FINANCING AFRICA'S INFRASTRUCTURE DEVELOPMENT

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INTRODUCTION

Africa has enjoyed significant social and economic progress over the past 15 years, with an average GDP growth rate estimated at 4.5% in 2015[1]. Yet, this progress has not resulted in commensurate job creation or meaningful economic transformation. Infrastructure deficit, hard and soft, has been undermining all the efforts towards achieving sustainable development and structural transformation in Africa, particularly in view of a rapidly growing population. Indeed, the emergence of a large middle class estimated at nearly 350 million in 2010 is driving the demand for socio-economic infrastructure including access to water and sanitation. Further, structural transformation and industrialization require adequate infrastructure to power economic activity, fuel industrialization, connect producers to markets, enhance intra-African trade and foster regional integration.

Projections[2] show that: 1. Power demand in Africa will rise from 125 gigawatts (GW) required in 2010 to 700 GW by 2040; 2. Transportation volumes on the continent will increase by up to 6-8 times and even higher for landlocked countries; 3. Port throughput is projected to rise from 265 million tonnes in 2009 to 2 billion tonnes in 2040; 4. Water pressure will increase, endangering Nile, Niger, Orange and Volta basins; and 5. Demand for ICT will multiply by 20 by 2020 and data needs will surge from the 2009, 300 gigabits per second to 6000 gigabits per second in 2018.

Africa's infrastructure has been lagging behind others in developing world. Approximately 60% of the continent's population lacks access to modern infrastructure, which isolates communities, prevents access to health care, education and jobs, and impedes economic growth. Only 38% of the continent's population has access to electricity and there is less than 10% internet penetration rate. In addition, 75% of Africa's road network is unpaved and poor port facilities add 30-40% to intra African trading costs and FDI. According to the World Economic Forum's Global Competitive Index (GCI) 2014-15, more than half of the 20 least competitive countries in the world are found in sub-Saharan Africa, due, in large part, to the region's deep infrastructure deficit.

Africa's infrastructure services cost more than almost any place in the world, according to the Infrastructure Consortium for Africa. For instance, African rural population pay around 60 to 80 times per unit more for her energy than urban population in the developed world. Freight costs in Africa per tonne are USD 0.05 to USD 0.13 compared to USD 0.01 to USD 0.04 per tonne in developed countries, making African markets less competitive on the international level. The situation worsens for the 16 African Landlocked Developed Countries where trading costs are 50 times higher than in African coastal countries.

Bridging the infrastructure deficit imposes itself with urgency to provide well-functioning regional and national infrastructure, including roads, railways and ports, information and communication technology,

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[1] African Economic Outlook 2015

[2] E/ECA/COE/31/17 - AU/CAMEF/EXP/17(VII), Financing the Programme for Infrastructure Development in Africa.

energy facilities and health facilities, and the management of water. Accordingly, African leaders have made infrastructure development a pillar of the development strategy of the continent which is anchored on regional integration and the realization of the African Economic Community enshrined in the 1991 Abuja Treaty. More recently, several blueprints and initiatives emphasized the importance of infrastructure for the continental transformation, as captured with the launch of the New Partnership for Africa's Development in 2001, the adoption of the integrated strategic blueprint for continental infrastructure transformation for 2012-2040, also known as the Programme for Infrastructure Development in Africa (PIDA) in 2012, and the adoption of the African Union Agenda 2063 and its first ten year implementation plan in 2015. Agenda 2063 envisions the development of world class, integrative infrastructure to support Africa's accelerated integration and growth, technological transformation, trade and development through the implementation of PIDA. PIDA envisages the development of 37,200km of highways, 30,200km of railways and 16,500km of interconnected power lines by 2040. It also plans to add 54,150 megawatt of hydroelectric power generation capacity and an extra 1.3 billion tons throughput capacity at the ports. This infrastructure will be a catalyst for job creation, manufacturing, skills development, technology, research and development, integration and intra-African trade, investments and tourism. Intra-African trade is expected to reach 50% by 2045, and Africa's share of global trade to increase to 12% by 2063.

To drive the implementation of PIDA, African leaders have established the Institutional Architecture for Infrastructure Development in Africa (IAIDA) which strengthens coordination among Member States, Regional Economic Communities and key stakeholders.

FINANCING GAPS

Africa's infrastructure development requires significant financing as well as strengthening of the international funding and delivery architecture. According to a study by the World Bank of 2009, the continent needed USD 93 billion per year to fill the infrastructure deficit. For instance, Africa's power sector alone is experiencing a finance shortfall of USD 40-45 billion every year since achieving universal access to electricity in Africa requires investment of about USD 55 billion per year until 2030. Further, the cost of implementation PIDA requires approximately USD 67.9 billion annually until 2020 for the 51 projects included in the Priority Action Plan. The implementation of the remaining projects will require an additional USD 300 billion through 2040. According to the NEPAD Agency, the funding gap stood at USD 31 billion per year which includes 75% of capital investment and 25% of maintenance expenditures.

Table 1: The cost of implementing the PIDA Priority Action Plan by sector

SECTOR	NO. OF PROJECTS	COST (USD BILLION)
Transport	24	24.4
Energy	15	40.3
Transboundary Water Resources(TWR)	9	1.7
ICT	3	0.5
Total	**51**	**67.9**

Table 2: The cost of implementing the PIDA Priority Action Plan by region

REGION	NO. OF PROJECTS	COST (USD BILLION)
Continental	7	3.0
North Africa	2	1.3
West Africa	16	6.2
Central Africa	9	21.5
Southern Africa	6	12.6
East Africa	11	23.3
Total	**51**	**67.9**

Source: *Financing of the Programme for infrastructure Development in Africa (PIDA)*

While international aid has helped in meeting some of Africa's infrastructure need, it has proven to be insufficient and unsustainable. As such, there is need for an unprecedented mobilization of Africa's domestic financial resources and innovative financing. According to a report by the NEPAD Agency and the Economic Commission for Africa (ECA) on "Mobilizing Domestic Financial for Implementing NEPAD National and Regional Programmes and projects – Africa looks within", Africa could effectively fund up to 70% of its projects through domestic resources. For instance the Africa Progress Panel noted that building credible tax systems in African countries could help redirect about USD 21 billion spent on subsidies to wasteful utilities and kerosene to productive energy investment.

FINANCING RESOURCES FOR INFRASTRUCTURE

In 2014, USD 74.5 billion was committed to infrastructure financing in Africa, according to the Infrastructure Consortium for Africa. African national governments committed USD 34.5 billion and the private sector USD 2.9 billion.

Africa cannot successfully mobilize resources without the key role of functioning and effective governments. African governments are responsible for creating conducive environments for investment and for creating private sector friendly policies. An enabling environment for public and private sector engagement involves strong institutions to implement the rule of law, transparency and space for political participation. Governments are also key for the development of a skilled labour force.

Although the private sector in Africa remains small compared to other regions, Africa should leverage private sector investment through Public-Private Partnerships (PPPs). Research shows that the private equity market in Africa is worth USD 30 billion and in 2011 private equity firms in Africa raised USD 1.5 billion in Africa. There is rapid growth in African bond markets as the private sector increasingly invests in government debt instruments such as treasury bills and treasury bonds. Furthermore, banking revenues in Africa, which are estimated at USD 60 billion, also present strong liquidity and capacity for lending.

To bridge the gap, the study by ECA and NEPAD Agency identifies potential sources of finances which include more than USD 520 billion raised annually from domestic taxes in Africa; revenues of about USD 168 billion annually from minerals and mineral fuels; USD 400 billion in international reserves in respective Central/Reserve Banks. In addition, the Stock Market capitalization offers great potentials in view of the increase from USD 300 billion in 1996 to USD 1.2 trillion in 2007.

Table 3: Domestic Financial Resource Potential in Africa

Tax Revenue: USD 520bn p.a.	Rapidly Growing Pension Assets
Mineral Earnings: USD 168bn p.a.	International Reserves: USD 400bn
Diaspora Remittances: USD 40bn p.a.	Diaspora Excess Remittances Costs: USD 2.88bn
Remittances Securitisation Potential: USD 5-10bn	Stock Market Capitalisation: USD 1.2tr (2007)
Private Equity Market: USD 30bn	Private Equity Market: USD 30bn
Bank Revenues: USD 60bn, etc.	Illicit Financial Flows: USD 854bn over 10 years / USD 50bn p.a.

Source: *Mobilizing Domestic Financial for Implementing NEPAD National and Regional Programmes and Projects – Africa Looks Within, NEPAD/UNECA*

Further, since 2011, more than a dozen countries have issued international sovereign bonds for the first time with the objective of financing large infrastructure projects. The Banking sector is highly liquid and offers revenues at about USD 60 billion.

African diaspora remittances climbed to USD 64.6 billion in 2015 and have the potential to generate some additional USD 10 billion annually through securitization and rise up to USD 20 billion when including diaspora bonds. The curtailing of Illicit Financial Flows could make some additional USD 50-60 billion available.

In order to accelerate the implementation of infrastructure projects, the study proposes a series measures and financial instruments which include: the establishment of the Africa Infrastructure Development Fund, the Africa Credit Guarantee Facility, Strategic Development Sovereign Wealth Funds, Regional Stock Exchanges, promotion of Africa-owned equity funds, deepening of Africa's bond markets, sovereign Pension fund and the promotion of new models of Public-Private Partnerships.

Increasing the rate of infrastructure delivery in Africa implies a greater focus on project preparation and project development as well as specialized financial tools to address specific market challenges. In 2012, African Heads of State and Government, in their Declaration on PIDA, called for innovative solutions to facilitate and accelerate infrastructure delivery in Africa. In response, and after broad consultations with African stakeholders, the African Development Bank (AfDB) established Africa50, an innovative vehicle aimed at mobilizing private financing to accelerate infrastructure development in Africa. Africa 50 aims to accelerate the process of implementing infrastructure projects in Africa by mobilizing private finance to fund high-impact projects in energy, ICT, water and transport. The initiative will mobilize both global and local capital, and will likely increase the number of actionable projects in Africa through increased funding of early stage ideas. In order to establish credibility in global markets raise Africa50 aims to raise USD 3 billion in initial equity capital which it will later increase by attracting investors.

KEY AFRICAN INITIATIVES FOR INFRASTRUCTURE DEVELOPMENT

PRESIDENTIAL INFRASTRUCTURE CHAMPION INITIATIVE (PICI)[3]

PICI was established in 2010 following a proposal made by President Jacob Zuma to speed up regional infrastructure development, empowered through political championing of projects. The key roles of the initiative are to increase visibility, manage resource mobilization, unblock bottlenecks, and ensure implementation.

Nine projects, meeting specified criteria, were identified for the initiative each overseen by a political "champion". Selected champions are responsible for bringing visibility to projects, clearing political bottlenecks, providing leadership, leading resource mobilization for project implementation, and ensuring project implementation within 5 years (implementation in this case meaning the projects have progressed from pre-feasibility to feasibility phases, feasibility to construction, or have demonstrable evidence of progress). Table 4 below shows the 9 PICI projects and their estimated costs.

Table 4: The cost of implementing PICI Projects

PROJECT	ESTIMATED COST
Missing Links on the Trans-Sahara Highway	USD102 million
Optic Fibre Link between Algeria and Nigeria via Niger	USD80 million
Nigeria-Algeria Gas Pipeline Project (Trans-Sahara Gas Pipeline)	USD10 billion (48" line) and USD13.7 billion (56" line) (2006)
Dakar-Ndjamena-Djibouti Road/Rail Project	USD2.21 billion for the road link and USD5.95 for the rail section
North-South Corridor Road/Rail Project	N/A. Cost is based on the specific project within the corridor
Kinshasa-Brazzaville Bridge Road/Rail Project	N/A, funded by AfDB
Unblocking Political Bottlenecks for ICT Broadband and optic fibre Projects Linking Neighbouring States	N/A
Construction of Navigational Line between Lake Victoria and the Mediterranean Sea	To be determined
Lamu Port Southern Sudan-Ethiopia Transport Corridor Project	Sh2.7 trillion

Source: *Presidential Infrastructure Champion Initiative (PICI) Report*

[3] Presidential Infrastructure Champion Initiative (PICI) Report

PROGRAMME FOR INFRASTRUCTURE DEVELOPMENT IN AFRICA (PIDA)

Adopted by African Heads of State and Government in July 2012, PIDA aims to facilitate the physical and economic integration of the continent and achieve the aspirations of African people as encapsulated in the transformative AU Agenda 2063.

This programme was born out of the realization of the continent's significant infrastructure deficit and the need for a structured investment programme to overcome it. PIDA uniquely ties together existing infrastructure projects on the continent with a well-analysed, evidence-based list of bankable future projects. The vision of PIDA is to strengthen Africa's regional integration, promote intra-African trade and improve the competitiveness efficiencies of African markets and the development of multimodal corridors to link hinterlands to ports. As such, PIDA has short-, medium- and long-term strategies for infrastructure projects through 2040. The short-term projects are part of the Priority Action Plan (PAP) which includes the first set of feasible projects that are ready for implementation with immediate effect towards achieving the outcomes of PIDA.

THE AFRICAN STRATEGIC INFRASTRUCTURE INITIATIVE

In order to promote the contribution of the private sector into the implementation of PIDA Priority Action Plan, in May 2012, the African Strategic Infrastructure Initiative was launched at the World economic Forum on Africa. The PIDA Business Working Group was then established to facilitate the integration of the private sector concerns to fast-track the implementation of PIDA. More than 40 public and private institutions are member of the BWG which was endorsed by the 20th African Union Summit of January 2013.

DAKAR FINANCING SUMMIT (DFS) FOR AFRICA'S INFRASTRUCTURE

On June 15, 2014, President Macky Sall of the Republic of Senegal and Chair of the NEPAD Heads of State and Government Committee, NEPAD Heads of State and, the NEPAD Agency, the AUC, AfDB, ECA, World Bank and other partners convened for the Dakar Financing Summit (DFS) for Africa's Infrastructure in Senegal. The Summit's objective was to identify sustainable and innovative financing mechanisms for 16 high-impact and actionable infrastructure projects. The summit consisted of high-level discussions with decision makers and subject-level experts. The outcome of the summit, entitled the Dakar Agenda for Action (DAA), contained momentous declarations and endorsements.

1. The DAA endorsed the African Development Bank's Africa50 initiative, which will serve as an African infrastructure investment platform.

2. The DAA called for the creation of more Africa-owned private equity funds to increase Africa's ownership of its own development.

3. The DAA urged domestic mobilization of resources, as well as increased private sector involvement and innovative financing mechanisms through financial markets such as infrastructure bonds, diaspora bonds and sovereign backed pension funds.

4. The DAA highlighted the need for strong political will by African governments and corresponding Regional Economic Communities (RECs) in implementing and investing in infrastructure projects. The DAA encouraged governments to increase awareness of PIDA by all stakeholders and to prioritize the financing of the selected 16 infrastructure projects.

5. The DAA also endorsed the establishment of the Continental Business Network (CBN) on Infrastructure Financing, organized by the NEPAD Agency and other partners. The CBN will comprise finance and business institutions from throughout the world for joint-planning on capacity building, project preparation and implementation.

6. The DAA also emphasized the need to improve the capacity of the NEPAD Infrastructure Preparation Facility (IPPF) to develop well-organized projects, the urgent need for energy infrastructure and ICT technology to boost industrialization and the importance of strong financial and legal procedures to promote PPPs.

CONTINENTAL BUSINESS NETWORK

As an outcome of the Dakar Agenda for Action, the Continental Business Network on Infrastructure Financing was launched in June 2015 to provide African Heads of States with an Infrastructure Investment Advisory platform and drive infrastructure investments through improved project preparation, capacity development and overall project implementation.

GLOBAL INITIATIVES IN SUPPORT OF AFRICA'S INFRASTRUCTURE DEVELOPMENT

THE INFRASTRUCTURE CONSORTIUM FOR AFRICA (ICA)

The Infrastructure Consortium for Africa (ICA) was established in July 2005 as a recommendation to the G8 Summit in Gleneagles (UK) by the Commission for Africa, in order to help improve the lives and economic well-being of millions across the continent, by supporting the scaling up of investment in project development from public and private sources, through both regional programmes and country-specific initiatives. ICA is not a funding agency. However, ICA provides a platform to catalyse a step-change in the financing of infrastructure projects and programmes across the continent. The ICA also helps to overcome technical and political challenges to building more infrastructure, and it helps to improve understanding of Africa's infrastructure development needs through the provision of better information. In this regard, ICA has established a Project Preparation Facilities Network to help address problems associated with project preparation, and a study on best practice and lessons learnt in coordinating project co-financing, information sharing and resource mobilisation. As well, ICA through its annual flagship report monitors resource flows to infrastructure.

SUSTAINABLE ENERGY FOR ALL INITIATIVE

The UN Secretary General's Sustainable Energy for All (SE4ALL) Initiative was launched in September 2011 with the aim of achieving three main goals by 2030: 1.Ensure universal access to modern energy services; 2.Double the global rate of improvement in energy efficiency; and 3.Double the share of renewable energy in the global energy mix.

Africa has been at the forefront of the implementation of the SE4ALL Initiative with 42 countries that opted-into the initiative. Since May 2013, the African Development Bank has been hosting the SE4ALL Africa Hub in partnership with the African Union Commission (AUC), the NEPAD Planning and Coordination Agency (NPCA) and the United Nations Development Programme (UNDP).

Among the key instruments to implement SE4ALL, the Sustainable Energy Fund for Africa (SEFA) was established in 2011 at the African Development Bank with Denmark's commitment of USD 56 million to allow the Bank to scale-up its engagement in the small to medium-sized renewable energy and energy efficiency space. In 2013, SEFA was transformed into a multi-donor facility with an initial USD 5 million commitment from the United States as part of a multi-year engagement under

President Obama's Power Africa Initiative.

SEFA operates through three financing components all focused on unlocking private investments in small to medium sustainable energy projects:

(i) grants to facilitate the preparation of bankable projects;
(ii) equity investments to bridge the financing gap and infuse managerial capacity and
(iii) support to public sector in improving the enabling environment.

Since its inception, SEFA has played a key role in structuring the first truly Pan-African USD 150 million private equity fund focused on renewable energy, African Renewable Energy Fund (AREF), for which it will also be an anchor investor with up to USD 35 million.

CHALLENGES TO INFRASTRUCTURE DEVELOPMENT

Challenges impeding the financing of infrastructure include high transaction costs, the limited number of "bankable" projects, the multiplicity of regulations, permits and licenses required, and the various governmental agencies and institutions which investors have to deal with in a typical infrastructure project. Additionally issues such as illicit financial flows and the banking sectors emphasis on short term loans and deposits, also impede potential funding sources. There are also challenges related to lack skills availability for project preparation and implementation as well as divergence in legal systems in the context of regional projects.

WAY FORWARD

It is imperative to accelerate the implementation of infrastructure projects in Africa, particularly through mobilizing adequate financing from domestic, private and innovative sources of funding.

It is critical for governments, private sector and development partners to support the preparation of bankable projects. Special assistance should be provided to the "PIDA Technical Assistance (TA) Facility", located at the NEPAD Agency, to support the acquisition of immediate technical expertise, as well as the development of Member States' skills capacity through on the job-training of officials working in key government entities.

It is important to consider innovative financing products such as Listed Special Purpose Vehicles, as well as to tap into African financial markets, Diaspora remittances, intra-African investment and sovereign wealth funds.

It is critical to implement the Dakar Agenda for Action while paying a particular attention to encouraging private sector involvement in infrastructure development and promoting public private partnerships.

African governments should provide an enabling environment for infrastructure development, including through building appropriate institutions and legal frameworks.

African governments should also promote policies that encourage indigenous or local "champions" who, through their entrepreneurial efforts, can drive regional infrastructure projects that are both financially profitable and socially beneficial.

In order to attract investors, it is critical to reduce transaction costs (such as taxes, fees, dues, levies, etc.) payable by investors and financiers.

It is important to transform continental champions such as the African Union Commission, RECs ECA, OSAA, the NEPAD Agency, the African Development Bank, and the Africa Finance Corporation, into resource centres to facilitate public-private sector dialogue.