mechanisms were not in place to ensure that projects were not disrupted by individuals in political positions once rights had been issued. As a result, a number of legal issues have arisen during the later stages of projects and financial close was delayed. Having said this, stakeholders mentioned that a PPP tribunal has been established to address appeals during the procurement process, which can be more effective in dealing with disputes compared to Kenya's courts.

3.3. Ability to charge cost-reflective tariffs

A key to bankability requirement of a project is ensuring that lenders can recover their investments through the tariffs charged for the provision of infrastructure services. Given the historical nature of infrastructure provision, many regard it as the public sector's duty to provide the services and fund investment and maintenance through general taxation. However, the GoK has struggled to raise adequate funding to pay for infrastructure services, which explains the huge infrastructure deficit present in the country and why PSP is necessary. Significant opposition to tariff increases persists in Kenya, particularly from businesses. The nature of such resistance varies by sector. For example, tariff levels currently being charged in the Kenyan water sector are far below levels required to attract PSP and the outlook for PPPs in this sector is in the near future is negative, whereas the tariffs levels in electricity generation have enabled private sector investment (although pressure to keep retail tariffs low remains). In transport, it is currently unclear whether individuals will be willing to pay tolls at levels sufficient to enable private sector provision. The introduction of tolls will need to be accompanied by significant improvements in the roads on which they are being introduced.

Businesses have stated that keeping energy prices low is one of the key prerequisites for increasing the manufacturing sector's contribution to GDP. Stakeholders also noted that while domestic customers would oppose increasing tariffs, protests would not be as vehement provided they were accompanied by improved service delivery. Retail electricity tariffs are determined by the weighted average cost of wholesale electricity being charged to Kenya Power. These wholesale charges vary depending on the generators providing the power. For example, some generation plants operated by KenGen that have been operating for a long time and are nearing the end of their asset lives, and therefore cost of capital on these assets has often been fully recovered. On the other hand, new plants coming onto the grid will need to charge higher tariffs in order to recover the investments provided by lenders. Because of this relationship (and because KenGen has been able to access concessional finance), tariffs being charged by KenGen are often lower than that of IPPs as it often faces lower costs of capital. Furthermore, given that energy prices are highly influenced by exchange rate and fuel costs, Kenya Power provides a detailed breakdown of how such charges influence the tariffs being charged to the consumer in energy bills, which allows consumer to easily view how Kenya Power's costs fluctuate.

Prices for domestic consumers are currently structured in such a way that consumers using less than 50 kWh per month are charged around US$0.03[34] per kWh, meaning that poorer households with lower energy uses are being charged much lower tariffs. Usage above this level is charged at US$0.15 per kWh, while businesses are charged tariffs ranging from US$0.15 per kWh for small business to US$0.08 per kWh for large industrial consumers demanding significantly larger amounts of energy.[35] According to some stakeholders, such prices do not allow Kenya Power to recover costs being charged by IPPs, with some stating that a tariff of US$0.15 per kWh supplied is required to make a reasonable return, although some technologies such as geothermal power allow for wholesale tariffs as low as US$0.05 to be charged when support is given for the drilling of wells.[36] Despite the low tariffs, business pressure on the Government means that raising retail tariffs further is difficult.

3.4. Capacity within government

The understanding of the concept of PPPs in government has increased significantly over the past decade with the establishment of the central unit and the PPP nodes in both line ministries and key parastatals, although some have suggested that building this capacity has taken significantly longer than expected. In the case of the central PPP Unit, a number of stakeholders have commended the work they have been doing as of late, however, it was also suggested that the Unit is very over-stretched at the moment due to the large number of proposals being received from line ministries.

Despite the quality of proposals being received has significantly improved, a high number are still being forwarded to the PPP Unit, suggesting that individuals in government have not fully grasped what projects can be developed as PPPs. In relation to this, stakeholders observed that the current pipeline of 69 projects is highly ambitious, and most projects are unlikely to reach close in the next few years. Some of these projects have recently appointed transaction advisors to conduct feasibility studies using the IDA credit received as part of the World Bank's IFPPP project. According to the World Bank's latest Project Implementation and Status Report, these projects are likely to reach the transaction stage in June 2017, suggesting that nearly all projects in the pipeline are a significant way off reaching the bankability stage.[37] With regards to project bankability, a number of stakeholders mentioned that individuals within government do not fully understand the concept of a bankable project, with many seeing it as one with a strong rate of return rather than one that is structured in a way that ensures private sector investment is feasible.

3.5. Early stage project development issues

The issues regarding the quality of project developers with the capital required to take a project to the bankability stage were mentioned as being one of the single key barriers to attracting investment for infrastructure, even in the relatively well-developed energy sector. According to some stakeholders, this is largely a result of the sector being in relative infancy and therefore developing the necessary experience has been particularly difficult. The absence of credible project developers is a particular issue for some DFIs who are not willing to finance infrastructure projects being developed by individuals or entities with an unproven track record, and as a result will look for projects led by

[34] At current exchange rates.
[35] The Kenya Gazette (2014*), Schedule of Tariffs for Supply of Electrical Energy by the Kenya Power and Lighting Company Ltd.*
[36] African Development Bank (2014), *GDC Menengai 105MW IPP Partial Risk Guarantee: Appraisal Report.*
[37] The World Bank (2014), *IFPPP Project Implementation and Status Report.*

international developers. International developers are also able to access sufficient capital to ensure that the project can reach a stage where financing is possible, whereas local developers often rely on financing from suppliers or EPC contractors who provide this under the condition that their equipment is used in the project at close. One particular issue raised was the presence of "briefcase developers" in the Kenyan market who have acquired the rights to develop a project but lack the necessary skills to ensure that it reaches the bankability stage and instead hire external consultants for such activities, which significantly adds to project costs. As a result, a number of infrastructure funds providing equity investments have been more involved in the project development process to bring projects to financial close, with AIIM being a notable example of an institution taking this role.

Although the lack of credible project developers was mentioned on a number of occasions, local developers pointed out that there is a lack of trust being placed in them by some DFIs, despite displaying a track record of developing projects. Because of this lack of trust, some argued that international organisations looking to finance projects demand that expensive Western law firms are brought onto projects during the development stage, significantly adding to project costs. Developers also mentioned that the Government has looked to international project developers on a number of projects, which has limited the extent to which local companies can obtain the required experience. However, a number of local development companies have come onto the IPP market in recent years. For example, companies such as Gulf Energy, Centum Investment and TransCentury (who also have project experience outside of electricity generation) were mentioned by stakeholders as important local developers.

3.6. Development rights of current projects

While the PPP Act (2013) provides clear guidelines on the stages which PPPs should follow from identification through to procurement of sponsors for newly developed projects, some stakeholders suggested that the Act's guidance is less clear for projects that were already in development prior to the Act being enforced. This has resulted in the ownership of projects being disputed, and in turn has stalled projects from reaching the stage whereby procurement and attracting financing can begin. While the Act states that contracting authorities (i.e. public sector bodies involved in the sector where the PPP is operating) are responsible for the tendering of projects, developers who have invested significant time and money into these transactions are also likely to want some influence over the process.

4. CONSTRAINTS TO DOMESTIC FINANCE

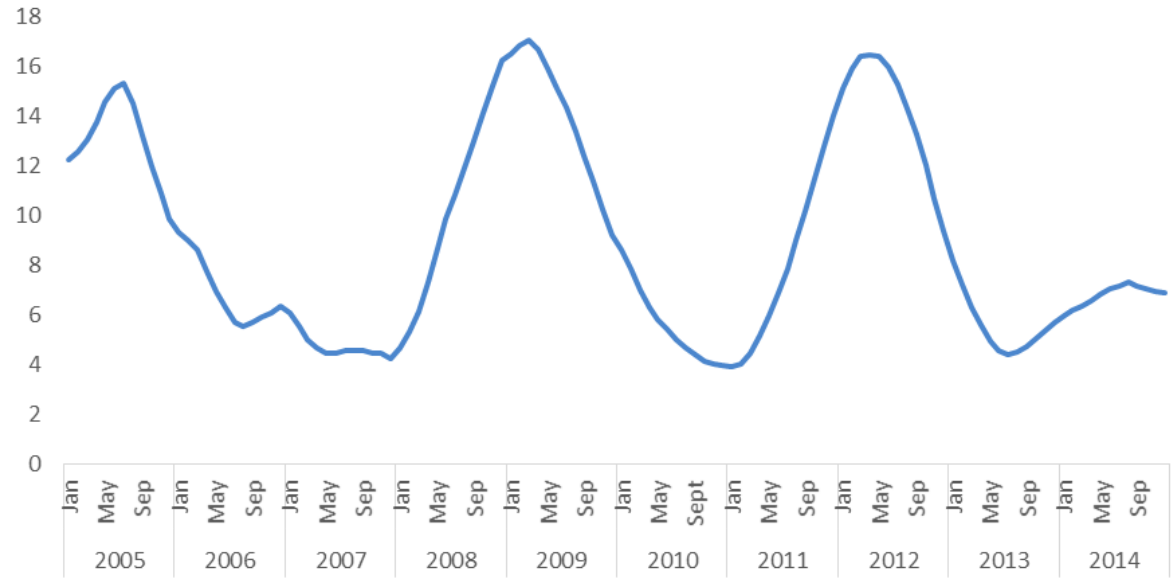
This section outlines the issues currently being faced by financial institutions based in Kenya, which includes locally-owned commercial banks ('national banks'), international banks with a presence in Sub-Saharan Africa (SSA) that have subsidiary operations in Kenya ('networked banks') and local institutional investors.

4.1. Local banking sector

4.1.1. Access to international currencies

As has been the case in many SSA countries outside of South Africa, Kenya has experienced high and volatile inflation in recent years, as outlined in Figure 4.1 below.

Figure 4.1. Annual average CPI inflation rates in Kenya



Source: Kenya National Bureau of Statistics (2014).

These high and volatile inflation rates limit the tenors that can be provided on fixed rate shilling loans at reasonable interest rates, given that at maturity the value of these loans is likely to have significantly decreased in real terms. As a result, lenders providing credit in shilling currency are seeking to provide loans either of a short-term nature or index-linked. These high and volatile inflation rates have also resulted in the Central Bank of Kenya's lending rate remaining at just under 9.9% between 2006 and 2014, reaching a peak of 18% between December 2011 and June 2012.[38] These high central bank interest rates have in turn increased prime rates in Kenya, meaning that borrowing in shilling has been relatively expensive. As a result of these high borrowing costs and the relatively shallow financial market in Kenya, nearly all infrastructure projects have been financed by international currencies such as the US dollar (with some projects also being financed in euros). International currency financing is particularly attractive to infrastructure projects at present due to the currently low interest rates and the quantitative easing programmes that are encouraging lending in these markets. Furthermore, the

[38] Central Bank of Kenya (2014).

maturity of these markets allows financing to be provided with long tenors required for infrastructure finance and at fixed rates due to the presence of swap markets.

Given their access to international capital markets, both DFIs and networked banks are able to raise dollar financing relatively cheaply and this in turn has enabled relatively low rates (depending on the credit enhancement products in place for commercial lenders). However, local national banks in Kenya currently have limited access to international currency financing at rates and tenors that allow them to on-lend to projects, which many stakeholders noted as being one of the key barriers that has limited their involvement in the sector. The mismatch of national banks' deposits being in shillings and infrastructure finance being in dollars has also limited the extent to which these institutions can participate in infrastructure deals. As regards IPPs, the issue of projects being denominated in international currencies could be alleviated if local financial markets were developed enough to finance the total cost of infrastructure at appropriate rates and tenors, given that Kenya Power receives customer payments in shillings. However, the capacity of local banks to finance such transactions is unlikely in the short term, even with syndicated loans, and therefore it will be important for local institutions to access dollars to support IPP financing. This could be achieved by national banks being provided with dollar loans from DFIs or commercial banks which in turn could be on-lent to projects. Currently, however, banks are not being offered loans at rates low enough for it to be attractive for them to on-lend to infrastructure projects.

4.1.2. Asset / liability mismatches

The long-term nature of financing for infrastructure projects has made it difficult for commercial banks to provide finance in local currency as their current account liabilities are predominantly short-term in nature. As a result of this, the maximum tenor local banks can provide on their loans is seven years, which is significantly shorter than the financing required for large infrastructure projects. Liquidity problems could be alleviated through the issuance of long-term bonds or accessing long-term credit from other financial institutions to on-lend to specific projects. However, while the Kenyan financial sector is well developed relative to those in other African countries, access to this type of shilling financing has proved difficult for some institutions, as discussed previously.

4.1.3. Infrastructure project finance experience

As outlined in previous sections, debt financing for infrastructure projects has been dominated by DFIs, with some financing also coming from South African banks; with all financing being provided in fully tradable international currencies such as the US dollar. Therefore, local commercial institutions without easy access to foreign exchange have rarely been involved in transactions, with the exception of CfC Stanbic, a subsidiary company of Standard Bank. Because of this, local institutions have not developed the relevant in-house skills to appraise infrastructure transactions, and continue to lack these skills, although local institutions are reported to have some experience of arranging finance. The absence of such experience means that local institutions have historically been more averse to investing in infrastructure projects, although it is possible that this could change in the near future with some stakeholders mentioning that developers are looking locally for debt financing for projects currently in the pipeline.

4.1.4. Alternative investments

Given the above issues, local banking institutions have tended to focus investments on assets that are shorter-term and shilling-denominated. For example, a number of stakeholders mentioned that local banks have been actively investing in short-term government deposits which avoid issues regarding asset/liability mismatches and have also provided reasonable returns in recent years. Furthermore, the government debt market in Kenya is relatively well developed and institutions are confident in receiving repayments on T-bills. Other sectors that have also attracted local commercial financing include real estate, where banks have developed considerable experience in this sector and have earned high returns on their investments. Because banks have at their disposal other attractive investment options that offer high returns at less risk, they have not needed to look for alternative investment opportunities such as infrastructure financing.

4.1.5. Size of balance sheets

As of November 2014, the Kenyan banking sector comprised 43 commercial banks, 1 mortgage finance company, 9 microfinance banks, 7 representative offices of foreign banks, 90 foreign exchange bureaus, 9 money remittance providers and two credit reference bureaus, with a total balance sheet value of Ksh 3,168.7bn (US$34.68bn).[39] While the size of the banking sector has expanded by over 20%, the size of local institutions' balance sheets continue to be small relative to the financing requirements of national infrastructure projects in Kenya, which was noted as one of the main reasons why local banks have historically not played a major role in direct financing.

4.2. Institutional investors

Many of the constraints facing local banks are similar to those facing local institutional investors, particularly regarding infrastructure financing experience, access to international currency and the attractiveness of alternative investments. One of the major benefits of institutional investor capital is that institutions do not face the same degree of problems regarding asset/liability mismatches, given the long-term nature of the liabilities they hold (such as pension provision and life insurance). Therefore, institutional investors are in theory well placed to finance infrastructure projects given the long-term and reliable returns possible on infrastructure investment and the requirements of those supplying institutional capital. However, given that infrastructure projects in Kenya are largely financed in dollars, institutional investors are less willing to invest in these assets, and would rather hold tradable products that can be sold on relatively easily and demand a high yield. For example, the majority of institutional investment in Kenya is being driven by a desire for high yield such as the returns obtained on short – term liquid assets like 91 day government treasury bills (indicating that investors are comfortable taking government risk). In addition to this, a number of barriers were mentioned that prohibit institutional investment in particular and therefore are necessary to highlight separately from other sources of financing.

4.2.1. Current infrastructure investment opportunities

Institutional investors are constrained by the lack of packaged infrastructure opportunities made available for debt investment. For example, in the UK PFI market, banks investing in projects

[39] Central Bank of Kenya (2014), *Monthly Economic Review November 2014.*

traditionally take construction risk and once assets are operational such banks tend to get refinanced out of transactions and are replaced by more risk averse investors, including institutional investors. Similarly, Kenyan institutional investors would prefer to enter at the post-construction stage where the risk in such investments is reduced and the returns are more stable (as would be the case with a debt investment in a network utility in the UK if such debt was quoted it would also help address liquidity concerns).

However, such refinancing rarely occurs in the Kenyan infrastructure market so these opportunities are not currently available to institutional investors. This is largely a result of those financing infrastructure projects at close holding their investments to term, meaning that this secondary market – even private placements as opposed to public listings - is currently absent in Kenya. This is largely a direct result of a reliance on the project finance model.

As regards taking equity risk, or indeed, full life project risk, because of the specialist nature of infrastructure risk, many institutional investors would prefer to invest in a pooled fund rather than in a specific project. According to stakeholders consulted, single investments are less attractive to institutional investors as they are unwilling to be exposed to the outcomes of one particular project, whereas funds allow a diversification of risks.

4.2.2. Laws and regulations in the Kenyan pension sector

Traditionally, asset managers of pension funds favour long-term investments with predictable returns, which suggests that such funds are ideally placed to finance infrastructure projects. However, Kenyans are able to access half of their pension each time they move jobs, which means that holders of pensions tend to favour shorter term investments with potentially higher returns. Because of this, a high proportion of pension fund assets are invested in shorter-term investments with higher yields.

While pension fund asset managers have some discretion over what specific investments they make, regulations are in place that limit the amount that can be invested in some areas. For example, a maximum of 90% of funds can be invested in government-backed securities, a maximum of 30% in corporate assets that are listed, and a maximum of 5% in unlisted stock or alternative investments. Although this constraint may not be as pressing as other financing issues mentioned previously, stakeholders noted that institutional investors will have a clear preference for liquid assets that are quoted and in local currency.

5. OVERALL CONCLUSIONS ON KEY CONSTRAINTS TO PRIVATE FINANCING OF INFRASTRUCTURE

With the exception of South Africa, of the SSA countries analysed the Kenyan private infrastructure market is relatively well developed and benefits from both a history of privately financed transactions as well as a strong pipeline going forward. The nature of the infrastructure market and the wider economy means that Kenya is currently in a position to move from a sector dominated by DFI financing to one where there is greater participation from commercial lenders, although in dollars and with varying degrees of credit enhancement from governments and donors. The energy sector does, however, show how the extent of such enhancement has reduced over time. While a number of constraints have been outlined in this case study, stakeholders were generally in agreement that infrastructure development has largely been constrained by a lack of bankable projects as opposed to a lack of finance available for such transactions in all sectors outside of telecoms.

The reasons for the lack of bankable projects vary by sector. For example, private investment in the water sector has been severely limited by the inability to charge cost reflective tariffs due to the political sensitivities of doing so. Issues regarding appropriate tariffs were also raised as a concern for the roads subsector, with stakeholders noting that individuals having to pay tolls are likely to question why they are being charged for some roads and not others, especially if significant improvements are not made to the roads they pay for. Given the infancy of the sector, the toll roads being developed in Kenya are likely to require guarantees to increase the likeliness of private investment. In other transport sectors, the government commitment to PSP has not been as extensive, especially in the ports and airports sectors.

Government commitment to increase private sector involvement in the energy sector is evident from the increased ownership that the private sector has obtained in entities such as Kenya Power and Kengen, although the Government continues to own the majority of these entities. Analysis of PPP transactions highlights that the IPP market in Kenya is relatively well developed. However, these transactions have historically required significant financing from DFIs and have also needed support from the GoK either through letters of comfort or PRGs provided by multilateral development banks (MDBs) which are indemnified by the Government. As regards the IPP market, both international developers and DFIs pointed to the lack of developers with the appropriate skills and sufficient capital to ensure projects reach the bankability stage as being a key constraint, and while some developers were noted for being credible, such developers were regarded as the exception rather than the norm. The lack of skilled local developers has resulted in many IPPs being established by international organisations, which according to stakeholders has significantly increased the cost of projects reaching financial close. IPP transactions have also taken a considerable amount of time because of the conservative nature of DFIs. For example, a number of DFIs are looking for the same credit enhancement facilities as commercial banks, whereas stakeholders felt that DFIs should be willing to take more risk on projects.

ANNEX A CONSULTATIONS

List of consultations held with stakeholders in the Kenyan infrastructure sector.

Table A.1: Institutions consulted

Institution	Individual	Position
eleQtra	• Gad Cohen • William Barry	• Partner • Developer
National Social Security Fund (NSSF)	• Gideon Kyengo • Richard Rori • Sharon Chepkoech • Ruth Githere • Sylvester Mulei	• Ag. General Manager – Finance and Investment • Public Relations Officer • Capital and Money Markets Officer • Capital and Money Markets Officer • Capital and Money Markets Officer
Old Mutual Kenya	• Peter Anderson	• Chief Investment Officer
DFID Kenya	• Dennis Kwena • Anna Gibson	• Private Infrastructure Development Advisor • Private Infrastructure Development Advisor
KfW/DEG	• Haje Schütte • Eric Kaleja	• KfW Director - Nairobi Office • Eric Kaleja – Regional Director East Africa
Agence Française de Développement (AFD)	• Rémi Fritsch	• Assistant Regional Director
European Investment Bank (EIB)	• Kurt Simonsen	• Head of Regional Representation
Kenyan PPP Unit	• Dr. Ronoh Tuimising • Hadija Diba	• Legal Expert • Executive Assistant to the PPPU Director
World Bank	• Mehnaz Safavian • Stefan Kauder	• Senior Financial Sector Specialist • Senior Consultant/Senior Advisor – Pubilc-Private Partnerships
Norfund	• Kjartan Stigen	• Head of Regional Office in East Africa
Berkeley Energy	• Luka Buljan	• Investment Director
Britam	• Maurice Odour	• Investment Associate

	• Emma Mugo • Felix Maloba • Anne Kibebe	• Senior Investment Analyst • Investment Analyst • Business Development
FSD Africa	• Mark Napier	• Director
Kenya Power	• Eng. Stanley Mutwiri	• General Manager – Infrastructure Development
TransCentury	• Dr. Gachao Kiuna	• CEO
Centum Investment	• Job Muriuki	• Principal: Private Equity
Equity Bank	• Joseph Murabula • Anthony Ngugi	• General Manager – Equity Investment Bank • General Manager – Corporate Finance
Kenyan Investments Authority	• Dr. Moses Ikiara	• Managing Director
East African Development Bank (EADB)	• Vivienne Yeda • David Odongo • Loise Muigai	• Director General • Principal Investment Officer • Principal Investment Officer
African Infrastructure Investment Managers (AIIM)	• Tony van Engelen	• Kipeto Project Director
African Development Bank (AfDB)	• Gabriel Negatu • Rhoda Limbani Mshana	• Regional Director • Senior Investment Officer
Public-Private Infrastructure Advisory Facilitiy (PPIAF)	• Serah Njoroge	• Regional Programme Coordinator – East and Southern Africa

ANNEX B PROJECT CASE STUDIES

This section provides some case studies of projects that have involved or are hoping to obtain private sector investment in infrastructure. Information was obtained from both public sources and through consultations with stakeholders involved in the project.

B.1. Lake Turkana wind farm

B.1.1. Overview

The Lake Turkana wind farm is a high-profile 300MW renewable energy project that will be located in the northern region of the country, which also includes the construction of 204km of roads and a 428km transmission line. Once built, the project will be the largest wind farm constructed in Africa to date and will also be the largest single private investment in the country. After an extended project development period that involved overcoming a number of obstacles (described below), the project reached financial close in December 2014 for a total cost of €625m (c.US$830m).[40] Aside from the benefit of significantly increasing the generation capacity of the country, the Lake Turkana project is expected to contribute €450m (US$598m) in tax revenues during the life of the project and save €120m (US$159.5m) as a result of lower fuel import requirements.[41] Furthermore, the project company aims to use the carbon credits provided as a result of the project to invest in local communities, which are among the poorest in the country. The scale and complex nature of this project was recognised by IJ Global when it received the Europe and Africa Awards: African Renewables prize for 2014.

B.1.2. Project origination and development

The project was initially developed by Anset Africa in 2006, who were approached by a Dutch farmer who was a resident in Kenya and noticed the windy conditions near Lake Turkana. Anset later established KP&P Africa during the same year, a company registered in Netherlands to further develop the project. In addition, the SPV Lake Turkana Wind Power Limited (LTWP), was also established in 2006 to undertake feasibility studies. The studies were conducted by KP&P from the end of 2006, and due to the nature of the project, environmental and social (E&S) and economic studies were completed for the wind farm, transmission line and associated road infrastructure. According to sources, the various studies had to be re-drafted on numerous occasions to meet IFC Performance Standards, which was not confirmed until 2011.

During this time, Aldwych International was brought into the project in 2009 to assist with its development, and was able to draw on its experience of developing projects both in Kenya (Rabai Power) and more widely on the continent. Before this, Globeleq had considered entering the project as the equity partner but subsequently pulled out due to unresolved issues associated with the Kenyan grid and land rights required for the transmission link. Prior to Aldwych co-developing the project, KP&P were also able to negotiate a 20 year PPA with Kenya Power of €0.0752 (US$0.10) per kWh (renewed in 2011), which is 60% lower than the cost of thermal power in the country and lower than

[40] Based on an average 2014 exchange rate of €1=US$1.3293. For consistency, this figure will be used for all euro-dollar conversions.

[41] LTWP (2014), *Seminar on Sustainable Energy Investment in Africa*.

the feed-in-tariff provided to other projects.[42] According to some sources, the tariff caused significant delays to the project due to Kenya Power demanding that prices were even lower than this, although the sponsors were reluctant to renegotiate due to the competitiveness of the price that was already agreed.

One of the key issues faced during the development phase of the project was the construction of the additional transmission link required for the new line, which was to be constructed by KETRACO and financed through a concessional loan from the Spanish government. Because the line was to be constructed as part of the project, lenders and investors were demanding that a PRG was issued so that losses could be covered if the transmission line was not constructed on time, and an additional guarantee for the first three months of energy payments under the PPA.[43] This was initially set to be provided by the World Bank, with €30m (US$40m) provided to cover PPA payments and €24m (US$32m) to cover the first six months associated with the delay in the transmission line. However, the World Bank decided not to go ahead with the provision of the PRG as it believed the project was too large and expensive for local power consumers to absorb the full costs. As a result of this, lenders threatened to pull out of the project for fears associated with the line. However, AfDB stepped in and provided a PRG for €20m (US$26.59m) through ADF, the Bank's concessional lending arm, which was the first product of this nature that AfDB has provided.[44] As regards covering risks associated with the PPA, EIB was able to step in and provide commercial cover for private lenders.

While the financial documentation was signed for the project in March 2014, the project was further delayed until the end of the year as the sponsors waited for funds to be disbursed to KETRACO to pay for the line's construction.

B.1.3. Project financing

The table below summarises the financing arrangements for this project, which was led by AfDB, with Nedbank and Standard Bank acting as co-arrangers.

Table A.1: Financing for the Lake Turkana project

Nature of Financing	Institution Name	Financing provided (€m)	Financing provided (US$m)	Notes
Equity	Aldwych International	38	50.51	
	KP&P BV Africa	31	41.21	
	Norfund	16	21.27	
	Finnish Fund for Industrial Cooperation Ltd (Finnfund)	16	21.27	
	Wind Power AS (Vestas)	16	21.27	
	Danish Investment Fund for Developing Countries (IFU)	7.5	9.97	
	Sandpiper	0.5	0.66	
Debt	EIB	150	199.40	€100m of this loan is covered by an EKF guarantee.
	AfDB	135	179.46	€20m of this loan is covered by an EKF guarantee.

[42] LTWP at ltwp.co.ke (Accessed February 2015), *LTWP Project Profile.*

[43] World Bank (2012), *Kenya: Lake Turkana Wind Project – Integrated Safeguards Data Sheet.*

[44] AfDB has been providing PRGs in middle-income countries since 2004, and made PRGs in ADF-eligible countries available from 2011.

Nature of Financing	Institution Name	Financing provided (€m)	Financing provided (US$m)	Notes
	Proparco	50	66.47	
	FMO	35	46.53	
	Nedbank	25	33.23	This loan is covered by a political risk guarantee provided by EIB.
	Standard Bank	25	33.23	This loan is covered by a political risk guarantee provided by EIB.
	PTA Bank	10	13.29	
	Triodos	5.5	7.31	Provided as an AfDB B loan.
Mezzanine	DEG	20	26.59	
	PTA Bank	10	13.29	
	East African Development Bank	5	6.65	
	AfDB	5	6.65	
	EU-AITF	25	33.23	This financing is a preference share, therefore is regarded as junior to other subordinated debt in the financing structure.

Source: *IJGlobal (2015)*

As is evident from the table, the financing for this project is dominated by DFIs, with AfDB providing the single largest amount of senior debt. According to stakeholders, the reason for the DFI dominance was primarily driven by the fact that despite seeking commercial lending, many banks were unwilling to invest in the project due to its size and high risks associated with it. The involvement of Nedbank and Standard Bank was primarily driven by the presence of both the guarantee being provided by EIB and the PRG provided by AfDB for the risk of the transmission line not being completed. The participation of the Danish export credit agency EKF was provided due to the involvement of Vestas, a Danish power company who was awarded the EPC contract and is also providing equity to the project.

A number of sources have also noted that OPIC have approved a commercial guarantee during the construction phase of this project. However, it has been difficult to determine the exact nature of this guarantee and which lenders would benefit from it.

B.1.4. Key lessons

As outlined in the previous section, the Lake Turkana project is a highly complex project and as a result has taken a considerable amount of time to develop and reach financial close. The development of the project highlights the importance of guarantees to securing financing from particular lenders due to their risk profiles, even on projects that are in a relatively developed market such as IPPs in Kenya. Despite the presence of private financing, the project also highlights the central importance that DFIs play in markets such as Kenya, given the importance they had in financing the debt, equity and mezzanine finance to ensure the project could reach close.

B.2. Thika thermal power plant

B.2.1. Overview

The Thika power plant is a 87MW heavy fuel oil (HFO) power station that was fully commissioned in 2014, and was one of the three power projects competitively tendered by the government in 2009. While the plant uses diesel to generate power, it uses a diesel combined cycle (DCC) turbine where the heat generated from the fuel is also used to generate power, lowering the environmental impact of the plant due to the increase in energy efficiency. The total cost of the project was around US$146m[45], with debt financing provided by the IFC, AfDB and ABSA Capital, a South African-based subsidiary of Barclays Bank. The project also benefited from support from the World Bank and the Multilateral Investment Guarantee Agency (MIGA) through an IDA PRG provided for the letter of credit (L/C) that backstops missed payments by Kenya Power and the political risk cover that supported both ABSA and the Melec PowerGen, the project sponsor, by insuring against currency transfer and breach of contract risks (the latter associated with project termination). It was the first time that commercial lending had been provided for an IPP project in Kenya, whereas previous projects had largely been financed by DFIs.

B.2.2. Project origination and development

The project was first developed by the government as part of its wider plans to increase PSP in the energy sector, which was triggered by previous reforms and the unbundling of the sector. Furthermore, the government realised that by attracting private investment into the sector, public and donor resources could be diverted to areas such as health and education where attracting private finance is more difficult. The project was competitively tendered by Kenya Power (with support from international consultants) along with two other thermal IPPs (Gulf Power and Triumph HFO). The initial expression of interest invited bids to design, build, finance, concession, operate and maintain the plant under a build, own and operate contract. The winning bidders would also sign a 20 year PPA with Kenya Power.

Initially the tender for the Thika plant received only two bids, and both were deemed to be uncompetitive in terms of price by the review panel. For the retendered bids, applicants were asked to provide prices based on two options; one with the expectation that the government would provide a sovereign guarantee, and the other with an IDA PRG and MIGA termination guarantee. Following the retendering, nine bids were received for the project, with Melec PowerGen (an joint venture between MATALEC Group of Panama and MAN Diesel SAS of France) selected as the preferred bidder with a unit energy cost of €0.1358 per kWh (with levelised cost estimated to be US$0.222, which comprises energy, capacity, operational and fuel costs) for the 87MW plant under the IDA PRG/MIGA cover option.[46] However, the bid was appealed following another bidder (Athi River Power Company) submitting a lower bid but under the sovereign guarantee option, and as a result Kenya Power were asked to re-evaluate the proposals by the Public Procurement Administrative Review Board (PPARB). PPARB noted that the sovereign guarantee option was no longer available as the government had declared it was not willing to offer a sovereign guarantee for the project. Melec PowerGen was again

[45] Note that the financing for the project was denominated in euros, so figures may not be accurate at current exchange rates.

[46] World Bank (2012), *Private Sector Power Generation Support Project – Appraisal Document.*

declared the preferred bidder. The tendering of the project was deemed by the World Bank to comply with international standards of procurement.

B.2.3. Project financing

As mentioned previously, the project was the first IPP to attract commercial finance in Kenya, which was provided by ABSA capital. The financing was provided as a result of significant support in the form of credit enhancement facilities from the World Bank and MIGA. In particular, the IDA PRG was used to backstop the obligation of Kenya Power or the government to repay Citibank, who had won the bid to provide the letter of credit (L/C) to the project company that would cover three months of capacity and energy payments (denominated in euros) and two months of fuel charges (denominated in dollars). The PRG was also indemnified by the government, meaning that in the event that it was called upon the government would be required to repay the amount disbursed by the World Bank, and if this was not repaid it would result in a cross-default on World Bank Group investments in the country.

The MIGA guarantee was provided to cover the termination of the PPA by Kenya Power due to failure to meet payments or political events (such as changes in laws and regulations, war or civil disturbance). A significant amount of support from donors and high demands were placed on the government for this transaction, and without such support, commercial financing for this project would have been unlikely. A full breakdown of the financing structure for this project is provided in Table A.2 below.

Table B.2: Financing for the Thika Power plant

Nature of Financing	Institution Name	Financing committed (US$mn)[47]	Guarantee information
Equity	Melec Powergen	36	Covered by IDA PRG provided to the SPV and MIGA breach of contract cover.
	Local partner		
Debt	IFC	36.67	Covered by IDA PRG provided to the SPV.
	AfDB	36.67	Covered by IDA PRG provided to the SPV.
	ABSA	36.67	Covered by IDA PRG provided to the SPV and MIGA breach of contract cover.
Total		146	

Source: World Bank; MIGA (2012). The debt financing from all sources was provided on tenors of 15 years with a grace period of 18 months, and was priced at EURIBOR+500 bps.

B.2.4. Key lessons

The project is a clear example of the requirements needed to attract commercial lending to infrastructure projects in developing countries. While the Kenyan market has developed a lot since the close of this project, it provides a useful example of what requirements are likely to be needed in sectors and countries that are less developed in the region. The project also highlights the importance of competitively tendering projects and adopting a transparent process, as support from the World Bank Group may not have been as extensive if the project had been developed on an unsolicited basis.

[47] Note that the project was financed in euros, therefore these are approximate figures.

B.3. Nairobi Commuter Rail

B.3.1. Overview

Nairobi suffers from extensive traffic problems at present, and the city's 3.5 million population currently rely on dated railway infrastructure or heavily congested roads, despite the majority of the population being unable to afford private cars. To overcome these issues, InfraCo Africa has been working with Kenya Railways Corporation (KRC) on the feasibility, design and procurement of the Nairobi Commuter Rail project. The project is expected to cost US$325m, and will rehabilitate 65km of railway line whilst also constructing 5 – 7km of a new line to join up the city with JKIA, with stations and other facilities also being rehabilitated. Once the line is completed, it is expected to carry 100,000 passengers per day, a significant increase from the 19,000 currently being served by the system. Despite being in development for nearly a decade, the project has yet to seek an operator for the line, and is another example of a project that despite its clear social and economic benefits is failing to reach a stage of bankability.

B.3.2. Project origination and development

The project was originated by KRC, who had been contracting the operation of the current commuter line to RVR, and the concession was being extended annually. However, the quality of service has not been sufficient to meet the demand of the 1.5 million commuters in the city. As a result, KRC approached InfraCo Africa towards the end of 2006 to support the development of the project. As a result of this, a JDA was signed in 2009 between the two entities and since then InfraCo has been closely involved in the project's development. However, some of those consulted noted that KRC were initially unclear on the nature of their own involvement, thinking that they would be the ones solely leading the project while InfraCo would play a supportive role. However, given InfraCo's mandate and the requirements of the project they took on a more active role in project development than KRC had anticipated.

As a result of the JDA, the relevant feasibility studies have been completed as well as much of the commercial and other structuring. Furthermore, according to some sources the tendering for the operator was conducted in 2012, and attracted interest from 17 well known international companies from South Korea, China, Europe and South Africa.[48] According to stakeholders, one particularly attractive aspect of the project was that the government agreed to provide a guarantee associated with the traffic risk on the line, which if not present would detract many investors given the risks associated with traffic flows. Government guarantees on traffic risk have been provided on a number of PPP transport projects in other countries that have attracted commercial finance. Many stakeholders who worked on these projects noted the need for such pre-conditions where high levels of uncertainty exist around traffic flows such as commuter rail. Another attractive aspect of the project is that sponsors will be able to use ECAs, something which has occurred on several other occasions in Kenya.

Despite the tendering taking place, the project has not yet found an operator, and as a result progress has been limited over the last few years. According to stakeholders, one of the primary reasons for this was the introduction of the PPP Act in 2013, which failed to account for the JDA that was in place

[48] Business Daily (2012), *Global firms battle for Sh24bn Nairobi rail tender.*

between KRC and InfraCo. In particular, the Act states that contracting authorities should be responsible for the development of the project, which in this case would be KRC. However, given the significant amount of investment that InfraCo has contributed to the development of the project it would like to continue to play a key role in the selection of the operator. As a result, conflicts have arisen regarding who should be responsible for the procurement process. Therefore, despite the project being at post-feasibility stage, achieving financial close will be difficult if these issues are not addressed.

B.3.3. Key lessons

The project highlights that a conducive enabling environment is a key prerequisite to a project's success, even when international expertise is brought in to assist in the development. In this case, stakeholders noted that the legal framework was a key barrier that has prevented the project from reaching financial close. Other stakeholders observed that this project supports the view that the JDA model for project development does not help with the speed in which as project reaches financial close, with many pointing to the extensive time it took to get the project past the concept stage. Going forward, this project highlights that roles need to be adequately defined from the start of a project in order to prevent conflicting interests impeding the speed at which the project can be brought to market.

ANNEX C REFERENCES

African Capital Markets News (2009), KenGen issues $197 mln bond for 500 MW more electricity.

AfDB (2014), GDC Menengai 105MW IPP Partial Risk Guarantee: Appraisal Report.

Briceño-Garmendia, C. and Shkaratan, M. (2010), Africa Infrastructure Country Diagnostic (AICD) Country Report – Kenya's Infrastructure: A Continental Perspective.

Business Daily (2012), Global firms battle for Sh24bn Nairobi rail tender.

Central Bank of Kenya (2014), Monthly Economic Review November 2014.

Communications Authority of Kenya (2014), Quarterly Sector Statistics Report.

Energy Regulatory Commission (2013), Feed-in Tariff Policy in Kenya.

Government of Kenya (2011), Policy Statement on Public Private Partnerships.

IJGlobal (2015), Chinese debt likely for Centum and Gulf's Lamu coal-fired.

IJGlobal (accessed February 2015).

Kapika, J. and Eberhard, A. (2013), Power-Sector Reform and Regulation in Africa: Lessons from Kenya, Tanzania, Uganda, Zambia, Namibia and Ghana.

KenGen (2009), KenGen unveils the features of the Public Infrastructure Bond Offer.

Kenya Gazette (2014), Schedule of Tariffs for Supply of Electrical Energy by the Kenya Power and Lighting Company Ltd.

Kenya National Bureau of Statistics (accessed February 2015). .

Kenya Power (2014), Annual Report and Financial Statements Financial Year Ended 30th June 2014.

LTWP (2014), Seminar on Sustainable Energy Investment in Africa.

LTWP (2015), LTWP Project Profile.

MIGA: Energy in Africa – The Many Sides of Sustainability.

Ministry of Energy and Petroleum (2013), 5000 + by 2016: Power to Transform Kenya Investment Prospectus 2013 – 2016.

Ministry of Energy and Petroleum (2015), National Energy and Petroleum Policy.

Ministry of Transport and Infrastructure (2014), Standard Gauge Railway: Forging the new frontier in railway development in Kenya and the region.

Port Finance International (2015), Mombasa's $300m terminal 2 tender attracts investors.

PPIAF (2010), A PPP against the Odds: The Kenya-Uganda Rail Concession Fights for Survival.

PPIAF (2010), PPIAF Supports Private Sector Participation in Kenya's Energy Sector.

PPIAF (2014), South Africa's Renewable Energy IPP Procurement Program: Success Factors and Lessons.

PPIAF (2015), PPIAF Support Helps Kenyan Water Utility Access Commercial Financing.

PPP Unit (2015), PPP Programme Pipeline.

Qualaa Holdings (22 September 2014), Kenyan Government Hails Progress at Rift Valley Railways as First New Locomotives in More Than 25 Years Arrive for Service in East Africa.

World Bank (2012), Kenya: Lake Turkana Wind Project – Integrated Safeguards Data Sheet.

World Bank (2012), Private Sector Power Generation Support Project – Appraisal Document.

The World Bank (2012), IFPPP Project Appraisal Document.

World Bank (2014), IFPPP Project Implementation and Status Report.

World Bank PPI Database (accessed February 2015).

World Bank World Development Indicators (accessed February 2015).