

# AU-NEPAD

## Continental Business Network (CBN)

### 5% Agenda Report

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Mobilising Domestic Pension and  
Sovereign Wealth Fund Capital for PIDA  
and other African Infrastructure Projects  
through Institutional Investor Public  
Partnerships (IIPPs)



PROGRAMME FOR INFRASTRUCTURE  
DEVELOPMENT IN AFRICA



United Nations  
Economic Commission  
for Africa





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# ABBREVIATIONS

<b>ABS</b>	Asset-backed Security
<b>AfDB</b>	African Development Bank
<b>Ai</b>	Africa investor
<b>ASEA</b>	African Securities Exchanges Association
<b>ASWPFF</b>	African Sovereign Wealth and Pension Fund Forum
<b>AU</b>	African Union
<b>AUM</b>	Assets Under Management
<b>BRICS</b>	Brazil, Russia, India, China and South Africa
<b>CBN</b>	Continental Business Network
<b>CDB</b>	China Development Bank
<b>CIS</b>	Collective Investment Scheme
<b>DD</b>	Due Diligence
<b>DFI</b>	Development Finance Institution
<b>DFS</b>	Dakar Financing Summit
<b>DR</b>	Depository Receipt
<b>DRM</b>	Domestic Resource Mobilisation
<b>ECA</b>	Export Credit Agency
<b>EPPF</b>	Eskom Pension and Provident Fund
<b>ETN</b>	Exchange Traded Note
<b>FONSIS</b>	<i>Fonds Souverain d'Investissements Stratégiques</i> - Senegalese Sovereign Fund for Strategic Investment
<b>GEPF</b>	South African Government Employees Pension Fund
<b>GIP</b>	Global Infrastructure Partners
<b>GIZ</b>	<i>Deutsche Gesellschaft für Internationale Zusammenarbeit</i> - German Corporation for International Cooperation
<b>IFB</b>	Infrastructure Financing Bond
<b>II</b>	Institutional Investor
<b>IIF</b>	Infrastructure Investment Fund
<b>IIM</b>	Infrastructure Investment Management
<b>IIPP</b>	Institutional Investor Public Partnership
<b>IM</b>	Investment Manager
<b>IOC</b>	Infrastructure Operating Company
<b>IPA</b>	UK Infrastructure and Projects Authority
<b>IPDA</b>	Infrastructure Promotion and Development Agency
<b>IPP</b>	Independent Power Producer



# ABBREVIATIONS

<b>LLP</b>	Limited Liability Partnership
<b>MCPP</b>	IFC's Managed Co-Lending Portfolio Program
<b>MDB</b>	Multilateral Development Bank
<b>MLA</b>	Mandated Lead Arranger
<b>MTN</b>	Medium Term Note
<b>NEPAD</b>	New Partnership for Africa's Development
<b>NDB</b>	National Development Bank
<b>NIIB</b>	National Infrastructure and Investment Bank
<b>NIIP</b>	National Infrastructure Investment Plan
<b>NSIA</b>	Nigeria Sovereign Investment Authority
<b>O&amp;M</b>	Operations and Maintenance
<b>ODA</b>	Official Development Assistance
<b>OMERS</b>	Ontario Municipal Employees Retirement System
<b>PE</b>	Private Equity
<b>PF</b>	Pension Fund
<b>PICI</b>	Presidential Infrastructure Champions Initiative
<b>PIDA</b>	Programme for Infrastructure Development in Africa
<b>PIDA-PAP</b>	PIDA Priority Action Plan
<b>PPF</b>	Project Preparation Facility
<b>PPP</b>	Public-Private Partnership
<b>PRG</b>	Partial Risk Guarantee
<b>PRI</b>	Political Risk Insurance
<b>REIT</b>	Real Estate Investment Trust
<b>SAA</b>	Strategic Asset Allocation
<b>SAPP</b>	Southern African Power Pool
<b>SDG</b>	Sustainable Development Goals
<b>SPAC</b>	Special Purpose Acquisition Company
<b>SPV</b>	Special Purpose Vehicle
<b>SWF</b>	Sovereign Wealth Fund
<b>TIF</b>	Tax Increment Financing
<b>UNECA</b>	United Nations Economic Commission for Africa
<b>VFM</b>	Value For Money
<b>VGf</b>	Viability Gap Funding

# FOREWORD BY

## DR. IBRAHIM ASSANE MAYAKI,

Chief Executive Officer, The NEPAD Planning and Coordinating Agency

The global consensus on the imperative of addressing the large financial deficit on Africa's infrastructure is well documented. This is clearly articulated in academic literature as well as in the high-level policy forums at the African Union, United Nations, World Bank, OECD, G-20 and many others. With global regulatory regimes shifting and somewhat diminishing the ability of traditional capital to channel investments into assets in Africa, institutional investors in the form of Pension and Sovereign Wealth Funds have emerged as the most ideal financing sources to close the estimated \$50 billion infrastructure investment gap that is needed annually.

However, in order to effectively mobilise institutional investors, a variety of issues need to be addressed to strategically and intentionally facilitate long-term allocations and investment into the African infrastructure market. Chief amongst these matters is **the need for initiatives around the regulatory frameworks guiding institutional investment in Africa**: specifically, the development of capital market products that can effectively de-risk African infrastructure and package it as an investable asset class.

Building on the guidance and recommendations of the PIDA Continental Business Network (CBN), NEPAD continues to convene influential stakeholders responsible for investment allocation decisions in Africa. This publication is another demonstration of NEPAD's ability to encourage and promote a conversation between key decision makers, players and experts who jointly have the potential to unlock institutional investment capital and direct such capital into regional and domestic infrastructure projects on the continent.



### Dakar Financing Summit (DFS) for Africa's Infrastructure (2014) Summary

The Presidential Infrastructure Champions Initiative (PICI), under PIDA and the Dakar Financing Summit (DFS) for Africa's Infrastructure, seeks to drive project implementation through the Project Preparation cycle for 16 strategic and regionally balanced projects from the PIDA Priority Action Plan (PAP).

- **Goals:** Strengthen PPPs to mobilise financial investments and sustain the implementation of PIDA.
- **Priority Policy:** Promote DRM to finance major regional programmes and projects in Africa, harness and leverage collaborations and partnerships between African and global investors.
- **Economic Objectives and Outcomes:** Africa's transformation through innovative synergies between Public and Private sector in development, including infrastructure.
- **Objective for Infrastructure financing and development:** Economic growth, improved competitiveness and economic integration of Africa into the global economy.
- **Implementation Platforms:**
  - PIDA (Jan. 2012) for infrastructure transformation 2012 - 2040
  - PICI for fast-tracking and prioritising implementation of key regional projects

The **5 Percent Agenda** described in this document is a campaign to increase investment allocations by African institutional asset owners into African infrastructure from its current low base of about 1.5% of assets under management to a more impactful 5%, and to do so within five years. Therefore, the 5% Agenda is aimed at increasing pension and sovereign investment into Africa's infrastructure and is a follow-up to the 2016 CBN meeting on "De-risking Africa's infrastructure and PIDA projects," which emphasised the need for Pension and Sovereign Wealth Funds to increase investments into African infrastructure.

As stressed by the Dakar Financing Summit (DFS) in 2014, an increased form of collaborative public-private initiatives is necessary to mobilise risk capital that accelerates PIDA project implementation. As such, the NEPAD Agency was mandated to establish the CBN together with the African Union (AU). CBN is an initiative that serves as an infrastructure investment advisory platform for government and business. This platform serves to engage and interface with high-level African policymakers and captains of industry on a range of strategic issues and the overall promotion of regional and domestic infrastructure investment projects.

# FOREWORD BY

## DR. IBRAHIM ASSANE MAYAKI,

**Chief Executive Officer**, The NEPAD Planning and Coordinating Agency

### - continued

At the second CBN meeting that was held in 2016 as part of the African Development Bank (AfDB) Annual Meetings in Lusaka, Zambia, the main discussion theme centred on the need to de-risk projects for private sector financing. The key recommendations made were compiled into the *Report on De-risking Infrastructure and the Programme for Infrastructure Development Programme (PIDA)*.

The 5% Agenda builds on one of the recommendations emanating from this Report, namely “the need to mobilise Africa’s institutional infrastructure investment community, including African Pension and Sovereign Wealth Fund capital”, as the key to meeting the financing gap that is currently hindering Africa’s infrastructure development.

#### **The anticipated impact of the 5% Agenda will be to:**

1. Unlock notable and measurable pools of needed capital to implement regional and domestic infrastructure projects in Africa;
2. Broaden and deepen the currently shallow African capital markets whilst at the same time contributing significantly to regional integration and job creation;
3. Promote the development of innovative capital market products that are specific to the continent’s challenges with regards to infrastructure development; and
4. Raise the investment attractiveness for other institutional and non-institutional financiers who have thus far been hesitant to include African infrastructure projects as an asset class in their investment portfolios.

Whilst we are very hopeful that this campaign will become another “game changer” for increasing investments into Africa’s infrastructure, increased institutional capital investments will surely also assist African countries to assess their infrastructure investment gaps, which can then be structured and matched with the right institutional investors who have the requisite quantum of capital to direct towards such long-term investments.

This campaign will therefore create a coherent and coordinated approach to address the challenges of mobilising institutional investors while limiting their risk exposure. Specific policies must be in place to reduce certain unacceptable institutional investment risks, and instruments or methodologies to mitigate these risks will have to be developed. The ongoing reforms in Africa’s financial sector regulations will also play a significant role in making the 5% Agenda a reality with demonstrated results.

The NEPAD Agency, under the guidance of the African Union, will continue to work closely with UNECA and other strategic partners, like the Multilateral Development Banks, to ensure that the 5% Agenda demonstrates tangible results within the next five years, with African institutional investors increasing their investments significantly into African infrastructure.

#### **Let me conclude with these three critical points:**

1. Africa must take leadership in financing its infrastructure projects, with African Pension and Sovereign Wealth Funds playing their rightful role.
2. Africa’s regional infrastructure development is the foundation for the African transformation that we all expect and want, and the implementation of regional infrastructure projects will accelerate industrialisation and trade.
3. The 5% Agenda is revolutionary and another critical game changer that will drive financing by institutional investors into Africa’s national and regional infrastructure projects, through the de-risking of projects.

We look forward to your support and contribution as we embark on this journey together!



## EXECUTIVE SUMMARY

### HISTORY OF THE 5% AGENDA

At the 18th ordinary African Union (AU) Summit in Addis Ababa, Ethiopia in January 2012, the African Heads of State and Government adopted PIDA, the Programme for Infrastructure Development in Africa. The PIDA Priority Action Plan (PIDA-PAP) comprises 51 cross-border infrastructure programmes consisting of more than 400 actionable projects in four sectors, energy, transport, trans-boundary water and ICT to be implemented until 2020.

As subsequently stressed by the Dakar Financing Summit (DFS) in 2014, an increased form of collaborative public-private initiatives is necessary to mobilise risk capital that accelerates PIDA project implementation. Accordingly, the NEPAD Agency was mandated by the DFS to increase and coordinate the private sector participation in PIDA projects through the establishment of the PIDA Continental Business Network (CBN). The CBN is an AU initiative that enables private sector members to communicate recommendations to high-level African policy makers on how to improve the investment climate for infrastructure.

**Building on the guidance and recommendations of the CBN, NEPAD has initiated the 5% Agenda, a campaign to increase the allocations of African asset owners to African infrastructure from its low base of approximately 1.5% of their assets under management (AUM) to a more impactful 5% of AUM.**

**It is foreseen that the roadmap and the campaign will have the following impact:**

1. Unlocking USD 25bn of African institutional savings capital over the next five years to implement regional and domestic infrastructure projects on the continent.
2. Bringing PIDA projects to financial close for improved access to energy and other infrastructure.
3. Broadening and deepening the currently shallow African primary and secondary capital markets.

4. Contributing significantly to regional integration and job creation.
5. Taking specific, concrete next steps and project suggestions to raise the investment interest of international institutional and non-institutional financiers, who so far have been hesitant to include African infrastructure projects as an asset class in their investment portfolios.

### COMPARATIVE ANALYSIS OF AFRICA'S EXISTING INFRASTRUCTURE LANDSCAPE

The landscape for financing and investing in infrastructure is changing rapidly worldwide, with a greater emphasis on improving the regulatory environments for long-term infrastructure Investors, developing a pipeline of investable projects, bringing them to market and creating secondary markets, recognising the importance of developing a new, distinct relationship with long-term asset owners – principally African Pension and Sovereign Wealth Funds, their Investment Managers, global peers and their respective investee infrastructure operating companies.

As a result, there is a growing recognition of the alignment between infrastructure users, their public servants in charge of planning and policymaking, and long-term savers benefitting from the financial and developmental returns achievable by investing in long-term infrastructure assets – a true “win-win” for all spheres of civil society across the continent. This will reduce Africa’s annual infrastructure financing gap and aid dependency, putting it on a path of sustainable economic growth, international competitiveness and human development through increased trade and economic activity.

As this landscape keeps evolving, it is becoming clear where in the infrastructure development and repayment lifecycle each player can best contribute, matching their capabilities with the various changing risks between project milestones.

Institutional Investors (IIs) have been understandably hesitant to get involved alongside banks, developers and governments in the early development and construction phases of projects, but have the potential to play a major role in the “recycling” of investable infrastructure once operational, thereby releasing scarce capital to be reinvested upstream in greenfield development. This is expected to become industry-wide best practice as the regulatory environment becomes more conducive and with the continued development of a dedicated infrastructure capital markets industry alongside that of the more traditional asset classes.

The debate to date has centred on recognising the need to mobilise long-term Institutional Investors and in this report NEPAD-CBN addresses the practical steps that can be taken to recast the relationship with IIs, led by African Pension, Insurance and Sovereign Wealth Funds as the catalysts, with the objective of assisting IIs in establishing a new infrastructure investment partnership, which would provide them with regulatory certainty, the necessary capital market instruments and a steady, consistent pipeline of investable infrastructure projects, predominantly from recyclable and re-financeable operating projects currently held on the balance sheets of African Governments, Regional Banks, DFIs, Commercial Banks and in the portfolios of Infrastructure Investment Managers.

This approach builds on extensive research from the CBN confirming that African Pension and Sovereign Wealth Funds allocate less than 1.5% of their Assets Under Management (AUM) to African infrastructure assets – this despite the near perfect alignment of retirement liabilities with infrastructure’s uncorrelated, real, long-term return profile, and the fact that the continent has a substantial infrastructure project pipeline, represented through an estimated USD 96 billion annual infrastructure investment requirement.

Of the capital raised by infrastructure funds since 2006, 48% has been by vehicles with a maturity of greater than 10 years. From an investment perspective they are owners of infrastructure assets that generate cash flows and returns, but from a socio-economic perspective, long-term investors increasingly view their roles as custodians of infrastructure assets rather than as business owners. Their ability to invest in assets throughout economic and political cycles, coupled with a desire to engage with regulators and governmental bodies, ensure that public needs can be aligned with those of their contributing investors.

In addition, governments are limited in funding essential infrastructure by often changing political needs, election cycles and lack of centralised, consistent long-term planning. If infrastructure continues to be solely government-owned and -developed, essential upgrades will be reliant on increasingly

### Why recycle operational assets from DFIs and regional and development banks to IIs?

- Addresses the initial challenge amongst Investors of a perceived lack of investable projects.
- Catalyses institutional asset allocation to investable Infrastructure as an asset class.
- Releases existing bank and DFI capital tied up in operational projects for redeployment into the development and construction of new projects.
- Removes completion, construction and commissioning risk for Investors.
- Immediate deployment of Investor capital, not tranching over many draw-downs during lengthy construction periods as for banks.
- Better regulatory treatment for commercial banks when switching out of longer term, less liquid loans into shorter term construction loans.
- Improved loan pricing post-construction from removal of construction risk and bank regulatory charges.
- Development of secondary markets, i.e. the aftermarket trade in previously issued shares, bonds, loans, etc.

cash-strapped governments that need to balance their long-term investment and maintenance requirements against other competing shorter-term social demands.

Taking a long-term view, it is no longer necessary for Africa to look solely at external donor resources and the international capital markets for financing the development of its infrastructure, neither is it suitable to finance infrastructure with short-term on-demand deposits held at commercial banks in Africa’s largely bank-based financial systems. Africa needs to leverage its growing long-term savings and other institutional capital on the continent to fund its infrastructure investments, with a secondary focus on attracting international long-term investors looking for yield and social impact. Through infrastructure ownership, African IIs can focus on delivering the best possible outcome for an asset over the long term, without the limitations of shifting government priorities and budgetary pressures.

This Report builds on a series of NEPAD CBN-led consultations with African institutional investors and other stakeholders. The central proposal is that the continent’s Pension, Insurance and Sovereign Wealth Funds, with their infrastructure Investment Managers, Asset Consultants and investee infrastructure companies, engage the public sector to conceive and develop an Institutional Investor Public Partnership (IIPP) framework, to give institutional investors the comfort to **commit to allocating 5% of their assets to African infrastructure as an asset class within 5 years.**



## IIPPs – A PARTNERSHIP BETWEEN GOVERNMENTS AND INSTITUTIONAL INVESTORS

Institutional Investor Public Partnerships (IIPPs), an innovative approach to creating partnerships between IIs and governments, are proving to be a very encouraging method of mobilising large pools of long-term, patient capital to invest in the development and maintenance of large-scale infrastructure assets for governments, whose budgets are no longer able to finance these assets in the traditional fashion. IIPPs ensure that these assets meet their full potential, on time and on budget, unlocking economic development and receiving the required investment to ensure they are regularly and properly maintained.

IIPPs bring on board citizen-driven domestic investors as catalytic participants in domestic and cross-border infrastructure assets. The nature of these investors stands in stark contrast to the privatisation models of the past, where investors were often criticised as being faceless and with ulterior motives. IIPPs introduce the face of local citizens with a vested interest in accessing well-developed, well-maintained infrastructure assets.

This partnership model was pioneered by Australian and Canadian specialised infrastructure investment platforms. These are global in nature and were designed to deploy operational and project development expertise and long-term institutional capital to well-structured and de-risked infrastructure assets around the globe, in partnership with governments.

The bedrock of IIPPs addresses the age-old problem of the investable pipeline by focussing primarily on asset recycling, whereby governments lease or sell post-construction, operational infrastructure assets to institutional investors and reinvest the proceeds further upstream in greenfield infrastructure planning, development and construction, in the knowledge that there will be a community of domestic Institutional Investors with a ready pool of capital and a framework to invest in those assets. The public benefits both as taxpayers from a budgetary position and as pension fund members from a long-term savings return position. The investment is for the full life cycle of an asset, not for an investment, political or economic cycle.

The 5% Agenda will work to address the prevalent and well-documented infrastructure financing gap, thereby boosting regional economic integration, intra-African trade and investment competitiveness. By meeting and successfully implementing the 5% Agenda, Africa's IIs can allocate and invest approximately USD 25bn in infrastructure from their estimated assets under management in excess of USD 380bn. The 5% Agenda is consistent with Pension Funds' and Life Insurers' objectives of matching their long-term liabilities and obligations to members and policyholders with long-term real (i.e. inflation-beating) assets.

## WHY IIPPs?

- GOVERNMENTS with limited funds and competing expenditure requirements RECEIVE WORLD CLASS, essential and well-maintained infrastructure assets; while
- CONSUMERS and CIVIL SOCIETY benefit from reliable infrastructure delivery, budgetary discipline and long-term real investment returns.
- INSTITUTIONAL INFRASTRUCTURE INVESTMENT takes place over the full life cycle of the asset(s), not for an investment, economic or political cycle, which means the prospects for the assets to catalyse and increase economic and private sector development, job creation and regional and domestic trade and investment competitiveness are SIGNIFICANTLY IMPROVED.

## THE WAY FORWARD

To firmly establish the 5% in 5 Years Agenda by way of IIPPs, the framework for IIPPs should be introduced via strategic partnerships at key platforms. This advocacy leadership role should be led by NEPAD, who operates at the intersection of governments, the private sector and development partners to integrate African IIPPs through bilateral and multilateral relationships.

NEPAD has, with the assistance of Africa investor (Ai) and the German Development Cooperation implemented through the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), significantly advanced engagements with the domestic and international II community and identified a number of strategic activities and a roadmap that are designed to:

1. Identify a long-term partnership framework for African IIs and the public sector;
2. Programmatically align the interests of public infrastructure financing with those of IIs;
3. Provide African leadership to advance IIPPs across Africa and globally, principally through bilateral and multilateral relationships at the AU level with the Bretton Woods institutions, GCC, BRICS, the EU, G20, G7, UN and others.

## Under NEPAD's leadership, the 5% Agenda will be introduced at the following platforms:

- The EU-Africa Business Forum in Abidjan, Ivory Coast, 27th November 2017
- The 3rd PIDA Week, Swakopmund, Namibia, 10 - 14 December 2017.
- The next AU Summit, Addis Ababa, January 2018.
- UNECA Ministers of Finance Forum, Addis Ababa, March 2018.
- The 10th BRICS Summit, Johannesburg, 2018.
- The 44th G7 Summit, Canada, June 2018, through an II Africa - G7 partnership in Canada.
- Finally, the 5% Agenda shall be presented to an II Africa - G20 partnership at the next G20 Summit in Buenos Aires, Argentina, in 2018.
- AfDB Africa Investment Forum, Cape Town, November 2018.

# NEPAD 5% in 5 years Project Roadmap



## ROADMAP

Building on the African Union Heads of State endorsed NEPAD CBN De-risking report, which was widely adopted and advanced by global multilateral and development finance partners in the run-up to the G20 meeting, and in the spirit of NEPAD, African Institutional Investors and public sector stakeholders have coordinated with NEPAD in defining the priority stakeholder recommendations for African Heads of State and Governments to champion and oversee, for the transparent implementation of the NEPAD IIPP 5% in 5 Years Agenda.

The roadmap will be led by NEPAD and in summary focuses primarily on launching the campaign to key stakeholders, building a knowledge resource platform for IIPPs, identifying and agreeing on pilot IIPP projects to cultivate the investable pipeline and hosting events and outreach activities to mobilise and track domestic anchor investors against the 5% target and the crowding in of global institutional infrastructure co-investors for these IIPPs. NEPAD will report on progress on the 5% Agenda annually to African Union Heads of State and Government during the AU Summit.

### STEP 1: LAUNCH THE 5% AGENDA IN PARTNERSHIP WITH THE AFRICAN UNION COMMISSION

- To the African and global institutional Investment Community during the UN General Assembly in New York – Done.
- To Ministers of Finance and development finance partners during the World Bank annual meetings in Washington
- To African Heads of State and Government during the AU Summit Meeting as well as to African Ministers of Finance in March 2018 for adoption

### STEP 2: SCOPE AND DEVELOP AN IIPP RESOURCE CENTRE

NEPAD secretariat, in partnership with a working group of institutional investors, policymakers and DFIs, linked into support from G7 and G20 partners, to set up the following:

- Data clearinghouse on IIPP toolkits, procurement documentation, frameworks, commercial projects coming to market and in the pipeline, training materials and courses to assist the investment due diligence

and data evaluation process which impacts the investment decision-making process for IIs.

- Resource Centre will provide data on risk mitigation tools that are supportive of IIPP-related transactions, project preparation facilities, PPP Units and the overall development of the investable project pipeline.

### STEP 3: IDENTIFY PILOT PROJECTS FOR RECYCLING TO IIs

In collaboration with PIDA/PICI, identify 20 priority pilot projects to be available to institutional investors through an IIPP process.

- 10 by region
- 10 country specific projects

### STEP 4: FACILITATE CAPITAL MOBILISATION

- Seek investment commitments for the identified priority IIPP pilot projects from anchor domestic institutional investors and development banks
- Present the projects and their anchor investors at the June AU Summit in 2018

### STEP 5: GLOBAL CO-INVESTMENT OUTREACH

- Engage the NEPAD/Ai Infrastructure Co-investment Platform as the interlocking platform to package and promote IIPPs as co-investment opportunities to global institutional infrastructure investors
- Engage European Institutional co-investors within the frame of the AU-EU Partnership and the EU-Africa Business Forum
- Work through the BRICS Heads of State Summit and BRICS Business Council platform to engage BRICS Institutional co-investors
- Work through the G7 and G20 Heads of State Summits and to be established G7/20 Institutional Investor networks to engage G7/G20 Institutional co-investors

### STEP 6: AU SUMMIT AND PICI REPORT-BACK

- AU Summit Annual Implementation and Strategic Dialogue to review progress, projects and the implementation of IIPPs

**Detailed and Actionable Steps for Stakeholders**

ROADMAP

STEPS	STAKEHOLDER				
	Heads of State	Finance Ministers	DFIs	Capital Markets Professionals	IIs, IMs & Advisors
<p><b>1. Adopt the NEPAD 5% in 5 Years Agenda to finance Africa's infrastructure</b></p> <p>By meeting and successfully implementing the 5% in 5 Years Financing Agenda, Africa's IIs and IMs can allocate and invest a minimum of USD 25bn over five years in Infrastructure Assets across the continent.</p>					
<p><b>2. Develop secondary markets for existing infrastructure assets</b></p> <p>As an immediate step to accelerate Institutional investment, existing debt and equity of operational Infrastructure assets held by commercial banks, national development banks, governments and development partners could be pooled, credit-enhanced (if required) and sold to Institutional Investors, with the proceeds recycled into new greenfield Infrastructure developments in Africa.</p>					
<p><b>3. Increase investability by structuring infrastructure assets as SPV companies and corporatized entities</b></p> <p>Africa's Governments, Developers and Institutional Investors should, where possible, continue to structure and place Infrastructure assets in non-recourse SPVs and corporatised entities with revenues from ratepayers and subsidies ring-fenced to cover operations and maintenance and for repaying loan principal and interest. Where this is not feasible, IIs and IMs could take direct exposure to the relevant sovereign or utility in the domestic currency, thereby removing the currency mismatch, albeit at higher domestic interest rates.</p>					
<p><b>4. Increase external investment limits</b></p> <p>Regulations that limit investment allocations outside of the home country in the form of "local only investments" serve to stifle the Infrastructure investment space for African Institutional Investors. This is a particularly acute challenge for Africa's larger regional infrastructure platforms and assets seeking long-term investors. With the exception of South Africa, Botswana, Namibia and Mauritius, most countries in Africa do not allow for Pension Funds investing outside their borders. This restriction also limits Pension Funds from obtaining the needed higher returns and portfolio diversification, as they do not have sufficient choices in terms of domestic investable infrastructure assets.</p>					
<p><b>5. Enhance "rule of law" and harmonized investor protection laws</b></p> <p>The assurance of "Rule of Law" is a precondition to Institutional investment. Due to the varied regulatory regimes across the African continent, coupled with perceptions of high risk, Pension Funds are often concerned that their contractual rights are not sufficiently enforceable, especially in jurisdictions outside their own. This viewpoint, together with disjointed regional and continental regulatory and legal frameworks, makes Pension Fund investors highly risk-averse to cross-border investments. Part of the solution is for a concerted coordination effort from African industry regulators, to improve their legal and regulatory environments, as well as from trustees and consultants to learn about them. The systematic assessment of each African country's regulatory regime would provide the evidence-based analysis of impediments and required interventions needed to improve country regulatory regimes so they meet Institutional investment requirements. Moreover, such expert assessment could provide Investors with credible documentation of the quality of the regulations aimed at ensuring prudential investments, thereby contributing positively to their internal due diligence requirements.</p>					
<p><b>6. Encourage the development of the infrastructure Investment Management industry and all related services</b></p> <p>Institutional Investors and their Actuarial and Asset Consultants require a vibrant Investment Management industry, offering them a variety of Infrastructure investment skills, mandates and products. This industry is not nearly well enough developed yet, given the size of the funding challenge and the investment opportunity. All the Stakeholders need to find ways to encourage this industry to develop, thereby unlocking the flow of capital between savers and infrastructure developers.</p>					

STEPS	STAKEHOLDER				
	Heads of State	Finance Ministers	DFIs	Capital Markets Professionals	IIs, IMs & Advisors
<p><b>7. Enhance “Value for Money” frameworks and analytical support</b></p> <p>These can guide public-private sector negotiations on projects covering investments, services, and IIPPs.</p>					
<p><b>8. Support the development of private sector-led infrastructure funds and vehicles</b></p> <p>Such vehicles can mainstream “crowding in” of Institutional Investors, in conjunction with a vibrant, competitive Investment Management industry assisting with the investment process, structuring and decisions.</p>					
<p><b>9. Develop acceptable strategies for mitigating currency risk mismatches</b></p> <p><b>Domestic Infrastructure projects being funded by domestic Institutional Investors in local currency</b> removes the need for explicit strategies to mitigate the risks of depreciating domestic currencies traditionally borne by cross-border investors or transferred to governments and their citizens. However, when this is unavoidable, technical experts in currency risk management need to be engaged to formulate assessment methodologies, levels of risk and possible risk mitigation instruments, e.g. The Currency Exchange Fund (TCX) set up in 2007 by various European and African DFIs to take a long-term portfolio-based approach in hedging currency mismatches. This needs to be expanded to include related risks such as convertibility risk.</p>					
<p><b>10. Develop more funding vehicles, capital recycling and risk mitigation to support greenfield infrastructure assets.</b></p> <p>While the urgent need is for greenfield investment in new Infrastructure projects, Institutional Investment is often restricted, at least initially, to low-risk post-construction operational assets with established track records that meet investment criteria. However, the post-construction recycling of greenfields investment capital can offset this funding gap, at least until Institutional Investors and Investment Managers become more confident to move further upstream in the Infrastructure development risk spectrum in search of more attractive risk-adjusted returns.</p>					
<p><b>11. Create access to Infrastructure Research</b></p> <p><b>Institutional Investors and Investment Managers</b> cannot make Infrastructure investments without credible data and independent research on Infrastructure investment performance, benchmarks, etc. Therefore it is critical to develop this component of the Investment Management industry as well, such as encouraging more Infrastructure research providers and developing centralised databases of <b>Infrastructure industry information</b>.</p>					
<p><b>12. Seed fund infrastructure investment vehicles</b></p> <p><b>Investment Managers face a “chicken and egg” problem when raising funds for Infrastructure investment.</b> On the one hand their Pension Fund clients want to start off with immediate exposure to a diversified pool of Infrastructure assets, but it takes a long time to acquire such assets in the secondary market and even longer when they are being developed as greenfield investments. On the other hand, when the IM is negotiating the acquisition or development of Infrastructure assets, counterparties want to know that the IM has already raised the required funds from Investors. Stakeholders need to develop solutions to bridge this gap and encourage the establishment of more Infrastructure Funds and Investment Managers. One possibility is for existing Infrastructure financiers, such as DFIs, to seed new funds with a diversified portfolio of exposure. The Infrastructure Investment Manager can then raise new funding in smaller drawdowns from Investors to acquire new assets, while also allowing the DFI to exit in due course by selling to investors, so that its capital can be recycled upstream in greenfield development.</p>					
<p><b>13. Positioning and promoting infrastructure as a mainstream asset class with prudential regulatory guidelines</b></p> <p>This could be achieved by breaking Infrastructure out separately from the typical 15% catch-all “Other” allocation limit, with specific guidelines based on technical assessments. For example, the higher quality of infrastructure projects – lower default rates and higher recovery rates compared to some classes of corporate debt – has been documented by ratings agencies. Revised regulatory guidelines could incorporate these technical credit guidelines to protect Pension Funds from high-risk investments that don’t reward them sufficiently for taking that risk.</p>					

STEPS	STAKEHOLDER				
	Heads of State	Finance Ministers	DFIs	Capital Markets Professionals	IIs, IMs & Advisors
<p><b>14. Set up training programs for institutional investors, investment managers, government officials, and other key stakeholders.</b></p> <p>The lack of the necessary skills and knowledge is a chief constraint to Institutional investment in Infrastructure. Training programs need to be designed and implemented that enable the development and execution of prudent and diversified Infrastructure investment strategies, the creation of investable Infrastructure products, and the capacity to develop and offer new investable products and mandates to Investors.</p>					
<p><b>15. Encourage the scaling up of credit ratings for infrastructure projects and investment products.</b></p> <p>Institutional Investors and their IMs require solid documentation of Infrastructure risks and, in the case of Infrastructure debt, often require the assessments and credit ratings provided by independent credit ratings agencies. Therefore a key means of facilitating more Institutional investment is by supporting the expansion of credit ratings for Infrastructure debt assets.</p>					
<p><b>16. Improve and increase Project Preparation Facilities (PPFs) to be effective in meeting the institutional investment requirements for infrastructure assets.</b></p> <p>These platforms and applications should include aggregated directories of the entire eco-system needed to develop high-quality Infrastructure projects: skilled professionals (e.g. project developers, financial advisors, project finance lawyers, environmental engineers, etc.); risk mitigation techniques, instruments, and best practices; and standardised approaches (e.g. toolkits, project legal documentation, offtake agreements, etc.).</p>					
<p><b>17. Develop incentive structures for project developers to develop infrastructure assets suitable for institutional capital</b></p> <p>The public sector needs to create a framework that incentivizes project developers to drive the project development process. <b>Two sets of actions are required:</b></p> <ul style="list-style-type: none"> <li>• Employ business models with adequate payment models for private sector project developers, so they can increase the number of investable projects they develop; and</li> <li>• Directly fund more project developers.</li> </ul>					
<p><b>18. Identify the project viability gap and focus development support and risk mitigation to eliminate the obstacles impeding access to private finance.</b></p> <p>Project developers and investors, governments, and development partners need to create a new collaborative work process focused on "identifying project viability gaps" to achieve bankability. Online platforms and research providers are needed to enable cost-effective technical coordination between the wide spectrum of project participants, providers of risk mitigation, and potential investors in solving the "project viability gap," with leverage metrics to measure performance and advance lessons learned.</p>					
<p><b>19. Champion the implementation of regional African harmonization interventions</b></p> <p>Promote regional procurement bodies or authorities that can facilitate the development of bankable and sustainable regional Infrastructure projects, both on a systematic regional level as well as within each individual regional project structure.</p>					
<p><b>20. Establish infrastructure investment pooling vehicles for smaller investors and asset allocations</b></p> <p>Infrastructure investment can be unitized through the likes of a Collective Investment Scheme (CIS), Special Purpose Acquisition Company (SPAC), Real Estate Investment Trust (REIT), Limited Liability Partnership (LLP) etc, thus enabling both small and larger institutional investors to access a scalable asset.</p>					



## BACKGROUND

Africa's growth and development are closely linked to the stock of infrastructure on the continent, which on average is well below emerging market peers. Over the years, inadequate infrastructure planning, development and maintenance have hindered growth on the continent. Indeed, the state of infrastructure on the continent is, on many dimensions, the defining "binding constraint" to economic growth, development and diversification of national and regional economies away from dependence on a few natural resource exports and onto a path of sustainable development. Lack of adequate infrastructure accounts, in part, for the poor integration of African economies with neighbouring regions and the global economy. African countries, for example, have the lowest levels of intra-regional trade at approximately 15% and an even lower level of intra-regional investment sitting at approximately 5%, compared to the EU nations at more than 60%.

The development of infrastructure creates direct and indirect local jobs and has the potential for skills and technology transfers to African countries and local communities. A 2014 Deloitte study estimated that Angola reduced unemployment by 10% between 2006 and 2014 through spending more than 8% of GDP on infrastructure.

In that regard, the NEPAD Agency currently develops the PIDA Job Creation Toolkit, an online platform to estimate the job creation potential of PIDA projects and to provide actionable recommendations how to maximise local jobs and skills during project management and at national/regional policy level. Preliminary results show that Ruzizi III, a PIDA hydropower project involving Burundi, Rwanda and the Democratic Republic of Congo, for example, has the potential to create 135,000 jobs as a result of the improved energy access.

Africa faces the added contemporary challenge of needing to respond to global transitions and trends currently underway in a "post-industrial" world. The key transitions of automation and technological change, urbanisation, climate change, globalisation and changing demographics in emerging markets, contrasting with longer lifespans, are pitting a rich, aging world against younger, fast-growing and rapidly urbanising populations in emerging markets, particularly Africa, that will soon account for the bulk of the world's working age population.

An estimated 70% of Africa's population is under 30 years of age. Projections indicate that by 2035 Africa will have a larger working age population than China. It thus faces both the challenge and opportunity of cashing in on its demographic and urbanisation dividends, which will depend on the availability of adequate and well-maintained infrastructure.

### THE INFRASTRUCTURE FINANCING GAP

The IMF and World Bank (2010) estimated sub-Saharan Africa's annual infrastructure financing needs at USD 93bn, and an annual Net Infrastructure Financing Gap of USD 48bn after taking account of expenditure from existing sources of USD 45bn. Africa spends only about 4% of GDP on infrastructure (2012) against 5.7% - 5.9% in ASEAN and Developing Asian states, and a target of 7% - 9% required to sustain growth levels.

All over Africa resources for financing infrastructure development are severely limited as Governments face competing budgetary needs for their scarce resources. At best the public sector can only allocate limited funds to long-term financing of infrastructure projects – and appear to be

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allocating even less resources to maintain the infrastructure assets already built. The resulting infrastructure financing gap in this sector perpetuates bottlenecks that make infrastructure projects less attractive to investors, both foreign and local.

Few African Commercial banks are truly active and experienced in infrastructure project finance. Africa only managed to close 158 project finance deals with debt totalling USD 59bn over the decade 2004 - 2013, representing only 5% of infrastructure investment needs and 12% of actual financial flows. A coherent and coordinated approach is needed to address these challenges and mobilise institutional investors while limiting their risk exposure. This requires specific policies to reduce risks at source and instruments to mitigate risks or find the optimal risk takers for each type of remaining risk. Reforms to lift impediments to invest in Infrastructure as an Asset Class are required at the regional, national and sector level. Financial sector regulators need to adjust regulatory requirements to accommodate infrastructure investment requirements of both investors and borrowers.

This Report makes the case for one avenue that could help Africa reduce the infrastructure financing gap by facilitating the continent's Pension, Insurance and Sovereign Wealth Funds to allocate 5% of their assets to financing infrastructure within five years.

Africa's primary IIs hold over USD500bn in assets and therefore have the potential to responsibly invest USD 25bn in infrastructure under the 5% in 5 Years financing target, should they have a predictable IIPP framework and be able to efficiently access the capital markets and investable opportunities, underpinned by the right policy frameworks that are sufficiently robust to protect their long-term investments.

**Africa's Institutional capital**

Africa's IIs hold over USD 500bn in capital. The most prominent include:

- USD 137bn: South Africa's Government Employees Pension Fund (GEPF)
- USD 77bn: Algeria's SWF
- USD 16bn: South Africa's Eskom Pension & Provident Fund (EPPF)
- USD 10bn: Kenya's Pension Industry Assets
- USD 2bn – 10bn: Nigeria, Angola, Senegal, SWFs (individually)

**INFRASTRUCTURE AS AN ASSET CLASS**

In theory, infrastructure represents an attractive asset class for institutional investors, considering the long-term and real (i.e. inflation-linked) nature of these investors' liabilities. Private capital and Institutional Investors can help African countries to address infrastructure gaps. Both require long-term finance to play a decisive role in supporting economic growth. Africa faces an urgent imperative to unlock additional investment flows from long-term IIs to complement the traditional, but limited, sources of infrastructure financing. Commercial banks face increasing regulatory challenges and costs in providing long-term project (or any other) debt financing. African Governments in turn have limited fiscal space with lots of competing demands. ODA flows are shrinking. While Africa's diaspora remittances are resilient by nature and increasing in the face of global economic recovery and growth, very little has been harnessed to fund infrastructure development – surveys suggest that c. 90% of diaspora remittances are channelled to consumption in support of livelihoods, with the balance mainly used for education and healthcare.

Long-term IIs are hesitant to invest in Africa or to finance the critical infrastructure that Africa needs to connect to infrastructure projects, as they need to overcome many hurdles and mitigate both real and perceived risks associated with liquidity, currency, project execution, delivery, construction, access to capital markets, a secondary market etc., in addition to well-documented political risk considerations. They may believe in the asset class, but because they lack the data, relationships, desire and risk tolerance to understand, assess, invest in, and monitor infrastructure portfolios on the continent, they would need and want to either invest directly through one of their existing portfolio infrastructure-focused companies with interests in Africa, or appoint specialist infrastructure Investment Managers (IMs), but this industry is not nearly developed enough in Africa. The investment management industry in Africa needs to demonstrate the highest global standards of fiduciary capacity, transparency and investment governance if it is to become a credible vehicle for institutional investors to allocate through. Beyond project preparation, IIs and IMs within and outside Africa need to also address policy, legal, and regulatory issues. Public finance that is often required to play a catalytic role is severely limited on the continent, with some exceptions.

Long-term IIs both within and outside Africa often lack the data and infrastructure investment expertise in African markets to assess the risks and adequately structure transactions. The suitable Investment Managers, products and/or pooling vehicles are often missing or difficult to identify, as are the right risk mitigation or credit enhancement solutions. Additionally, the regulatory and institutional framework is insufficient in a number of markets for these financial instruments and services to be developed to their full potential.

Most Institutional Investors do not have the administrative capacity to engage with anyone other than their actuarial and asset consultants. Historically many asset consultants have not been supportive of infrastructure or other "alternative"

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investments in isolation due to their traditional expertise in “plain vanilla” retirement products and portfolio design. However, in recent times asset consultants have come to appreciate and analyse the portfolio-, risk- and other benefits offered by infrastructure assets, but they still want to channel such asset allocations through the appointment of one or more specialist infrastructure IMs by their pension fund clients’ trustees, hence the urgent need to encourage the establishment of more IMs along with fiduciary ratings of the overall intermediary service and expertise layer.

The 5% in 5 Years Agenda has the potential to unlock and channel substantial pools of much needed capital to domestic and regional infrastructure projects in Africa. It can also broaden and deepen African capital markets that are comparatively shallow and underdeveloped, whilst contributing significantly to regional integration and employment creation.

**AFRICAN INFRASTRUCTURE FINANCING LANDSCAPE**

Despite a rich mix of support, financing and development of Africa’s infrastructure exhibits structural and systemic inefficiencies. A number of these are discussed below.

**TERM/MATURITY/DURATION MISMATCH**

The financing available in Africa from local resources to fund Africa’s Infrastructure is mainly short-term capital funded by on-demand deposits. Commercial banks remain the dominant sources of finance in African countries which mostly have bank-based financial systems. The long-term nature of Infrastructure Assets would therefore result in a maturity mismatch if funded with short-term financing. Worse, domestic and regional DFIs in Africa remain small and are unable to close the long-term financing gap. Most are currently constituted to rely on budgetary allocations instead of tapping the capital markets using their credit ratings and balance sheets.

**The 5% in 5 Years Agenda for financing Africa’s infrastructure with domestic institutional investor resources will help to mitigate the term mismatch, as the long-term tenor of infrastructure aligns well with the long-term, real nature of the liabilities, and hence required assets, of Africa’s IIs.**

**FINANCING AND CURRENCY MISMATCH**

Africa’s infrastructure assets are mostly funded externally in hard currency, while the revenues they generate are mostly in local currencies that are usually higher yielding and depreciating. This creates an inherent currency mismatch that cannot be managed or reduced to satisfactory levels for investors or borrowers in the absence of traditional tools like portfolio diversification across currencies and geographies, or the use of financial derivatives.

**The 5% Agenda proposes the extension of local currency loans by Africa’s IIs, hence removing the currency mismatch for both investor and borrower. Note however that infrastructure borrowers will have to get used to higher domestic interest rates and credit spreads.**

**OTHER CHALLENGES AND RISKS**

The primary asset in Infrastructure projects are contractual rights embodied in the asset and not the “hard” Infrastructure asset itself. The components of investability in a world of contractual rights thus comprise mainly the following:

CHALLENGE	DESCRIPTION AND POTENTIAL MITIGANTS
<b>Security of Construction Completion</b>	<ul style="list-style-type: none"> <li>• Wrapped or unwrapped</li> <li>• Limitations of liability</li> </ul>
<b>Security of primary offtake arrangements</b>	<ul style="list-style-type: none"> <li>• Payment record</li> <li>• Availability payments</li> <li>• Availability of transparent subsidies from taxpayers or Viability Gap Financing (VGF)</li> <li>• Investment rating of offtaker and any Bank/Utility/Sovereign support</li> <li>• Contractual terms</li> </ul>
<b>Insurance for uncovered risk</b>	<ul style="list-style-type: none"> <li>• Political Risks Insurance (PRI) and Partial Risk Guarantees (PRG) for Commercial and Residual Risks that may be covered through MDBs and Government support</li> <li>• Financing support by official Export Credit Agencies (ECAs)</li> </ul>
<b>Other strategies to minimise risk</b>	<ul style="list-style-type: none"> <li>• For example, contractual terms such as Substitution Rights, Step-in Rights and Extended Remedy Periods.</li> </ul>
<b>Structure of debt funding</b>	<ul style="list-style-type: none"> <li>• Interest Rate – fixed or floating (Inflation, Labor or local reference rate)</li> <li>• Capital repayment profile</li> </ul>
<b>Other Currency Exposures</b>	<ul style="list-style-type: none"> <li>• Underlying project currency</li> <li>• Domestic liquidity</li> <li>• Dollar indexation of offtake pricing/tariffs</li> </ul>
<b>Capacity</b>	<ul style="list-style-type: none"> <li>• Infrastructure Projects are contractually complex</li> <li>• Too few specialist infrastructure investment managers with fiduciary ratings in the market</li> <li>• Absence of a secondary market for exits</li> <li>• Risks vary across sectors and jurisdictions</li> <li>• Understanding the projects and risks require a range of technical, legal, insurance and accounting experts</li> <li>• Financial models are detailed and subject to many assumptions</li> <li>• Enforceability</li> </ul>





## AFRICAN INSTITUTIONAL INVESTOR LANDSCAPE

### SOVEREIGN WEALTH FUNDS

In recent years, many African countries have established Sovereign Wealth Funds, with an aggregate asset base of over USD 156 billion, equivalent to over 6% of the continent's gross domestic product (GDP), whereas the more traditional Pension Funds' assets sit at approximately USD 379bn (Brookings Institution, March 2017).

Africa's SWFs' Strategic Asset Allocations for investments are

based on the specific objectives behind their establishment and their investment mandates. SWFs on the continent generally focus on broad investment mandates and, unlike Pension Funds, create sub-funds to meet each mandate. For example, Nigeria's NSIA and Kenya's proposed SWF have a sub-fund for Fiscal Stabilisation to manage volatility in commodity revenues, a Future Generations Savings Fund and an Infrastructure Financing Fund.

### AFRICA'S SOVEREIGN WEALTH FUND ASSETS (AUG 2013)

Country	Fund	Assets USD bn	Year of Inception	Commodity Source of Funds
Algeria	Revenue Regulation Fund	77.20	2000	Oil and Gas
Libya	Libyan Investment Authority	65.00	2006	Oil
Botswana	Pula Fund	6.90	1994	Diamonds
Angola	Fundo Soberano de Angola	5.00	2012	Oil
Nigeria	Nigerian Sovereign Investment Authority	1.00	2011	Oil
Gabon	Gabon Sovereign Wealth Fund	0.40	1998	Oil
Mauritania	National Fund for Hydrocarbon Reserves	0.30	2006	Oil and Gas
Equatorial Guinea	Fund for Future generations	0.08	2001	Oil
Ghana	Ghana Petroleum Fund	0.07	2011	Oil
		<b>155.95</b>		

## PENSION FUNDS

South Africa's comparatively well-established Pension Fund industry dominates Africa's retirement landscape at USD 322bn in AUM. Its Government Employees Pension Fund (GEPF) is the largest Pension Fund in Africa, with assets of USD 143bn (2012). It allocates 1.2% of its assets to infrastructure, all in Unlisted Equity. In a Brookings Institution ten country review (March 2017), South African Pension Funds accounted for 85% of African Pension Funds' AUM. Excluding South Africa, pension assets in the review totalled USD 57.7 billion, which can support USD 1 billion in annual allocations to finance Infrastructure (Brookings Institution, March 2017).

## COMBINED POTENTIAL

In total, African Pension and Sovereign Wealth Fund investors hold combined assets exceeding USD 500 billion, a figure that is expected to continue to grow at about 1.2% to 1.5% annually. Adopting IIPPs as the bedrock for NEPAD's 5% in 5 Years Agenda at a continental level could therefore unlock a capital pool of USD 25bn.

An additional USD 30bn can also be provided by the continent's SWFs allocating 15% - 30% to Infrastructure.

## GLOBAL INFRASTRUCTURE FUNDS

The global infrastructure investment industry targeting African infrastructure exclusively is small by comparison to the many infrastructure funds with globally diversified infrastructure investment mandates that could include African infrastructure investments as part of their larger portfolio. According to Preqin (2016), solely Africa-focused funds represent on average 17% of funds closed since 2007 and only 6% of the aggregate capital raised.

*The largest global infrastructure funds in 2016 were as follows:*

MANAGER	STRATEGIES	TOTAL FUNDS RAISED LAST TEN YEARS (USD M)	ESTIMATED DRY POWDER (USD M)
Global Infrastructure Partners	Debt/Mezzanine and Primary	32,465	16,469
Brookfield Asset Management	Debt/Mezzanine and Primary	24,495	10,697
Macquarie Infrastructure and Real Assets (MIRA)	Debt/Mezzanine and Primary	32,717	6,704
BlackRock	Fund of Funds, Primary and Secondary	8,319	5,147
EQT Funds Management	Primary	8,342	5,146
Antin Infrastructure Partners	Primary	8,014	3,687
Carlyle Group	Debt/Mezzanine and Primary	6,830	3,335
Meridiam	Primary	5,523	3,280

Source: ASEA African Exchanges Newsletter, Issue 3, September 2015

## POTENTIAL AFRICAN PENSION FUNDS' INVESTMENTS IN INFRASTRUCTURE ASSETS

Country	TOTAL ASSETS (USD mn)	AUM Allocation for Infrastructure Assets			% SA to Total Ten Country Sample
		1.20%	20.30%	5.30%	
		SA's GEPF Current Allocation	Maximum Allocation 33 PFs	Average Allocation All PFs	
South Africa	322,000	3,864	65,366	17,066	84.80%
Nigeria	25,000	300	5,075	1,325	6.58%
Namibia	9,960	120	2,022	528	2.62%
Kenya	7,280	87	1,478	386	1.92%
Botswana	6,000	72	1,218	318	1.58%
Tanzania	3,100	37	629	164	0.82%
Ghana	2,600	31	528	138	0.68%
Zambia	1,800	22	365	95	0.47%
Uganda	1,500	18	305	80	0.40%
Rwanda	482	6	98	26	0.13%
<b>Total</b>	<b>379,722</b>	<b>4,557</b>	<b>77,084</b>	<b>20,125</b>	<b>100.00%</b>
<b>Total ex-South Africa</b>	<b>57,722</b>	<b>693</b>	<b>11,718</b>	<b>3,059</b>	<b>15.20%</b>

Source: Leveraging Pension Funds for Financing Infrastructure Development in Africa. Amadou NR Sy. Africa Growth Initiative. Brookings Institution (March 2017) and Authors' workings.

## COMBINED AFRICAN PENSIONS AND SWF INVESTMENTS IN INFRASTRUCTURE ASSETS

Grouping	TOTAL ASSETS (USD mn)	Allocation of AUM for Infrastructure Assets		
		1.20%	20.30%	5.30%
		SA's GEPF Current Allocation	Maximum Allocation 33 PFs	Average Allocation All PFs
African PFs	379,722	4,557	77,084	20,125
African SWFs	155,950	1,871	31,658	8,265
<b>Total</b>	<b>535,672</b>	<b>6,428</b>	<b>108,741</b>	<b>28,391</b>



## CAPITAL MARKETS LANDSCAPE

Capital markets in Africa, with the notable exception of South Africa's financial markets, are still in their infancy relative to Emerging Market peers like Chile, Malaysia and BRICS. They lack the deep and liquid capital markets in the leading International Financial Centres of London, New York, Tokyo, Shanghai etc. Many securities exchanges on the continent remain small and under-developed across all dimensions of size, depth, liquidity, trading turnover and sophistication of investment and financing products. Aside from the JSE, adherence to global securities and regulatory standards presents a major challenge.

### **EQUITY**

Johannesburg's JSE Securities Exchange dominates the continent's exchanges, accounting for over 80% of market capitalisation in SSA in 2012. Relative to the size of its economy, South Africa has one of the largest capital markets globally with a market capitalisation-to-GDP ratio of 159% (2012). Namibia, Nigeria and Egypt are the next three largest exchanges in Sub-Saharan Africa.

Sub-Saharan African stock markets (again with the exception of South Africa) are characterised by a high degree of illiquidity with low trading and turnover of securities relative to international norms. Many exchanges have not installed the latest electronic trading, clearing and settlement systems to handle large capital and trading flows. These dynamics impact on the efficiency and attractiveness of capital markets to issuers and Institutional Investors.

Many SSA markets cannot offer an easy investment path into Infrastructure Assets or help long-term investors to exit positions relatively quickly. SSA capital market returns have, however, remained relatively attractive in local currency terms,

even with the challenging investment environment and the need to improve on corporate governance.

### **DEBT**

Issuance of Listed Debt Financing Instruments on the continent, with the exception of Morocco, is overwhelmingly public sector and local. The domestic public sectors account for 95% to 98% of listed Bonds by value in South Africa, Nigeria and Egypt, Africa's three largest securities exchanges. Morocco is the notable exception, where the domestic private sector accounts for 80% of listed debt finance instruments by value.

Foreign debt issuance on African exchanges is rare, accounting for a negligible market share and is virtually zero for most of Africa's key capital markets. This is an indicator that capital markets on the continent have a very low level of integration. What little non-domestic issuance there is (equity and debt instruments), takes the form of cross-listings, notably Kenyan Issues cross-listed on the Ugandan, Tanzanian and Rwandese exchanges.

The dearth of innovative listed debt financing products, low market liquidity and low levels of integration of African stock exchanges and regional capital markets pose a major problem for long-term Institutional Investors, who require flexible, tradable, liquid and listed securities to invest in.

Additionally, Investors need Infrastructure financing products customised for their need for long-term assets, matching their long-term liabilities. They need stronger institutional and regulatory support to allocate funds to Infrastructure as an asset class, aligned to their investment objectives derived from their liabilities and obligations to members.

## EQUITY

### DOMESTIC MARKET CAPITALISATION OF AFRICAN EXCHANGES AND SELECTED PEERS, USD MN

Region	Country	Exchange	Amount End 2016	Amount End 2015	% change
Africa	Namibia	Namibian Stock Exchange	2,337	1,911	22.3%
Africa	Botswana	Botswana Stock Exchange	4,381		
Africa	Tunisia	Tunis Stock Exchange	8,391	8,826	-4.9%
Africa	Regional	BRVM – West African Regional Exchange	12,363	12,493	-1.0%
Africa	Kenya	Nairobi Securities Exchange	19,334	20,429	-5.4%
Africa	Nigeria	Nigerian Stock Exchange	29,792	32,551	-8.5%
Africa	Egypt	Egyptian Exchange	33,323	23,807	40.0%
Africa	South Africa	JSE Securities Exchange	951,320	827,129	15.0%
Americas	Chile	Bolsa de Comercio de Santiago	212,479	204,591	3.9%
Asia - Pacific	Philippines	Philippine Stock Exchange	239,738	225,898	6.1%
Americas	Mexico	Bolsa Mexicana de Valores	350,809	335,679	4.5%
Asia - Pacific	Malaysia	Bursa Malaysia	359,788	366,806	-1.9%
Asia - Pacific	Australia	Australia Securities Exchange ASX	1,268,493	1,173,652	8.1%
Americas	Canada	TMX Group Canada	1,993,522	1,642,516	21.4%
Europe	UK	LSE Group UK	3,463,784	3,858,537	-10.2%
Asia - Pacific	Japan	Japan Exchange Group	4,955,299	5,042,438	-1.7%
Americas	USA	Nasdaq – USA	7,779,127	7,280,752	6.8%
Americas	USA	NYSE Group – USA	19,573,073	17,786,787	10.0%
<b>All WFE Exchanges Member</b>			<b>67,203,252</b>	<b>63,551,136</b>	<b>5.7%</b>

## DEBT

### VALUE OF BONDS LISTED ON SELECTED AFRICAN AND WFE MEMBER EXCHANGES (2016) USD MN

Country	Exchange	Total	Domestic private sector	%	Domestic public sector	%	Foreign Sector	%
<b>Morocco</b>	Bourse de Casablanca	953	762	80.0%	190	20.0%		
<b>Nigeria</b>	Nigerian Stock Exchange	22,864	931	4.1%	21,850	95.6%	82.4	0.36%
<b>Egypt</b>	Egyptian Exchange	43,095	578	1.3%	42,517	98.7%		
<b>S. Africa</b>	JSE Securities Exchange	1,955,814	24,589	1.3%	1,930,734	98.7%	490.1	0.03%
<b>India</b>	BSE India	53,081	2,134	4.0%	50,947	96.0%		
<b>Mexico</b>	Bolsa Mexicana de Valores	70,021						
<b>Indonesia</b>	Indonesia Stock Exchange	155,587	23,131	14.9%	132,455	85.1%		
<b>Argentina</b>	BolsaCom. Buenos Aires	233,983	10,754	4.6%	223,228	95.4%		
<b>WFE Total</b>		<b>99,324,313</b>						

## REGULATORY REFORMS

While SWFs are not burdened with much regulatory oversight due to their state-owned nature, implementing the 5% Agenda requires substantial reforms in public pensions that raise coverage and increase supply of retirement funds, as well as improved governance and management of public Pension Funds to increase their size and scale (especially in SSA) and enable them to sustainably invest in Infrastructure.

### REGULATORY RECOMMENDATIONS TO INCREASE INSTITUTIONAL INVESTMENT IN INFRASTRUCTURE

- 1) **Develop institutional investors as effective long-term investors through regulation, for example:**
  - a) Withdrawal and redemption limits that discourage short-term, overly conservative investing strategies by members and trustees, while inducing investment managers to rather invest into short-term liquid assets;
  - b) Valuation and investment rules that encourage long-term asset-liability matching.
- 2) **Work with regulatory authorities** to ensure investment regulations support long-term investments by adjusting asset class restrictions and allowing investment in new asset classes (private equity/unlisted bonds/collective investment schemes) if vetted by the regulatory authorities, for example Regulation 28 of South Africa's Pension Funds Act.
- 3) In particular, **implement the 5% in 5 Years Agenda** by amending Pension Fund investment regulations and guidelines (and exchange control regulations where applicable, allowing for cross-border investment) to encourage allocation of at least 5% of Institutional Investor assets to African Infrastructure as an asset class.
- 4) **We recommend amendments to Pension Fund and SWF regulations** to permit greater diversification by asset

class, particularly in favour of local, regional and continental Infrastructure investments.

- 5) **Adjust risk-based solvency** and capital charges of insurers to reflect the actual risk of underlying investments.
- 6) **Adopt structural and parametric reforms** to improve the solvency of pension fund systems, as well as the coverage of the population.
- 7) **Improve the governance of pension funds** through regulation, for example mandatory fiduciary duty training and "whistle-blowing" obligations for Pension Fund trustees as prescribed in South Africa's Pension Funds Act.
- 8) **Improve long-term investment strategy regulation**, particularly for funds governed by their own Acts as opposed to investment regulations (for example, the GEPI in South Africa was established under the Government Employees Pension Law and is therefore not subject to the Pension Funds Act's Regulation 28 – however, the trustees have decided that the Fund should be compliant with the terms of Regulation 28 in any event).
- 9) Require pension funds to **use professional fund managers**.
- 10) **Create regulated investment structures** for non-listed assets which provide professional management and transparency.
- 11) **Align capital markets policy** and regulations to support infrastructure finance instruments, through an adjusted disclosure regime; possible hybrid issuance regimes; adequate governance of new vehicles, adequate regulations to promote capital markets products (discussed below).
- 12) **Facilitate African infrastructure industry data collection** and dissemination, allowing investors and lenders to perform due diligence on projects and model investments and financing.

REGULATORY REFORMS

**13) Coverage Reforms to increase pension coverage ratios that are currently too low, e.g.:**

- a) Mandatory Pension schemes
- b) Automatic Enrolment (AE) and strict enforcement of contributions
- c) Introduce and expand informal sector pension schemes with flexible contributions and managed by Government-appointed Investment Managers. These can be modelled on Kenya's Mbao Pension Scheme, based on daily contributions from as low as USc 20 (KES 20).

**14) Improve remittance of contributions** (and enact penalties for non-compliance). Strong administrative measures are needed to ensure contributions deducted from members' salaries are remitted to Pension Funds, providing liquidity certainty, the basis for a disciplined,

long-term view of investments. SSA Governments and public sector corporations are frequently the worst offenders in withholding payments of pension contributions. Finance Ministers should also be barred from accessing or directing Pension Fund investments to cover current expenditure budget shortfalls.

**15) Establish a single, consolidated National Pension Plan** that consolidates the fragmented public pension schemes at different Government levels to gain sufficient scale and coverage – modelled on South Africa's GEPP that has assets in excess of USD 160bn. GEPP, managed by the Public Investment Corporation (PIC), is the largest investor on the JSE Securities Exchange and currently ranks among the world's top 20 Pension Funds. It was established in 1996 by a merger of fragmented public pension funds.

**GLOBAL BEST PRACTICE: POLICY LESSONS FROM CANADA'S RETIREMENT SYSTEM AND TOP TEN PENSION FUNDS**

The governance structure, independent management and scale of Canada's Retirement System, particularly the top ten Pension Funds (dubbed "the Maple Revolutionaries" by The Economist), supports greater asset allocations into alternative assets, especially Infrastructure, as well as broader geographic diversification. The ten largest Canadian Pension Funds deploy a unique model of managing funds internally to lower fund management fees and costs.

**THE SUCCESS OF CANADA'S PENSION FUNDS INVESTMENT MODEL HAS BEEN BUILT ON THE FOLLOWING PILLARS:**

- Size, scale and scope of large amounts of long-term capital available for direct investment from a steady inflow of member contributions and investments earnings that are not immediately required to meet payments to pensioners, with investment returns driving about 65% - 80% of the average annual increase in AUM:
  - o Predictable member contributions and pensioner payouts provide Canada's Pension Funds with predictable cash flows that minimise unexpected cash requirements. This liquidity certainty allows the allocation of more assets to illiquid, longer-term asset classes with higher expected returns, like capital-intensive Infrastructure and Property, without the need to invest in liquid but low-return assets like Government Bonds.
  - o Net Investment Income drives 65% - 80% of the increase in AUM, with members' contributions providing only 20% - 35% (averages over the 10-year period 2003 - 2014). CPPIB, the largest Canadian Pension Fund, generated Net Investment Income of USD 40.6bn from a net return of 18.3% and only USD 4.9bn from Net Members' Contributions (FY2015/16).
  - o The top ten collectively manage about 35% of all Canadian retirement assets and 80% of public pension plan assets, indicating the critical importance of wide coverage and sound governance of public Pension Funds.
- Extensive development of in-house expertise to assess and make Investment and asset allocation decisions. Canada's Pension Funds proactively developed in-house Investment Management expertise to reduce reliance on external Investment Managers (normally engaged under Funding Mandates) and save on potentially hefty external Investment Managers' fees that can erode fund returns. The result is an exceptionally diversified portfolio by asset class and geography, an asset mix that is more diverse than that of "typical" Pension Funds in mature markets with no home-country bias:
  - o 75% of AUM at the top ten Funds are managed internally.
  - o 32% of AUM are invested in Alternative (and less liquid) asset classes, including Infrastructure (6%), Private Equity (9%) and Property (14%). These allocations are far above the 5% - 10% average in alternative assets at most large global Pension Funds, and only 1% for the South African GEPP, Africa's largest Pension Fund. Only Australia's largest Pension Funds match Canada's, with 36% allocated to alternative asset classes.
- Canada has a national pension plan framework made up of independent institutions, but which accommodates other public and provincial Pensions Funds due to its federal structure:
  - o Plan: National Canada Pension Plan (CPP) with 18m members
  - o Fund: Canada Pension Plan Fund (CPP Fund) with USD 265bn in assets
  - o Investment Manager: Canada Pension Plan Investment Board (CPPIB) as a statutory Investment Manager, created by an Act of Parliament in 1997 to invest the Funds of the CPP.



## INSTITUTIONAL REFORMS

Investors in African infrastructure repeatedly cite **transparency, accountability, performance measurement and project delivery risk** as major problems impeding participation in infrastructure projects.

**There is an urgent need to implement comprehensive institutional reforms in infrastructure financing and development frameworks at the continental and national levels.**

This is the rationale for developing institutional reform recommendations set out in this section that will underpin the detailed interventions in infrastructure development on the continent and related reforms in the capital markets.

### **INSTITUTIONAL REFORM RECOMMENDATIONS**

- 1) **ESTABLISH NATIONAL INFRASTRUCTURE PROMOTION AND DEVELOPMENT AGENCIES (IPDAs) IN MEMBER STATES, SITUATED IN FINANCE MINISTRIES AND REPORTING TO THE CABINET, WITH THE MANDATE TO:**
  - a) Ensure successful financing, development and delivery of Infrastructure;
  - b) Promote financing of Infrastructure by long-term Institutional Investors;
  - c) Ensure adoption of international best practices in Infrastructure project delivery;
  - d) Act as an assurance service for Investors and the capital markets in planning, delivery and monitoring of Infrastructure projects;
  - e) Balance any competing interests of Infrastructure users, off-takers, Investors and other stakeholders;
  - f) Resolve operational and regulatory bottlenecks in the Infrastructure and project development cycle, especially early stage Infrastructure development.

Many SWFs, such as Senegal's FONSIS and Nigeria's NSIA, are starting to play these roles, but international best practice has shown that national IPDAs like the UK's Infrastructure and Projects Authority (IPA) and similar agencies in Canada and Australia, are essential institutions that can also manage other critical infrastructure financing and credit enhancement tools, such as:

- g) Developing and administering Infrastructure guarantee mechanisms and risk mitigants for Institutional Investors;
- h) Managing infrastructure Viability Gap Financing (VGFs) and taxpayer subsidies;
- i) Managing innovative infrastructure financing initiatives like Tax Increment Financing (TIF) and Value Capture Financing;
- j) Ensuring African governments and development partners adopt robust Infrastructure asset recycling programmes;
- k) Ensuring transparency, accountability and performance measurement of Infrastructure financing and development;
- l) Developing and updating 5 - 10 year National Infrastructure Investments Plans (NIIPs) and National Infrastructure Financing and Delivery Reports (e.g. every 6 - 12 months);
- m) Providing regular and consistent communications with Investors and capital markets.

African countries and NEPAD need to ensure that national IPDAs are able to collaborate on regional PIDA and other infrastructure projects, and adequately funded to be consistent with the PIDA Policy initiative for funding the continent's Infrastructure using the continent's financial resources. Provision can be made in legislation or regulations for a nominal 0.5% fee on the capital value of private and public projects accepted into an NIIP, in addition to any possible funding resources from international MDBs and/or donors.

IPDAs should expand the pipeline of projects by coordinating and providing Government support across the entire lifecycle of planning, project preparation, financing and delivery. These IPDAs should have access to the appropriate financial, legal and technical skills and experience in the private sector in Investment Management, investments, stockbroking, Risk Management etc., as well as technical skills in Engineering and Project Management.

## 2) THROUGH NEPAD CBN, ENGAGE GOVERNMENTS ON BEST MACROECONOMIC PRACTICES.

One of NEPAD's key priority areas is the improvement of political, economic and corporate governance across Africa. This is also an important prerequisite to create investor confidence, thereby unlocking more investment in continental infrastructure. Facilitated through NEPAD and PICI, Governments need to improve in areas such as:

### a) Foreign exchange rate liberalisation

Most African countries still have exchange control regulations in some form or other, often attracting criticism from foreign inward investors, but African Central Banks and lawmakers defend their need to control the flow of foreign currency to and from their countries to ensure "fair value" and to prevent abuse. Liberalising these regulations will encourage and increase foreign investment into Africa, and more importantly, allow African IIs to invest in regional infrastructure.

### b) Less interference in business and investment matters

Free market economists often argue that the public sector's role in the economy should be as small as possible, since government intervention often leads to short-termism and inefficient allocation of priorities and scarce resources. However, some intervention in specific areas might be unavoidable and even preferable, e.g. ensuring greater equality through redistribution of income and wealth, promoting equality of opportunity and outcome, addressing free market failure due to externalities, and macroeconomic intervention to end recession or promote employment. Either way, a conducive environment for long-term institutional investment in infrastructure should be promoted, whether through targeted intervention or economic liberalisation.

### c) Consistency in application of laws

Investors in infrastructure are looking for consistency in the application of law, especially as far as it applies to contracts with governments or parastatals, the bedrock of IIPPs. Infrastructure projects are long-term, exceeding political cycles, hence the need for legal certainty across different administrations.

### d) Greater transparency

As with the requirement for the consistent rule of law, greater transparency in governmental functions such as consultation,

## GLOBAL BEST PRACTICE: UK INFRASTRUCTURE FINANCING AND DEVELOPMENT FRAMEWORK

The UK established a framework for a comprehensive approach to infrastructure financing and development by setting up two institutions, the National Infrastructure Commission and Infrastructure and Projects Authority (IPA). The former identifies long-term Infrastructure needs, while the IPA, which is led by a Chief Executive and reports to the Treasury and Cabinet Office, is responsible for ensuring successful delivery of Infrastructure, Defence and IT projects across the public and private sectors, and transformational programmes for improving efficiency and government interaction with citizens. It discharges its mandate through:

- Overseeing policy on Infrastructure delivery, finance and Public Private Partnerships;
- Deploying expert commercial, financial and project delivery support;
- Tracking project performance and managing independent project assurance;
- Developing standards and tools, such as a Project Initiation Route Map;
- Supporting project delivery and project finance professions (skills, capacity building);
- Delivering finance schemes such as its Private Finance 2 (PF2) approach to PPPs, and the UK Guarantees Scheme.

planning, project preparation and procurement, improves investor confidence, increases the universe of potential investors and ultimately results in cheaper infrastructure finance.

### e) Independent review of investment and infrastructure sector regulations

Investment regulations are meant to protect the investing public, but for long-term investment can in fact be too conservative. For example, younger retirement savers with a long-term investment horizon can and should have increased exposure to equities and less-liquid infrastructure, yet are often invested in government bonds only. This may decrease short-term portfolio volatility and increase liquidity, but loses out on earning the "equity risk premium" and "liquidity risk premium" that are available over longer savings periods. An independent review of investment regulations can assist policymakers to strike the right balance between the interests of all stakeholders.



**3) ESTABLISH OR STRENGTHEN NATIONAL AND/OR REGIONAL INFRASTRUCTURE INVESTMENT BANKS (NIIBs/RIIBs)** with a specific mandate to issue Infrastructure bonds specifically designated and reserved for Infrastructure projects through a variety of platforms, tenors (short, medium and long-term), target investors and structures (inflation-linked, securitised etc.). The current practice common in many African countries of issuing “Infrastructure Bonds,” whose proceeds are then mainly used for current expenditure, undermines Investor confidence in the management of Infrastructure projects.

**4) CLOSE THE PROJECT PREPARATION FINANCING GAP** by sustainably funding and increasing the effectiveness of Project Preparation Funds/Facilities (PPFs) from budgetary resources, managed by designated IPDAs, of at least USD 250mn and annual allocations of at least USD 100mn. This will help to resolve one of the greatest barriers to investable projects in Africa, which starts with the lack of adequate financing for the very important early stage planning and Project Preparation activities. African countries cannot continue to rely solely on donors and MDBs to finance planning and Project Preparation that are so vital to initiating the infrastructure projects Africa needs to implement in order to start closing the annual Infrastructure deficit.

### **GLOBAL BEST PRACTICE: CANADA INFRASTRUCTURE BANK**

As part of the Government of Canada's Investing in Canada plan, the Canada Infrastructure Bank is a tool that its partners will be able to use to build more infrastructure in communities across Canada. The additional projects the bank invests in will contribute to Canada's long-term economic growth and support the creation of good, well-paying jobs for the middle class. These investments will also help Canada achieve their goals of lowering greenhouse gas emissions and building communities that are socially inclusive.

The Bank will be an additional tool to build new infrastructure development by attracting private sector and institutional investors to support the transformational infrastructure that Canadian communities need. From green energy transmission to trade and transportation and beyond, the Bank will help public dollars go further by enabling Canada to invest in projects that deliver a return. This will keep the government's grant funding for projects that require public funding, like affordable housing and community centres.

The Bank will invest CAD 35bn from the federal government into transformative infrastructure projects. CAD 15bn will be sourced from the CAD 180+bn Investing in Canada infrastructure plan, including:

- CAD 5 billion for public transit systems;
- CAD 5 billion for trade and transportation corridors; and
- CAD 5 billion for green infrastructure projects, including those that reduce greenhouse gas emissions, deliver clean air and safe water systems and promote renewable power.

Specifically, the Bank will:

- Invest in infrastructure projects that have revenue-generating potential and are in the public interest;
- Attract private sector and institutional investors to projects so that more infrastructure can be built in Canada;
- Serve as a centre of expertise on infrastructure projects in which private sector or institutional investors are making a significant investment;
- Foster evidence-based decision making and advise all orders of government on the design of revenue-generating projects; and
- Collect and share data to help governments make better decisions about infrastructure investments.

The Bank will be accountable to Parliament through its responsible Minister. Specific accountability measures will include:

- Requiring the Bank to seek the Government's approval of its Corporate Plan annually and tabling the plan as well as its annual report in Parliament;
- Audits by the Auditor General as well as a private sector auditor appointed annually by the Government, which is the highest standard of accountability required of Crown corporations; and
- A review of the operation of the Bank by the responsible Minister and Parliament every five years.

As an arm's length Crown Corporation, the Bank will be led by a Chief Executive Officer and governed by a Chairperson and Board of Directors.



## PROMOTING IPPs

### RECYCLING INFRASTRUCTURE ASSETS

Debt financing products listed on African stock exchanges are predominantly public sector and domestic, with low levels of market liquidity and negligible levels of regional or cross-border listing due to low integration. There is a clear need to establish vibrant listed and unlisted secondary markets for Infrastructure financing securities to accelerate the 5% Agenda.

One important measure to achieve this goal is the **recycling** of Infrastructure assets and finance – **the process of creating secondary markets by selling debt and/or equity in existing operational infrastructure assets to Institutional or other investors to raise cash that can then be reinvested into the development and construction of new greenfield Infrastructure assets further upstream.**

Institutional Investors generally perceive operational Infrastructure assets with established revenue models and cash flow histories as safer and less risky than greenfield developments, given that the latter are subject to uncertainties in regulatory approvals, financing, construction and successful commissioning. This means Institutional Investors will pay a higher price (i.e. accept a lower expected yield) for Infrastructure assets with a certain revenue history than for Infrastructure assets that are yet to be developed, and which may require years to design, approve and construct.

We recommend that portions of existing operational infrastructure assets held by governments, development partners, regional and Multilateral Development Banks be systematically sold and transferred to long-term Institutional Investors, through appropriate financial structures and with suitable credit-enhancement if required.

Large-scale Infrastructure recycling through issuance of listed securities can serve as a transformative “leapfrog” financing innovation in Africa that will help to create deeper and more liquid secondary markets. These give long-term Investors listed instruments with flexible maturities and tenors that

enable them to exit investments in illiquid Infrastructure assets when required to meet their payment obligations to members and pensioners.

Infrastructure recycling is an essential prerequisite for catalysing Institutional Investments into Infrastructure as an asset class and directly supports the 5% Agenda. Secondary markets for Infrastructure assets offer Institutional Investors an entry as well as an exit path to convert long-term, illiquid investments back into liquid assets, if required. It shapes Infrastructure Investments as an asset class, consistent with their objectives of seeking long-term assets matching their long-term liabilities, and earning higher, less volatile and uncorrelated real returns, including an illiquidity premium compared to traditional asset classes.

Infrastructure capital recycling therefore serves the dual role of being a new source of financing for Infrastructure in its own right, while also supporting the development of deeper and more liquid secondary markets for Infrastructure assets. The latter role is necessary to “crowd-in” long-term Institutional Investors into Infrastructure assets otherwise deemed as illiquid.

### Capital Recycling from Governments and Development Partners to Institutional Investors can be structured in different ways, e.g.:

- Exits through IPOs on domestic stock exchanges;
- Sales of strategic, minority or majority Equity stakes;
- Secondary buyout sales to private investors;
- Securitisations;
- Issuance of debt financing instruments;
- Sale-and-lease-back transactions.

Recycling Infrastructure Capital can thus be an efficient exit strategy for “public equity” from legacy investments designed to yield substantial returns and proceeds for reinvestment in new Infrastructure Assets.

PROMOTING IIPPs

**Adopting Infrastructure Capital Recycling as one of the key measures African countries can implement to finance infrastructure requires policies that achieve the following:**

- Maximise proceeds from “exiting” legacy infrastructure investments.
- Recycle Privatisation proceeds into new Infrastructure projects as opposed to Government current expenditure.
- Adopt revenue models on new Infrastructure projects that achieve full cost recovery based on user-payments from ratepayers or Viability Gap Financing (VGFs) and subsidies from taxpayers, set and enforced transparently by Independent Regulators.

**INFRASTRUCTURE CO-INVESTMENT PLATFORMS**

Co-investment platforms typically take the form of either a “blind pool” fund or an investment club to invest in long-term African Infrastructure investment opportunities. Once an evaluation of the vehicle type is thoroughly investigated and determined, a key determination will be to identify and engage a co-sponsor and/or a “cornerstone” seed investor to fund the establishment of the chosen go-to-market co-investment platform vehicle.

**Key features:**

- 1) Co-investment by Fund investors and/or third parties takes place on a discretionary, deal-by-deal basis into certain investments entered into by the Fund vehicle, e.g. where the Fund vehicle is unable or unwilling to take up the entire investment.
- 2) Co-investment vehicle will usually invest on a pro rata basis with, and in the same instruments as, the Fund vehicle, though arrangements may vary.
- 3) The Platform is managed by the Fund Manager; co-investors are passive investors, but may benefit from certain enhanced reporting, information and voting rights.
- 4) The Platform typically charges lower fees and carry, or may not charge them at all.

**About NEPAD/Africa Investor’s AssetX Co-investment Platform**

NEPAD/Africa investor’s Infrastructure Co-Investment Platform is an industry response designed to overcome investment obstacles with participation and support from long-term investors and African Heads of State. It was set up with an initial Infrastructure portfolio of USD 1.5bn and is expected to increase to USD 3bn in three years.

The Investment Partners include a select group of African and global Pension and Sovereign Wealth Funds committed to investing cross-border in Infrastructure assets. The platform originates projects through Ai’s extensive and close working relationships with infrastructure-focused Private Equity firms, Investment Managers and a 500-strong network of Africa’s foremost private sector Infrastructure project developers.

The co-investment portal, hosted at [www.aiassetx.com](http://www.aiassetx.com), was established following extensive consultations with local and international asset owners and their trustees, who ranked the identification of qualifying infrastructure investment partners and investable projects as the single biggest challenge for domestic and global institutional investors seeking to allocate to African infrastructure as an investable asset class.

AiAssetX is an online marketplace, designed to profile project and infrastructure investment opportunities and securely connect accredited domestic and international asset owners and institutional infrastructure investors with infrastructure project developers and infrastructure fund and investment managers working in Africa. NEPAD/Ai AssetX aggregates the capital introduction and capital raising process for sell side participants and harmonises asset owners’ strategies to ensure that they can efficiently engage with project developers and fund managers who have the requisite track record and expertise to enable them to deploy capital and discharge their fiduciary responsibilities in a predictable and measurable fashion.

AssetX is a smarter, easier and cheaper way to profile infrastructure investment opportunities and connect project owners and investment managers to institutional investors. It is a practical collaboration platform which leverages the long-term investment horizon of public financial investors, such as sovereign wealth funds and pension funds, to invest in both direct investments and fund and investment manager strategies that meet asset owners’ mandates and investment criteria.

The NEPAD/Ai AssetX Infrastructure Co-Investment web portal was formally unveiled at the Ai Development Finance - Institutional Investor Roundtable held in partnership with the African Development Bank and NEPAD at the World Bank annual Meetings. The Roundtable convened global and Africa-focused institutional investors (pension and sovereign funds), DFI heads and African Ministers of Finance to engage in a dialogue on institutional investment in infrastructure.

AssetX was inspired by the Ai Sovereign Wealth and Pension Fund Leaders Forum to assist Asset Owners in leveraging NEPAD/Ai’s franchise, collaborative technology solutions, project origination network and vast access to pools of domestic and global pension and sovereign wealth fund capital seeking African infrastructure investment opportunities.

**AssetX also benefits from the support of Ai Fiduciary Ratings – see next section.**

	PROS	CONS
<b>Manager</b>	<ul style="list-style-type: none"> <li>• Greater investment firepower</li> <li>• Retain control over management and investments</li> <li>• Strengthens relationship with key investors</li> </ul>	<ul style="list-style-type: none"> <li>• Lower or no fees/carry on co-investment portion</li> <li>• Additional process and management responsibilities</li> <li>• Deal allocation issues:                             <ul style="list-style-type: none"> <li>o management of investor expectations;</li> <li>o real or perceived conflicts of interest.</li> </ul> </li> </ul>
<b>Investor</b>	<ul style="list-style-type: none"> <li>• Increased exposure to specific, identified investments</li> <li>• Greater control over own portfolio</li> <li>• Efficient deployment of extra capital</li> <li>• Opportunity for higher returns</li> <li>• Enhanced information rights</li> <li>• Insight into direct investing</li> </ul>	<ul style="list-style-type: none"> <li>• Passive investment with limited management rights</li> <li>• Requires deal execution ability and ability to conduct Due Diligence on investment in short timeframe</li> <li>• Portfolio concentration if also investing through blind pool fund</li> <li>• Risk of overexposure to badly performing investments</li> </ul>

## INDEPENDENT FIDUCIARY RATINGS OF INFRASTRUCTURE INVESTMENT MANAGERS

A Fiduciary Rating is a measure of fiduciary risk, which probes the inner workings of businesses that manage investments on behalf of third parties. A Fiduciary Rating Agency, such as Ai Ratings, assesses the quality of management and the systems management put in place to measure the capability of the investment management firm to meet its fiduciary obligations. It quantifies how trustworthy that business is and compares it to local and international competitors. A Fiduciary Rating therefore empowers IIPPs in their dealings with investment managers to ensure they receive the service and duty of care that they and their trustees have the right to expect.

## INDEPENDENT CREDIT RATINGS FOR INFRASTRUCTURE DEBT

A key element in making Infrastructure project debt attractive to a wider universe of Institutional Investors, their Regulators and their Investment Managers, is to have an acceptable, independent credit rating attached to a project. **The following checklist from Standard & Poor's Project Finance Ratings Criteria Reference Guide (2014) provides an overview of the kind of information that needs to be collated and made available to a Rating Agency:**

### Business

- Technology and design agreements and composition
- Construction / manufacturing agreements
- Concession agreement
- Offtake or other agreements
- O&M agreements
- Resource and raw materials supply agreements or assessment
- Permits, licences
- Independent assessment of technology, design and construction
- Independent assessment of market
- Independent assessment of raw materials or resource
- Legal, tax, accounting and insurance due diligence reports
- Management views of markets

### Financial

- Debt and equity capital structure, terms of lending and equity contribution, including equity support agreements
- Loan documents, e.g. common terms agreement, syndicated lending facilities, bond trust deed and inter-creditor agreements
- Financial forecasting model or projections over the life of the rated debt, of revenues, O&M expenses, capital expenditure and debt service schedule, including detailed assumptions
- Hedging and fixed deposit agreements
- Financial forecasting model audit

### Structure

- Ownership structure
- Organisational structure of the project
- Business limitations of the project
- Cash management agreements
- Security agreements
- Legal opinions related to legality, validity and enforceability of transaction documents and of non-consolidation of the project into a parent bankruptcy
- Any change to project ownership
- Any material changes to transaction documents

### Counterparties

- Where relevant, business and financial information in accordance with the Rating Agency's corporate and government ratings criteria

## CAPITAL MARKETS PRODUCTS ENABLING IIPPs

To increase the level of Infrastructure financing from Institutional Investors, regional African stock exchanges will need to cooperate more to jointly develop Infrastructure-specific debt and equity financing products and funds (listed and unlisted) to supplement traditional equity, fixed-income and derivatives products. Ils will require listed Infrastructure-specific debt, equity and funds that are tradable on African Regional Exchanges at the primary listings phase for issuers and tradeable on secondary markets to help manage liquidity needs. They may also need limited options for Infrastructure-specific derivatives to manage currency and interest rate risks.

### Infrastructure-Specific Equity Financing Instruments

Institutional Investors should be offered access to Infrastructure-specific equity financing products based on existing instruments and frameworks available on the continent's largest capital markets. Equity securities that can be issued by a wide range of Infrastructure entities can range from plain Ordinary and Preference Shares to variations of more complex Equity Securities (e.g. N-Ordinary Shares) and Convertible Preference Shares. **Other examples include:**

- Infrastructure companies with equity held directly by Pension Funds, or indirectly, through statutory or private Investment Managers like PIC (South Africa), NSSF (Kenya), NSSF Ghana and private Investment Management Companies wholly owned by Pension Funds.
- Infrastructure project SPVs used to structure an IIPP, with equity held by Ils.
- Infrastructure Special Purpose Acquisition Companies (SPACs).
- Infrastructure Depository Receipt Issues on regional Exchanges.
  - o Depository Receipts (DRs) are globally accepted and flexible equity instruments that can enable African Infrastructure Developers/Issuers to reach Investors located outside their home markets. This is particularly important in Africa where Pension Funds across the continent predominantly invest locally, while the largest pool of Investor assets are concentrated in South Africa.

PROMOTING IIPPs

- o Issuance of Infrastructure Depository Receipts (DRs) by Infrastructure Issuers, Infrastructure SPVs and Infrastructure Funds can help African Pension Funds make cross-border investments in African infrastructure by reducing risks associated with foreign laws, transaction costs, currency fluctuations and complex transaction settlement processes. They also enable African pension funds to leverage e.g. the JSE's well-developed Depository Receipt framework, while investing on regional African exchanges (Lagos LSE, Nairobi NSE, Casablanca CSE, Cairo and Alexandria CASE, UEMOA SE).

**Infrastructure-Specific Debt Financing Instruments**

Institutional Investors should be offered access to Infrastructure-specific debt financing products based on existing instruments and frameworks available on the continent's largest capital markets:

- **Infrastructure bonds** issued by Governments (central and local) or Corporate entities and vehicles for developing and financing Infrastructure Assets, for example:
  - o State Corporations, e.g. Kengen, Zambezi River Authority, Tazara
  - o National Infrastructure Investment Banks (NIIBs), e.g. Development Bank of Southern Africa (DBSA)
  - o Infrastructure-specific Companies, SPVs and SPACs
  - o Investment Management Companies (IMCs) owned by Pension Funds
- **Infrastructure Debentures** issued by African Governments and Corporate entities responsible for Infrastructure. Debentures allow Issuers to borrow money under agreements for repayment with interest, and can increase returns on investment to Investors while helping to secure capital. Infrastructure Debentures can be Convertible into Equity, or Non-Convertible Debentures offering higher interest rates than Convertibles in lieu of an embedded call option.
- **Infrastructure Exchange Traded Notes** (ETNs) that offer exchange-traded debt financing instruments, allowing Institutional Investors to access a wide spectrum of Infrastructure assets. Investors would lend money to Infrastructure ETN issuers – usually Commercial Banks – in exchange for returns based on movements in specific benchmarks and indices of interest rates, currencies, shares or bonds. ETNs could be useful to Pension Funds for diversifying and improving performance of their asset portfolios. As they may entail higher risks they would be more suitable to Institutional Investors with higher risk tolerances.
- **Asset Backed Securities** (ABS) with Infrastructure forming the underlying assets or cash flows and issued on large regional exchanges could be attractive investment instruments for African Pension Funds. For example, SA Home Loans (SAHL) in South Africa issued a ZAR 4bn

Asset Backed Note (ABN) Programme in 2014 under an SPV – The Thekwini Fund 12 (RF) Ltd – for acquiring retail home loans and developing housing. The ABN was listed on the JSE and offers an example of the innovative securitised financing structures that Infrastructure financing entities and corporations in Africa can use to access listed investment from long-term Investors, both Retail and Institutional.

- **Domestic Medium-Term Note** (MTN) Programmes that enable Infrastructure Development Entities to periodically access African capital markets by issuing exchange-listed and approved Medium-Term Notes (MTNs). Listed Infrastructure MTN programmes could be attractive investment instruments for African Institutional Investors. For example, they can be issued in a variety of tranches, interest rates and maturities (tenors) to suit the risk appetite and investment horizons of Investors, both Retail and Institutional.

**INFRASTRUCTURE FUND PRODUCTS ENABLING IIPPs**

Institutional Investors should be offered access to Infrastructure-specific funds based on existing instruments and frameworks available on the continent's largest capital markets, including:

- **Listed Infrastructure Funds**, such as Special Purpose Acquisition Companies (SPACs) listed on the JSE, having originated in the US in the 1990s. Specific examples in the Infrastructure space include Hulisani and Gaia, both focusing on acquiring equity in South Africa's post-construction Renewable Energy IPPs.
- **Unlisted Infrastructure Funds**. These come in many different, flexible wrappers, such as Limited Liability Partnerships, Trusts, policies issued by Long-term Insurers, etc.
- **Infrastructure Exchange Traded Funds** (ETFs) as listed Infrastructure investment products that track the performance of a group or "basket" of Infrastructure-specific equities or debt securities. This would offer Institutional Investors access to a variety of Infrastructure Assets (and Infrastructure as an Asset Class) through investing in a single listed Infrastructure investment product.
- **Infrastructure Investment Trusts** (IITs)
  - o Real Estate Investment Trusts (REITs) have been around for decades and they have successfully rejuvenated Real Estate / Property markets around the world. The US REIT has seen an expansion of the scope of asset types using the vehicle, which now includes some Infrastructure-related assets such as telecom towers and utilities.
  - o Belgium has recently published draft legislation with a

proposal to include Infrastructure assets in its REIT regime. In India, IITs already exist alongside Indian REITs. It is clear that the REIT regime can be adopted (with a few key tweaks) for Infrastructure to help attract much needed investment.

- o IITs could be attractive for emerging markets, particularly on the African continent, as a liquid route to gain exposure and manage potential risks effectively. South Africa has already experienced the benefits of REITs over recent years.
- o The creation of a listed IIT vehicle could be designed to be specifically tailored to the characteristics of Infrastructure assets, including the nature of qualifying assets and qualifying income streams. Specifically, this definition would cover the ownership of electricity, gas and water utilities, communications infrastructure, both freight and passenger railways, airports, seaports, bridges and toll roads.
- o In addition, because much of global and EM Infrastructure investment flows into new construction projects that may involve a period of no income and even losses during the early years of investment, an Infrastructure Investment Trust could feature the tax loss pass-through benefits of a private partnership structure. An IIT that includes the ability to pass through tax losses to offset an Investor's other taxable income would create a powerful investment incentive for a broad base of Investors.

**CREDIT ENHANCEMENT**

Pension and Sovereign Investors have continued to focus mainly on project bonds with a minimum “A” credit rating, deemed to have the appropriate mix of yield and risk. “A”-rated bonds generally do not fit well with investments into greenfield projects, given the risks of construction delays and cost overruns, and such projects are unlikely to receive an “A” rating for their bonds.

**Taking this into consideration, various forms of credit enhancement of project bonds have been proposed, for example:**

INITIATIVE	ROLE OF CREDIT ENHANCEMENT IN STRUCTURE
Europe 2020 Project Bond Initiative	EIB will provide a subordinated loan or a guarantee for up to 20% of the project debt, meaning that EIB would take, after the loss of all the equity, the first 20% of debt losses relating to the project.
Hadrian’s Wall Capital	Typical funding proportions might be A-Notes representing 75%, B-Notes representing 10% and equity 15%. The aim would be to take the total project debt with a rating of BBB-/BBB and use the fund to enhance the risk profile of the A-Notes to at least BBB+.
Pan European Bank to Bond Loan Equitisation (PEBBLE)	PEBBLE is intended to provide project bonds with credit enhancement through the provision of a subordinated cushion during the riskiest phase of a project – construction and ramp-up. During this phase the B Lenders, as commercial banks, control the project by responding to waiver and consent requests as controlling creditors.
Various DFIs	Project characteristics will determine type of enhancement that is suitable to the project.
InfraCredit Nigeria	InfraCredit provides local currency guarantees to enhance the credit quality of debt instruments issued to finance creditworthy infrastructure assets in Nigeria that conform with its eligibility criteria.

**STRUCTURAL INNOVATION AND CREATIVITY**

**Availability Payments/Revenue Guarantees**

Given strong sovereign commitment, the expertise and creditworthiness of the key subcontractors, and the strong performance support packages, availability-based payment structures are seen as far less risky than a full revenue risk and hence will foster higher credit ratings allowing the development of a strong and stable rating.

**Refinancing Risk**

Authorities do not like refinancing risk and require sponsors to bear this cost. Investors might be willing to take this risk, on commercial terms, e.g. through break-fees.

**Short-term Bonds**

A short-term bond product has maturities from two to five years – the introduction of this product could help foster healthy pricing competition between the bank and bond markets.

**Delayed-draw Bonds**

This is a structure created to allow bonds to directly compete with banks. It is designed to minimise the “negative carry” inherent in bond financing by issuance of bonds on a quarterly basis through construction, hence bringing them closer to “monthly draw” availability of bank financing. This suits projects during construction, but Institutional Investors might prefer investing the total amount upfront.



## GLOBAL BEST PRACTICE: PORT OF MELBOURNE

**Overview:** Port of Melbourne is Australia's leading trade gateway and largest container, automotive and general cargo port with 36 berths handling 2.64 million TEUs and 3,000 annual ship arrivals.

**Infrastructure Operating Company (IOC):** QIC and Global Infrastructure Partners (GIP)

**Activities:** Operations and Maintenance (O&M), investment and growth of Port of Melbourne into the future through implementing a long-term development plan for the Port under a well-defined regulatory regime. Increase capacity and efficiency of the Port through transformational change in the road and rail mix of freight moving through the Port to benefit stakeholders.

**Key terms:** 50-year lease

**Concessionaire:** Lonsdale Consortium, comprising the Australian Government Future Fund, Queensland Investment Corporation (QIC), Global Infrastructure Partners (GIP) and OMERS.

- QIC is a diversified multi-asset Investment Management Company active in infrastructure, real estate, private equity and alternative investments, and is one of Australia's largest institutional Investment Managers with over USD 75bn in total Assets Under Management, including USD 7bn in Infrastructure assets across ten direct investments | in transport, utilities and PPPs. QIC offers Investment Management services to Institutional Investors in Australia and globally, and is responsible for managing Australia Future Fund's investment in Port of Melbourne.
- Global Infrastructure Partners (GIP) is a leading Infrastructure Investment Manager with USD 35bn invested in infrastructure assets across the energy, transport, water, port and rail sectors.
- Borealis Infrastructure is one of the world's largest Infrastructure Investors and is the core Infrastructure Investment Fund of Ontario Municipal Employees Retirement System (OMERS), with over USD 18bn invested in a portfolio of more than 20 Infrastructure assets. Borealis Infrastructure was formed in 1998 to originate, structure, finance and manage Infrastructure and Private Equity assets on behalf of OMERS. Borealis is a direct equity investor and exercises active management over its investments in ports, transport, electricity, water and gas transmission and distribution, which are typically mature, operational Infrastructure assets.
- OMERS, founded in 1962, is one of Canada's largest Defined Benefit (DB) Pension Funds, with more than CAD 77bn in AUM (2015) and 461,000 members from municipalities, school boards, emergency services and local agencies across Ontario.
- Global Strategic Investment Alliance (GSIA): GSIA is the unlisted co-investment infrastructure vehicle set up by Ontario Municipal Employees Retirement System (OMERS) and a consortium of Japanese pension funds. The vehicle held a first close of USD 7.5bn in April 2012 and has sealed its maiden investment in 2013, buying a 33% stake in US power plant Midland Co-generation Venture (MCV). In Q1 2014, the GSIA received additional capital from the Government Pension Investment Fund (GPIF) and Development Bank of Japan (DBJ), which brought the size of GSIA to USD 11.25bn – more than halfway towards its USD 25bn target.

**Key lessons for IIPPs in Africa:** A conducive regulatory and economic environment allowed the Lonsdale Consortium, funded by Institutional Investors, to become the private leaseholder and strategic manager of the Port of Melbourne's commercial operations and assets in September 2016. This brought world class, safe, responsible and reliable port facilities and services to the region, whilst delivering attractive returns to long-term savers. Regional integration was also boosted with the delivery of an efficient freight supply chain to support Victoria's growing economy, including the efficient movement of goods within Melbourne and regional Victoria, together with a workable metro rail freight solution.



## OFFICIAL LAUNCH OF NEPAD AGENCY'S 5% AGENDA INITIATIVE

18 SEPTEMBER, NASDAQ

The NEPAD Agency's Continental Business Network, along with Africa investor (Ai), gathered international investors and CEO-level business leaders at NASDAQ which included over 20 of Africa's and the world's leading and largest pension and institutional investors, representing in excess of 10 trillion USD in assets under management, advisement, and administration on the 18th of September, for the launch of the 5% Agenda initiative.

The launch took place five years after a January 2012 African Union Summit adopted the Programme for Infrastructure Development in Africa (PIDA) which sets out 51 cross-border infrastructure programmes and more than 400 actionable projects in four sectors.

According to the World Bank, the continent needs to spend \$93 billion annually (44% for energy; 23% for water and sanitation; 20% for transport; 10% for ICTs; and 3% for irrigation) until 2020 to bridge its infrastructure gap, which is currently removing an estimated 2% of GDP growth every year. On the other hand, Africa only managed to close 158 project finance deals with debt totalling \$59 billion over the decade 2004 - 2013, which represents only 5% of infrastructure investment needs and 12% of the actual financial flows.

The 5% Agenda campaign highlights that only a collaborative public-private approach can efficiently tackle these issues and calls for allocations of institutional investors to African infrastructure to be increased to the declared 5% mark.

Speaking at the launch event in New York, Dr. Ibrahim Assane Mayaki, NEPAD Chief Executive Officer, indicated that, for pension and sovereign wealth funds to invest in large-scale



infrastructure projects in Africa, a variety of issues need to be addressed to facilitate long-term allocations. Chief amongst these matters is the need to reform national and regional regulatory frameworks that guide institutional investment in Africa. The private and public sector are joining forces in Africa to create conducive environments to attract these investments, which are so vital for the continent's growth.

**“As the NEPAD Agency, we believe that Africa must take leadership in financing its infrastructure projects,”** he said.

“Infrastructure plays a leading role in supporting growth on the continent. At the same time, it can represent an innovative and attractive asset class for institutional investors with long-term liabilities. By launching the 5% Agenda in New York today, we invite investors to take advantage of the wide-ranging opportunities Africa has to offer and to move forward with what can only be a win-win partnership”



OFFICIAL LAUNCH OF NEPAD AGENCY'S 5% AGENDA INITIATIVE, 18 SEPTEMBER, NASDAQ



The launch of the campaign gathered high-level international investors and business leaders, including members of the PIDA Continental Business Network (CBN) which is spearheaded by NEPAD Agency and constitutes a CEO-level private sector infrastructure leaders dialogue platform on PIDA.

Representing the African Union Commission Chair, Moussa Faki Mahamat, the AUC Commissioner for Political Affairs, Minata Samate Cessouma, highlighted that the 5% Agenda initiative is important for the development of a concrete and realistic roadmap for increasing the participation of African institutional investors in Infrastructure development.

**“The African Union Commission will ensure the promotion of the 5% Agenda initiative which is a source of hope. This is an exercise that must succeed if Africa is to emerge from its infrastructural precariousness and if its industrialisation is to be fostered,” she said.**

According to a 2016 McKinsey report, institutional investors and banks have USD 120tn in assets that could partially support infrastructure projects.

Now more than ever, Africa needs to tap into this availability. As banks face additional regulatory challenges and as governments have limited fiscal space, it is becoming increasingly urgent to unlock additional flows from long-term institutional investors.

For pension and sovereign wealth funds to be able to invest in large-scale infrastructure projects in Africa, a variety of issues need to be addressed to strategically and intentionally facilitate long-term allocations. Chief amongst these matters is the need to reform national and regional regulatory frameworks that guide institutional investment in Africa. Likewise, new capital market products need to be developed that can effectively de-risk credit and hence allow these African asset owners to allocate finance to African infrastructure as an investable asset class to their portfolio.

**ALL THESE ISSUES ARE AT THE HEART OF THE 5% AGENDA ROADMAP, WHICH IS THE BACKBONE OF NEPAD'S CAMPAIGN.**

Speaking at the launch, Hubert Danso, CEO and Vice Chairman of Africa investor and Chairman of the Africa Sovereign Wealth and Pension Fund Leaders Forum, said that the NEPAD 5% Agenda, which has the full support of the African Sovereign

Wealth and Pension Fund Leaders Forum, will also be catalytic in attracting global co-investment partnerships with international pension and sovereign funds, commanding over USD 30tn of assets under management, seeking the type of returns offered by African infrastructure assets once de-risked by the presence and participation of African asset owners as co-investment partners.

The NEPAD 5% Agenda is an African-owned and -led agenda. Speaking at the official launch, Jeff Radebe, Minister in the Presidency: Planning, Monitoring and Evaluation, Government of South Africa, representing the Presidential Champions Infrastructure Initiative (PICI) as part of PIDA, pledged the support of PICI Heads of State to partner and implement reforms and institutional investor public partnerships with African institutional investors, a message that was echoed by Dr. Moussa Faki Mahamat, Chairperson of the African Union Commission.



**NEPAD CEO Dr. Ibrahim Assane Mayaki said:**

**"Infrastructure plays a crucial role in supporting the Continent's growth. At the same time, it can represent an**

**innovative and attractive asset class for institutional investors with long-term liabilities. By launching the 5% Agenda in New York, we invite investors to take advantage of the wide-ranging opportunities Africa has to offer and to move forward with what can only be a win-win partnership".**

Launch partners included the African Union Commission, NEPAD, Africa Investor, the Government of South Africa, development finance institutions like the African Development Bank and the Trade and Development Bank, institutional investors, and private sector champions.

**THE KEY OUTCOME OF THE LAUNCH OF THE 5% AGENDA WAS THE ISSUANCE OF THE COMMUNIQUÉ EXHIBITED IN APPENDIX 1.**

## THE ROLE OF NEPAD

The NEPAD Agency in partnership with Africa Investor, has been steering a dialogue that convened key stakeholders responsible for investment allocation decisions (e.g. investment banks, pension funds, SWFs, credit rating agencies, financial policy experts and regulators, policy makers, project owners etc.). These stakeholders provided input to the above roadmap and support the implementation of this roadmap.

The roadmap is the backbone for the official launch of the 5% Agenda, which took place in New York in September 2017. **It is foreseen that the roadmap and the campaign will have the following impact:**

1. Unlocking USD 25bn of African institutional savings capital over the next five years to implement regional and domestic infrastructure projects on the continent.
2. Bringing PIDA projects to financial close for improved access to energy and other infrastructure.
3. Broadening and deepening the currently shallow African primary and secondary capital markets.
4. Contributing significantly to regional integration and job creation.
5. Taking specific, concrete next steps and project suggestions to raise the investment interest of international institutional and non-institutional financiers, who so far have been hesitant to include African infrastructure projects as an asset class in their investment portfolios.

**To achieve this impact, various steps as further outlined in this paper will have to be taken, for example:**

- Engaging governments to develop business plans to create pipelines of investable assets and asset recycling;
- Facilitating institutional investor expertise to assist governments in developing infrastructure-related programmes capable of being financed by IIs through IIPPs;
- Engaging ministers of finance, public and private financiers, investment leaders and other stakeholders

to promote the development and increase of guarantee platforms and instruments to de-risk and crowd in IIs.

- Promoting the development of innovative capital market products that are specific to the continent's challenges and potential in regard to infrastructure development.

In order to firmly establish the 5% in 5 Years Agenda by way of IIPPs, this paper suggests that the framework for IIPPs should be introduced via strategic partnerships at key platforms.

### **Under NEPAD's leadership, the IIPPs should be introduced at the following platforms:**

- The EU-Africa Business Forum in Abidjan, Ivory Coast, 27th November 2017
- The 3rd PIDA Week, Swakopmund, Namibia, 10 - 14 December 2017.
- The next AU Summit, Addis Ababa, January 2018.
- UNECA Ministers of Finance Forum, Addis Ababa, March 2018.
- The 10th BRICS Summit, Johannesburg, 2018.
- The 44th G7 Summit, Canada, June 2018, through an II Africa - G7 partnership in Canada.
- Finally, the 5% Agenda shall be presented to an II Africa - G20 partnership at the next G20 Summit in Buenos Aires, Argentina, in 2018.
- AfDB Africa Investment Forum, Cape Town, November 2018.

This advocacy leadership role should be carried out by the CBN and NEPAD to integrate and promote African IIPPs through bilateral and multilateral relationships.



**PANEL SPEAKERS** (from left to right)

Hubert Danso, *Africa investor*; Pierre Guislain, *African Development Bank*; Symerre Grey-Johnson, *NEPAD*; Ibrahim Kane, *FONSIS*; Gavin Wilson, *IFC Asset Management Company*; Chuck Burbridge, *Teachers' Pension Fund*; Joshua Franzel, *Center for State & Local Government Excellence*; Nic Firzli, *World Pensions Council*; Ian Cameroon, *Washington State Investment Board*

## 5% AGENDA PRESENTED DURING WORLD BANK ANNUAL MEETINGS

A 5% Agenda high-level panel was co-hosted by the African Development Bank (AfDB), Ai, NEPAD and IGD with DFIs and African and global institutional investors during the World Bank annual meetings held on 12 October 2017 in Washington D.C.

Following the successful dialogue, below are the key issues and recommendations that were highlighted:

**1. DFIs RECOGNISED THE IMPORTANCE OF NEPAD'S 5% AGENDA AND COMMITTED TO COORDINATE THEIR EFFORTS.**

DFIs will coordinate their institutional investor outreach initiatives with African and international pension and sovereign funds regarding infrastructure investments in support of the 5% Agenda to create synergies.

**2. IDENTIFYING CREDIBLE AND INVESTABLE DEALS AND LOCAL PARTNERS CAPABLE OF ALIGNING FROM BOTH ECONOMIC, STRATEGIC AND A PHILOSOPHICAL BASE.**

Institutional investors and DFIs will give more exposure to, and promote, trusted infrastructure-related investee companies as vehicles for institutional investors to access infrastructure co-investment opportunities.

**3. COOPERATION ON CENTRAL CO-INVESTMENT PLATFORMS AND MARKETPLACES**

Alignment should be leveraged between the Africa Investment Forum and AssetX, NEPAD and Ai's co-Investment Platform for PIDA and other infrastructure projects, as a centralised platform for institutional investors to access deal flow and to bring unity in the market where one can connect project and capital, avoiding duplication.

**4. DEVELOP RELIABLE, FACTUAL TRAINING ON INVESTING IN AFRICAN INFRASTRUCTURE**

DFIs and other development partners should leverage their neutrality to fund the development and delivery of technical education, training modules, country visits etc., aimed at investment influencers like pension fund investment consultants, trustees and staff, introducing African infrastructure as an investable asset class. This will assist in facilitating the discharge of their fiduciary responsibilities that are central to the investment decision-making process as part of the investment model.

**5. BUILD AND MARKET ESSENTIAL INVESTMENT BENCHMARKS TO BETTER ENGAGE THE CAPITAL MARKETS**

DFIs should support the development of, and assist with, building out the required benchmarks, data sets and infrastructure investment benchmarks and instruments that support the African capital markets, making them readily accessible to domestic and international pension fund investment consultants, trustees, staff and other investment decision makers.

**6. IMPROVE AND PROFILE AFRICAN INFRASTRUCTURE FUND AND INVESTMENT MANAGERS GOVERNANCE STANDARDS**

For the majority of asset owners considering allocating to Africa, a major constraint is the unaddressed perception of the low level of investment governance, fiduciary risk and trustworthiness amongst African infrastructure investment and fund managers, restricting allocations to African investment and fund managers.

5% AGENDA PRESENTED DURING WORLD BANK ANNUAL MEETINGS



**7. DFIs SHOULD USE THEIR LEVERAGE TO MOBILISE POLITICAL WILL TO ENCOURAGE INTERNATIONAL ASSET OWNERS TO ALLOCATE TO AFRICAN INFRASTRUCTURE**

Recognising the ongoing economic and geopolitical efforts at the G20 and EU levels, and taking account of economic opportunity-driven migration and the annual cost of the migrant crisis to industrialised countries, an allocation of 5% to African infrastructure in the next five years could make a significant difference. DFIs could assist with credit enhancement, thereby catalysing more co-investments in Africa through this reciprocal initiative.

**8. DFIs NEED TO PROVIDE ADDITIONALITY BY ASSISTING WITH THE CREATION AND SUSTAINABILITY OF A VIBRANT SECONDARY MARKET**

Asset recycling and refinancing are the first major steps to credibly demonstrate an investable pipeline. The African Development Bank was encouraged, recognising its leadership position and its high quality infrastructure portfolio of operating infrastructure assets, to initiate the development of a secondary market for African infrastructure. This is about building an alignment between DFIs and heads of state, both of whom have attractive portfolio projects and assets that can trigger and initiate this secondary market. This is necessary both to develop local capital markets and to attract investors.



**9. DFIs SHOULD DEVELOP INNOVATIVE APPROACHES TO CROWD IN INSTITUTIONAL CAPITAL**

Promote innovative strategic platforms and programmes, such as the IFC's Managed Co-Lending Portfolio Program (MCPP).

**10. MULTILATERAL FINANCIAL MARKET REGULATION SHOULD HELP, NOT HINDER, INVESTMENT GOALS**

Decisions from the global financial regulatory system in which African regulators participate, such as the Financial Stability Board (FSB), wield immense influence over capital flows to Africa. It is proposed that global financial market regulators should be given a mandate by the FSB to evaluate consequences for capital flows to African and emerging markets resulting from their decisions, which should help, not hinder, the developmental programmes (UN SDGs, Agenda2063, Financing for Development, etc.) that their respective governments are subscribed to.

Regulators are encouraged to review the prescribed geographic, asset class and quantitative limits to ensure they assist, not hinder, asset owners' ability to invest cross-border up to 5% of their portfolio in African infrastructure. The next steps will be for NEPAD-CBN to workshop an action plan for the stakeholders on each recommendation as part of the 5% Agenda roadmap.



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# Appendix 1.

## Communiqué

# **THE CONTINENTAL BUSINESS NETWORK (CBN)**

**Communiqué issued at the launch of the NEPAD 5% Agenda on increasing institutional investment in Africa's infrastructure:**

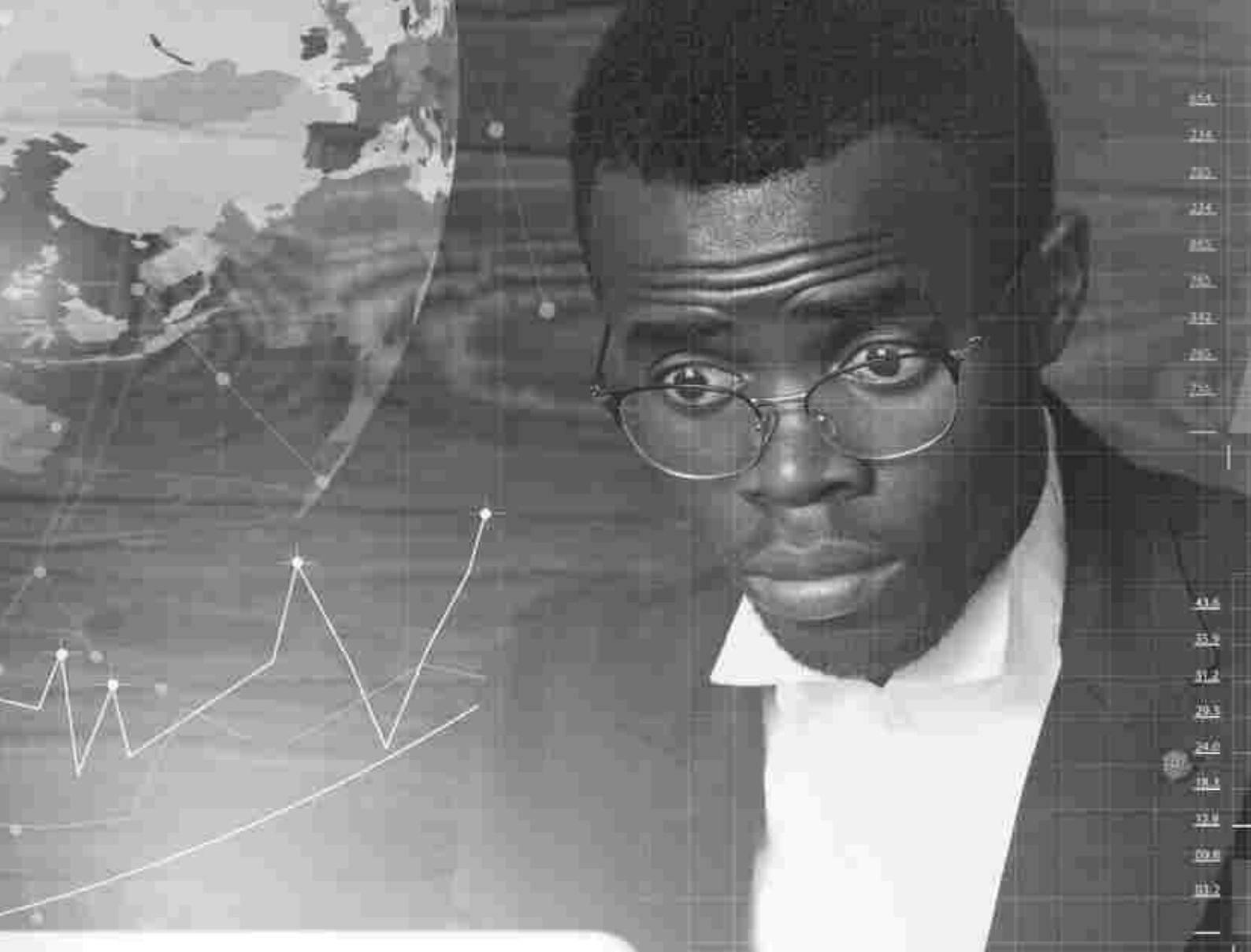
## **Mobilizing Domestic Pension and Sovereign Wealth Fund Capital for PIDA and other African Infrastructure Projects**

- 1** We, the leaders from Africa's pension and sovereign wealth fund community and development finance institutions, global institutional investors, Heads of African stock exchanges and infrastructure finance specialists, collectively responsible for over USD 20 trillion of investment capital, and Members of the NEPAD Continental Business Network, met at NASDAQ in New York on 18th September 2017, under the leadership of H.E. Moussa Faki Mahamat, Chairperson of the African Union Commission, to launch the 5% in 5 Years Agenda on increasing institutional investment in Africa's infrastructure.
- 2** We recall that at the 18th ordinary African Union (AU) Summit in Addis Ababa, Ethiopia, in January 2012, the African Heads of State and Government adopted PIDA, the Programme for Infrastructure Development in Africa. The PIDA Priority Action Plan (PIDA-PAP) comprises 51 cross-border infrastructure programmes consisting of more than 400 actionable projects in four sectors – energy, transport, trans-boundary water and ICT – to be implemented until 2020.
- 3** We note the global consensus on the imperative of addressing the large finance deficit for PIDA-PAP implementation and infrastructure development in general in Africa. As stressed by the Dakar Financing Summit (DFS) in 2014, an increased form of collaborative public-private initiatives is necessary to mobilise risk capital that accelerates PIDA project implementation. Accordingly, we further take note that the NEPAD Agency was mandated by the DFS to increase and coordinate the private sector participation in PIDA projects through the establishment of the PIDA Continental Business Network (CBN).
- 4** We express our commitment to strengthen the CBN as a NEPAD and AU initiative that enables private sector leaders to communicate recommendations to high-level African policymakers on how to improve the investment climate for infrastructure. We acknowledge the CBN as a platform for increased private sector involvement in PIDA project preparation and implementation.
- 5** We note that institutional investors, in the form of pension and sovereign wealth funds, have emerged as a potentially ideal financing source to close the infrastructure finance gap in Africa. Against this background, the CBN in its last report on de-risking large-scale infrastructure projects in Africa recommended the creation of an African Pension and Sovereign Wealth Fund Infrastructure Co-Investment Platform in order to mobilise institutional investors, who are foundational to sustainable and inclusive development on the continent, to finance infrastructure projects.
- 6** We call upon policymakers to create an environment for Pension and SWFs that enables them to invest in large-scale infrastructure projects in Africa. Chief amongst these matters is the need to reform national and regional regulatory frameworks that guide institutional investment in Africa. Likewise, new capital market products need to be developed that can effectively de-risk credit and allow these African asset owners to allocate finance to African infrastructure as an investable asset class in their portfolios.
- 7** We highly appreciate that NEPAD, under the guidance of the CBN, has initiated a revolutionary campaign that is Africa-led and Africa-owned, aimed at increasing the allocations of African asset owners to African infrastructure from its currently low base of approximately 1.5% of their assets under management to an impactful 5%.

# APPENDIX 1: COMMUNIQUÉ

- 8** We express our commitment to this 5% Agenda as a new partnership framework, designed to engage and harness the capital and expertise of Africa's institutional investment community, especially African pension and sovereign wealth funds, to assist meeting the financing gap that is currently hindering the development, operations and maintenance of essential infrastructure assets, holding back the continent's economic competitiveness, integration and social progress.
- 9** We support the overall objective of this 5% Agenda, which is to develop a concrete and feasible roadmap to increase allocations of African institutional investors to African infrastructure development to the declared 5% mark. This roadmap, developed by the NEPAD Agency, will outline very concrete steps and expected outcomes to notably increase institutional investment in Africa's infrastructure, with a focus on regional/PIDA infrastructure projects as a key mandate of the NEPAD Agency.
- 10** We congratulate the NEPAD Agency for steering the necessary dialogue that convenes key stakeholders responsible for investment allocation decisions, most notably investment banks, pension funds, SWFs, credit rating agencies, financial policy experts and regulators, policymakers, project owners, capital markets professionals, etc. These stakeholders will provide input to the above roadmap and will support the implementation of this roadmap. We highly appreciate the support of the African Union Commission to this agenda.
- 11** We request the NEPAD Agency to assist pension funds, SWFs and Member States to address and reform regulatory, institutional and investment frameworks and identify and develop a pipeline of pilot projects to enable African institutional investors to allocate funds to African infrastructure as an investable asset class.
- 12** We take note of the growing support from development finance institutions (DFIs) in terms of grant and concessional lending towards Africa's infrastructure development. We further call upon DFIs to provide guarantee instruments that will encourage institutional investors and the private sector to increase their investment in Africa's infrastructure within the next five years.
- 13** We expect the 5% Agenda to have the following impact:
  - a. Unlocking notable and measurable pools of needed capital to implement regional and domestic infrastructure projects on the continent.
  - b. Broadening and deepening the currently very shallow African capital markets, whilst at the same time contributing significantly to regional integration and job creation.
  - c. Promoting the development of innovative capital market products that are specific to the continent's challenges and potential in regards to infrastructure development.
  - d. Raising the investment interest of other institutional and non-institutional financiers, who thus far have been hesitant to include African infrastructure projects as an asset to their investment portfolio, based on specific, concrete next steps and project suggestions.
- 14** We fully support the NEPAD CBN 5% Agenda and together with the NEPAD Agency, we have identified the following way forward for policymakers to champion for the successful implementation of the NEPAD CBN 5% Agenda:
- 15** The Way Forward
  - After broad consultation with leading institutional investors (i.e. African Pension and Sovereign Wealth Funds present at this launch and in support of the 5% Agenda) and African Finance Ministers, the Communiqué will be submitted to the next African Union Summit through the African Union Commission in January 2018 with the objective of a Draft Decision on the Agenda by African Heads of State and Government.
  - Furthermore, the 5% Agenda shall be submitted for recognition by the Presidential Infrastructure Champion Initiative (PICl) during a breakfast meeting. Subsequently, the Communiqué, including a detailed roadmap and background report, will be submitted to the African Finance Ministers Meeting for discussion in March 2018.
  - After the adoption of the initiative by African Structures, the 5% Agenda will be introduced into global processes, namely during the World Bank Spring Meetings in April 2018, the next G7-Summit in Canada and the following G20-Summit in Argentina in July 2018.





# Appendix 2.

## **Case Study:**

Batoka Gorge Hydro Scheme

# BATOKA GORGE HYDRO SCHEME

## PROJECT DESCRIPTION

### CONTEXT AND OBJECTIVES

Development of a hydropower scheme on the Zambezi River 54km downstream of Victoria Falls (“the Project”) has been investigated in various forms since 1904, when geological investigations for potential sites commenced. Between 1972 and 1998 several studies investigated Batoka Gorge as a potential site for a hydroelectric scheme.

In 2014, ZRA appointed Studio Pietrangeli Consulting Engineers (Studio Pietrangeli) to update the Engineering Feasibility Study prepared in 1992 by the Batoka Gorge Joint Venture Consultants. ZRA also appointed Environmental Resources Management Southern Africa (Pty) Ltd. (ERM) to update and carry out an Environmental and Social Impact Assessment (ESIA), and Ernst & Young (EY) to advise on the financial, legal and commercial aspects of the project. A quantitative options analysis was prepared by EY in 2016 (2016 Options Analysis) that included a preferred commercial structure for the Project based on international market soundings undertaken. The 2016 Options Analysis is the source of financial information contained in this PIM.

### PROJECT LOCATION

The Project is to be located in the central portion of the Zambezi River Basin, and will extend across the international boundary between Zambia and Zimbabwe. It will be situated upstream of the existing Kariba Dam hydroelectric scheme on the Zambezi River and downstream of the Victoria Falls (see Figure 1).

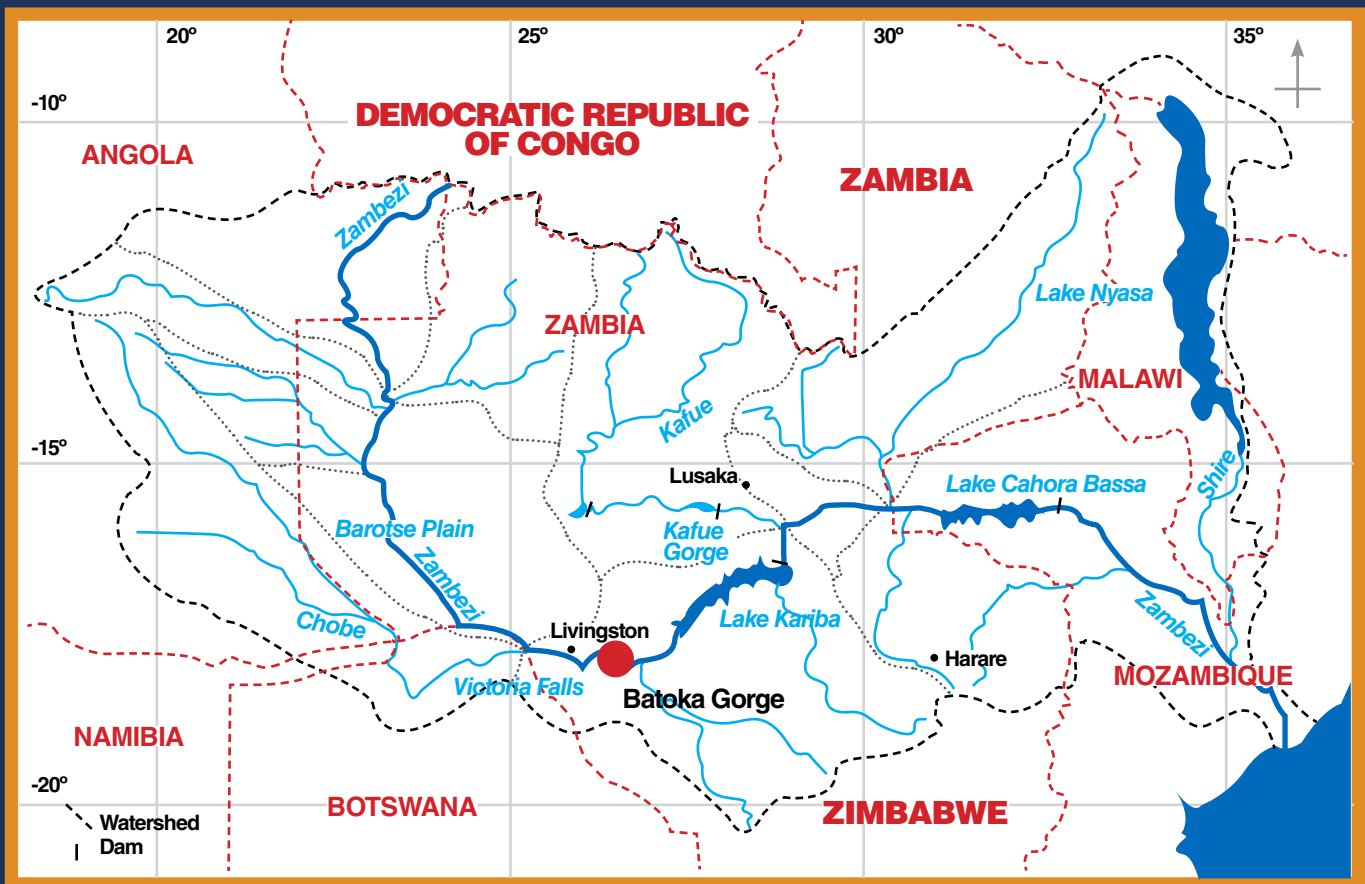


Figure 1. Project location along Zambezi River.

## IMPLEMENTATION STAGE & PROJECT STATUS

According to PIDA's Priority Action Plan (PAP), the Project's status is 'S3 – Project Structuring, Transaction Support & Financial Close'. However, there are three core components of the Project's implementation, which need to be completed before the mobilisation of funding can be finalised, namely (1) a technical feasibility assessment, (2) an environmental and social impact assessment, and (3) legal and financial structuring. The progress of each of these is noted below:

- **Engineering Feasibility Studies (EFS):** The review and updating of the Engineering Feasibility Studies, being undertaken by Studio Pietrangeli, is expected to be completed by the end of 2017. These studies involve the review and updating of the 1993 Engineering Feasibility Studies of the proposed scheme.
- **Environmental and Social Impact Assessment (ESIA) Studies:** The assessment of the environmental and social impacts of the proposed scheme and development of strategies to mitigate any identified negative impacts and enhancement of identified positive impacts is in progress. The studies are being undertaken by ERM, and are expected to be completed by the end of 2017.
- **Legal and Financial Transaction Advisory (LFTA) Services:** The Authority has appointed a consortium of EY, Tata Consulting Engineers and Webber Wentzel to provide transaction financial and legal advisory service for the development of the Project. The services expected to be completed by [the end of 2017].

The preparatory activities will be followed by mobilisation of funds and procurement of developers/contractors. Thereafter, construction works will commence leading to commissioning of the project, which is targeted for 2024.

## DELIVERY & BUSINESS MODELS

A number of commercial structures, ranging from privately owned, operated and financed to publicly owned, operated and financed were evaluated during a qualitative options analysis. In December 2016, the Council of Ministers approved the preferred commercial structure for the Project based on the following key criteria, namely:

- The need to minimise the amount of additional debt on each countries' balance sheet;
- Feedback from an international market sounding process; and
- Results from a qualitative options analysis undertaken.

The Council of Ministers adopted a split commercial structure whereby the dam would be owned by ZRA, and the power plants would be developed under a project finance structure and owned by Special Purpose Vehicles ("SPVs") with equity being provided by the private sector and the relevant country's utility, and debt being raised from the private sector and DFIs. The dam will be financed by debt and grants raised by the respective countries, and then on-lent to ZRA through subsidiary agreements between the Authority and the governments of Zambia and Zimbabwe. This commercial structure is summarised in Table 1.

	<b>OWNERSHIP</b>	<b>FINANCING</b>
NORTH BANK POWER PLANT	North Bank Power Co.	Public / Private
DAM	ZRA	Public
SOUTH BANK POWER PLANT	South Bank Power Co.	Public / Private

Table 1. Selected commercial structure for dam and power plants.

The dam will be delivered under a design and construction contract (i.e. an EPC contract) and ZRA will select a contractor through a competitive tender process who will undertake the detailed dam design and construction. ZRA will operate and maintain the dam and will be compensated via water payments made by the SPVs or Power Companies in accordance with the terms of their water supply contracts. ZRA may choose to subcontract certain services if the necessary expertise or capacity is not available in-house, such as the periodical major maintenance of the dam wall. Figure 2 illustrates these ownership and contracting structures.

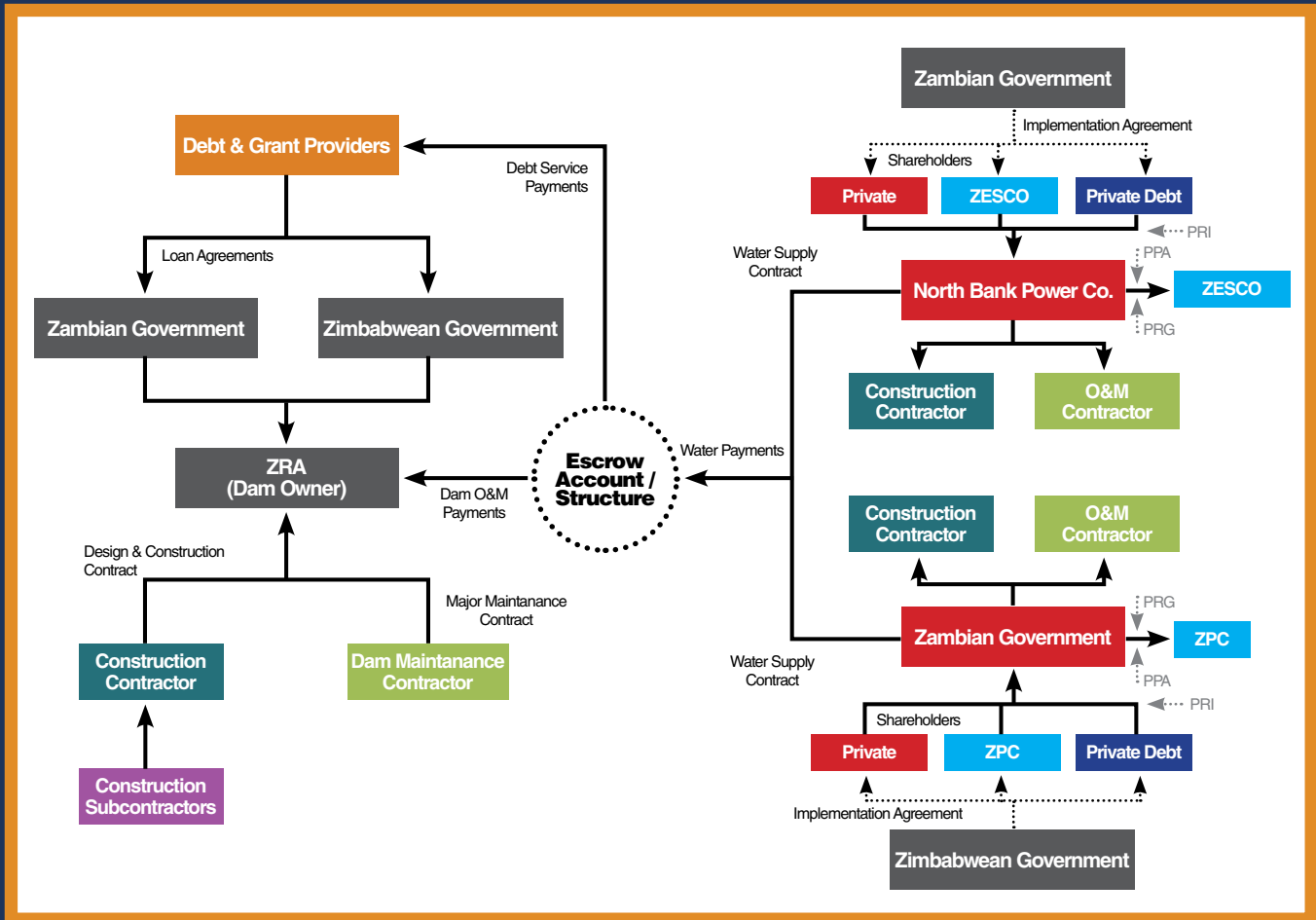


Figure 2. Selected ownership and contracting structures.

Financing for each power plant (i.e. South Bank Power Co. and North Bank Power Co. collectively referred to as the SPVs) will be undertaken based on project finance structure with a combination of equity and debt finance. An EPC contract has been identified as the best form of contract for the power plants and is fairly standard for projects developed under this type of structure.

Each SPV will be responsible for financing and constructing their respective power plants. Operations and Maintenance for the power plant will also be the responsibility of the SPVs who will enter into O&M contracts to deliver these services. The SPVs will enter into power purchase agreements (PPAs) with ZESCO and ZPC which will be supported by back to back Power Export Agreements (PXAs) between ZESCO/ZPC and other regional utilities. The Council of Ministers approved a procurement strategy in December 2016 that will require four separate procurement processes for the following Project components:

- Financing of the dam;
- Construction of the dam;
- North Bank SPV (including design, construction, financing, operations and maintenance); and
- South Bank SPV (including design, construction, financing, operations and maintenance).

Transmission infrastructure and the water transfer tunnels in each country have been included as part of the scope of the respective power plant SPV's construction and financing obligations. At commissioning the transmission infrastructure will be transferred to the respective utilities that will then operate and maintain these assets in the usual manner.

## REVENUE MODEL

### Water Payments

ZRA will be entitled to water payments under the water supply contracts which will be paid into an escrow account by the two SPVs. The water payments will be structured to comprise both a capacity charge (to cover fixed costs and debt repayments) and a variable charge. The payment mechanism for the water supply agreement assumes that the hydrological risk (in terms of reduced volume of water flow, and hence reduced power supply) will predominantly be taken by the utilities and ultimately power consumers. However, the following mitigating measures have been proposed to reduce the risk to the utilities and the power consumers, namely:

- Establishment of a cash reserve via a capacity charge margin which could be used to fund debt repayments during periods of sustained low water flow.
- The utilities may take out weather related insurance to cover certain low probability events.
- The utilities may take some of the risk exposure in the short term, which could be recouped over time from higher energy tariffs to end users.
- Government support in the form of top up payments during periods of reduced water flow.

The water payments will be passed through to ZESCO and ZPC via two PPAs and ultimately to power purchasers.

### PPA Payments

The capital expenditure (capex) costs of constructing the two power plants and the annual operation and maintenance costs of the plants will be passed on to ZESCO and ZPC via the two PPAs. The power purchase agreements ("PPA") between the SPVs and ZESCO/ZPC will have a 'tariff' which is split between:

- An availability charge for making their power plant available to provide power and this charge will cover the capital expenditure involved in building the power station, water payment capacity charges as well as its fixed operating expenditure; and
- A usage charge for the marginal cost of generating power as and when required and such charge usually covers the cost of the fuel (and in this case, the variable component of water payments) required for the facility to generate power.

Under the proposed tariff arrangement, the flow of funds to the SPVs are not wholly dependent on the amount of power required by ZESCO/ZPC or the regional utilities that they are supplying, as the availability charge is required to be paid to the SPV whether or not power is required by the purchaser of such power.

In terms of political support for the Project, it is evidenced by the involvement of the Council of Ministers who approved a commercial structure for the Project in December 2016.

## IIPP OPPORTUNITIES

The Dam will be owned and financed by ZRA, and delivered using an Engineering, Procurement and Construction (EPC) contract; therefore, an opportunity exists for the private sector to act as EPC contractor.

The power companies or SPVs present the larger opportunity for private sector participation, as they will be developed using an independent power producer (IPP) model that will require the private sector to provide equity and to raise debt funding. The SPVs will also enter into EPC contracts for the construction of the two power plants and associated infrastructure.



# Appendix 3.

## **Case Study:**

Tanzania Chalinze - Dar Es  
Salaam Toll Road

## TANZANIA CHALINZE - DAR ES SALAAM TOLL ROAD PROJECT DESCRIPTION

### CONTEXT AND OBJECTIVES

The Government of Tanzania (“GOT”) has identified the need to construct a new 144km long expressway toll road between Dar es Salaam and Chalinze (“The Project”), which is part of a much larger ‘Central Corridor’ project between Dar es Salaam, Kigali (Rwanda), Bujumbura (Burundi) and Kampala (Uganda)<sup>1</sup> (see Figure 1).

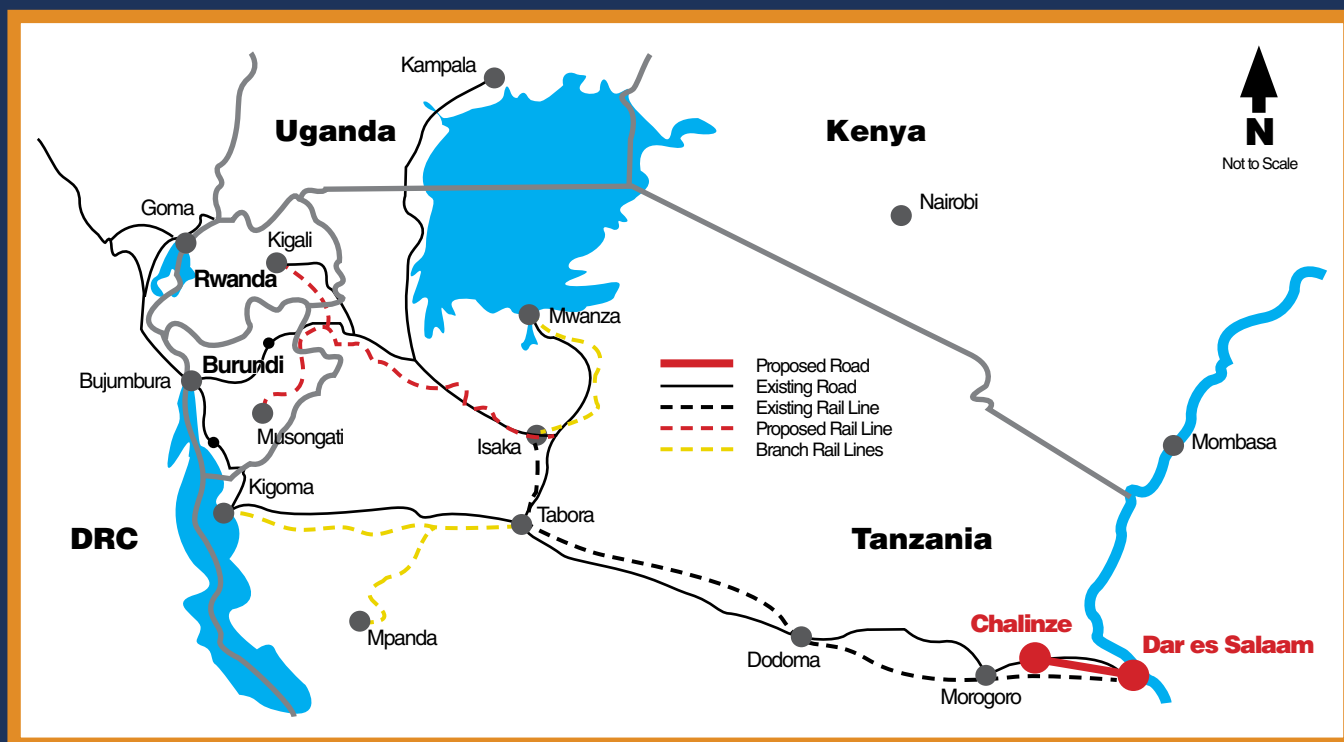


Figure 1. Topographical map showing the planning of the ‘Central Corridor’.

The Project is in line with the GOT’s Investment Plan and Five-Year Development Programme. The GOT, through the Tanzania National Roads Agency (TANROADS), wishes to implement this project as a Public-Private Partnership (PPP), in adherence with Tanzania’s Public Private Partnership Act (No. 19 of 2010).

The Project is expected to significantly reduce travel time on the most congested section of the longer Dar es Salaam – Morogoro Road. TANROADS signed a contract with a consortium led by Cheil Engineering Co. Ltd of South Korea in joint venture with Korea Research Institute for Human Settlements, Korea Expressway Corporation, Sambo Engineering Co. Ltd, Kyongdong Engineering Co. Ltd and in association with Namu Accounting Corp., Jehyun Attorney at Law, Mirae Transportation Co. Ltd, Inter-Consult Ltd, MURL AATEC and Deogratias J. Lyimo & Co. Advocates, to develop a full feasibility study for the Project that was completed in December 2016 (“the Feasibility Study”). The consortium has also been retained as TANROADS’ transaction advisor (“TA”).

### PROJECT DESCRIPTION & LOCATION

The larger Chalinze - Morogoro Road section forms part of the 921km long TANZAM (Tanzania – Zambia) Highway designated as Trunk Road T1 in the Tanzanian Road Network. The existing road comprises a dual carriageway road from Bibititi road junction to Kimara (13.7 Km) whilst the remaining 94.3 km section from Kimara to Chalinze comprises a single carriageway. The Project requires the construction of a new road, adjacent to the existing road, that will give drivers the choice between paying for a superior toll road, constructed to expressway standards, or making use of the existing road. The Project comprises 144km of four and six lane carriageways, 8 interchanges, 7 toll plazas and weigh bridges as well as a number of bridges as depicted in Figure 2 and summarised in Table 1.

<sup>1</sup> The existing Morogoro road from Dar es Salaam to Chalinze serves as a gateway to a number of landlocked countries (Rwanda, Burundi, Malawi, Zambia, Uganda, South Sudan and DRC), connecting them to the regional and global markets via the seaport of Dar es Salaam.

# APPENDIX 3: CASE STUDY

# TANZANIA CHALINZE - DAR ES SALAAM TOLL ROAD

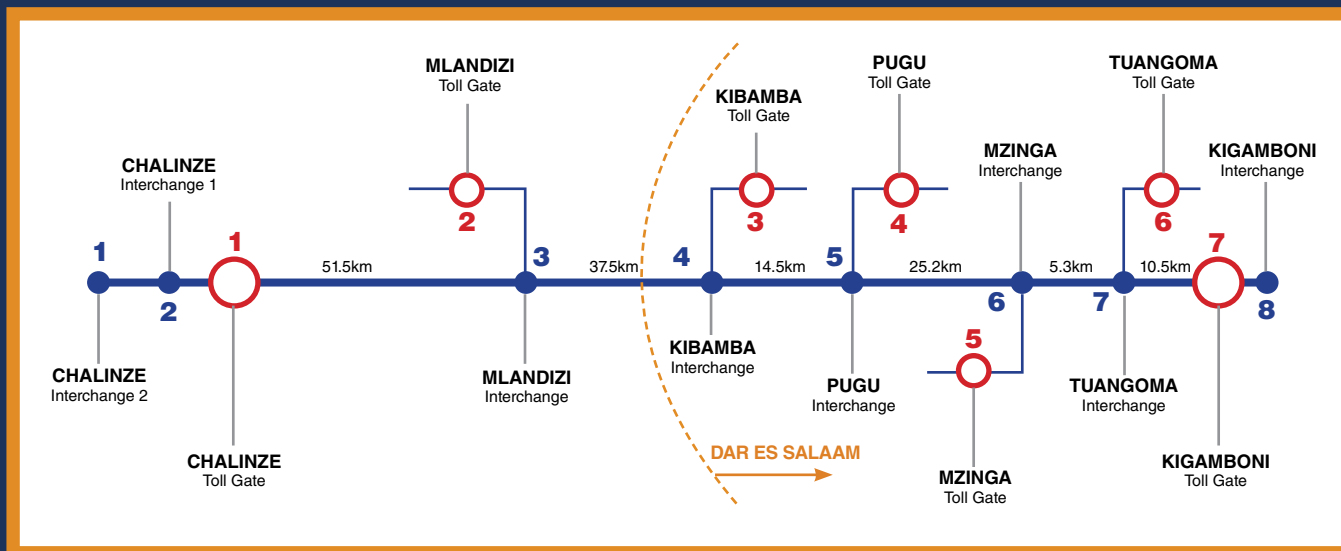


Figure 2. Project's technical components.

ITEM		QUANTITY
TOTAL LENGTH		144km
INTERCHANGE		8 locations
REST AREAS	Major	2 locations (1 location per each direction)
	Truck Parking Area	4 locations (2locations per direction)
TOLL PLAZA	Main	2 locations
	Interchange	5 locations
BRIDGES	<100m	3EA/565.0m
	>100m	40EA/2040.0m
WEIGHBRIDGES		7 locations (in the Toll Plazas)

Table 1. Summary of technical component quantities and standards.

The Feasibility Study did an analysis of the number of lanes required on the expressway. Table 2 shows the required lane capacities over the design life of the Project, thus informing the number of lanes to be constructed between each interchange (IC).

CLASSIFICATION	REQUIRED CAPACITY (ONE WAY)		YEAR REQUIRED
	2041	2047	
KIGAMBONI IC - TUANGOMA IC	2 lanes	2 lanes	(3 LANES)
TUANGOMA IC - MZINGA IC	2 lanes	2 lanes	-
MZINGA IC - PUGU IC	2 lanes	3 lanes	2045
PUGU IC - KIBAMBA IC	2 lanes	3 lanes	2040
KIBAMBA IC - MLANDIZI IC	3 lanes	3 lanes	2036
MLANDIZI IC - CHALINZE IC	2 lanes	2 lanes	-

Table 2. Required lane capacities over the design life of the Project.

The Feasibility Study also assessed a number of transportation planning frameworks including the DART (Dar es Salaam Bus Rapid Transport System), which has a six-phase implementation approach with Phase 1 having been completed. The Feasibility Study concluded that the Project will not adversely impact the implementation of the planned transportation infrastructure in Dar es Salaam, and has taken cognisance of the BRT planning at each intersection in the City.



**PROJECT HISTORY, STAGE AND CYCLE**

Traffic volumes on the existing Dar es Salaam – Chalinze Road currently exceed the road’s design capacity, resulting in severe congestion. The associated long travel times and road safety issues further hamper socio-economic development in the region. GOT as part of its national development plan has decided to construct a new toll road between Dar es Salaam to alleviate the congestion and associated issues. A concept study to develop a toll road through a public private partnership (PPP) was conducted in September 2011 which was followed by a feasibility study in December 2016. The proposed PPP arrangement will require the GOT to enter into a 28-year concession with the private sector which will include a 3-year design and build phase followed by a 25-year operational period.

The Ministry of Finance and Ministry of Works, Transport & Communication and TANROADS approved the Feasibility Study in 2017 and the Request for Proposal (RFP) process has commenced. It is the intention the GOT to achieve financial close by December 2018. To his end, market soundings are about to begin with potential lenders. According to PIDA’s Priority Action Plan (PAP), the Project’s status is S3 – Feasibility/Needs Assessment.

**DELIVERY & BUSINESS MODELS**

The Feasibility Study recommended the commercial/financing structure as shown in Figure 3.

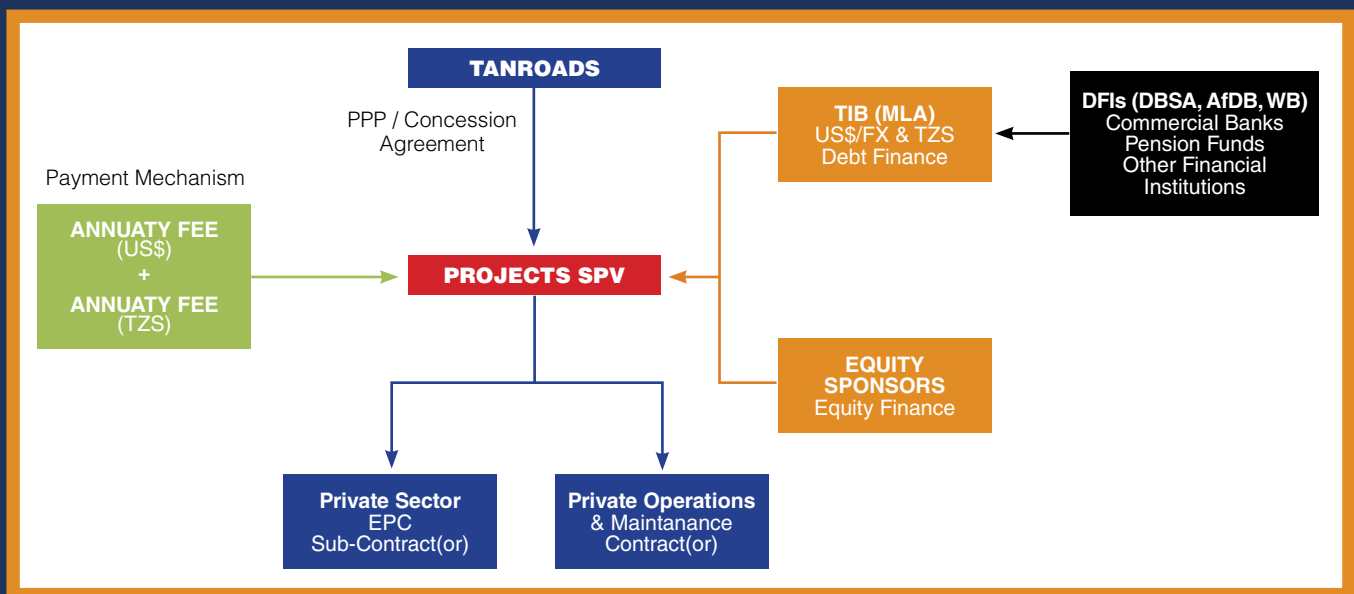


Figure 3. Proposed commercial structure for the Project.

The Project will be executed under Public-Private-Partnership (PPP) arrangement in the form of Build (Design, Build and Finance), Own, Operate and Transfer (BOOT) concession agreement, through the establishment of a Project Special Purpose Vehicle (SPV). GOT will be responsible for the right-of-way acquisitions and the implementation, and associated cost, of the Environmental & Social Mitigation Plan (ESMP) and Resettlement Action Plan (RAP). The Project SPV shall procurement an EPC (Engineering, Procurement and Construction) contractor who will be responsible to do detailed designs and implement the expressway and all its associated building works (interchanges, toll gates, gantries, etc.)

The Feasibility Study recommended an annuity fee mechanism or unitary payment for the private concessionaire which will require the GOT to pay an agreed upon unitary payment to the special purpose vehicle (SPV) that will be granted the concession. The annuity payment will compensate the Project SPV for carrying out the detailed design and construction, maintenance and operation of the road. Tolls collected by the concessionaire as part of its operations of the Project are to be deposited into an Escrow Account from which the unitary payments are to be made. Traffic revenue risk will therefore be borne by GOT as the Project SPV will receive a unitary payment for making the infrastructure available irrespective of actual usage.

The proposed structure assumes that Tanzania Investment Bank (TIB) will be mandated to act as lead arranger to raise the required debt for the Project. It is envisaged that the SPV will enter into loan agreements with lenders backed by a sovereign guarantee from the GOT.

## REVENUE MODEL

Revenues will be generated in the form of toll fees collected by the concessionaire once the Project is commissioned (see Figure 4). All collections will be paid into an escrow account from which unitary payments will be paid on a semi-annual basis to cover debt servicing, operations and maintenance costs and the SPV's equity returns. In the event that toll revenues collected are less than the unitary payment for the period, the GOT will be required to meet the shortfall.



Figure 4. Collection of Project revenues and servicing of finance options.

As illustrated in Figure 5, USD200 million (TZS500 billion) of toll revenue is forecast for the first year of operation and USD12billion or TZS42,077 billion over the 25-year operational period. The toll revenue is forecast to grow to approximately USD900 million (TZS3,800 billion) p.a. by year 25, averaging USD480m (TZS1,683 billion) per annum.

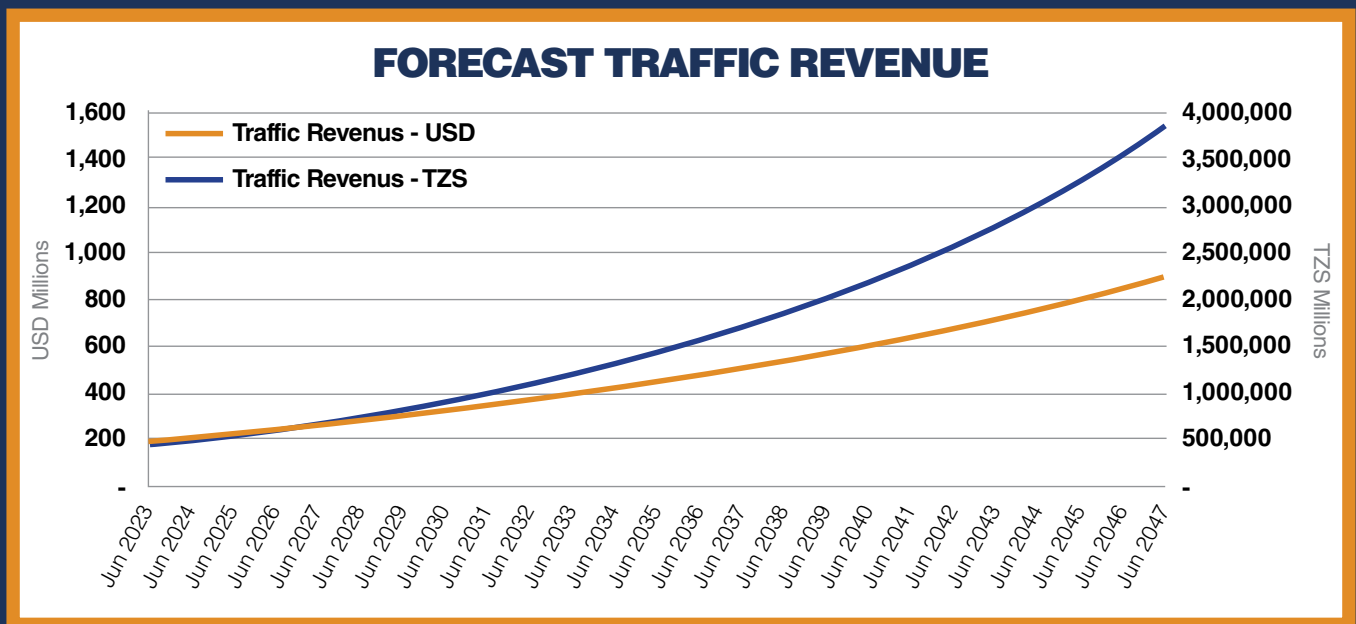


Figure 5. Forecast toll revenue for the Project.

In assessing the revenue flows, the Feasibility Report assumed different toll rates per vehicle type, as shown in Table 3, to forecast expected revenue. The proposed toll fees will be adjusted by inflation annually, modelled at 6% per annum in local currency terms, and are reflect below in 2016 terms.

CLASSIFICATION	AUTOMOBILES	BUS-SMALL	BUS - LARGE	GOODS VEHICLES	ARTICULATED TRUCKS
TOLL RATE(TZS/KM)	80	200	400	200 - 360	480

Table 3. Toll rate assumption used in the Feasibility Study.

The Project will also benefit from third party revenue in the form of rentals at rest/service areas that are forecast to total USD402 million over the 25-year operational period or USD16.1million per annum. The Feasibility Study calculates an annual unitary payment that will allow the SPV to cover its financing, operational and maintenance costs as well as market related equity returns. The unitary appears to be affordable to the Project whilst providing adequate returns to the private sector and is likely to form the main bid parameter during the RFP process.

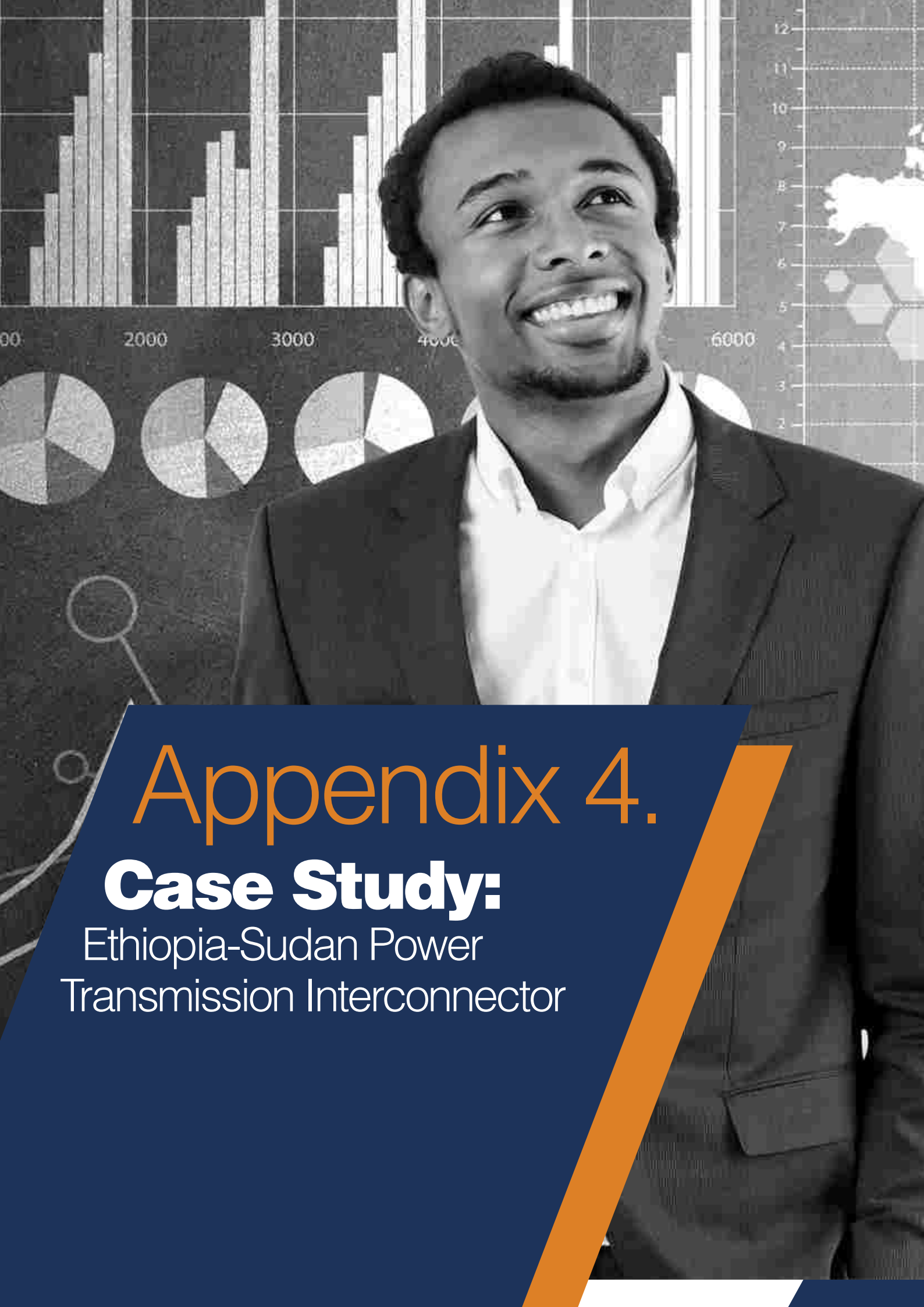
## **IIPP OPPORTUNITIES**

Opportunities exist for institutional investors to provide post construction funding, either via loans to the SPV or by investing in a project bond issued by the SPV. The refinancing would represent an opportunity for the SPV to refinance both Tanzanian Shilling debt and US Dollar denominated debt and for DFI funders to recycle their funding to unlock new projects.

The proposed PPP structure should lend itself to the issue of a project bond as the cashflows of the SPV will be fairly predictable given that GOT will bear traffic demand risk and the SPV will receive an availability based unitary payment, adjusted for inflation. In the event that further credit enhancement is required to issue an investment grade bond, the SPV may require guarantees from either GOT or a DFI.

Potential local investors may include GEPF Retirement Benefit Fund, National Social Security Fund (NSSF), PPF Pensions Fund (PPF) and Public Service Pensions Fund (PSPF). Local commercial banks with an appetite for long term financing are also likely to participate.





# Appendix 4.

## **Case Study:**

Ethiopia-Sudan Power  
Transmission Interconnector

# ETHIOPIA-SUDAN POWER TRANSMISSION INTERCONNECTOR

## PROJECT DESCRIPTION

### CONTEXT AND OBJECTIVES

The Nile Basin Initiative (NBI) embarked on the creation of a regional power market amongst its Riparian States in the '90s, via NELSAP (Nile Equatorial Lakes Subsidiary Action Program), which is one of NBI's investment arms. NELSAP's near-term objective is the development of regional power infrastructure in its member states. Its long-term objective is the creation of a regional electricity market that can play a key role in ensuring that the hydropower resources of the Nile Basin are developed and managed in an integrated and sustainable manner.

Ethiopia and Sudan have some of the lowest levels of electricity generation per capita in the world. For example, in Ethiopia and Sudan only 27% and 45% of the population have access to electricity, respectively. To address this, the larger Ethio-Sudan Power Transmission Interconnection Project ("ESTIP") was identified for fast-track implementation under the Eastern Nile Subsidiary Action Program (ENSAP). In 2014, the Government of Ethiopia (GOE) and Government of Sudan (GOS) represented by Ethiopia Electric Power (EEP) and Sudanese Electricity Transmission Company Ltd. (SETCO), respectively, embarked on the development of an Extra High Voltage (EHV) Power System Interconnection between Ethiopia and Sudan ("The Project"). A topographical layout of the Project's EHV line route is displayed in Figure 1.

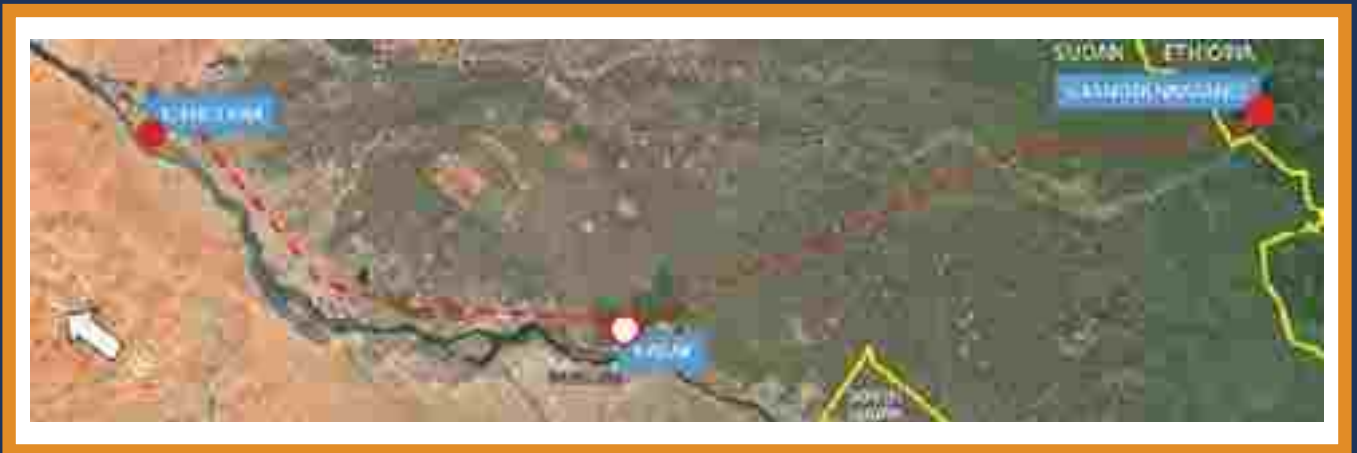


Figure 1. Topographical layout of the proposed EHV transmission line.

The Project, will facilitate power transfer between the two countries as well as those in the Eastern Africa Power Pool (EAPP). The Project also enables Sudan to make use of Ethiopia's cleaner energy resources, most notably, Africa's soon to be largest hydro-electric scheme, the Grand Ethiopia Renaissance Dam project, which will have a generation capacity of 6.45 GW and to which this Project will have a direct connection

### PROJECT DESCRIPTION & LOCATION

The Project comprises a power transmission interconnector between Ethiopia and Sudan, including 580km of new 500kV transmission lines, of which approximately 16km will be in Ethiopia, starting at the Grand Ethiopia Renaissance Dam (GERD), and approximately 564km will be in Sudan, terminating in Khartoum. The Project also includes two new, 500 kV capacitated substations at Rabak and Jebel Aulia (both in Sudan), and power line bay extensions at the following existing substations: Grand Renaissance (500kV Ethiopia), Rabak (220kV, Sudan) and Jebel Aulia (220kV, Sudan). These key Project components are displayed in the electrical single line diagram (SLD) in Figure 2, and a summary on transmission line lengths is provided in Table 1.

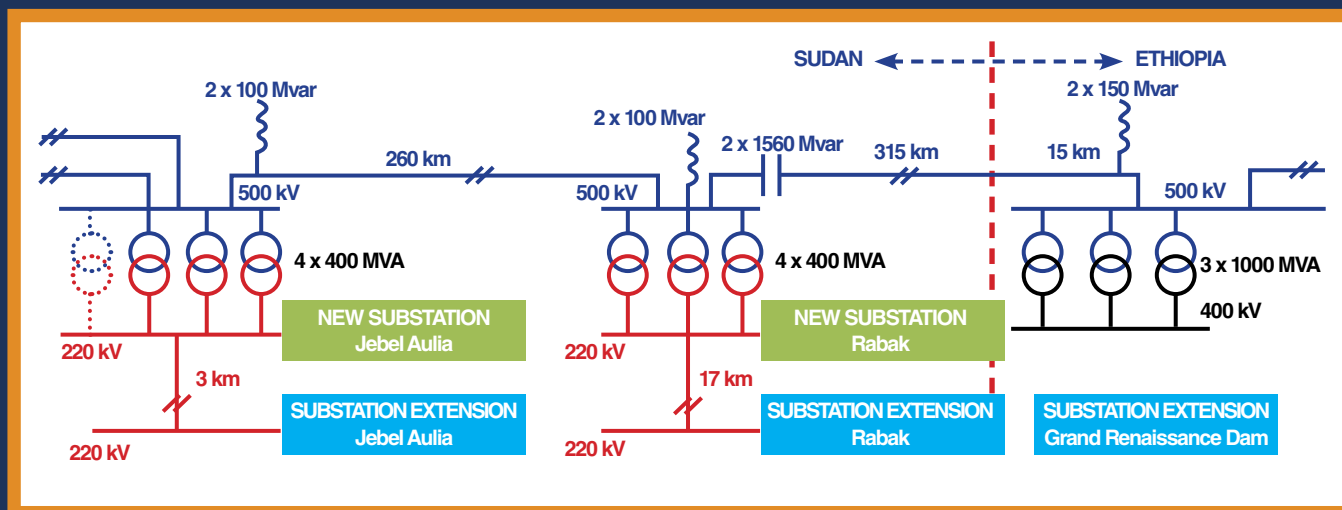


Figure 2. Single line diagram (SLD) showing key components of the power transmission interconnector.

TRANSMISSION LINE LENGTHS	TYPE	COUNTRY	UNITS	QTY
Renaissance Dam – BORDER	500kV DC OHL	Ethiopia	km	16
<b>Sub-Total 500kV</b>	-	Ethiopia	km	16
BORDER – Rabak	500kV DC OHL	Sudan	km	310
Rabak – Jebel Aulia	500kV DC OHL	Sudan	km	254
<b>Sub-Total 500kV</b>	-	Sudan	km	564
<b>Grand Total 500kV</b>	-	Ethiopia & Sudan	km	580
Rabak Substations: Existing – New	200kV DC OHL	Sudan	km	17
Jebel Aulia Substations: Existing – New	200kV DC OHL	Sudan	km	3
<b>Grand Total 200kV</b>	200kV DC OHL	Sudan	km	20

Table 1. Proposed transmission line length for optimised line route.

The entire Project area is mostly flat, except the first 3km where the route line crosses some hills in order to avoid a military area. The transmission line crossing from GERD to Khartoum is largely unhindered, with only two major scheduled crossings, one at the Blue Nile River and the second is the crossing of the 220kV power line of Damazin – Jebel Aulia.

## PROJECT HISTORY, STAGE & CYCLE

The first transmission interconnector project between Ethiopia and Sudan was approved for implementation by the governments on 20th December 2007, and commissioned in December 2013. This earlier project, with a power capacity of 100MW, consists of a new 194 km double circuit 230/220 KV transmission line linking Shehedi (Ethiopia) to Gedaref (Sudan). The Shehedi - Gedaref project gave rise to the following benefits which the Project will seek to emulate, namely:

- 1.4 million households gained access to affordable electricity;
- Both countries have been able to better integrate their reserve capacities, and in the process, improve reliability of supply on the interconnected system and save on capital and operating costs;
- Improvements in reliability and security of supply in both countries have yielded benefits like lighting of schools and homes, better access to social services, and greater opportunities for business development; and
- Ethiopia's increased capacity to export power and generate revenue.

According to PIDA's Priority Action Plan (PAP), the Project's status is 'S3 – Feasibility/Needs Assessment'. It is the intention of the governments to achieve financial close for the Project by January 2018. To this end, market soundings have commenced to market the Project to lenders, short list potential lenders and obtain indicative term sheets for funding.

## DELIVERY & BUSINESS MODELS

Both EEP and SETCO decided to structure the transmission line interconnector as an extension of their existing national electrical grids, to ensure full ownership and control during operations. The total capital costs of the interconnector, including the 200kV and 500kV transmission lines and new and extended substations, will be borne by each utility according to its geographic location. Furthermore, financing will be provided directly to each utility, guaranteed by their respective government. The utilities chose not to explore a PPP model or other private sector participation models, as they believed it would limit their control over the assets during the private concession period.

The implementation model assumes that EEP and SETCO will each procure Engineering Procurement Construction (EPC) Contractors for the sections within their geographical boundaries on a competitive basis. EPC contracts are the most common form of contract used to construct transmission lines.

The State utilities will be compensated for operating the proposed transmission line via tariffs and power export revenues; therefore, it is critical that the Project performs as required in terms of availability, efficiency and reliability. The EPC contracts will therefore be structured to contain performance guarantees backed by performance liquidated damages (PLDs) payable by the EPC contractor if it fails to meet the specifications.

## REVENUE MODEL

In terms of power availability and energy exchange between the two countries, the Feasibility Study concluded that a Bilateral Power Trade Agreement (BPTA) will offer the most appropriate legal framework for the Project. The BPTA will facilitate power trading in a reciprocal manner between Ethiopia and Sudan, irrespective of the power plant that has actually generated the power. Moreover, both parties will at time act as buyers and purchasers, according to price-differentials as well as to market needs. A BPTA typically has fewer requirements than a PPA as it does not explicitly include clauses or conditions on specific power plants and does not seek to ensure bankability of specific assets.

The diagram below (Figure 3) illustrates the counterparties to the BPTA, and introduces the indirect opportunity to strengthen power trade agreements with the Eastern Africa Power Pool (EAPP).

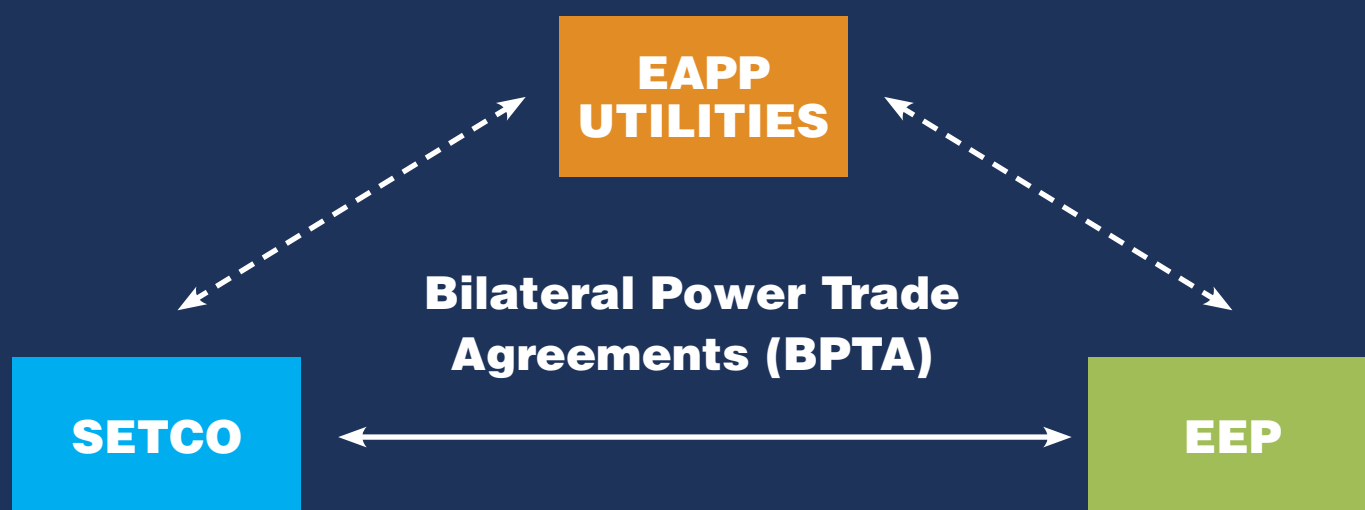


Figure 3. Power trade agreements still to be concluded between countries and EAPP.

## IIPP OPPORTUNITIES

Under the Project's proposed Public Financing model, the primary opportunity to the private sector relates to the physical implementation of the Project via EPC Contracts. The utilities may elect to procure a single EPC Contractor to minimize implementation delays and synchronise integration of the interconnector.

A corporate financing approach was adopted in the Feasibility Study, as requested by both utilities, which assumes that the Project's capital expenditure will be funded using 80% debt and 20% equity and that each utility will fund assets on a geographic basis. Table 8 quantifies the debt that will need to be raised for both sections of the Project as well as the equity that each utility will need to inject to fund the Project's capital expenditure.

DESCRIPTION	ETHIOPIA (US\$000)	ETHIOPIA (%)	SUDAN (US\$000)	SUDAN (%)	TOTAL PROJECT
EQUITY	5,806	20%	96,988	20%	-
SENIOR DEBT	23,224	80%	290,964	60%	-
ZERO-COUPON BOND	-	-	96,988	20%	-
TOTAL CAPEX (EXCL. VAT)	29,030	100%	484,940	100%	513,970
VAT FACILITY	4,355	15%	82,440	17%	86,794
TOTAL CAPEX (INCL. VAT)	33,385	-	567,380	-	600,764

Table 8. Debt and Equity Requirements.

An opportunity exists for Institutional Investors to provide loans to the two utilities that could be used to finance the senior debt portions of the Project, however, it is unlikely that private sector lenders would be able to lend at the rates modelled (i.e. 6% over a 20-year period). It is more likely that concessionary loans will need to be raised from development finance institutions (DFI) such as the African Development Bank (AfDB), World Bank and the Green Climate Fund (GCF) that would attract concessionary interest rates that are closer to those assumed by the Feasibility Study.

Since the project will allow Sudan to replace thermal generated electricity with hydro-electrical generated electricity, the Sudanese section of the Project may be able to raise a combination of concessionary loans and grants from the GCF, given the CO2 benefits that are likely to arise. The GCF could also potentially act as a guarantor to reduce the funding costs offered by other DFIs or commercial lenders to the two utilities. To obtain green climate funding, the Project will need to quantify the carbon emission reductions that will be generated by the Project as part of a funding application.

The zero-coupon bond that has been modelled for the Sudanese section of the Project offers an opportunity for local and regional institutional investors, with an appetite for Sukuk financing, to provide around US\$97 million of funding. The yield assumptions used in the Feasibility Study will however need to be tested with institutional investors as it is significantly lower than yields achieved on a 2012 Sudanese Sukuk issue.

Market soundings should be undertaken with DFIs, the GCF and Institutional Investors to test the funding terms used in the Feasibility and the financial models should subsequently be updated with market tested funding terms. The updated model should allow the two utilities to conclude on the affordability of the Project and the impact on each country's tariff price path.





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