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Bridging the gap: ensuring execution on large infrastructure projects in Africa

Nearly three-quarters of infrastructure projects in Africa are simply not getting off the ground. We explore why insufficient funding is not the primary reason that Africa still has such a large infrastructure backlog. Looking at successful projects and those that have stalled or failed altogether can help to provide answers as to how Africa can bridge its infrastructure gap more successfully.

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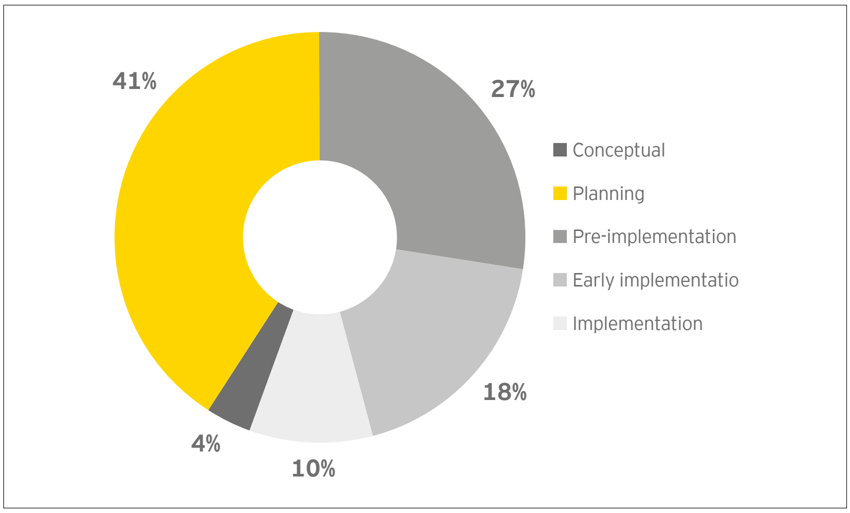
Africa has seen great economic growth over recent years and is expected to continue growing at an average rate of 6% annually between 2013 and 2023.[1] However, one thing that may hinder Africa's growth prospects is its lack of infrastructure. The absence of adequate infrastructure is said to cost Africa approximately two percentage points off GDP growth per year.[2]

In order to better understand Africa's infrastructure deficit, EY has built a database of active large infrastructure projects in Africa, using information sourced from Africa Project Access. Of 196 active projects in our database, 141 (72%) are still in the conceptual, planning or pre-implementation phase. In other words, only 28% of projects are being implemented (see Figure 1).

Despite being recognized as being essential for the growth and competitiveness of a country, many large infrastructure projects are simply not getting off the ground. Lack of funding is often cited as the biggest reason behind Africa's infrastructure gap. According to the World Bank, Africa needs to spend about US$93b annually until 2020 to bridge its infrastructure gap.[3] As daunting as that sounds, half of this amount is already being financed by African governments, multilateral and bilateral sources of finance, and official development assistance (ODA). Europe is the biggest ODA financier in Africa, funding more than US$4b annually to the continent.[4]

At the same time, new sources of finance are surfacing. For one, African governments have increased their own investments in infrastructure. In addition, regional development banks are playing an increasingly important role. For example, the African Development Bank recently signed a cofinancing deal with China worth US$2b for infrastructure and industrial development.[5] There has also been an increase in intra-African investment, showing an improvement in regional integration. Crucially, as the second most attractive investment destination in the world,[6] the continent has become an attractive market to private investors. In 2012, US$12.8b was invested by the private sector into new or expanded infrastructure projects in Africa.[7] All 196 infrastructure projects in the EY database have some form of financing.

Figure 1. Active infrastructure projects in Africa, by phase



Source: Africa Project Access; EY analysis.

1. *Africa Overview*, World Bank, 2013.
2. *Boosting African Trade: Cross-Border Harmonisation of Transport Policy and Regulation*, The Infrastructure Consortium for Africa, 2013, http://www.icafrica.org/fileadmin/documents/ICA_meeting/2013_Annual_Meeting/PLENARY%20BACKGROUND%20PAPER_Oct30.pdf, accessed April 2015.
3. *Strategic Infrastructure in Africa: a business approach to project acceleration*, World Economic Forum, 2014.
4. "European Development Financing in Africa," *Business Day*, 2014.
5. http://www.afdb.org/en/news-and-events/article/afdb-announces-us-2-billion-fund-with-china-13165/, accessed April 2015.
6. EY, *Africa Attractiveness Survey*, 2014, http://www.ey.com/Publication/vwLUAssets/EY-attractiveness-africa-2014/$FILE/EY-attractiveness-africa-2014.pdf, accessed April 2015.
7. World Bank and PPIAF, PPI Project Database, 2013.
8. World Bank and PPIAF, PPI Project Database, 2013.

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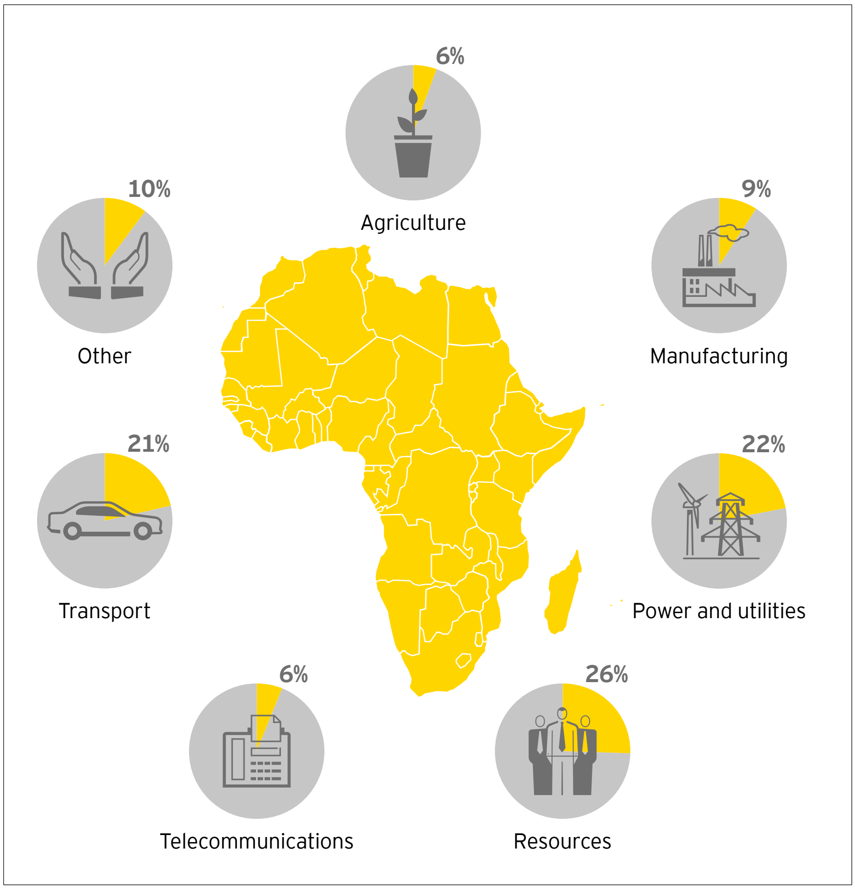
> "EY's approach to capital programme assurance uses key lessons learned from challenging programmes that we have assisted clients in, and thereby embeds risk management strategies into our methods and approach."
>
> **Tebogo Mosupi**, EY Africa Programme Management Leader

Figure 2. Active infrastructure projects in Africa, by type



Source: Africa Project Access; EY analysis.

All of this suggests that it is not simply a lack of resources that is preventing African governments from plugging their infrastructure gaps. To give just one example, Mozambique currently has more than US$32b worth of active infrastructure projects. There is also significant evidence that many large infrastructure projects are being planned and initiated across the continent. For instance, one World Bank database records 27 new large infrastructure projects with private involvement to a total value of US$4.5b reaching financial or contractual closure in 2012, thus allowing work to begin.[8]

However, many of these never get off the ground or take far longer than expected to be completed. Uncertain time frames and unreliable execution are bound to further discourage potential investors, making it harder to secure finance in the future. Delayed projects also mean that planned infrastructure upgrades and maintenance fail to keep up with growing demand over time.

The answer to bridging the infrastructure gap in Africa does not, therefore, lie in identifying new sources of funding, but rather in ensuring that planned projects are completed within reasonable time frames. This will ensure that projects can start to deliver returns to their investors, helping to attract further investment in the future. Learning from the challenges experienced on current large infrastructure projects can help to identify the key areas to focus on to ensure future success. These major challenges include a lack of policy frameworks for infrastructure projects, poor financing structures, weak contract and

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project management, as well as a lack of the necessary monitoring and evaluation throughout the lives of the projects.

Develop policy framework

Governments can use a framework for their infrastructure goals to plan and prioritize potential projects

Before entering into infrastructure projects, governments should begin by defining a suitable and appropriate policy framework that will guide both them and potential investors. Such a framework ensures good governance, due process and diligent planning. It is important for governments to evaluate their current situation in order for them to understand where they stand and, in turn, help define their infrastructure needs now and in the future. Governments should ensure that clear infrastructure policy goals and objectives are set. These goals need to reflect the long-term infrastructure vision of the country. This can help determine the short-term infrastructure investments that should be prioritized.

Factoring in how demand for infrastructure is likely to grow in the short to middle term is also important. As populations expand rapidly and economies grow, more and more people are becoming urbanized, and the rate of demand for infrastructure is increasing. For example, South Africa signed its Infrastructure Development Act in June 2014. The act is aimed at fast tracking regulatory decision-making and speeding up the implementation of strategic infrastructure projects.

In addition, strong governance institutions can help to ensure that longer-term infrastructure projects stay on track, even when political power in a country changes hands. All too often, politicians favor short-term projects that will show immediate results over longer-term, more complex but more essential infrastructure projects, because the electoral rewards for their success may be reaped by their successors. Strong government institutions, including parliament, government departments and state-owned enterprises, can help to ensure that infrastructure policy, funding and implementation follow a longer-term strategy driven by critical need rather than political imperative.

Regional integration is essential for delivering infrastructure in Africa

African leaders have come together to form the Programme for Infrastructure Development in Africa (PIDA) Priority Action Plan, which includes a list of 51 infrastructure projects aimed at promoting regional integration. PIDA provides a common framework for African stakeholders to build the infrastructure necessary for more integrated transport, energy, information and communications technology (ICT) and water networks to boost trade, spark growth and create jobs. This is an example of how cooperation on the continent can be achieved to ensure that projects that cross borders can be more effectively prioritized, coordinated and implemented.

Specify funding structures

When conceptualizing an infrastructure project, there are several different financing structures governments may choose. These include entirely public projects, fully private investments or public-private partnerships (PPPs). The trick here is selecting the correct delivery structure that will yield the highest overall benefits. The decision criteria for governments should include the financing of the project, the type of contract model that will suit the project and the level of participation either the government would like to have, or will allow,

"We are seeing a drastic increase in the monitoring and evaluation of projects by donors, as they need to ensure they invest in results-based projects and that funds are utilized effectively. This focus on public financial management will ensure there are proper systems and controls in place so that governments are accountable for the correct and agreed usage of funds."

Joe Cosma, Africa Advisory Government & Infrastructure Leader

from the private sector. Due to the limits of public funds in many African countries, a common approach is PPPs. Not only can the private sector contribute much needed financing, but it is increasingly being used to design, build or operate infrastructure facilities.

This is a model that can prove to be particularly successful in filling the infrastructure gap in Africa, whereby private investors invest in commercially viable infrastructure; for instance, toll roads, passenger rail networks and smart metering. This ensures guaranteed returns for investors, as users pay for the use of such infrastructure, and also frees governments up to dedicate limited public funds toward freely provided infrastructure such as schools, hospitals, public sewerage facilities or rural road networks.

Be conscious of contract management

A common challenge for governments, once they have selected a funding structure for a project, is substandard contract management. Contracts can differ from project to project, determined by their structure and nature. Different types of contract include management and operating contracts, leases and concessions or joint ventures. The design of the contracts needs to safeguard the interests of both the government and the private partner(s). All too often, African governments enter into contracts that are less than beneficial to them in the long run, as private investors tend to have the capabilities or resources to ensure the terms of any contract meet their own interests.

Having a solid contract in place before a project starts is essential. However, the lengthy and complex nature of most large-scale infrastructure projects means that these contracts need to make provisions for unforeseen events and changes down the line. This is also why good relationships need to be maintained between public and private partners, so that a culture of mutual trust is built between the two parties.

Prioritize project management

Project management can help to ensure that infrastructure projects run on time, within the given budget and quality specifications, while meeting the given scope.

Infrastructure projects are almost always large scale and very complex. At the same time, governments are usually working on a number of projects simultaneously. Therefore, they need good project management in order to execute and deliver projects successfully. Infrastructure projects often cost millions of dollars, and any mishaps can have detrimental effects on the costs, time frame and quality of the project. In addition, the complexity of large infrastructure projects means there will be multiple stakeholders, all of whom can have an impact on the successful and timely delivery of projects. Such stakeholders range from funders and engineers to government officials and labor unions. Sound project management can help ensure that all role players understand their responsibilities in getting the project executed properly.

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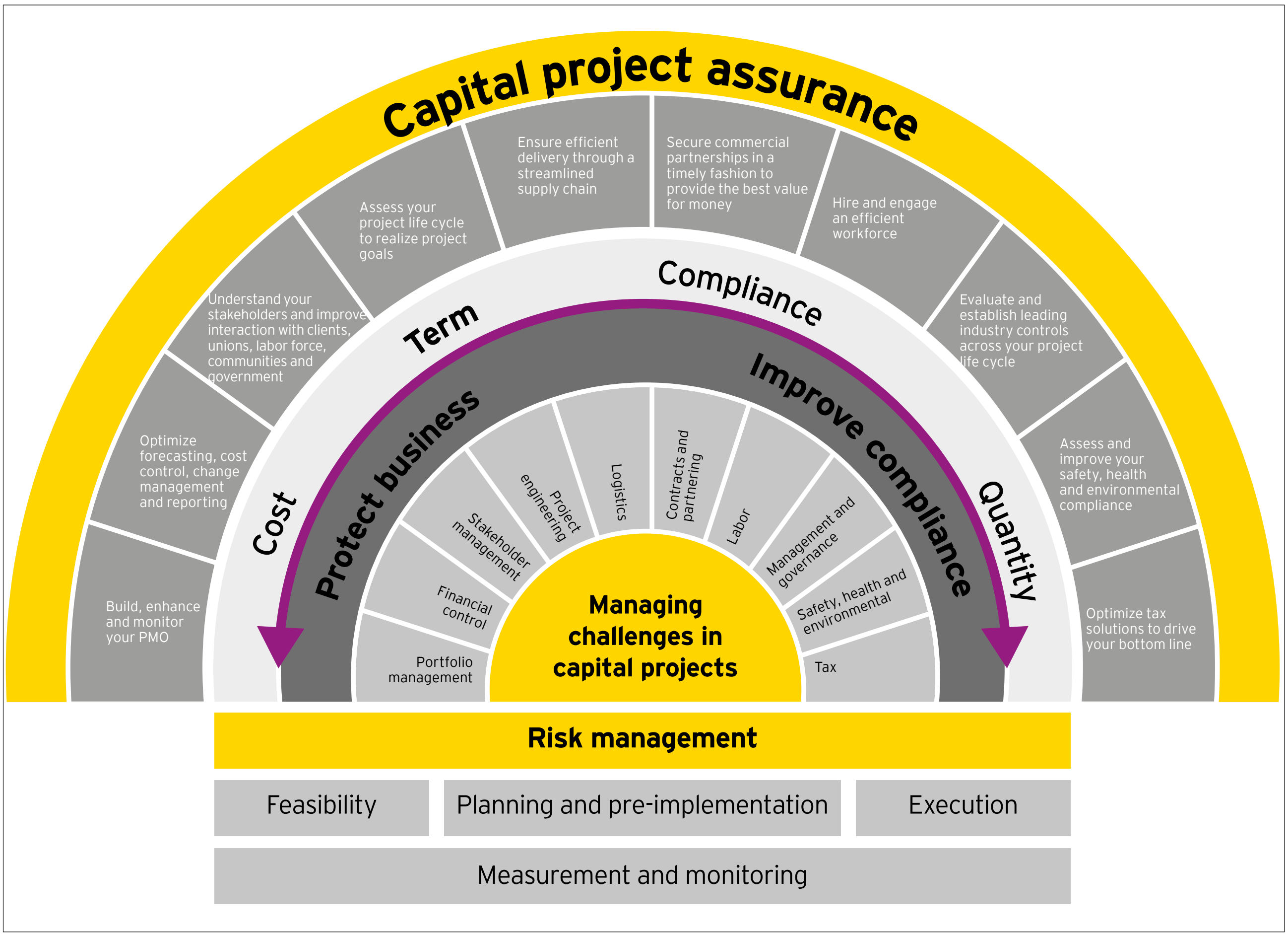
> "Regional economic integration is essential for Africa to realize its full growth potential, to participate in the global economy and to share the benefits of an increasingly connected global marketplace."[9]
>
> **African Development Bank**

Figure 3. A holistic approach to managing your capital project portfolio



9. http://www.afdb.org/en/news-and-events/article/regional-integration-for-africas-structural-transformation-11819/, accessed April 2015.
10. "PPP - N4 Toll Concession," *The Trade Beat*, http://www.thetradebeat.com/sadc-business-case-studies/n4-toll-concession, accessed May 2015.
11. *N4 Toll Road from South Africa to Mozambique*, The Public-Private Infrastructure Advisory Facility (PPIAF), http://www.ppiaf.org/sites/ppiaf.org/files/documents/toolkits/highwaystoolkit/6/pdf-version/safricamozambique.pdf, accessed May 2015.

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The road to success from South Africa to Mozambique

The N4 East project linking Gauteng in South Africa to Maputo in Mozambique is the first major PPP project implemented in Africa, although other PPP road projects followed, such as the N3 between Johannesburg and Durban, and the N4 West connecting Gauteng in South Africa and Gaborone in Botswana.

The N4 toll road is a good example of a successful PPP project using the build, operate, transfer (BOT) model. A 30-year road concession was awarded to the Trans African Concessions (TRAC) consortium and signed with South African National Roads Agency (SANRAL) and Mozambique Roads Agency (ANE). TRAC was responsible for the financing, design, construction, rehabilitation, operation and maintenance of the toll road.

This project involved the rehabilitation, including construction, of 198km of new road. The value of the project was approximately US$466m.[10] It was financed through a combination of 20% equity and 80% debt.[11] South Africa and Mozambique jointly and severally guaranteed the debt of TRAC and, to a certain extent, the equity. The two governments remain the legal owners of the land on which the N4 is built and will reassume responsibility for the road once the concession expires in 2027.

Similar agreements have been used to upgrade the ports of Maputo in Mozambique, Dar-es-Salaam in Tanzania and the Lekki expressway in Nigeria.

EY's approach to project management on large-capital projects emphasizes a holistic approach (see Figure 3). Effective project management on such projects has to start with how financing is structured, then address the implementation logistics of the project, all the while managing risks at every stage. Adopting such a broad approach to project management protects and empowers all stakeholders throughout the process, from concept to full operationalization of the project.

Persist with monitoring and evaluation

Once an infrastructure project is underway, regular monitoring and evaluation is required. Reviewing and assessing progress throughout the infrastructure project can help detect possible problems early on so that they can be resolved immediately or possible risks can be mitigated.

Adequate monitoring and evaluation of existing projects also plays an important part in attracting future investment, and ensures accountability and transparency for investors and citizens. Monitoring and evaluation throughout the project can also help to reduce wastage and eliminate the scope for corruption, which can plague large projects where vast sums of money are at play.

Conclusion

Infrastructure is the key to unlocking Africa's true economic potential. It can make both living and doing business in Africa less challenging. With significant funds dedicated to addressing infrastructure backlogs on the continent, the focus now needs to be on how to execute on the plethora of ambitious planned projects.

By focusing on five key areas identified as being instrumental to success – policy frameworks, funding structures, contract management, program management, and monitoring and evaluation – the chances of effectively completing planned projects can improve significantly.

This, in turn, will bring greater confidence to prospective investors and can help to attract further infrastructure investment to the continent, bringing us one step closer to bridging the infrastructure gap in Africa. ■