

Infrastructure Investor

AFRICA

An Intelligence Report



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ABOUT PEI

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InfrastructureInvestor AFRICA

An Intelligence Report

Africa calling

An oft-repeated statistic from the African power sector is illustrative of the tremendous infrastructure gap which acts like a chokehold on growth across the continent: the power generation capacity of the 48 countries that comprise Sub-Saharan Africa – which together are populated by 800 million people – is roughly the same as that of Spain, with its 45 million people.

It's easy to feel overwhelmed by negative statistics when assessing African infrastructure, and it's just as easy to overlook that many of these same statistics are representative of a very real demand for infrastructure across the continent.

After all, Africa is now one of the world's fastest growing economic hotspots, its 2008 gross domestic product on a par with China and Brazil.

This increased growth creates fantastic opportunities for private sector investment in Africa, including in infrastructure. Furthermore, the timing is now right as many African countries, having addressed macro-economic issues, are now seriously looking at micro-economic reforms, creating the sort of enabling environment conducive to private sector investment.

For early adopters willing to embrace nascent markets, the rewards are high, with returns on many privately financed infrastructure projects in Africa especially good compared with other parts of the developing world.

In this sense, this report is unashamedly opportunity-focused, and those wanting to learn more about out how to access African infrastructure will discover a sector-by-sector breakdown of the main themes and investment trends across the continent.

In addition, you will also discover a plethora of interviews with many of the institutions – including the African Development Bank, the European Investment Bank, DEG, IFC and Development Bank of Southern Africa– that are instrumental in making public-private partnerships happen.

This report is not, however, blindly optimistic. There are plenty of obstacles to private sector participation in African infrastructure, the biggest of which, by far, is the need for institutional reform.

Such reform needs to be taken seriously by African countries and has to be deep and far-reaching. It must take in the creation of enabling legislation as well as the establishment of credible and apolitical regulatory bodies. Encouragingly, this reform effort is underway and you will find several success stories throughout this report.

Many of the interviewees in these pages referred to infrastructure as an enabler - an enabler of trade, of greater economic growth and of better quality of life for Africa's people.

That's precisely what we want this report to be: an enabler of greater private sector investment in African infrastructure by providing a tool for interested investors - introducing them to investment trends, sector opportunities and the institutions and people that are working hard to make sure public-private partnerships across the continent are successful.

We'd like to thank the Infrastructure Consortium for Africa for partnering with us to produce this report. We trust you find it both informative and enjoyable.

Bruno Alves
Report Editor
bruno.a@peimedia.com

Report Editor:
Bruno Alves
+44 20 7566 5446
bruno.a@peimedia.com

Senior Editor:
Andy Thomson
+44 20 7566 5435
andy.t@peimedia.com

Associate Editor:
Cezary Podkul
+1 212 633 1456
Cezary.p@peimedia.com

Editorial Director :
Phillip Borel
+44 20 7566 5434
phillip.b@peimedia.com

Editor-at-Large:
David Snow
+1 212 633 1455
david.s@peimedia.com

Reporter:
Alexandra Atiya
+1 212 937 2830
alexandra.a@peimedia.com

Special Projects Manager:
Ram Kumar
+44 20 7566 5474
ram.k@peimedia.com

Head of Production:
Tian Mullarkey
+44 20 7566 5436
tian.m@peimedia.com

Design & Production Manager:
Joshua Chong
+44 20 7566 5433
joshua.c@peimedia.com

Subscriptions & Reprints:
Fran Hobson
fran.h@peimedia.com
+44 20 7566 5444
+1 212 645 1919 [Americas]
+65 6838 4536 [Asia]

Sales and Marketing Director:
Paul McLean
+44 20 7566 5456
paul.m@peimedia.com

Group Managing Director:
Tim McLoughlin
+44 20 7566 5276
tim.m@peimedia.com

Co-founders:
Richard O'Donohoe
David Hawkins

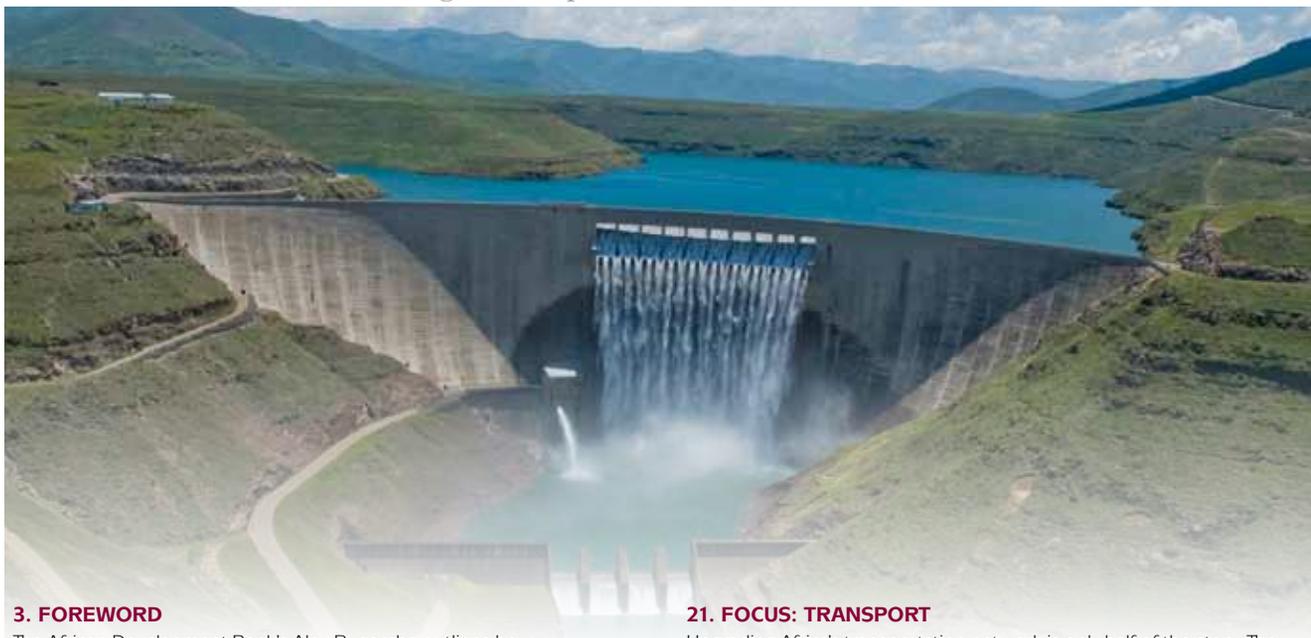
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AFRICA

An Intelligence Report



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Challenge and opportunity

Infrastructure is the key to economic progress in Africa. *Infrastructure Investor's Africa Intelligence Report* provides an objective and substantive overview of Africa's infrastructure needs, giving those engaged in infrastructure an insight into both the challenges and the opportunities that the vast continent presents

Africa's impressive GDP growth, volumes of domestic investment in infrastructure and a track record of successful projects shows that throughout the global financial crisis Africa has proved to be much lower risk than many perceived.

In 2005, donor commitments for infrastructure development in Africa totalled \$7 billion. By 2009 total commitments to infrastructure reached \$38.4 billion – including donors, private sector and major players such as China, India and Arab funds. However, Africa saw a 20 percent drop in private sector investment in 2009 from the shocks of the financial crisis. So despite this overall increase in external support, a huge funding gap remains.

A recent major study commissioned by the Infrastructure Consortium for Africa (ICA) and carried out by the World Bank - the African Infrastructure Country Diagnostic - showed that for Africa's infrastructure to reach levels of other parts of the developing world, an annual investment of over \$90 billion is required.

A significant development that took place this year was the launch of the Programme for Infrastructure Development in Africa (PIDA). By the end of 2011, PIDA will develop a strategic framework for regional and continental infrastructure, part of a short, medium and long-term investment programme to 2040.

Launched at the G8 Gleneagles Summit in 2005, ICA works to help improve the lives and economic well-being of Africa's people through scaling up investment in African infrastructure – from public, private and public-private sources.

ICA acts as a catalyst by enhancing, accelerating and coordinating infrastructure development. It is a tripartite consortium of bilateral and multilateral donors as well as African institutions. African membership is led by the African Development Bank and the Development Bank of Southern Africa.

Multilateral agencies such as the World Bank Group, the European Commission and the European Investment Bank are also members, as are the G8 countries – Canada, France, Germany, Italy, Japan, Russia, the United Kingdom and the United States. The ICA Secretariat is based in Tunis, hosted by the African Development Bank.

Through detailed analysis, commentary and expert opinion, this report highlights issues such as the infrastructure gap and the need for greater institutional reform and regional integration. The major infrastructure sectors – power, transport, water and ICT – are covered in depth, while emphasis is given to the vital role that public-private partnerships will play for future investments. The ICA is delighted to partner with PEI on this report.

I recommend this publication to all interested in infrastructure development in Africa.

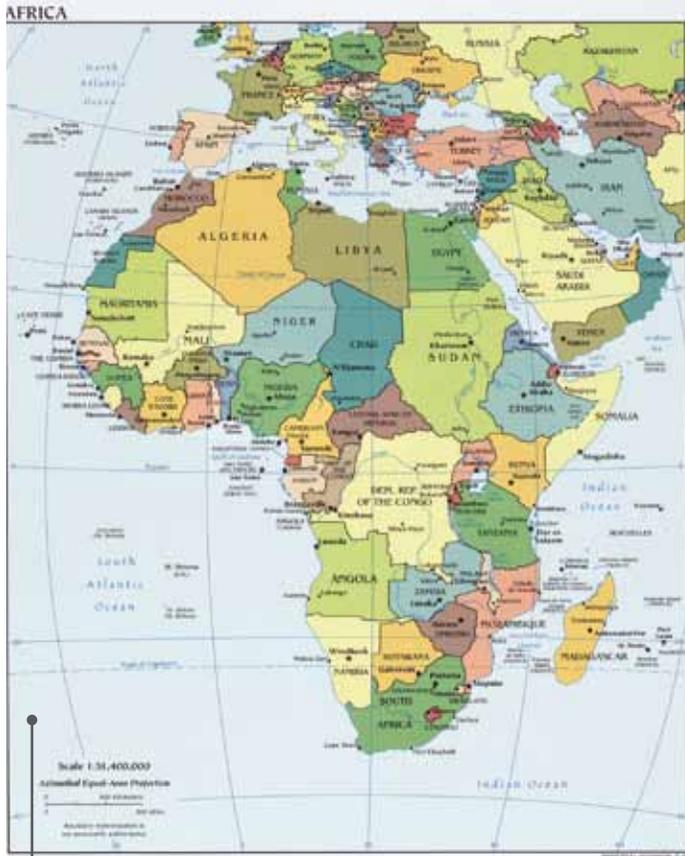


Alex Rugamba
Director NEPAD, Regional Integration and Trade Department
African Development Bank



The time is now

Addressing Africa's infrastructure gap could add 2% to GDP growth, cementing the continent's impressive growth story



“Africa is part of the global economic solution. If you’re an investor, where do you go after China and India? You have to go to Africa”

THE FIRST THING that strikes you once you start looking at the state of Africa's infrastructure is just how little of it there is in relation to the continent's needs.

The African Infrastructure Country Diagnostic (AICD), a recent report by the World Bank on 48 of Africa's 53 countries, estimates that the continent alone needs to spend \$93 billion a year, or about 15 percent of the region's gross domestic product (GDP), to plug the infrastructure gap. The report estimates that the region is presently spending \$45 billion a year on infrastructure.

McKinsey, a consultancy, writes that the BRICs' (Brazil, Russia, India, China) “power consumption per capita is more than twice Africa's, and their road density measured in kilometres of road per 1,000 square kilometres of land is almost five times as high. Logistics costs, whether measured in dollars or time, are up to twice as high in Africa as in the BRICs,” the consultancy points out.

It's easy to dig up similar statistics and, in terms of raw numbers, Africa's infrastructure gap can start looking less like a gap and more like a gaping hole.

But as daunting as the continent's infrastructure gap is, it's perhaps important to understand one thing: Africa's infrastructure needs, as big as they are, are rooted in real demand and are the product of a decade of remarkable growth.

THE BOOMING 2000s

Africa's real GDP grew by roughly 5 percent a year from 2000 to 2008, according to data from the African Development Bank (AfDB). It hit a high watermark of about \$1.56 trillion in 2008, putting it roughly on par with China's and Brazil's GDP before the financial crisis brought Africa's collective GDP down to \$1.4 trillion last year.

More importantly, Africa's remarkable growth has deep roots and there is plenty of evidence to suggest that the trend will not reverse anytime soon. Mthuli Ncube, the AfDB's chief economist, helps frame Africa's growth story:

“Before the crisis, Africa was growing very rapidly. Growth then slowed down to roughly 3 percent with Africa expected to finish 2010 with a GDP growth of 4.5 percent. In 2011, we expect the recovery to continue and GDP growth to hit 5 percent,” Ncube says.

“This growth has been varied. East Africa, for example, was the fastest growing region before the global financial crisis and it's also been one of the most resilient to the crisis, since its economies

are well diversified. In contrast, southern Africa has been the worst performing region since the crisis hit precisely because its economies are the least diversified,” Ncube points out.

Countries like Angola and Botswana, whose economies are highly dependent on the export of commodities, have been particularly affected, Ncube adds.

“West Africa, on the other hand, has been a real surprise. Nigeria grew by 2.9 percent during the crisis and despite oil growth, other sectors of the economy actually grew faster,” he highlights. “North Africa has been growing well too, with little shocks, as its economies are well diversified”.

That the continent has been able to absorb the financial crisis’ impact relatively well is testament to the “sustainability” of its growth story, Ncube argues. “I think the continent’s resilience is down to two reasons: first, African governments have learnt a lot about good macro-economic management; and second, the rate of growth from the private sector, its entrepreneurship, and the continent’s rising middle class has created good shock absorption capacity.”

STAYING POWER

McKinsey is also of the opinion that Africa’s recent growth has staying power and amounts to more than a resource boom. In fact, the consultancy points out that “just 32 percent of Africa’s GDP growth from 2000 to 2008” came from natural resources.

Instead, the consultancy argues that the main reasons behind the continent’s growth are: governments successfully putting an end to armed conflicts; their ability to “reduce the average inflation rate from 22 percent in the 1990s to 8 percent after 2000”; and in their increasing adoption of “policies to energise markets”, including the privatisation of state-backed companies and tax reforms.

Africa’s resource boom will still continue to play an important role in propelling the continent forward. As Ncube puts it: “It’s fair to say that Chinese demand for commodities is going to stay strong and, as long as China is doing well, the economies that trade heavily with it will also continue to do well. But that’s not to say they will not have to diversify,” he warns.

Still, an essay published in late August 2009 in the *Journal of African Economies* by the World Bank’s Jorge Saba Arbache and John Page warned that “Africa’s growth recovery is a cause for celebration but not for complacency”. In fact, the two authors concluded the recovery “remains fragile”, pointing out that “growth accelerations have not been generally accompanied by

improvements in variables often correlated with long-run growth, such as investment”.

Unsurprisingly, one of the crucial areas of investment needed to further cement the continent’s GDP growth is infrastructure, Ncube argues. “The lack of adequate infrastructure across Africa is currently holding back GDP growth by some 2 percent,” he maintains.

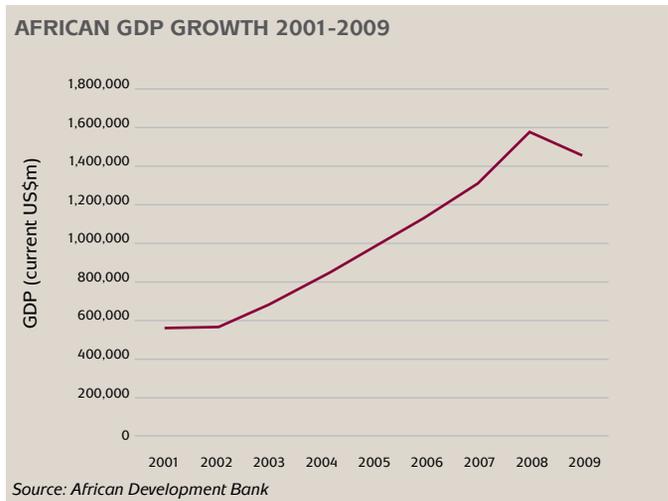
To put this 2 percent figure in a broader perspective, addressing the continent’s infrastructure gap would be enough to hit the 7 percent in growth stipulated by the United Nations’ Millennium Development Goals as the amount needed to halve poverty across Africa.

Still, to plug that gap is no easy feat for a continent where most countries allocate “1.5 percent of GDP, or 6-8 percent of their national budgets, to support the provision of infrastructure,” notes AICD. To put those figures into perspective, “this effort translates into about \$300 million a year for an average country, which would not take many African countries a long way,” Vivien Foster, the World Bank’s lead economist for the AICD study, adds..

Encouragingly, the private sector is already the continent’s second-largest funder of infrastructure since the late 1990s, AICD points out. However, the need for infrastructure is still great, generating plenty of opportunities for the private sector to finance these projects.

Power is by far the neediest sector and is already the second-largest recipient of private sector investment across the continent.

According to AICD, Africa only spends about one-quarter of what it needs to spend on power. That translates into “chronic power shortages” for 30 countries across the continent, with severe impacts on their economies.



The World Bank report estimates that “the entire installed generation capacity of the 48 countries of Sub-Saharan Africa is 68 gigawatts, no more than Spain’s, and without South Africa, the total falls to 28 gigawatts”.

Needless to say, the private sector has a large role to play in helping to plug the power generation gap via independent power projects (IPPs), a sub-sector which is already attracting attention from large global power companies and private equity firms.

Renewable sources of energy are expected to significantly contribute toward meeting Africa’s power needs, especially by leveraging the continent’s largely untapped hydropower resources. Wind and solar projects are also becoming increasingly popular and, importantly, are managing to attract the private sector’s attention. Clean energy becomes especially important given the enormous amounts of money spent by African countries on diesel-generated power.

In the transport sector, opportunities for private sector investments in ports are set to increase steadily, as the continent’s ports are nearing capacity, with governments increasingly turning to the private sector to help remedy the capacity gap. Roads, especially regional trade links, are also becoming bankable targets for private sector capital. There have also been a fair number of rail concessions, but the promise many hold is contingent on the ability to overcome certain obstacles.

Water has been one of the toughest sectors for the private sector to crack not only because governments are somewhat wary of tendering these projects to private players, but also because it’s been hard to make these projects bankable without significant government backing.

However, there are growing opportunities for private sector participation at a more local scale, with some local utilities “borrowing on their own and issuing in the market,” Bobby Pittman, the AfDB’s vice president for infrastructure, private sector and regional integration, points out.

The big success story is, of course, ICT, especially mobile telephony, which has been the largest recipient of private sector investments across most of the continent, accounting for 76 percent of all investment in Sub-Saharan Africa between 2000 and 2009, according to The Public-Private Infrastructure Advisory Facility, a donor-funded technical assistance facility.

REFORM & INTEGRATE

So while opportunities to invest in African infrastructure abound, the challenge now is “creating the right environment for the private sector to participate,” reflects Ncube.

In order to create that environment, a deep process of institutional reform will have to take place throughout the continent.

This process needs to develop on two fronts: firstly, countries will have to implement enabling legislation for effective public-private partnerships (PPPs) to take place; and secondly, the inefficiencies which are currently costing Africa an estimated \$17 billion per year, according to AICD, have to be addressed to create the type of productive environment Ncube alludes to.

Fortunately, there are signs that African governments are quickly realising this, with Ncube flagging up Egypt and Tanzania as examples of countries which have recently got PPP laws approved by their respective parliaments.

Kenya is another good example of a country with strong regulation in place, which is enabling private sector investments in everything from roads to wind farms.

But while these signs are encouraging, reforms will also have to address many of the drawbacks that still hinder the development of African infrastructure. These include poor resource allocation and over-expenditure on sectors that do not need additional investment; institutional bottlenecks that keep one-third of public infrastructure budgets from being executed; and, importantly for the private sector, improving the performance and collection of bills among African utilities.

REGIONAL INTEGRATION

Still, while country-specific regulatory reform is undoubtedly important, regional integration, and the creation of regional regulatory frameworks, will be crucial to help develop the continent’s infrastructure.

That’s because, as noted earlier, many of Africa’s individual economies are not strong enough to support the type of infrastructure investments they need to stimulate growth. By pooling resources, though, regional economic communities become much more attractive investment propositions.

Perhaps the most successful example of regional integration is the East African Community (EAC). With 133 million people and a combined GDP of \$80 billion in 2010, the EAC has its own customs union and a common electricity market. Importantly, its five member states signed an agreement in the summer of 2010 to implement the free movement of labour, capital goods and services over the next five years.

This sort of tight regional integration facilitates not only foreign investment but also stimulates the development of intra-African trade, which Ncube sees as crucial to the continent’s growth and the development of its infrastructure.

Africa already figures prominently on the radar of many infrastructure investors (and others). As Ncube puts it: “Africa is part of the global economic solution. If you’re an investor, where do you go after China and India? You have to go to Africa.”

Implementing many of the above-mentioned institutional reforms could be the key to ensuring that investors come to Africa sooner rather than later. ■

Enabling access

Bobby Pittman, the African Development Bank's vice president for infrastructure, sees Africa's infrastructure gap as a product of its growth story. The challenge now is to create the right vehicles to allow the private sector to access this opportunity



Pittman: huge demand, much of it bankable

BOBBY J. PITTMAN JR. – the African Development Bank's (AfDB) vice president for infrastructure, private sector and regional integration – is an optimist.

Confront him with many of the obstacles that stand in the way of doing public-private partnerships (PPPs) across the continent or the considerable need for institutional reform across Africa and he will acknowledge these challenges. But he will also point out that deals are happening and that change is already working to remedy many of the deficiencies throughout the continent.

Perhaps some of that optimism is a result of Pittman's background. Before joining the AfDB, he served as special assistant to former US president George W. Bush and was a senior director for African affairs in the White House from 2006 to 2009.

In that capacity, he was part of the team that was responsible for

the largest increase in US foreign assistance to Africa in the country's history. Prior to his tenure at the White House, he was the lead US negotiator of the 100 percent debt relief proposal endorsed by the G8 at the 2005 Gleneagles Summit, which has led to the cancellation of over \$40 billion of debt for some of the world's poorest countries.

But Pittman's not a blind optimist. In fact, he's well aware that "we have a long way to go and it's not just about the AfDB – there are a lot of players in the space and we are all working together [to solve these challenges]", he stresses.

DEMAND GAP

However, he firmly believes that Africa's infrastructure gap – which, according to AICD, stands at \$93 billion per year – is a product of real demand:

"You see double-digit growth in some of these countries and of course that growth is going to produce a demand for power, for water, for transport, and these projects suddenly become bankable. People become willing to pay for tolls on roads because there is a demand," he explains.

"We don't look at the infrastructure gap as a static thing – it's this enormous growth story on the ground that has produced this gap, which is a demand gap"

Africa's recent growth is solid, Pittman contends, and is the combined result of "a lot of work on official development assistance over the last decade and of lots of African countries having done a good job of collecting revenues and investing them on their people".

That's led the AfDB to recently announce that it will nearly double its infrastructure spending across the continent to close to \$10 billion over the next five years. As Pittman puts it:

"We don't look at the infrastructure gap as a static thing – it's this enormous growth story on the ground that has produced this gap, which is a demand gap. So our decision to increase funding is not a case of us sitting at the top and deciding we are going to increase our

“Right now, I think that investors still have a limited number of vehicles to access African infrastructure”

commitment [to infrastructure]. It’s a decision based on our observation of the space in which we operate, where we are seeing a huge, growing demand for infrastructure, much of it bankable on private terms.”

The real challenge now is to provide ways for investors to access this growing opportunity.

“Right now, I think that investors still have a limited number of vehicles to access African infrastructure. One of the things we are trying to do here at the AfDB is to come up with ways to either help pool resources together from small investors so that they can invest in bigger deals; or pool deals together, so some of the big investors can target a diversified portfolio,” Pittman says, adding: “I think the vehicles space is really going to be a focus for the AfDB going forward.”

One of the vehicles the AfDB is currently working to set up is a fund of funds, Pittman says. “We are seeing some big investors that would like to be in Africa looking for structures that preclude owning their own fund and would help diversify country and sector risks. So setting up a fund of funds is something we are looking at right now and hopefully we will be in a position to launch it in the next year or so.”

AFDB: THE ENABLER

Although the AfDB can provide a combination of debt, equity and guarantee instruments to get a deal done, Pittman sees the bank’s role as larger than that.

“The AfDB is not just about investing in African deals,” he explains. “Part of our role is to explain to investors around the world what opportunities we see on the pitch – and we see a lot of them – introduce them to previous success stories, and leverage our network of funds and financial partners to come in and help get deals done.”

That network of partners, combined with the bank’s expertise in working with the public and private sectors, is one of the AfDB’s greatest assets, which the bank is leveraging to get more and more PPPs done across Africa, Pittman stresses.

“We have an overall mandate to encourage PPPs but I have to be honest: people always say that the devil is in the details but I also believe creativity and results happen in the details; they don’t happen in terms of broad strategies and just saying ‘we want PPPs’. It’s by fomenting a constant dialogue between the public and private sectors and leveraging the AfDB’s experience as an infrastructure institution that we are making deals bankable and successful,” he argues.

That creativity is essential to stimulating infrastructure investments across the continent, Pittman argues, especially in the poorer countries. “Kenya is a great example with a lot of creative solutions coming out of the current government. Because of the growth story in Kenya, there’s huge pressure on government to provide more

access to power, which is beyond its budget. So in many ways you almost see more creativity coming out of a government like Kenya’s because they have to,” Pittman contends.

But more of it needs to be employed and not just at an individual government level.

“I think donors have to go more mainstream on PPPs, even though some donors have been very progressive on this,” Pittman says. “Donor finance can be incredibly catalytic upfront. Coming back to Kenya, take a project like the Lake Turkana wind farm, which is going to be the largest wind farm in Africa,” he continues.

“You had Kenyan local sponsors that wanted to take this project forward. So the AfDB worked with a number of donors – we are talking small amounts, in this case from the US government – to provide some of the upfront cost for studies. We also partnered with some of our equity funds to bring some early-stage equity to help get things moving. So now you have all these banks knocking on our door trying to get in on the deal, when maybe three years ago nobody would’ve considered it,” he recalls.

CROSS-BORDER BENEFITS

Cross-border trading and tighter regional integration is another area that could prove very beneficial in creating more bankable infrastructure deals for the private sector, Pittman points out. “One of the areas we want to help our clients with is trading power across borders. We think cross-border trading is going to allow our clients to take advantage of Africa’s huge, untapped hydropower resources,” he adds.

“For example, there’s a large hydropower project in Ethiopia called Gilgel Gibe III which is producing a huge amount of clean power into the grid. Now a lot of that power will be sold to Kenya. That power is being produced at a cost of 4 cents per kilowatt-hour and in Kenya you have people paying 40 cents per kilowatt-hour for diesel-generated fuel. So you see there are huge margins to be made with that difference,” Pittman concludes.

In many ways, the AfDB has a unique role to play as a catalyst to solve many the above-mentioned challenges, including regional integration. As a source on the ground put it: “The AfDB is a blue-chip African institution in which African governments trust. When AfDB representatives travel across the continent, they get the red carpet treatment, same as foreign dignitaries.”

That power hasn’t been lost on Pittman: “I want to increase investments to infrastructure via the AfDB and other players and make sure those investments are impacting the people on the ground. We want investors talking about the great returns they are making in Africa. And that’s already happening and it’s going to happen even more and I think our role is to make sure that the people that come in first are rewarded.” ■

Powering Africa

Power is by far Africa's neediest infrastructure sub-sector, with the continent currently spending only \$11.6bn per year of the more than \$40bn it requires annually to plug its energy gap



WHICHEVER WAY YOU look at it, Africa's huge underinvestment in its power sector makes it by far the neediest of the continent's infrastructure sub-sectors.

As it stands, Africa is currently spending about \$11.6 billion a year on power, roughly a quarter of the \$40 billion it should be spending annually to satisfy its energy needs. This means Sub-Saharan Africa, comprising some 800 million people, is generating roughly the same power as Spain, with 45 million inhabitants.

It also means that "many smaller [African] countries have national power systems below the 500-megawatt threshold and therefore often rely on small diesel generation that can cost up to \$0.35 per kilowatt-hour to run," Joseph Atta-Mensah – director of the regional integration, infrastructure and trade division of the United Nations Economic Commission for Africa – told African ministers of energy in a speech on November 2010.

About 30 African countries are suffering chronic power shortages, which are costing them between 1 and 2 percent of their gross domestic product (GDP). In addition, many of Africa's – and the world's – poorest countries are spending a fortune on diesel-generated power as well as expending considerable amounts of their GDP on footing the bill for emergency power generation when energy crises hit.

COSTLY EMERGENCIES

Atta-Mensah estimates that "at least 750 megawatts of emergency generation are operating in Sub-Saharan Africa [comprising 48 of Africa's 53 countries], which for some countries constitute a large proportion of their national installed capacity. However, emergency generation is expensive at costs of \$0.20-\$0.30 per kilowatt-hour, and for

some countries, the price tag can be as high as 4 percent of GDP," he adds. As a reference, the average generation price hovers at \$0.12 per kilowatt/hour.

Take Nigeria, Sub-Saharan Africa's second-biggest economy and an oil and gas powerhouse. Nigeria has an energy deficit of some 23,000 megawatts, which is costing the economy about \$1.3 billion a year. Its average per capita energy consumption stands at 129 kilowatt hours compared with 491 in India and 12,607 in the US, according to Nigerian government estimates.

Because of that, it spends about \$13 billion a year in diesel-generated power when it would only require about \$10 billion a year of investment over the next few years to fully develop its energy infrastructure. Today, "less than half of our citizens have

Lights out: Africa is considerably under-lit compared with Europe.



“At least 750 megawatts of emergency generation are operating in Sub-Saharan Africa, which for some countries constitute a large proportion of their national installed capacity”

Renewable energy could play a big part in plugging Africa's energy needs

access to electricity,” Nigerian president Goodluck Jonathan told a roomful of investors in October 2010, a devastating verdict for the nation of 140 million people.

Unfortunately, Nigeria's power story is far from unique across the continent. According to a recent World Bank study – the African Infrastructure Country Diagnosis (AICD) – “less than 40 percent of African countries will reach universal access to electricity by 2050” if current investment trends continue unabated.

The underlying causes for this chronic underinvestment in the energy sector – “failures to bring on new capacity to keep pace with the demands of economic growth, droughts that reduced hydropower, oil price hikes that inhibited affordability of diesel imports, and conflicts that destroyed power infrastructure in fragile states,” according to Atta-Mensah – may vary from country to country but the overall picture is the same: Africa's generation capacity has remained practically stagnant since the 1980s.

Following a decade of remarkable economic growth, though, African countries are now very aware of the urgent need to plug this power gap and are increasingly turning to the private sector to help fund it.

IPPs

To date, there have been some 45 independent power projects (IPPs) across 17 African countries, amounting to an investment of roughly \$10 billion, and producing about 12,000 megawatts of power, according to data from South Africa's Graduate School of Business, part of the University of Cape Town.

“Three-quarters of installed IPP capacity and about 70% of all

IPP investment” are concentrated in Egypt, Tunisia, Morocco, Côte d'Ivoire, Ghana, Kenya, Tanzania and Nigeria, Katharine Gratwick and Anton Eberhard, respectively a senior researcher and a professor at the University of Cape Town's Graduate School of Business, pointed out in a 2008 study.

For most of these countries, IPPs account for only a small amount of their generation capacity but in Côte d'Ivoire, Morocco and Tanzania, IPPs actually ended up contributing more than 50 percent of their electricity production, Gratwick and Eberhard highlight.

In terms of performance, African IPPs have done fairly well. In a presentation given at the East Africa Energy Forum in early 2010, professor Eberhard told the audience that after analysing 20 projects in these eight countries, he found that “there have been remarkably few failures [...] despite serious stresses including macro-economic shock and currency devaluation, drought and the need for emergency power, abrupt policy shifts, civil strife and corruption.”

Importantly, Eberhard also found that despite all power purchase agreements (PPAs) in his sample being foreign denominated (except one in Morocco), they managed to withstand “currency devaluation shocks as well as creeping devaluation overtime”.

In fact, he pointed out that only eight of the 20 IPPs in his study sample had undergone contractual changes. He attributed these changes to several factors, including the fact that “all [IPPs that underwent contractual changes were] procured amidst a form of electricity crisis, mostly as a result of drought in largely hydro-dependent systems”.

In addition to a remarkably low failure rate, it's also important to note that African IPPs earn their investors considerably higher

rates of return than in other parts of the developing world (about 25 percent compared with 15 percent returns across Latin America and 12 percent for Eastern European IPPs).

POLICY HARMONISATION

The problem, though, is that despite their relative success there is still a need for many more of these projects to help plug Africa's power generation needs. But for that to happen, significant institutional reform has to take place. Namely, there is a pressing need for African governments to put in place coherent policy frameworks.

This is not new. Gratwick and Eberhard pointed out in their 2008 study of IPPs in Egypt, Tunisia, Morocco, Côte d'Ivoire, Ghana, Kenya, Tanzania and Nigeria that "although all eight countries in the sample have introduced legislation to allow for private generation, few have actually formulated and then realised a clear and coherent policy framework".

For example, the authors point out that Kenya was the first of the eight countries to put in place an independent regulator to help supervise the sector. The result: the regulator has managed to "reduce PPA charges radically" for the country's second generation of IPPs, Gratwick and Eberhard found.

The good news is that Kenya is not alone in its reform efforts, with many other African countries including – but not limited to – Egypt, Senegal, Zambia and Cameroon embracing change. Importantly, decisions are being taken not only on a country-by-country basis, but also at a supranational level.

Admassu Tadesse, the head of the Development Bank of Southern Africa's international division, points out that the Southern African Development Community's (SADC) energy ministers recently agreed to implement full cost reflective tariffs across the 15 countries that are part of the union, a move he believes should boost IPPs across the region. SADC comprises 15 African countries with a population of close to 258 million people and a shared GDP of over \$471 billion.

UNDER-COLLECTION

It's hard to overestimate the importance of implementing measures combating under-collection of tariffs and, also, the historical underpricing carried out in the African power sector. The latter, according to AICD, costs Africa about \$2.2 billion a year in foregone revenues.

Addressing these two issues requires not only political will but, also, some creativity. Nigeria's president Jonathan is planning what he calls a "lifeline tariff" for the country's poorest inhabitants (most Nigerians subsist on less than \$2 a day). This would allow them to prepay a variable, affordable rate tariff according to their consumption.

Bruno Wenn, chairman of German development finance institution DEG, also contends that it is viable to improve cost-recovery mechanisms, as long as there is political will. "There are mechanisms, like coupon systems, that can ensure that people pay affordable user charges," he offers as an example.

The need to urgently address these two issues is essential to

CASE STUDY: BUJAGALI HYDROPOWER DAM

Uganda's Bujagali hydropower dam – currently in construction and scheduled to be operational in 2011 – is a good example of the difficulties many successful African projects have to overcome.

Bujagali reached financial close in December 2007 with loans of more than \$600m coming from multilateral development finance institutions (DFIs) such as the IFC, the EIB, and the AfDB as well as from bilateral DFIs such as AFD/Proparco from France, KfW/DEG from Germany and the Netherland's FMO.

When completed, it will generate 250 megawatts of power for a country that currently experiences rotating blackouts of up to 12 to 24 hours daily. Kenya's Industrial Promotion Services and Site Power, a subsidiary of Blackstone, are the sponsors.

However, the project took about 10 years to reach fruition, recalls the AfDB's Hela Cheikhrouhou: "Bujagali was almost done in the early 2000s with AES, but then Enron collapsed, triggering disinvestment by some private sector investors. So it took a while to find another consortium, led by Blackstone and IPS. In the meantime, economic growth was booming worldwide and the cost of doing electricity projects was picking up, which was another unfortunate development."

unlocking the privatisation of African utilities, a necessary step to help diminish the infrastructure performance gap. Once again, the results on the ground are encouraging, with reforms carried out over the last decade having already yielded their fair share of utility privatisations across the continent.

Senegal partially privatised its electricity company – SENELEC – in 1999 to a consortium of French company Elyo and Canadian firm Hydro-Quebec; Energie du Mali, Mali's national utility, was sold in late 2000 to France's Saur and IPS, part of the Aga Khan Fund for Economic Development; and global power firm AES bought a 56 percent stake in Cameroon's state utility, SONEL, in the summer of 2001, one of Africa's largest power producers.

Uganda started unbundling its power sector in the early 2000s and in 2005 awarded a 20-year concession to Globeleq, a subsidiary of Actis, the private equity and infrastructure investor, for its electricity distribution business. At the beginning of 2010, South Africa's Eskom, Africa's largest electricity producer, started talking about a restructuring that might involve a partial privatisation of the company. And Nigeria is also looking at involving the private sector in its electricity distribution.

The big challenge now that Africa is gearing up to plug its massive power gap is how it will choose to address its power generation needs. Specifically, it remains to be seen whether it will be able to capitalise on its enormous natural resources to write the next chapter of its power story in sustainable green. ■

A clean break

Hela Cheikhrouhou, the African Development Bank's director for energy, environment and climate change, talks about the enormous impact renewables can have across Africa

What sort of contribution do you think renewable power can make toward plugging Africa's massive energy needs?

HC: It's very difficult to tell because it will depend on several priority projects currently underway and when they will happen. If you do something like the Grand Inga hydropower project [to be located in the Democratic Republic of Congo (DRC)], then renewables will be a huge percentage of the solution because that project alone can be developed over several phases with a total potential of the site of up to 40,000 megawatts of power.

The renewable potential in Africa is huge but we need to set priorities for all these renewable projects to be developed. Otherwise, because of African countries' energy needs, they will be using more traditional technologies to fulfil their requirements.

Also, Africa has been very constrained in terms of its ability to access climate finance, which has not benefited Africa. So we hope that a new generation of climate finance solutions will be better tailored to Africa's needs.

Hydropower already plays an important part in meeting Africa's energy needs but it's viewed as much underutilised. How do you assess this opportunity?

HC: The biggest opportunities in hydropower are offered by Cameroon, DRC, Ethiopia, and Guinea but this potential will have to be developed - including with the help of the private sector, where possible.

Take Inga. We are currently working with several DFIs and regional energy organisations to accompany us as we prepare the Inga development options study we are financing for the DRC government. That project will almost certainly end up

being developed as a public-private partnership, because of its scale, with potential roles for the private sector - both as one of the investors and part of the off-taker.

The viability of Inga will depend on the existence of some large stakeholders. We know that investors are interested in the project and there have been some spontaneous approaches by the private sector to the DRC government, asking to develop certain parts of Inga.

"The renewable potential in Africa is huge but we need to set priorities for all these renewable projects to be developed"

In terms of micro-hydro, Sub-Saharan Africa has a lot of potential, but many of these projects are too small for the traditional project finance approach. We are currently in the final stages of designing a fund that will help with these projects, together with an initial contribution by the Danish government. The idea will be to provide early-stage equity for local developers to finish preparing small renewable hydro power projects.

We are also looking at packaging solutions, to find investors interested in developing and financing several sites at the same time. We know there are investors in-

terested in this solution, which would also help cut down on transaction costs.

How do you gauge opportunities in the wind sector?

HC: In a nutshell, there are several countries with huge potential in the wind sector and right now we are working with governments and the private sector in Egypt, Tunisia, Morocco, Kenya and South Africa, to name a few.

At the African Development Bank, we are very interested in developing wind projects as the cost of technology has come down compared to oil and gas based generation. So even for oil or gas generating countries there is potential for them to export oil or gas and diversify their energy mix by using wind for generation, which is one of the lines of thought that Egypt is pursuing.

Solar is promising but it's often seen as an expensive technology...

HC: It depends. The cost of technology for solar PV solutions is coming down and there is a lot of innovation and competition building up in concentrated solar power as well. But in many countries, the off-taker that is able and willing to pay more for solar power is not yet there. So how do you make it work? It's a combination of looking at getting concessional finance to lower a project's cost. But you still need to have government subsidies for some of these projects, which is a very difficult discussion to have in countries that are still developing and need to prioritise education and health. That's why the solutions have to be creative. Like using local manufacturers to provide some solar components for these projects, since local manufacturing creates jobs and provides governments with a source of taxes. ■

The case for reform

Bruno Wenn, chairman of DEG, argues that there has to be more willingness to implement the needed reforms that will truly unlock private sector funds for African infrastructure



Wenn: problems at the building stage

GERMANY'S DEG, part of the KfW banking group, is one of Europe's largest development finance institutions (DFI) and its chairman, Bruno Wenn, is happy with DEG's commitment to African infrastructure.

"So far, we've been very successful with between 30 and 50 percent of our new business in Africa coming from infrastructure," Wenn says. "Last year, we invested about €260 million across the continent with €150 million dedicated to infrastructure. We've had a particularly good experience with ICT, helping to finance submarine cables in Sub-Saharan Africa and West Africa," he points out.

Wenn – a veteran of the development world with 30 years of experience under his belt, mostly at DEG parent group KfW – is well aware of Africa's "huge infrastructure bottleneck", which he believes can only be addressed with the help of the private sector.

However, he's even more aware of the need for governments to create the right environment to attract private sector funds for infrastructure. "Infrastructure needs long-term investors and to draw those investors, you need predictability on the government side," he argues. "There are still too many breaches of contract and adjustments being made [by governments] that threaten that predictability."

For a stable environment to emerge, governments have to implement far-reaching reforms, argues Wenn.

He is not alone in calling for reform. A recent stock take on African infrastructure elaborated by the World Bank (*Africa's Infrastructure – A time for transformation*) found that about a third of the "infrastructure assets of a typical African country need rehabilitation". However, much of that rehabilitation could be avoided if these assets were properly maintained, the study argues.

For the roads sector, the study found that "spending \$1 on road maintenance provides a saving of \$4 to the economy", meaning that "an estimated \$1.9 billion of capital spending on rehabilitation could have been avoided with sound preventive maintenance."

"Now, African governments can only get more [external] funds if they rehabilitate their roads, putting a lot of pressure on them to get things right"

"The whole problem starts at the building stage," explains Wenn. "During procurement, governments award these roads to the lowest bidder and sometimes this becomes a problem, as they don't have enough funds to maintain the road. Governments are also wary of regulating the trucking agencies, meaning their trucks are allowed to ruin all these roads," he continues.

The latter "is a very complex issue and there hasn't been enough political will to change it" although he contends things are progressing: "Now, African governments can only get more [external] funds if they rehabilitate their roads, putting a lot of pressure on them to get things right."

Another problem affecting private sector participation in funding African infrastructure is the question of user charges. "Being able to recover costs via user charges is a crucial issue for infrastructure, especially for maintenance, but there hasn't been enough political will to increase user charges," Wenn points out.

Given that many of the people in these countries are very

“We need local banks to provide the sort of long-term financing required for infrastructure projects. And we need local resources to avoid getting bogged down in hedging currency risk”

poor, could they actually afford such increases, though? “There are mechanisms, like coupon systems, that can ensure that people pay affordable user charges,” answers Wenn.

But the creation of independent, apolitical regulatory agencies is also a big part of the reforms needed to create the type of stable environment that will be conducive to increased private sector investment, the DEG chairman points out.

If Wenn stresses the importance of effective institutional reform it is because it produces very good results in the countries where it is already taking place.

“Kenya and the Ivory Coast are very promising markets,” Wenn says. “In Kenya, DEG has been heavily involved in funding independent power projects (IPPs) in the renewables sector and one of the reasons why these projects have been successful in Kenya is because the government is mitigating risk, the power purchase agreements are solid, and the mechanisms are tried and tested,” he says.

“There is a lot of ongoing reform, especially in the power sector, in Nigeria, Cameroon and Zambia. Senegal, for example, is now in the process of replicating European legislation and is opening its power market,” Wenn states.

An advocate of regional integration, the DEG chairman “recommends that the rest of Africa replicate the success of the East African Community (EAC)”.

The EAC is an intergovernmental organisation comprising the east African countries of Burundi, Kenya, Rwanda, Tanzania, and Uganda. It’s one of the most successful examples of regional integration and economic cooperation in the continent, with its own customs union and a common electricity market.

In July, its members took a step forward and signed an agreement to implement the free movement of labour, capital goods and services across its five member states over the next five years. There’s even talk of establishing a common currency as early as 2012. Needless to say, the benefits of pooling efforts on a regional scale have immense benefits when it comes to attracting private sector investments for infrastructure.

In East Africa’s case, it provides investors with access to a combined population of 133 million people and a shared gross domestic product (GDP) of \$80 billion (2010 values) through an integrated market environment. But tighter integration is not only useful to attract foreign investors; it can also help develop the local private sector, which Wenn sees as a big part of the infrastructure equation going forward.

“As a DFI, we are always inviting the local private sector to participate via co-financing structures. We need local banks to provide the sort of long-term financing required for infrastructure projects. And we need local resources to avoid getting bogged down in hedging currency risk,” he argues.

But reform isn’t just limited to African governments, Wenn

points out. There is work to be done on all sides and involving all participants in African infrastructure.

“There has to be a more systematic approach to donor financing. For example, there are more than 50 project preparation facilities in Africa that are not used because people don’t know about them. There is still a lot of misunderstanding,” Wenn says.

“Also, and this is one of the reasons why the Infrastructure Consortium for Africa (ICA) was created, we need more dialogue between donors and the private sector,” he says, adding: “Donors can play a big role in mitigating risk and can really help create public-private partnerships”.

Like Bobby Pittman, the African Development Bank’s vice president for infrastructure, private sector, and regional integration, Wenn also stresses the need for more vehicles to access African infrastructure. “At DEG, we invest in a lot of funds, such as the Emerging Africa Infrastructure Fund. Funds are very good vehicles to diversify risk,” he contends.

And importantly, all sides have to do a better job of conveying the message that there are good returns to be made from African infrastructure.

“It’s true there is a lot of risk in Africa but there are also a lot of opportunities and the returns are high, in the mid-twenties,” Wenn points out. “That’s why Africa is already attracting a lot of private sector interest from places like Brazil and India. But we have to convey this message to investors better.” ■

DEG AT A GLANCE

DEG was founded in 1962 with the aim of financing private companies in developing countries. Since then, it has invested over €11 billion in more than 1,500 companies across the world, helping to unlock an investment volume of €70 billion. In 2009, DEG added €1 billion of project finance deals to its global portfolio of €4.7 billion.

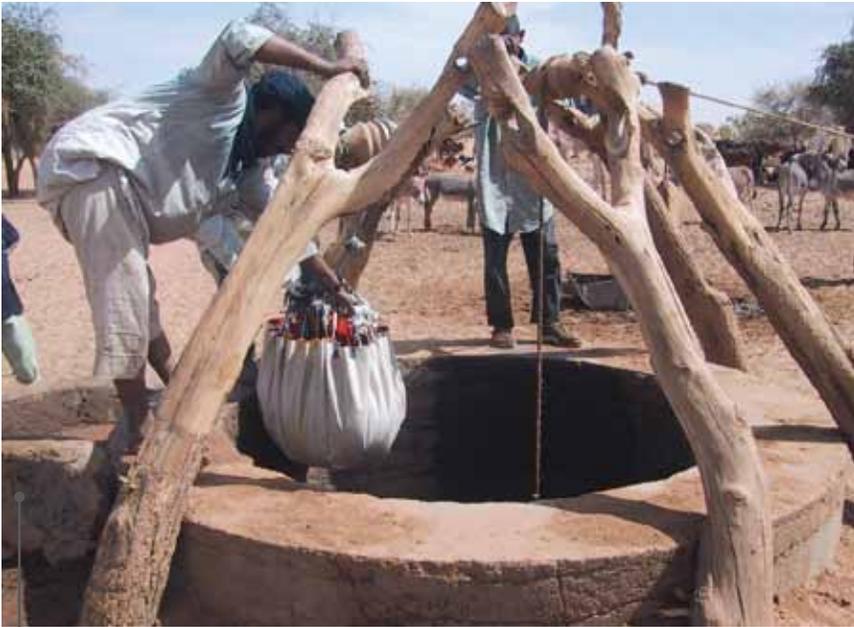
Most of DEG’s new business activity last year came from Asia, with Africa coming in second. Its investments have historically targeted all sectors of developing countries’ economies, especially agribusiness, infrastructure, processing industries and the financial sector.

DEG targets the private sector operating in these countries in two ways – as a partner for enterprises looking to undertake investments on the ground; and as an investor paying special attention to investments that might have a catalytic effect on developing countries, helping them to reach the United Nations’ Millennium Development Goals.

Source: www.deginvest.de

A trickle of projects

Private investment in Africa's water sector is a huge challenge, but the urgent problem of lack of access to drinking water means that innovative solutions need to be found. Small-scale projects are leading the way in beginning to develop frameworks for future success



Africa is blighted by lack of access to water

“Some concessions have fallen apart and they have been high-profile so people say the private sector shouldn't be involved at all. It's an emotive subject, and not all the arguments that are used are based on fact”

EVIDENCE OF LACK of accessibility to water in Africa is sadly not hard to find. To refer here to just a couple of examples, courtesy of the World Bank: less than 60 percent of Africa's population has access to drinking water; while only 4 million hectares of new irrigation have been developed in Africa over the last 40 years, compared with 25 million hectares in China and 32 million hectares in India.

There are many factors which serve to undermine the African water sector, according to the World Bank. Among them: high hydro-climatic variability, inadequate storage, rising demand, and lack of trans-boundary co-operation (with more than 60 trans-boundary rivers running across the region). Therefore, it's hardly surprising that the World Bank should conclude that “developing large-scale infrastructure to manage water use and avoid conflicts [in Africa] is a huge challenge”.

Talk to infrastructure investors about the water sector in Africa and the response may

be something akin to a sigh or a shrug of the shoulders. For reasons of humanity as much as profit, they would much rather there was a stronger prospect of success. Some will refer to the odd project that came across their desks that looked interesting but which they eventually passed on; many will say the challenges are just too great to allow them much hope of investing at this point.

Figures from the database of the Public-Private Infrastructure Advisory Facility (PPIAF) are instructive in this respect. They show that, of 238 African infrastructure projects undertaken between 2000 and 2009, the telecom sector witnessed 97 projects in 37 countries; transport 57 projects in 19 countries; energy 69 projects in 27 countries; and water just 15 projects in 13 countries.

SENSITIVITY

“Water is absolutely challenging for the private sector,” says Gad Cohen, deputy managing director at InfraCo Africa, a principal project developer which aims to stimulate greater private investment in African infrastructure. “The reasons are manifold. There is sensitivity on the part of governments to relinquish something to the private sector that is so fundamental. Furthermore, around ten years ago some governments tried to bring in more efficiency and increased tariffs and it was politically explosive. The cost equation is a big issue.”



The IFC's Jamieson wants more agricultural projects

Cohen points out that in countries where the need to access affordable water is at its greatest, the cost of production is often higher than elsewhere. Hence, developing infrastructure that potential customers can ultimately afford to pay for is problematic. Cohen says that, in the power sector, tariffs have been gradually increased to allow the private sector to play a role but he adds that “associated income-producing activities” make these tariffs affordable.

In the case of water, “you have a sector where governments do not want to relinquish control and where you have the fundamental issue that, for projects to be effective, they will need a lot of concessionary/grant money to make them affordable,” says Cohen.

However, while this is certainly part of the story, it’s thankfully not the whole story. For one thing, PPIAF conducted extensive research into African water and power public-private partnerships (PPPs) and discovered that, in these cases, there was actually little change in the cost charged to consumers.

Jane Jamieson, a senior infrastructure specialist within IFC’s Washington DC-based advisory services in infrastructure group, says there’s no lack of the kind of pragmatism hinted at by Cohen, whereby governments will frequently provide subsidies in order to keep prices low. Moreover, she says that, even where prices are raised, consumers are often willing to pay the extra amount if only they can be guaranteed water access. One of the biggest problems, as she sees it, is that the poor are often served by unregulated operators and thereby end up paying more than if they were connected to the same network as the more affluent.

AMBASSADOR

Jamieson has become something of an ambassador for PPPs in the water sector in Africa, as she believes there has been much misunderstanding about the motives of such deals and their efficacy. “Some concessions have fallen apart and they have been

CASE STUDY: WATER SERVICES IN UGANDA

The IFC recently supported the government of Uganda to successfully bid out the expansion and management of water services for the town of Busembatia to the domestic private sector. Crucial to the success of the project was the fact that the traditional public-private partnership transaction advice provided by IFC was complemented by a range of activities that addressed some of the key challenges faced by the domestic private sector, such as access to credit.

The project worked with local private operators to increase their ability to access finance from local banks and also with financial institutions to help them understand the risks faced by small town water operators and develop risk mitigation strategies.

While the transaction was small in scale, the project also helped the government to facilitate the management of water public-private partnership contracts by developing a “generic” management contract for use on privately managed piped water systems that will ensure consistency in contract administration and management.

In addition, training was provided to representatives of the government and private operators in order that all signatories to the contract understood their obligations within the “generic” management contract. The operator has also committed to maintain tariffs at its current, government threshold tariff.

high-profile so people say the private sector shouldn't be involved at all. It's an emotive subject, and not all the arguments that are used are based on fact."

She continues: "I wish we could move beyond seeing this as simply public versus private because, in reality, everything is in a range in between. In Africa, it's not about big international companies coming in and doing big concessions, it's about the public sector adapting experience from and working together with the private sector to produce more efficiency in service delivery."

Jamieson says the IFC would love to provide more assistance to Africa's agricultural industry, perhaps by improving irrigation networks in the way that was done in Morocco. Here, citrus farming in the Guerdane district was becoming increasingly unsustainable as the area's 600 farmers were dependent on water from an underground aquifer that was rapidly diminishing. This meant they were also facing increasing pumping costs as the water table fell by two to three metres every year.

To address this chronic over-exploitation, the government of Morocco, in 2004, supported by the IFC, implemented the world's first PPP in the irrigation sector to attract private investment to construct a new irrigation network that would deliver water from an existing dam.

The project, structured as a 30-year build-operate-transfer (BOT) contract was awarded to a consortium led by Morocco's Omnium Nord Africain, creating the first domestic private sector infrastructure operator in irrigation. Today, the project delivers up to 45 million cubic metres of irrigation water per year to the area's farms which, in turn, support the livelihoods of 1,900 people.

Jamieson insists that there's no reason why success stories such as this could not be rolled out more generally as long as governments have the will to do it and are prepared to offer grants, soft loans and the like.

One thing that should be a priority for organisations like the IFC, says Jamieson, is a clear demonstration of the costs and benefits. While infrastructure projects involving the private sector will often involve subsidies, the counter-balance to this is that African governments often find themselves subsidising loss-making water companies. In other words, maintaining the status quo is not necessarily the cheapest option.

Jamieson does believe that there is more momentum for PPPs in the water sector in Africa as a result of there being more pragmatism. She points to countries like Uganda, Mozambique and Rwanda where "you have reformist governments keen to explore how the private sector can help develop their infrastructure".

No one is pretending that opportunities are vast at the current time for private investors in the African water sector. There are, however, signs that things are changing as modestly sized projects begin to evidence success and gain traction. Perhaps the seeds are being sown for private capital to play a role in larger and more numerous projects going forward. ■

THUMBS UP FOR WATER PPPS

A landmark study by the World Bank's Philippe Marin – *Public-Private Partnerships for Urban Water Utilities: A Review of Experience in Developing Countries* – analyses over 260 public-private partnership (PPP) contracts signed in the water sector across the developing world since 1991, including in Africa.

Marin concluded that "in many cases, private operators have improved operational efficiency, quality of service, and access to water and sanitation services". Below are four of the study's main findings. The first two show the private sector bringing clear benefits; while the latter two suggest a more balanced outcome.

- **Improved service quality.** Intermittent service is the main quality issue in water supply for most countries of the developing world. Data from both Colombia and Western Africa on the performance of several PPP projects that started under water rationing suggest that PPPs can be an efficient approach for turning around deteriorated systems.
- **Improved operational efficiency.** Data available on the performance of PPP projects in reducing water losses and improving bill collection and labour productivity suggest that operational efficiency is the area where the positive contribution of private operators is the most consistent.
- **Impact on tariff levels.** Attempting to measure the impact on tariffs of the introduction of private operators is fraught with difficulty, especially in the context of developing countries. Published studies have not been able to find any significant difference in tariff levels between PPPs and comparable public utilities. Tariffs often went up with the implementation of PPPs, but rarely as a direct result of the entry of a private operator.
- **Expansion of coverage.** Although many PPP projects have expanded access to piped water, there has been a wide diversity in actual performance. The performance of PPP projects in expanding access has been highly dependent on their financial design. Expanding access to previously unserved populations often requires large investments in systems expansion, and the conditions for access to funding have varied widely among contracts. Several of the projects that relied solely on private investment achieved disappointing results.

Give private capital a chance

The private sector is urgently needed to help Africa achieve Millennium Development goals for water, argues **Richard Little** of the University of Southern California

The United Nation's Millennium Development Goals call for reducing by half the proportion of people without sustainable access to safe drinking water by 2015. The UN Human Rights Council has also taken the position that access to adequate supplies of safe drinking water is a basic human right irrespective of economic status. This, in turn, has led to many calls for purified water to be made available as cheaply as possible throughout the developing world.

Unfortunately, some public interest groups have taken the position that because access to safe water is such a basic right, its provision can only be accomplished by the public sector. The provision of water by the private sector is viewed as infeasible by these groups because of the need for private enterprise to earn a return on its capital (make a profit) which would inevitably lead to overcharging of the economically disadvantaged who can least afford to pay. I would suggest that this is a false choice.

If we can accept the premise that the cost of delivering water to the poor in Africa and the rest of the developing world will probably need to be subsidised, either fully or partially, the real question becomes what is the most cost-effective method to do so. Institutional capacity to deliver basic services remains a challenge in many parts of Africa.

Ideally, building indigenous capacity to do this should be the goal of any development programme. However, the pursuit of this goal should not preclude the immediate delivery of basic services in the most efficient and reliable manner possible. If the private sector is better positioned to do this in a particular country or region in Africa, why should the poor be held hostage to what is essentially an ideological question of public versus private provision?

“Why should the poor be held hostage to what is essentially an ideological question of public versus private provision?”

Although there is certainly much to be said for “protecting the public interest,” my work in this area has shown that most concerns about the public interest can be distilled down to whether the presence of the private sector in the delivery of basic services would cause users to pay more than they would have to under a public provision model. However, if the real concern is for the poor who have limited ability to pay in any event, the focus should be how to deliver these subsidised services in the most efficient manner.

The general perception, championed by some public interest groups, is that “public” services, delivered by any entity other than a government agency, will somehow cost more and provide a lower level of service. Those opposed to any private involvement in the delivery of “public” services see price gouging as the inevitable outcome of these arrangements. However, a legitimate question to ask is whether the public interest is well served by a system where prices are kept artificially so low for everyone, including those who can well afford to pay, as to preclude the delivery of an adequate supply of safe, reliable water and where sufficient revenue cannot be generated to

support routine maintenance, repair and renovation of the infrastructure.

“Free” water comes with its own costs. In Dar es Salaam, for example, water was historically subsidised and provided below cost to all. In addition to the negative impacts of such policies on capital investment in the system, these practices actually hurt the very people they were intended to help. By reducing revenues to a level below which system expansion and improvement could not occur, the availability to poor people of even marginally purified water was also reduced, leaving them the undesirable options of using more expensive or unsanitary sources.

Although there are definitely social and moral questions that can be raised regarding what constitutes equitable charges for the necessities of life itself, these questions do not obviate the fundamental reality that projects and services must be paid for; if not directly by some or all of the users, then by the larger “public” instead. However, there is no reason why the private sector cannot function quite effectively in this space.

At the heart of this issue is the need to strike a fundamental balance between the provision of efficient, reliable, and equitable services and a mechanism to pay for them. Ultimately, the question for developing nations in Africa and the NGOs that assist them is how to best deliver a safe, reliable and accessible water service. In cases where the private sector is better positioned to do this, the fact that the provider may make a profit should be of less concern than that the poor could be spared the miseries and lost opportunity that accompany a lack of access to safe drinking water. ■

Richard G. Little is director of the Keston Institute for Public Finance and Infrastructure Policy at the University of Southern California

‘It’s all about the structuring’

Some African governments may have undue expectations of what public-private partnerships can deliver. But the IFC’s **Laurence Carter** believes that, with the right structuring and a properly defined risk allocation, African projects are well equipped to raise finance

AS AN ADVISER to governments on public-private partnerships (PPPs), the International Finance Corporation’s (IFC) infrastructure advisory group is at the cutting edge of private sector involvement in helping to meet Africa’s infrastructure needs. Reports from the frontline suggest this can be both a daunting and rewarding task in more or less equal measure.

“The rhetoric [about PPPs] is sometimes ahead of the practice,” says Laurence Carter, a director in the infrastructure advisory department at the IFC. “A lot [of governments] will talk about it but there is a wide range of understanding. Some think the private sector will come into a project and the public sector doesn’t have to pay anything. In other words, they have an unduly high expectation of what’s possible. Others have well-developed PPP units.”

In the face of resistance to PPPs in places like Africa, Carter is sympathetic while also believing that PPPs have a lot to offer. “Governments are understandably concerned about the complexity and time involved. Under a traditional process, they may choose to borrow money from a multilateral and the process is clear and understood on both sides. PPPs, on the other hand, are more complex, take time and there can be political pitfalls. At the same time, PPPs offer the possibility of linking

payments to the quality of services provided over the life of the contract, which can lead to much better performance.”

Carter continues: “As a minister, you won’t get criticised for obtaining a \$100 million loan from a development finance institution. But if it’s a \$100 million contract with a private port operator for a concession, there’s likely to be opposition. There may be claims that people could lose their jobs or [there may be] accusations of corruption.”

IDEOLOGY FREE

Indeed, Carter acknowledges that private sector participation will not be appropriate for all projects and insists, therefore, that the IFC’s infrastructure advisory group has “no particular ideology”. He adds: “If a government came to us, we’d assume that it was potentially interested in private involvement - which may be about mobilising capital or efficiency. When we do a preliminary report, we see whether it makes sense to bring the private sector in.”

Carter continues: “Some governments think they’re getting things for free, but there is often a significant public sector commitment either in financial or risk terms. Before entering into an advisory mandate we always consult a country’s Ministry of Finance. The decision is often not clear cut. Successful PPPs require clear political leadership and administrative capacity.”

Having an efficient PPP framework that delivers optimal outcomes for both public and private sectors is not any easy thing to achieve anywhere in the world. It’s no surprise therefore that, while there has been progress on the use of PPPs in Africa, their execution has been patchy.

However, relatively wealthy North African countries such as Egypt and Morocco have shown what’s

“Before entering into an advisory mandate we always consult a country’s Ministry of Finance. The decision is often not clear cut. Successful PPPs require clear political leadership and administrative capacity”

possible, whilst - in East Africa - Kenya and Uganda have made notable advances. Nigeria is another country that has ambitions of attracting a large amount of private capital to infrastructure projects and Libya, as an oil-rich nation, is also expected to undertake PPPs going forward.

The infrastructure advisory group is staffed by around 80 to 90 people globally and, as an adviser to private companies and governments, is one of the two main elements of the IFC's private sector development mandate – the other being the more high-profile area of financing.

Carter explains that his group effectively acts as a consultancy, advising governments on possibilities for bringing in the private sector. Although this can involve assistance with structuring PPPs, it covers many other types of activity as well. "Governments may look to divest, bring private firms in under a management contract or build something new (greenfield). In many cases it makes sense to use a transaction adviser, which could come from the private sector or, where appropriate, from an agency such as IFC."

AFTER THE WALL FELL

Having been formed in 1956, the Washington DC-based IFC was focused for its first 30 or so years primarily on providing finance in emerging markets. "With the fall of the Berlin Wall," Carter recalls, "the need arose to provide services for governments in Eastern Europe that were looking to sell assets to the private sector and we put together teams to cater to that need."

The infrastructure advisory group was launched in 1989 and its focus in the 1990s was mainly on privatisations. Carter takes up the story: "By the end of the 90s, we were focused on the most difficult sectors where there were regulatory and legal challenges, especially infrastructure and PPPs. Now we provide advice to governments to structure and competitively bid out PPPs all over the world and currently have about 50 mandates."

In order for the IFC to accept the offer of an advisory mandate, says Carter, the government should be committed to a transparent, competitive bidding process. He adds that, once

IFC ADVISORY SERVICES AT A GLANCE

The International Finance Corporation (IFC) advises governments on private sector participation in infrastructure and other public services, such as health and education. Its advisory work is designed to balance the requirements of investors with public policy considerations and the needs of the community to support broader access to public infrastructure and services, improve living standards and promote long-term economic growth.

Today, an estimated 884 million people in developing countries are without clean water; 1.6 billion are without electricity; 2.5 billion are without sanitation; and nearly one billion are without access to an all-weather road. Developing countries invest, on average, less than 4 percent of their GDP on infrastructure each year, when they should be spending an estimated 7 to 9 percent to sustain broader economic growth and reduce poverty. The IFC believes the private sector can play a critical role in helping governments bridge this gap.

In the last 20 years, IFC's Advisory Services in Infrastructure has advised on more than 250 private sector-participation transactions in 80 countries. Transactions completed in 2009 benefited 4.9 million people, yielded fiscal savings of \$360 million and leveraged over \$1.7 billion in private investment.

it has accepted a mandate, the IFC will do an options report including financial modelling and structuring and "if the government decides to go ahead with a particular approach, we'll help and support that. Our involvement ends when a winning bid is announced".

In Africa, getting to that point of winning bids being announced is, for all the challenges, an increasingly regular occurrence these days. "If you have a well structured project where the risk allocation is properly defined, it is perfectly possible to raise finance in Africa," Carter concludes. "It's all about the structuring." ■

CASE STUDY: LESOTHO NATIONAL REFERRAL HOSPITAL PPP

In 2008, IFC's infrastructure advisory services group acted as lead advisor when Lesotho in southern Africa was seeking to replace its main public hospital with a new 425-bed facility supported by a network of refurbished urban clinics.

In what was a first for the health sector in Africa, it was agreed that the facility would be designed, built, financed and operated under

a public-private partnership (PPP) contract awarded to the Tsepong consortium, which was led by Netcare, a South African private hospital and healthcare group.

The 18-year, \$100 million PPP agreement was financed through a combination of commercial funding by the Development Bank of South Africa, a government contribution and private equity. It was also

supported by technical assistance funds from the Dutch and Swedish governments and a grant of \$6.25 million from the donor-backed Global Partnership for Output Based Aid.

The new hospital is scheduled to open in mid-2011. It is anticipated that patients will have access to improved medical services and care while still paying the same as they would at Lesotho's other, public hospitals.

Securing free flow



Source: Agence Spéciale Tanger Méditerranée

Morocco's Tangier-Med cargo port

Improving Africa's transport network is only part of the story. Equally important is ensuring that upgrades are accompanied by reforms allowing infrastructure to be put to good use

IN MANY WAYS, the African transport sector is symbolic of the broader obstacles facing the successful procurement of African infrastructure. In particular, it is illustrative of the need to develop coherent policies that address not just the shortages on the ground, but, also, pave the way for that upgraded infrastructure to be utilised efficiently.

Take Africa's roads. A recent study conducted by the World Bank on the state of African infrastructure, the African Infrastructure Country Diagnostic (AICD), finds that, "on average, 80 percent of the main road network is in good or fair condition". That is good news but as the study quickly points out, "surface transportation is about more than good roads".

More to the point, roads are an enabler: they exist to enable people and goods to move from destination to destination, and this is where some of the larger problems start to emerge.

"Roads are Africa's dominant mode of transport and carry over 90% of traffic," state Carole Biau, Karim Dahou and Toru Homma in a joint study published at the end of 2008 by the African Union's New Partnership for Africa's Development (NEPAD) and the

OECD. However, "Africa continues to be handicapped by very high freight road tariffs," AICD points out.

Logistics standards are also low meaning that inefficient border and customs agencies increase costs and waste time for those circulating on Africa's roads. The same can be said for ports. AICD estimates that corruption in some African ports can increase the cost of shipping a "standard 20-foot container travelling between South Africa's economic hub and eastern Africa or the Far East by up to 14 percent and the total port costs by up to 130 percent" – a staggering number.

On the flipside, addressing many of these inefficiencies can be done with political will and a little help from the private sector. In fact, that is already happening. Take a cursory look at public-private partnerships (PPPs) in the roads sector over the last two years and you will find that a number of very high-profile deals have successfully reached commercial and financial close.

Port concessions have also been successful and with many African ports now on the brink of exhausting their capacity due to increased international trade, there are bound to be many more opportunities for the private sector in the months and years to come.

The challenge for the African transport sector then is not just about filling the gaps that exist on the ground. The real challenge is to make sure these efforts are accompanied by comprehensive reforms that will enable transport infrastructure to function efficiently.

Roads and ports, two of the most promising areas for the private sector, provide interesting case studies on how these obstacles can

THE ROAD TO MOZAMBIQUE

Portuguese firms Mota-Engil and Soares da Costa, together with local Mozambican company Infra Engineering Mozambique, closed a 30-year contract to design, build, finance, operate and maintain a network concession comprising some 700 kilometres of road in Tete, a province in northeast Mozambique, in late 2009.

Luis Parreirao, a member of Mota-Engil's board of directors and head of the firm's African operations at the time, recalls how securing revenue collection was crucial to obtain funding for the project:

"Three sets of principles were defined regarding the collection of tolls: the government will guarantee minimum net revenue; tolls will be updated yearly; and there is a principle of non-competition between the concessionaire's two bridges, which form part of the concession contract," Parreirao said.

"Additionally, the government pledged that there will be no other roads or bridge concessions in the area covered by the contract and the government has also agreed to update tolls annually and index them to inflation."

be overcome. Rail, on the other hand, illustrates some of the pitfalls investors may stumble into.

There are many problems affecting Africa's roads but one of the most troubling is surely the chronic – and very costly – under maintenance that has been plaguing the sector for years.

Authors Biau, Dahou and Homma point out that, "due to poor maintenance, many African countries have lost about half of their road networks over the last 40 years".

AICD confirms that there is a "pronounced capital bias in road spending, with investment accounting for two-thirds of total spending in the resource-rich and low-income countries, particularly those without adequate institutional mechanisms for funding road maintenance".

Those adequate mechanisms require that countries set up apolitical road agencies, make sure those agencies are collecting revenues properly to offset maintenance costs (via fuel taxes, for example), and set up separate pools of money, or road funds, that will be used for the sole purpose of ensuring adequate maintenance.

Encouragingly, several African countries already possess many of the above mentioned mechanisms. But on a less positive note, there have been problems in ensuring that they function properly:

"Many countries have major difficulties in collecting the [fuel] levies, whether because of evasion (Tanzania) or delayed transfers of revenues (Rwanda), and capture perhaps as little as half the planned resources. Therefore, the road funds in Benin, Cote d'Ivoire, Ethiopia, Gabon, and Zambia still depend on budget allocations for more than three-quarters of their resources rather than being funded largely from fuel levies, as is the intention of the road funds," AICD notes.

It's hard to overestimate the importance of the latter when it comes to attracting the private sector. After all, without adequate revenue collection (be it through fuel levies or tolls) there can be neither demand-based real toll contracts nor government-funded maintenance contracts.

The good news, though, is that governments are increasingly realising the importance of successfully implementing these mechanisms, with several high-profile PPPs signed over the last two years attesting to this.

DEAL FLOW

Austrian construction company Strabag, together with Israeli firm Shikun & Binui won a €740 million contract in late 2009 to refurbish and expand a 45-kilometre stretch of road in the Kenyan capital, Nairobi, in addition to operating the full 106-kilometre road for 30 years.

Backed by guarantees from the World Bank covering toll collection and political risk, the two companies agreed to recoup their investment – including some €475 million in capital expenditure – by collecting tolls, exposing them to traffic risk.

Around the same time the Kenyan deal was awarded Portuguese construction companies Mota-Engil and Soares da Costa were closing a similar deal in Mozambique (see The Road to Mozambique, left). Fast forward to November 2010 and French infrastructure group Eiffage announced that it had closed a 30-year contract to build, finance, maintain and operate a 25-kilometre, greenfield road in Senegal.

Again, that project – worth €230 million and backed by just over €62 million of debt provided by the IFC, the African Development Bank, Senegalese bank CBAO and the West African Development Bank – will require investors to be exposed to traffic risk and collect tolls.

While these brief descriptions don't do justice to the amount of work that goes into preparing these contracts and making sure that risks are adequately shared between the public and the private sectors, they do show what happens when an enabling environment for PPPs is created.

Importantly, road PPPs show no sign of abating in the near future with Admassu Tadesse, head of the Development Bank of Southern Africa's international division, pointing out that "this year is going to be a record year for the bank in terms of the road projects that have been approved, and many of them are PPPs."

If the proof of the pudding is in the eating then the amount of road deals signed recently is clearly illustrative of the private sector's will to capitalise on the opportunities that arise once countries actually create the right environment for them to invest.

Ports are one of the most interesting infrastructure sub-sectors for private investors not least because many are nearing capacity due to Africa's spectacular economic growth and increasing intra-continental trade.

“In the last decade, African ports saw an increase in shipping container traffic of 11.8 percent. Over the same period, general traffic cargo increased by 9.7 percent. While many projects have been rolled out for this purpose, they are not enough to meet the rapidly growing demands on African ports,” wrote Ian Lee and Isabelle Low in a note to investors published in July 2010 by Singaporean export agency International Enterprise Singapore.

But that’s not all. As the authors point out, “there remain many opportunities for private sector involvement in this sector [and] companies can expect high returns from investing in strategic African ports, owing to the massive leap in port volume which can be attained through better infrastructural and operational capacities.”

To frame that potential a bit better, it is also worth noting that only 3.5 percent of total global trade – 80 percent of which is carried by sea – was handled in Africa as of 2008. As it stands, Africa’s main trading partners are the European Union and the US, “accounting for 40 percent and 25 percent of its exports respectively,” Lee and Low point out in their note.

However, as highlighted by Jerome Ntibarekerwa, secretary general of the Port Management Association of Eastern & Southern Africa in an October 2010 conference in Nairobi, the increasing “integration of regional economies with Asian suppliers” is also one of the factors putting pressure on the region’s ports.

Still, there is more to be done than just upgrading the capacity of African ports. In October 2010, the East African Community (EAC) said in a report that the ports of Mombasa, in Kenya, and Dar es Salaam, in Tanzania, are fast approaching their capacity limits. The long-term solution, the report highlighted, would be to upgrade capacity for those ports while developing new ports in both countries, both of which are already underway and expected to draw on private sector financing.

However, the EAC also suggests that, in the meantime, “another way of adjusting the operational pressure at the ports is to revamp and effectively utilize” a number of existing inland container depots. There is a problem, though: the transport corridors surrounding the two ports are in very poor condition, with about 27 percent of the regional road network serving them unpaved.

In addition, there are also “about 1,000 kilometres [that] require immediate remedial intervention to reinstate them to functional levels and 1,700 kilometres are currently operating under a ‘warning’ state due to pavement deterioration that requires rehabilitation,” the report adds. “This clearly shows that the transit corridors are in dire need of expansion,” it concludes.

The lesson, then, as the EAC’s report clearly illustrates, is that increasing the capacity of African ports via the private sector is only one half of the story. The other half of the challenge is to make sure all that increased capacity and trade can flow smoothly from the ports to their intended destinations.

It’s a lesson that goes beyond ports and roads and is the key for the successful functioning of Africa’s transportation network.

“Since 1992, there have been 16 rail concessions in Africa. Two of the 16 have been cancelled; one has been badly affected by war,

and one has suffered from natural disasters and procedural delays. Six have operated for five years or more but only two of those without a significant dislocation of some sort.”

That short history of African railway concessions, courtesy of the World Bank’s African Infrastructure Country Diagnostic (AICD), shows that while railway concessions have a track record in Africa, that record is not exactly spotless.

In a joint presentation earlier in 2010 on railway concessions in Sub-Saharan Africa by the African Development Bank and the World Bank, Pierre Pozzo di Borgo, the World Bank’s program coordinator for African transport, listed four reasons for what he termed “the overall disappointing performance of railway concessions”.

They were the “overestimation of serviceable freight markets; underestimation of investment needs; undercapitalization of concessions; and undue expectations regarding passenger service”.

STRONG POTENTIAL

But while problems have arisen, many of these concessions have incredible potential, as illustrated by this year’s rescue of the Rift Valley Railways (RVR), a 25-year railway concession to operate a 2,000-kilometre line connecting the port of Mombasa, in Kenya, with the interiors of both Kenya and Uganda.

Three years following the financial close of RVR in late 2006, the concession was underperforming on various levels and verging on collapse.

According to a case study by the Public-Private Infrastructure Advisory Facility, a donor-funded technical assistance facility, RVR suffered from three main problems:

“First, [the concessionaire] proved not to have sufficient expertise in actually running a railway operation to begin improving the system’s revenues. Second, because revenues were not improving, RVR was not making required initial investments and was eventually unable to make fee payments to the government owners. Third, in early 2009 government officials in both countries began talking about cancelling the concession, and the RVR consortium was prompted to take action to make fee payments to the government owners.”

The concession was eventually rescued from collapse by Egyptian private equity firm Citadel Capital in early 2010, after it acquired a 49 percent stake in RVR’s major shareholder and promised to invest \$150 million in the railway line over the next five years.

That Citadel decided to take the plunge is testament to RVR’s potential. As Citadel managing director Amr El-Barbary put it:

“Kenya Uganda Railways hauls just over 1 million tons per annum out of an existing market of 16 million tons being handled in Mombasa port today. New investment and a fresh approach to management could see that figure grow to 5 million tons per annum within five years.”

The lesson from the African railways sector then, as AICD summarises, is that “concessioning is warranted when the business fundamentals supporting it are sound”. ■

‘It won’t always be this sweet’

Admassu Tadesse, head of the Development Bank of Southern Africa’s international division, speaks about the huge rewards to be reaped by early comers into African infrastructure



Tadesse: early investors will be rewarded

“The earlier you’re in, the sweeter it is. Over time, margins will come down and competition will kick in. But for now, there’s a huge premium, because there isn’t enough to go around and incentives are high”

IT’S EASY, WHEN discussing private sector participation in African infrastructure, to get so bogged down on what needs to be done to further harmonise the public-private relationship that other considerations tend to be overlooked.

Like timing, for example; that elusive balance of deciding when the risk/reward metrics look just right to maximise returns from a nascent market.

In the case of African infrastructure, those pioneers that have taken the plunge have found that, when the pieces of the puzzle fall into place, the rewards to be had for their boldness can be quite high. How high? High enough to place returns in the mid-twenties for projects that would not generate more than low teens in other parts of the globe.

Of course, that’s the benefit of being an early adopter in practically every sector of the economy in practically every market across the world. But what Admassu Tadesse, a senior executive and head of the Development Bank of Southern Africa’s (DBSA) international division, is arguing is that those wanting to make those sort of returns from African infrastructure had better come on board now.

“It won’t always be this sweet,” he says in relation to the handsome returns being made by early participants in the African infrastructure market. “The earlier you’re in, the sweeter it is. Over time, margins will come down and competition will kick in. But for now, there’s a huge premium, because there isn’t enough to go around and incentives are high. So for now the panorama is very attractive for those who are bold enough to step into this space before others,” he argues.

NOT SO RISKY

Taking that plunge is perhaps not the huge leap of faith some might imagine it to be. For starters, there are indications that Africa is not as risky as it’s made out to be. A recent study by Moody’s, the ratings agency, analysing the performance of 20 years of project finance loans (taking in about 45 percent of all projects financed since 1983) found that only one project out of 92 defaulted in Africa.

Then there’s the fact that African countries are rapidly beginning to create the type of economic environment conducive to private sector investments, further easing risk.

“Now that the whole macro-economic question has been sorted out by African countries, including things like inflation, countries’ attention is now moving to micro-economic reforms, such as managing issues, reform of institutions, improving the performance of organisations and the like,” Tadesse explains.

“Micro-economic reforms are very much on the agenda, and there’s strong political commitment to good corporate governance and economic governance. So

the expectation is that improvements will continue to be made on this front,” he adds.

That improving climate, in turn, creates increased opportunities for private sector participation in infrastructure.

“This year is going to be a record year for the bank in terms of the road projects that have been approved, and many of them are public-private partnerships (PPPs),” Tadesse points out. “We are aiming to finance at least \$462 million of projects this year. Traction in regionally-oriented transport infrastructure is really manifesting now.”

Power, Tadesse highlights, is going to be the other sector high on the bank’s list for this year and he sees good opportunities in southern Africa for independent power producers (IPPs) going forward.

“I think IPPs will get a boost in southern Africa as a result of the policy decisions taken by the Southern African Development Community’s (SADC) energy ministers to institute full cost reflective tariffs across the board,” he says. “I think tariffs had been a big part of the problem so far so I think this change in the tariff regime will create a lot more scope for IPP opportunities”.

SADC groups together 15 African countries (including Angola, Democratic Republic of Congo and South Africa) with a combined population of almost 258 million people and a shared gross domestic product (GDP) of over \$471 billion. Its harmonisation of its tariff regime is another step in the direction of tighter regional integration, a subject which Tadesse, alongside many of the other interviewees for this report, views as crucial.

“I think southern Africa has clearly made a huge commitment to regional integration and part of this is manifested in infrastructure,” he argues. “For example, in power, you see the creation of special purpose vehicles, such as the Southern African Power Pool – a regional vehicle for the trading of power between countries in the region. Another area receiving attention is cross-border movement, mainly of goods.”

Still, Tadesse sees currency integration as a big step in the regional integration process, but this is going to take time in southern Africa due to complex compromises and negotiations that will need to take place. A more likely big step in regional integration, in the institutional space, will be in the areas of trade and a larger regional customs union in southern Africa, building on the generally positive, if less than ideal, experience of Southern Africa Customs Union.

“I think the real big push to economic integration will happen when currency integration goes forward. It’s already been

tried and tested in western and central Africa with the African franc, [called the CFA and used by 12 formerly French-ruled African colonies together with Guinea-Bissau, a former Portuguese colony], which continues to be a big part of the macroeconomic stability of that region. The political commitment [for currency integration] is there in principle and not just at a sub-regional level,” he points out, adding:

“The creation of the Euro has captured the imagination of Africa’s economic integration designers, who are deeply aware of the heavy burden of the continent’s fragmentation, which results in small markets and a proliferation of institutions.”

This is important not just to attract foreign investors, but, crucially, to help cement the spectacular growth the local banking sector has enjoyed over the last years.

“The African financial sector has experienced quite a lot of growth over the last five years. There’s been a huge increase in cross-border activity, mergers and acquisitions, and I think commercial banks have really stepped up to this whole regional integration game,” Tadesse highlights. “Some of them, like South Africa’s Standard Bank, have actually managed to go beyond southern Africa into East and West Africa,” he adds.

With more and more cross-border activity becoming a reality, those early adopters that have been cultivating local relationships since the beginning will be in a very strong position indeed. ■

OPENING BORDERS

A build-operate-transfer contract for a border post might not be your run of the mill public-private partnership (PPP) but it is part of a crucial area of economic infrastructure which the Development Bank of Southern Africa is focusing on, Admassu Tadesse explains.

In fact, one of the border post PPPs that the bank has recently helped to finance, Kasumbalesa Border Post, between Zambia and the Democratic Republic of Congo, has recently been recognised as Regional Project of the Year for 2010 by *Africa Investor* magazine.

The border post aims to reduce border congestion as well as fast track all border-related procedures related to government authorities and private operators. Presently, due to the poor condition of the existing facilities, border crossing can take up to seven days

Africa's digital lifeline

ICT, and mobile communications in particular, is the private sector's big success story in Africa, registering impressive growth over the last decade. The big challenge now is how to increase broadband penetration

IF THERE IS one area of unqualified success in the history of African public-private partnerships, that area is Information and Communication Technology (ICT).

In little more than a decade, the number of mobile phone users in Africa grew from around 2 million in 1998 to over 400 million in 2010, with more than 65 percent of Africa's population now living within the reach of wireless voice networks, according to data from the World Bank.

This spectacular growth was mostly the result of large-scale private investments. In Sub-Saharan Africa, ICT "has been the most successful sector, attracting 76 percent of regional investment (or \$60 billion) and implementing 97 projects in 37 countries," the Public-Private Infrastructure Advisory Facility (PPIAF), a donor funded technical assistance facility, wrote in a report in May 2010.

As a result, "even people among the lowest income groups have access to ICT through mobile networks," notes the African Infrastructure Country Diagnostic (AICD), a World Bank study. "Access to new ICT services has been remarkably broad. Across Africa, the rural mobile penetration rate is 3 percent, while in middle income countries it is as high as 13 percent. In urban areas, the penetration rates range from 22 percent in low-income countries to 38 percent in middle-income countries," the study finds.

In this sense, pre-paid services have proved instrumental in widening access to ICT. Nicholas Jotischky, principal analyst at Informa Research, a UK based think-tank, explains why:

"The prepaid market in Africa picked up because of the need for communication. The operators did not have to do much. Value-added services like SMS and M-PESA, the mobile banking initiative in Kenya, have been extremely popular. These initiatives are value added for the customers and a revenue generator in its own size for the company."

Jotischky says the private sector started looking to Africa as the mobile networks became popular overnight, opening the door for companies like Vodafone, Orange, MTN, Vodacom and Bharti Airtel to penetrate heavily into the African market.

Of course, none of this would have been possible without governmental support, he notes. "Governments have been extremely encouraging. In a market like Somalia, for example, there are six mobile operators with a total subscription of 2.2 million as of December 2009," he says.

Hamadoun Toure, secretary general of the United Nations' (UN) International Telecommunications Union (ITU), also highlights the importance of stable regulation in attracting private sector investments:

"What the private sector is looking for is a predictable regulatory environment where the rules of the game are clear and are not changing during the game. There are over 45 countries with a good regulatory



A mobile charging station in Uganda

"Even people among the lowest income groups have access to ICT through mobile networks"

authority today," he said on the sidelines of an African Union summit in early 2010.

That is not to say there isn't room for improvement on the regulatory front. As Toure stressed at the time, "the challenge is to bring them [the regulatory authorities] together, to work together on issues that are intercontinental." Which makes initiatives like HIPSSA, a jointly funded project by the ITU and the European Commission to harmonise ICT policies and regulatory frameworks across Sub-Saharan Africa, all the more important.

At a World Bank event held in April 2010 for the signing of a new public-private initiative dedicated to improving the lives of Africans through ICTs, Dr. Bitange Ndemo, permanent secretary at Kenya's ministry of information, highlighted that 9 million Kenyans, or about 25 percent of the country's population, are currently using mobile phones to make daily payments of some \$20 million.

Despite this enormous success story though, there are still opportunities for further private sector investment in the mobile phone sector, as mobile penetration in Africa currently stands at just 42 percent.

In a report published in early 2010 highlighting investment opportunities in ICT across Ethiopia, Nigeria and Zimbabwe, consultancies BroadGroup and Technology Strategies International predicted that mobile growth rates in these three countries should average, respectively, 38 percent, 10 percent and 24 percent over the next five years.

All of which bodes well in attracting more private sector investment for the African telecoms sector. The ITU's Toure said earlier this year at the African Union summit that he expected private sector investments in the African telecoms sector to surpass \$70 billion by 2012, an increase of \$20 billion on the amount promised at an earlier UN summit in 2007.

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If the mobile networks are growing healthily, the penetration of broadband and internet usage in Africa is growing slowly in comparison. According to World Bank estimates, internet users account for only 10.9 percent of the total population of Africa nowadays.

"There are vastly complex problems [hampering internet access] such as lack of wireline infrastructure, low penetration of computers, and the demographics is such that most of the people are in rural areas where there is lack of adequate infrastructure," explains Kalyan Medapati, a broadband analyst at Informa.

That helps explain why the rate of household penetration in Africa was just 2.5 percent in the first quarter of 2010. But it also offers different opportunities for the private sector to help plug this gap. For example, since wireline infrastructure is not fully developed and is costly, operators are turning to wireless technology.

"Economically it makes more sense for operators to pick wireless technology since rolling out wireless is cheaper than fibre optic," said Medapati.

AICD also reinforces the benefits of wireless technology by pointing out that the current level of broadband penetration can be expanded to national coverage using wireless network infrastructure. The study estimates it would cost \$900 million to offer wireless broadband services to the continent's entire population. Importantly, wireless broadband services would also allow for the implementation of the pre-paid schemes that proved so successful with mobile phones.

AICD points out that, "as long as the right competitive environment is established, the private sector would cover most of that amount, which could reach 89 percent of the population with this limited reach broadband access. Only \$200 million of public investment would be needed to reach the remaining 11 percent of the population in the coverage gap".

However, to make sure that high-speed internet becomes available to a majority of Africa's population at affordable costs, it will still be necessary to develop a substantial amount of backbone infrastructure, including the installation of high-speed internet cables connecting African countries and linking them up with international internet traffic (see EASSy does it, right).

At the same time, a lack of regional and national backbone infrastructure makes it costly and commercially unviable to provide communication services beyond the main urban centres. A needs assessment conducted by ITU concluded that, in addition to existing infrastructure, the African continent requires at least 52,000 kilometers of backbone infrastructure for intra- and inter-country connectivity.

The study further showed that investments of between \$50 million and \$500 million per country would be required to establish national broadband backbones. Encouragingly, a number of African countries

have developed strategies for building their national backbone and the trend is gathering steam in more and more countries.

In addition, there are a number of regional backbone projects which are likely to present an important window of opportunity for public-private partnerships. As competition has intensified among private operators, margins have come under significant pressure and average revenue per unit of traffic has declined by more than 50 percent over the last two years.

Furthermore, strong traffic growth has increased network capacity requirements as the network traffic pressure continues to rise and the need to expand networks becomes vital.

In Ghana, base station (BTS) requirements – the infrastructure that allows wireless communication between a user's equipment and a network – will double over the next five years from 2008 levels to more than 9,000, while Nigeria will have BTS requirements of around 25,000 over the next five years. This is forcing operators to turn to shared infrastructure to bring down the cost of rolling out wireless technologies.

As Admassu Tadesse, head of the international division at the Development Bank of Southern African neatly summarises: "Telecommunications has been very successful with the private sector, that's been the revolution in fact, but there are now additional private sector opportunities in helping to develop ICT broadband from the coast to the hinterland." ■

EASSy does it

The Eastern Africa Submarine Cable System (EASSy) is a multi-country, public-private project that is implementing a fiber-optic cable running over 10,000 kilometres above and underwater. The cable connects 21 African countries – including 13 landlocked nations – from the continent's southern tip (South Africa) to the African horn (Sudan) – lowering internet costs and improving access for 250 million Africans.

The hybrid consortium developing the project includes the West Indian Ocean Cable Company (WIOCC), comprising 14 African telecoms, together with other partners including South Africa's MTN Group, France Telecom and British Telecom, to name a few.

Construction on the \$248 million project started in March 2008 and included \$20 million in equity from WIOCC and a \$70.7 million loan to WIOCC from the African Development Bank, the Development Bank of France, the European Investment Bank, KfW and the IFC. The balance of the funds came in the form of direct capital investments from the other consortium members that are not part of WIOCC.

In operation since August of 2010, EASSy has enjoyed 100 percent network reliability in its first months of operations and is planning to double its current capacity in 2011.

Source: www.eassy.org

The ‘capacity builder’

UK-based Private Infrastructure Development Group has assembled a strong record of attracting private capital to African infrastructure. Programme manager Andrew Reicher is wary of PIDG growing too large and expresses the hope that others will follow its lead



Reicher: PIDG gets \$25 of private capital for every \$1 of donor funds

“There were lots of false starts and it’s been a matter of figuring out what works and what doesn’t”

GIVEN THE APPARENT success with which Private Infrastructure Development Group (PIDG) has gone about attracting private capital to infrastructure projects in Africa, it sounds strange to hear Andrew Reicher, programme manager at the organisation, say that its aim is to cease to exist. But this is, of course, entirely logical. The ultimate sign of success for the likes of PIDG would be the point at which private capital is flowing freely into Africa without any prompting – at this time, such organisations could simply step aside in the knowledge of a job well done.

That’s the dream. For now, there is plenty of work still ahead for Reicher and his colleagues. PIDG, which is based in Surrey, near London, was established in 2002 as a donor-financed group to help overcome the obstacles to private sector involvement in infrastructure projects in developing countries. Although PIDG will offer its services in emerging markets generally, Reicher points out that over 80 percent of investments the organisation has made to date have been in Africa.

PIDG was the brainchild of various individuals including John Hodges, head of infrastructure and urban development at the UK government’s Department for International Development (DFID); Clare Short, then the Labour government’s Secretary of State for International Development; and Keith Palmer, then vice chairman of international investment bank Rothschild. The idea, says Reicher, was to address the various deficiencies that were preventing the private sector from partnering in infrastructure in certain emerging markets – especially the poorer countries of Africa.

With the backing of donors such as DFID, the Netherlands Ministry of Foreign Affairs and the

Swedish International Development Cooperation Agency, PIDG first established the Emerging Africa Infrastructure Fund (EAIF) to provide long-term foreign currency loans for private sector infrastructure projects in Sub-Saharan Africa.

“The EAIF was the original facility and the idea was to create a business that would itself be a public-private partnership (PPP) where the first risk, the equity, was borne by the donors and it would be leveraged by private sector capital and managed by private sector professionals and make loans to projects being insufficiently served by other lenders,” relates Reicher. “There was nothing like it in the market so it was highly additional and desperately needed.”

FILLING THE GAPS

Since then, six other facilities under the PIDG umbrella have been set up. Like EAIF, two of these – Guarantco and the Infrastructure Crisis Facility Debt Pool – assist the provision of long-term debt. Two other facilities provide technical assistance to governments as they seek to maximise private sector participation; and the remaining two, including InfraCo (see *Fighting the Headwinds*, p.29), take on the risks of early-stage development that might otherwise dissuade private investors from joining a project.

Reicher says the process of identifying and filling the gaps that will give the private sector comfort to invest in poor African countries has not been straightforward. Because there was no one doing precisely what PIDG has done, there was no existing template to borrow from. “There were lots of false starts and it’s been a matter of figuring out what works and what doesn’t,” he says.

“The EAIF took two or three years to gain traction but now there’s an understanding of what it can do and we think it works.”

Measured by its goal of attracting private sector investment, the statistics do seem to suggest that PIDG’s various facilities are doing an effective job. According to its website, PIDG committed nearly \$800 million to infrastructure projects from 2002 to the end of 2009, of which \$606 million was committed to Africa. To the end of July 2010, the website states, it had attracted \$10.5 billion in private sector commitments. The organisation claims that every \$1 of donor funds it receives leverages over \$25 in private sector funding for infrastructure.

While this undoubtedly equates to meaningful progress, context is provided by daunting figures from the World Bank showing that Sub-Saharan Africa alone has a total infrastructure spending need of some \$75 billion per year for the next 20 years, equating to \$1.5 trillion altogether. Reicher says this equates to around 6 to 7 percent of annual GDP in the region’s poorer countries and that the current rate of investment is “way below that”.

HOW BIG IS TOO BIG?

Given that PIDG’s model appears to be working well, this begs the question as to whether it should seek to grow bigger in order to address more of this need. Reicher admits that the question ‘how big can we grow?’ is something PIDG asks itself – but it’s a question that highlights a dilemma. Namely, the desire for PIDG to make as much of an impact as possible while also wanting to stay sufficiently

small that it can be flexible and make decisions swiftly rather than becoming institutionalised and bureaucratic.

“We want to remain flexible and low cost so there are limits to what the organisation can do, and we must be very selective about where we choose to grow,” says Reicher. “If you keep adding resource you end up creating an institution and we have to preserve the essence of our culture.” He adds that it’s important for the donor group to retain control over the organisation rather than control passing to a “permanent secretariat interpreting their views”.

Reicher contrasts PIDG’s approach with that of the large multilaterals which, he says, “want to do all sorts of things, form these huge coalitions and can be slow. We are targeted, quick and flexible”.

On the same theme he continues: “Some might say the multilaterals lose sight of the fact that ultimately they should be putting themselves out of business. I think that criticism is generally unfair but there’s a grain of truth in it. We don’t want to compete with the likes of IFC and European Investment Bank because we want to stay nimble.”

He believes that only by sticking to its proven way of doing things will PIDG continue to be guaranteed the support of its government donors – pointing out that budgets are tight and there are many potential recipients of the money, such as disaster relief organisations, that compete with those promoting infrastructure development.

Rather than providing a panacea for all of Africa’s infrastructure funding needs, therefore, Reicher says he sees PIDG as a potential “signpost and capacity builder”. In other words: “If people want to copy what we’re doing, then God bless them.” ■

FIGHTING THE HEADWINDS

Cape Verde, an archipelago of ten islands off the coast of Senegal with a total population of just over half a million, may be a mere pinprick on the map of Africa. But its importance as a pioneer of wind energy in the region was sealed by the \$84 million Cabeolica wind public-private partnership (PPP).

Taking the lead on the project was InfraCo Africa, a PIDG offshoot which acts as a principal investor and shoulders much of the upfront costs and risks of early-stage development. In the case of Cabeolica, this meant “a fairly intense two to three years spent putting the deal together”, according to Gad Cohen, a New York-based deputy managing director at InfraCo.

The abundance of Cape Verde’s wind resource due to its exposure to trade



Cabeolica: wind PPPs can work in Africa

winds, coupled with the search for an alternative to imported diesel fuel, created the opportunity for the project. However, it also needed economy of scale to make it commercially viable. This meant building

wind farms on four of the islands, making it a complex project – and difficult to identify equity investors willing to take on the tail end of the development risk rather than coming in only once the deal was closed.

In the end, InfraCo managed to identify two investors willing to take on tail-end risk in the form of Africa Finance Corporation and Finnfund, the Finnish development finance company. “On the debt side,” says Cohen, “it was a bit easier, as the African Development Bank and European Investment Bank were eager to finance a wind farm in Africa.”

Cabeolica, which is the first renewable energy PPP in Africa and the continent’s first large-scale wind project, is expected to provide 25 percent of Cape Verde’s power needs by 2012.

The power of the collective

Why regional integration could help stimulate investment in African infrastructure – and why the East African Community is viewed by many as the lead for others to follow

WHY DO SEPARATELY what can be better done together? This is the message of harmony that lies behind calls for greater regional integration as a way of tackling Africa's infrastructure needs. This was neatly summed up by António Pedro, a director at the United Nations Economic Commission for Africa (the regional arm of the United Nations), who said at the recent All Africa Energy Week conference in Maputo, Mozambique: "The fragmentation of the energy market [in Africa] is impeding industrial development. Regional integration is thus crucial for Africa because many of its countries face numerous common challenges that can best be dealt with collectively."

Bobby Pittman, vice-president at the African Development Bank, thinks such integration would aid private investment. He says: "Cross-border trading and tighter regional integration is another area that could prove very beneficial in creating more bankable infrastructure deals for the private sector. One of the areas we want to help our clients with is trading power across borders. We think cross-border trading is going to allow our clients to take advantage of Africa's huge, untapped hydropower resources."

While detractors may deride regional integration as a vague concept – fine in theory, but very hard to implement given vested interests – supporters will say that, to the contrary, there is an existing role model in the form of the East African Community (EAC). The EAC is the regional inter-governmental organisation of the republics of Kenya, Uganda, Tanzania, Rwanda and Burundi.

STEP FORWARD

In July, the members of the EAC took a step forward when they signed an agreement to implement the free movement of labour, capital goods and services across its five member states over the next five years. There's even talk of establishing a common currency as early as 2012. Needless to say, the benefits of pooling efforts on a regional scale have immense benefits when it comes to attracting private sector investments for infrastructure.



EAC: role model for regional growth

"The political and donor side should develop a clear framework for regional PPPs and start 'showcase' projects with the private sector"

In a statement on its website, the EAC acknowledges infrastructure as "one of the most critical enablers of successful regional integration". And, from an investor point of view, the case for investing in East Africa is compelling. It provides would-be investors with access to a combined population of 133.5 million people (June 2010) with a GDP of \$80 billion (2010) through an integrated market environment. Tighter integration is not only seen as useful in attracting foreign investors; it can also help to develop the local private sector, which observers of the market see as a big part of the infrastructure equation going forward.

Furthering the EAC's role model status, the region has a large number of infrastructure projects in the pipeline, details of which can be found on a website dedicated to infrastructure (www.eac.int/infrastructure). Areas of focus include road and rail, aviation and communications, with specific projects including the Arusha-Namanga-Athi River project (see case study p.31), and long-term

strategic plans, such as the East African Railways Master Plan, which aims to develop the railway sector in the region over the next 25 years following its near collapse in 2004.

The positive view of what the EAC has achieved is encapsulated by Bruno Wenn, chairman of DEG, Germany's official investment and development company. He "recommends that the rest of Africa replicate the success of the East African Community".

Not that the EAC is the only organisation working to further the cause of regional integration (nor is it the only regional organisation in Africa). The European Investment Bank (EIB) is also seeking to make sure that the infrastructure debate moves from country-specific topics to the wider theme of supranational cooperation.

"Infrastructure plays a critical part in supporting regional integration – which is especially important for Africa's smaller economies and land-locked countries – and the thrust of the EU-Africa Partnership on Infrastructure is exactly about this," Plutarchos Sakellaris, the EIB's vice-president for Sub-Saharan Africa and South Africa explains.

Established in late 2007, the EU-Africa Partnership on Infrastructure is a joint European Union-Africa framework agreement that aims to foster the development of regional infrastructure across the continent.

Sakellaris is happy with the EIB's experiences in funding regional projects:

"The EIB has been actively working with the West Africa Power Pool, for example, and this has resulted in the bank supporting a number of power generation and transmission projects in the region. The Maputo corridor [a road project in Mozambique] is another example which has generated strong private sector involvement in a key regional transport corridor," he adds.

TIME TO ENGAGE POLITICIANS

But while regional integration is a subject on many peoples' lips, it should also be emphasised that, outside East Africa, the clear majority of infrastructure projects today are national projects. As Bernhard Tilemann, advisor at the Infrastructure Consortium for Africa says: "The political arena is rightly calling for much needed regional integration to facilitate growth and trade. Here, regional (cross-border) infrastructure projects can be a big part of the solution. At the same time there are calls for private resources in the form of private sector project investments, where donor and domestic resources do not suffice anymore. But the private sector prefers the clearer legal and financial concessional frameworks of national PPPs and has thus far not been much involved in regional projects. So there is a dilemma here."

Adds Tilemann: "If so badly wanted, the political and donor side should develop clear common frameworks for regional PPPs and start 'showcase' private commercial projects, maybe with and

through the Regional Economic Communities (RECs). But if things stay the way they are, private sector players will not enter the risk of regional projects – not as investors, only as equipment suppliers or fairly risk-free managers of projects. But what is needed is equity – in regional PPPs."

Tilemann also holds up the EAC as an example to follow, pointing to the need for "risk-balanced concessions" and for engagement with the RECs at a political level to make regional integration across Africa more than just a vision – with the possible side-effect of opportunities aplenty for infrastructure investors in the future. ■

PIDA's Regional Infra Quest

The Program for Infrastructure Development in Africa (PIDA), a joint venture between the African Development Bank (AfDB), New Partnership for Africa's Development and the African Union, aims to establish clear priorities for the development of African regional infrastructure.

To do this, it is working to implement three main objectives over the following years. These include, firstly, the establishment of a policy framework for the development of regional infrastructure across the energy, transport, ICT and water sectors. Following that, PIDA will prioritise a regional infrastructure programme based on the strategic framework, to be implemented over the following years. And finally, PIDA will move to implement the strategy through a priority action plan.

PIDA has already started developing a study that aims to identify priorities in these sectors, to be ready in 18 months from June 2010. It aims to produce sector outlooks by the first quarter of 2011. In the first half of 2011, consultation workshops will take place at a regional and sector level with a view to producing a draft strategic framework and implementation strategy before the study's final conclusions are presented toward the end of 2011.

That is why Peter Fernandes Cardy, an infrastructure expert at the AfDB, thinks now is the right time for the private sector to sit at the table and contribute to PIDA: "At this stage, PIDA is under development so the door is open for the private sector to come in and participate in these discussions to identify priority projects, policies and help finance downstream investments. From the first quarter of 2011, we plan to identify priority projects that could involve private sector participation, Fernandes Cardy says.

‘We need more upstream work’

Plutarchos Sakellaris, the EIB vice-president responsible for Sub-Saharan Africa and South Africa, speaks of the role of early-stage financing, guarantee mechanisms and how the EU and the bank are throwing their weight behind regional integration



Sakellaris: PPPs ‘not expanded as hoped’

“We need more upstream work. We need to begin by providing more technical assistance to these [PPP] projects to make sure they are bankable. This is something the EIB has already been doing and will continue to do”

“WE SPENT ABOUT €1.1 billion in Sub-Saharan Africa last year. In infrastructure, we did a lot in energy and a lot in water followed by transport and, to a lesser extent, telecommunications,” recalls Plutarchos Sakellaris, vice-president at the European Investment Bank (EIB) responsible for Sub-Saharan Africa and South Africa.

Not all of that money went into infrastructure, “it also went into the financial sector”, the other pillar of the EIB’s activity across the continent, explains Sakellaris. Together, these two pillars make up the bank’s mandate for the region:

“To foster the private sector and promote economic growth of the region and thus help to reduce poverty. To better achieve this goal, the bank concentrates on infrastructure and the financial sector, and in support of the private sector, notably through small-medium enterprises (SME),” he explains.

When it comes to infrastructure, the EIB has a considerable arsenal of financial instruments at its disposal, including senior debt, risk-bearing instruments such as subordinated debt, equity, quasi-capital, interest rate subsidies, guarantees and indirect investments via funds which it deploys to assist both public and private projects alike.

But while the bank has had many successes working with the private sector across the continent, Sakellaris admits that public-private partnerships (PPPs) in Africa “have not expanded as we had hoped. In fact, following the financial crisis, private sector financing has declined over the past two years.”

If the latter is somewhat understandable (and indeed, many other parts of the world could report the same drop in activity) the former has more to do with the need, defended by many other interviewees, to create a better environment for African PPPs to take off.

“We need more upstream work,” argues Sakellaris. “We need to begin by providing more technical assistance to these [PPP] projects to make sure they are bankable. This is something the EIB has already been doing and will continue to do,” he adds.

It’s important to highlight, though, that many countries are already working hard at creating the type of environment Sakellaris alludes to. “Egypt, Morocco, Cameroon, Cape Verde, Ghana, Kenya, Malawi, Nigeria, South Africa and Uganda – to name a few – are at various stages of creating an enabling environment and setting up government units dedicated to promoting PPPs.”

Hand-in-hand with providing financial assistance at an early stage of a project’s life cycle are risk-mitigating instruments such as guarantees, which is much in demand, Sakellaris points out:

“The bank has set up a new project finance and guarantee division precisely to increase the number and quality of these financing operations and optimize the professional expertise to undertake them.”

The idea, Sakellaris stresses, is that the combination of technical assistance, early-stage grants and risk mitigating instruments will “catalyze lending to priority projects in the region, and in particular for large-scale infrastructure projects and PPPs.”

It’s equally important to note that the EIB is also working hard to make sure that the infrastructure debate moves from country-specific topics towards the wider theme of supranational cooperation and regional integration.

“Infrastructure plays a critical part in supporting regional integration – which is especially important for Africa’s smaller economies and landlocked countries – and the thrust of the EU-Africa Partnership on Infrastructure is exactly about this,” Sakellaris explains.

Established in late 2007, the EU-Africa Partnership on Infrastructure is a joint European Union-Africa framework agreement that aims to foster the development of regional infrastructure across the continent.

Part of this work is done through the EIB-managed EU Africa Infrastructure Trust Fund, a co-financing facility that can provide grants for preparatory works and technical assistance, interest rate subsidies, direct investment in projects and the insurance premia necessary for the launch of infrastructure projects both on the public and private sector side.

In addition to the fund, the EIB has also teamed up with the Development Bank of Southern Africa to establish a project preparation facility to provide early-stage funding for regional projects and is in close cooperation with the Infrastructure Project Preparation Facility hosted by the African Development Bank to help underpin these regional efforts.

So far, the bank’s experiences in funding regional projects have been good, Sakellaris says.

“The EIB has been actively working with the West Africa Power Pool, for example, and this has resulted in the bank supporting a number of power generation and transmission projects in the region. The Maputo corridor [a road project in Mozambique] is another example which has generated strong private sector involvement in a key regional transport corridor,” he adds.

Given that the trend across the continent is for ever closer regional links, expect to see the EIB’s work in this area increase substantially. ■

SECTOR-BY-SECTOR: THE EIB ON...

ENERGY

Electricity generation is one of the EIB’s biggest priorities in Africa and the bank is looking at projects “aiming at harnessing renewable energy, for example hydropower and, to a lesser extent, geothermal potential in Sub-Saharan Africa as well as associated energy transmission line projects of strategic regional importance,” says Sakellaris.

Targeted projects include the Mozambique and Tanzania Backbone Interconnectors and hydropower schemes such as Ruzizi III, a dam in the Ruzizi river bordering both Rwanda and the Democratic Republic of Congo, and the Itezhi-Tezhi dam in Zambia.

Still, Sakellaris is aware that there are several constraints to developing renewable projects in Africa including the absence of supportive regulatory frameworks and limited institutional capacity.

TRANSPORT

In the transportation sector, the bank is mostly looking at opportunities in port and airport developments as well as railway upgrades with a focus on rehabilitation, upgrading, modernisation and support for the private sector.

Examples of recent investments include financing for the upgrade and expansion of Kenya’s Jomo Kenyatta International Airport, in Nairobi, via loans and early-stage technical assistance funded by the EU-Africa Infrastructure Trust Fund. Tanzania and the Democratic Republic of Congo are two other countries the EIB is targeting in the airport sector.

Ports are another attractive sub-sector, with Sakellaris pointing out “traffic in Africa has been growing very rapidly in the last 15 years, in numerous ports of small and medium size”. However, he stresses that the EIB “appraises projects from a corridor point of view, since most import/export ports are still poorly integrated with road and rail links, so it is the whole transport chain that counts.”

The bank is less involved in toll road financing and sees “limited opportunities for private sector involvement due to low traffic flows and revenue streams as well as enabling environment”.

WATER

The EIB has been very involved in funding water projects across Africa. In fact, water was the second-largest recipient of funds from the bank last year, Sakellaris said. However, the projects in which the bank has invested have “almost exclusively been public sector projects, including a very large-scale series of projects in South Africa,” he adds.

Macroeconomic Indicators: Africa

	2001	2002	2003	2004	2005	2006	2007	2008	2009
GNI per capita, Atlas method (current US\$)	657.9	649.5	718.0	826.7	970.4	1.12	1.24	1.43	..
GDP (current US\$ trillions)	0.56	0.57	0.68	0.83	0.98	1.12	1.31	1.56	1.45
GDP (constant 2000 US\$ trillions)	0.61	0.64	0.67	0.71	0.75	0.79	0.84	0.88	0.90
Real GDP growth (annual %)	4.2	5.4	5.0	5.6	5.7	5.9	5.9	5.4	2.0
Real per Capita GDP Growth Rate (annual %)	1.7	2.8	2.4	2.9	3.0	3.3	3.2	2.8	-0.3
Gross capital formation (% of GDP)	21.7	22.4	22.1	22.3	22.0	22.6	24.2	24.1	25.7
Gross national savings (% of GDP)	23.1	21.6	22.9	23.7	25.4	29.6	29.2	29.3	22.9
Agriculture, value added (% of GDP)	15.8	17.8	16.2	14.5	13.9	14.1	13.9	13.9	..
Industry, value added (% of GDP)	32.4	32.2	33.0	34.8	37.3	38.0	37.7	37.1	..
Manufacturing, value added (% of GDP)	12.2	12.1	11.8	11.4	10.6	10.0	9.7	8.8	..
Services, value added (% of GDP)	45.3	43.4	43.7	43.5	41.6	40.5	40.8	41.8	..
Exports of goods and services (% of GDP)	31.5	31.8	33.2	35.2	38.5	39.7	39.7	42.2	34.7
General government final consumption expenditure (% of GDP)	16.5	15.8	16.6	16.5	16.3	15.8	15.9	15.5	16.7
Household final consumption expenditure (% of GDP)	60.4	62.3	60.1	58.5	56.7	55.6	55.8	54.2	60.1
Imports of goods and services (% of GDP)	30.1	32.4	31.9	32.5	33.4	33.7	35.7	36.2	37.4
Industry, value added (annual % growth)	3.2	9.5	6.1	7.3	8.7	5.6	5.6	6.1	..
Manufacturing, value added (annual % growth)	2.2	4.1	0.8	3.0	3.2	3.6	4.8	4.7	..
Services, value added (annual % growth)	2.7	4.9	4.7	4.1	6.2	5.4	5.9	5.9	..
Central government, total revenue and grants (% of GDP)	26.3	24.8	25.9	27.2	29.8	32.2	30.0	30.7	26.8
Central government, total expenditure and net lending (% of GDP)	28.6	27.3	27.8	27.2	27.1	27.3	27.9	27.3	30.4
Central government, Fiscal Balance (% of GDP)	-2.3	-2.5	-1.9	0.0	2.7	4.9	2.1	3.4	-3.7
Money and quasi money (M2) as % of GDP	2.49	3.41	3.48	3.60	3.35	3.09	..	..	..
Money and quasi money growth (annual %)	..	..	..	..	..	..	..	..	..
Gross international reserves in months of imports	6.6	6.6	6.9	7.5	8.2	10.0	10.4	9.5	-51.3

Source: African Development Bank.

PRIVATE PARTICIPATION IN INFRASTRUCTURE: KEY FACTS FOR MIDDLE-EAST AND NORTH AFRICA

Featured indicator, 1990-2009	Value
Infrastructure sectors reported	Energy,telecom,transport, water and sewerage
Number of countries with private participation	12
Projects reaching financial closure	130
Sector with largest investment share	Telecom (62%)
Type of PPI with largest share in investment	Greenfield project (64%)
Type of PPI with largest share in projects	Greenfield project (62%)
Projects cancelled or under distress	6 representing 1% of total investment

Source: PPIAF

TOTAL PROJECTS BY PRIMARY SECTOR AND SUB-SECTOR, 1990-2009 (US\$ MILLION); MIDDLE-EAST AND NORTH AFRICA

Primary Sector	Subsector	Project Count	Total Investment
Energy	Electricity	27	12,813
	Natural Gas	6	4,816
Total Energy		33	17,629
Telecom	Telecom	43	45,828
Transport	Airports	11	1,913
	Railroads	2	343
	Roads	1	104
	Seaports	20	4,323
Total Transport		34	6,683
Water and Sewerage	Treatment plant	11	3,202
	Utility	9	0
Total Water and Sewerage		20	3,202
Grand Total		130	73,342

Source: PPIAF

PRIVATE PARTICIPATION IN INFRASTRUCTURE: KEY FACTS FOR SUB-SAHARAN AFRICA

Featured indicator, 1990-2009	Value
Infrastructure sectors reported	Energy,telecom,transport, water and sewerage
Number of countries with private participation	46
Projects reaching financial closure	381
Sector with largest investment share	Telecom (77%)
Type of PPI with largest share in investment	Greenfield project (69%)
Type of PPI with largest share in projects	Greenfield project (56%)
Projects cancelled or under distress	35 representing 3% of total investment

Source: PPIAF

TOTAL PROJECTS BY PRIMARY SECTOR AND SUB-SECTOR, 1990-2009 (US\$ MILLION); SUB-SAHARAN AFRICA

Primary Sector	Subsector	Project Count	Total Investment
Energy	Electricity	95	7,305
	Natural Gas	7	2,249
Total Energy		102	9,554
Telecom	Telecom	167	70,844
Transport	Airports	11	495
	Railroads	20	4,769
	Roads	12	2,502
	Seaports	45	4,063
Total Transport		88	11,830
Water and Sewerage	Treatment plant	4	133
	Utility	22	134
Total Water and Sewerage		26	266
Grand Total		383	92,493

Source: PPIAF

Fund Name	Institution Name	Target/ Current Size (\$m) *	Fund Vintage	Fund Regions	Fund Sectors
Infrastructure and Growth Capital Fund (IGCF)	Abraaj Capital	2000	2007	Africa, Asia-Pacific, Middle East / Africa	Diversified/No Sector Preference, Energy, Social Infrastructure, Transport, Water
Actis Infrastructure Fund II	Actis	750 / 1250	2008	Africa, Asia-Pacific, Latin America, Middle East / Africa	Energy, Industrial, Other, Transport
China AME Energy IC Ltd.	ARCH Financial Products	500	2008	Asia-Pacific, Middle East/Africa	Energy, Renewables
Beehive Water and Waste Holdings LP	Beehive Capital	GBP 400		Central & Eastern Europe, Middle East / Africa, Western Europe	Waste, Water, Diversified /No Sector Preference
Calvert Global Alternative Energy Fund	Calvert Group	170.87	2007	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	Energy, Renewables
Climate Change Capital Carbon Fund II (aka C4FI)	Climate Change Capital	EUR 800	2006	Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	Energy
Post 2012 Carbon Credit Fund	Conning Asset Management	EUR 125	2008	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	Energy, Other, Renewables
Denham Commodities Partners Fund V	Denham Capital Management	2000	2008	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	Energy, Renewables
ECP Renewable Energy Fund I LP	Earth Capital Partners	EUR 750	2009	Africa, Central & Eastern Europe, Middle East / Africa, Western Europe	Renewables
ECP Africa Fund II	Emerging Capital Partners	523	2005	Africa	Energy, Telecoms, Transport
EQT Infrastructure Fund	EQT Partners	1200	2008	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	Energy, Other, Social Infrastructure, Telecoms, Transport, Waste, Water
Global Infrastructure Partners	Global Infrastructure Partners	5640	2008	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	Energy, Transport, Waste, Water
Guggenheim Infrastructure Fund	Guggenheim Partners LLC	100	2006	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	Diversified/No Sector Preference
Gulf One Infrastructure Fund I	Gulf One	2000	2008	Africa, Middle East / Africa	Energy, Minings, Other, Transport, Water
Pan African Infrastructure Development Fund	Harith	1000	2008	Africa, Middle East / Africa	Energy, Telecoms, Transport, Water
HitecVision Asset Solutions	HitecVision Private Equity	420 / 320	2010	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	Energy
HSBC Infrastructure Fund III	HSBC Specialist Investments	580 / 1000		Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	
Impax Environmental Markets plc	Impax Group	GBP 397.3	2002	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	Energy, Renewables, Waste, Water
Bunyah GCC Infrastructure Fund	Instrata Capital	400	2007	Middle East / Africa	Energy, Industrial, Renewables, Social Infrastructure, Transport, Waste, Water
Infrastructure Crisis Facility	International Finance Corporation (IFC)	1960 / 10000	2009	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa	Energy, Transport, Waste, Water
ADCB Macquarie Infrastructure Fund	Macquarie Group	630 / 1000	2008	Africa, Middle East / Africa	Diversified/No Sector Preference, Energy, Industrial, Social Infrastructure, Transport, Waste, Water
Meridiam Infrastructure Fund	Meridiam Infrastructure Managers SARL	EUR 600	2007	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	Other, Transport
Millenium Private Equity Infrastructure Fund	Millennium Private Equity	500	2008	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	Diversified/No Sector Preference
Amara	Newhaven Investments House	200	2008	Africa, Asia-Pacific, Middle East / Africa	Diversified/No Sector Preference
Northleaf Capital Partners IV (formally TD Capital IV)	Northleaf Capital Partners	238	2008	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	
Pantheon Global Infrastructure Fund	Pantheon Private Equity	150 / 500	2009	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	Diversified/No Sector Preference
FCPR QUARTILIUM Infrastructure I	Quartilium /Groupama Private Equity		2008	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	Diversified/No Sector Preference
RBC Diversified Infrastructure Fund	RBC Global Asset Management Infrastructure Investment Group (IIG)	250	2010	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	Diversified/No Sector Preference
Table Rock Partners Fund	Table Rock Capital	2000	2008	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	Energy, Social Infrastructure, Telecoms, Transport, Waste, Water
TCW Energy Fund XIV	TCW Group	2600/2000	2007	Africa, Asia-Pacific, Central & Eastern Europe, Latin America, Middle East / Africa, North America, Western Europe	Energy, Renewables

* Target size where only one number is stated

ABOUT THE ICA

Launched at the G8 Gleneagles Summit in 2005, the Infrastructure Consortium for Africa (ICA) encourages, promotes and supports increased investment in Africa's infrastructure, from public, private and public-private sources. ICA bilateral members include Canada, France, Germany, Italy, Japan, Russian United States, United Kingdom and multilateral institutions as African Development Bank Group, European Commission, European Investment Bank, Development Bank of Southern Africa and the World Bank Group. The ICA is supported by a secretariat hosted by the African Development Bank in Tunis.

Many African countries lack the essential building blocks of economic progress – roads and railways (which are well maintained), access to electricity, the Internet and mobile phones and water for drinking and production, and sanitation. The goal of the ICA is to Increase the amount of finance going to sustainable regional and national infrastructure in Africa, to facilitate greater co-operation between members of the ICA and other sources of finance (such as China, India, Arab partners and the private sector), to highlight and help remove policy and technical blockages to progress and to increase knowledge of the infrastructure sector in Africa through monitoring and reporting on key trends and development.

CONTACT ICA

The ICA Secretariat can be contacted at the following address:

ICA Secretariat

c/o African Development Bank

BP 323 – 1002 Tunis Belvedere

Tunisia

Email : icasecretariat@afdb.org

Phone : (+216) 71 10 2982

Fax : (+216) 71 10 37 88

<http://www.icafrica.org/>

InfrastructureInvestor

Published by:

PEI Media London

Sycamore House
Sycamore Street
London
EC1Y 0SG
T: +44 20 7566 5444
F: +44 20 7566 5455

PEI Media New York

3 East 28th Street
7th Floor
New York
NY 10016
T: +1 212 645 1919
F: +1 212 633 2904

PEI Media Singapore

105 Cecil Street
Unit 10-01 The Octagon
Singapore 069534
T: +65 6838 4563
F: +65 6334 4391

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