Infrastructure financing in sub-Saharan Africa

# Opportunities and impact for institutional investors

## Executive summary

**Mercer, MiDA Advisors and Standard Bank**

June 2021

welcome to brighter

**Institutional investors in the US and elsewhere are seen as a potential source of financing for public infrastructure. They hold a major portion of the world's savings and have the long-term investment horizon needed for financing infrastructure. At the same time, most governments today are facing increasing budgetary pressures that make it difficult for them to meet the public's needs for additional public infrastructure investing. Thus, there is great interest in having institutional investors help fill this infrastructure investment "gap."**

# The case for investing in African infrastructure

For institutional investors interested in making an allocation toward infrastructure or other private-market investments in Africa, there are positive characteristics that may support such allocations:

- **Diversification:** With some of the fastest-growing and most rapidly urbanizing economies in the world, including notably young populations, Africa is poised for rapid growth in the coming decades; however, most investors and global indexes have structural underweights to the continent. More-focused allocations to African investments can allow investors to achieve greater geographic diversification in their portfolios and capture long-term growth prospects.

- **Potentially higher returns:** Compared to infrastructure returns in developed market economies in North America and Europe, the limited data available on African infrastructure investments indicate that returns on the continent are indeed higher, although whether that is true on a risk-adjusted basis is an open question. What systematic evidence exists indicates that the actual default rates of African projects are comparable to other regions of the world, and the widespread perception of outsized risks among many international investors may therefore be overstated.

- **Positive impacts:** The global growth of environmental, social and governance (ESG) has certainly extended to considerations with respect to African investments, given a relative scarcity of investment capital on the continent. Investing in public infrastructure in Africa can often be framed in terms of the positive developmental impacts that result, including reducing the costs of transportation; increasing the availability of electric power; providing housing, education and healthcare; reducing carbon emissions; and other positive environmental and social outcomes. As institutional investors increasingly allocate toward impact investments, the African impact story should be more central to the conversation.

# Barriers to investment in sub-Saharan Africa

Unfortunately, there are serious barriers to matching the availability of institutional investor financing to the need for infrastructure financing. This is especially true for emerging market economies such as those in Africa, where the infrastructure financing gap is particularly wide. Some of the key barriers MiDA Advisors and Mercer have identified are:

- **High-risk perception and limited risk-mitigation options:** US institutional investors have very little experience investing in infrastructure in Africa, but they generally consider the project and country risks to be high and difficult to estimate and price. Due to this perception, institutions typically seek to mitigate risks through various means — long-term revenue contracts (such as power purchase agreements), US-dollarized projects to minimize currency risks, or the use of guarantees or insurance to mitigate credit and political risks. The costs involved in these measures can be considerable, reducing return on investment.

- **Limited investment vehicles:** Due to less-developed capital markets in most countries in Africa, bond financing of infrastructure is virtually nonexistent, apart from "government infrastructure bonds," which typically take the form of general obligation bonds, with cash flows not tied to the income stream of infrastructure assets but paid out of government tax revenues. Although there are some closed infrastructure funds focused on African markets, there are very few listed or open-ended funds that invest in African infrastructure.

- **Gaps in financing:** African infrastructure investing is constrained by several gaps in the capital structure in most countries. There are few commercial debt and equity providers, leading to a high cost of capital for infrastructure projects and correspondingly few projects available to investors. Venture-capital-type equity to finance early-stage project development is lacking in most markets, as are concessional funds from governments and development finance institutions (DFIs) to crowd in more private investment. Importantly, relatively small debt markets in most African countries create investor uncertainty regarding the ability to refinance a project's debt.

- **Fragmented markets:** The diversity of capital markets, regulatory requirements and legal frameworks across the 54 countries in Africa requires that investors gain comfort across a range of jurisdictional and market contexts. This fragmentation means that the pipeline of projects in any one jurisdiction may be small, particularly without greater harmonization of taxes, laws and regulations across countries.

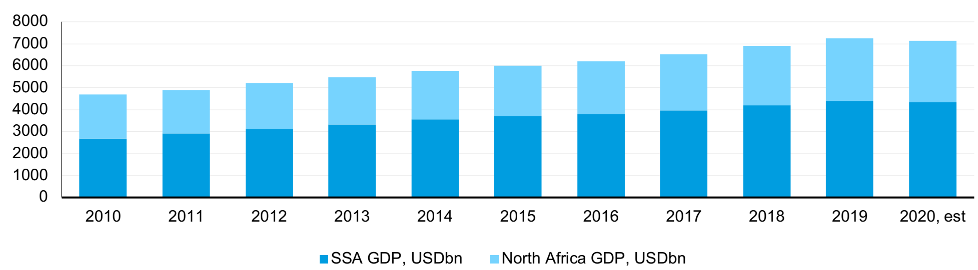
# A review of the trends driving Africa's allure

## by Simon Freemantle, Senior Political Economist, Standard Bank Research

In the early 2010s, Standard Bank's economics team published a series of reports outlining four structural drivers they believed would drive Africa's long-term economic promise. For readers who may still be learning about key context on the continent, reviewing these trends is worthwhile.

- Between 2010 and 2019, Africa's collective GDP grew by 55%, from around US$4.7 trillion to around US$7.2 trillion (see Figure 1).

**Figure 1. Africa's total GDP has lifted by 55% since 2010**

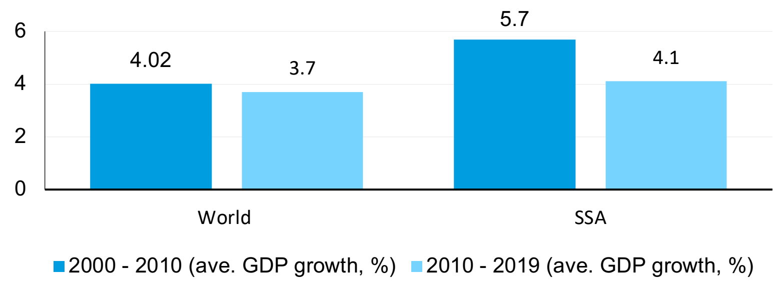



Sources: International Monetary Fund, Standard Bank Research as of June 2020.

- This trajectory has been broadly consistent with global growth over the same period. As a result, sub-Saharan Africa's share of global GDP has remained flat over the period, at around 3%, while Africa's has held at around 5%.

- Over the past 10 years, sub-Saharan Africa's average growth has outpaced the global average (see Figure 2) despite several key economies in Africa suffering meaningful (and commodity-price-inflicted) economic declines in the 2015–2017 period.

**Figure 2. Sub-Saharan Africa's growth rate has remained fairly robust**




Sources: International Monetary Fund, Standard Bank Research as of June 2020.

## Trend 1: A larger, younger and more affluent population

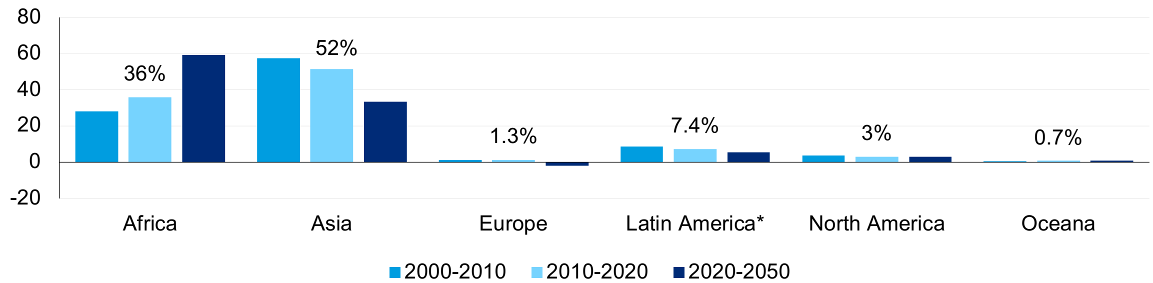
Today, Africa's total population is estimated at 1.3 billion. This implies that over the past 10 years, the continent's population has grown by 300 million people and that more than half a billion people have been added to the population since the turn of the century. Put differently, over the past decade, Africa has almost added the equivalent of the population of the US and since 2000 has added the combined population of the US and Brazil.[1]

- The United Nations (UN) expects Africa will be home to almost 2.5 billion people by 2050 — almost twice today's number.
- Today, Africa accounts for 17% of the world's population, up from 15% in 2010. By 2050, it is estimated that one-quarter of the world's population will be African. Over the past decade, one-third of global population growth has taken place in Africa, while between 2020 and 2050, half of all global population growth is expected to be driven by Africa (see Figure 3).[2]

[1] United Nations Department of Economic and Social Affairs, Population Division. "World Population Prospects 2019," available at https://population.un.org/wpp/Graphs/DemographicProfiles/Line/903.

[2] Ibid.

**Figure 3. Share of global population growth (by percentage)**




Source: UN, Standard Bank Research as of June 2020.

Original research by Standard Bank in 2014 considered the rise of a middle class in 11 key sub-Saharan African economies, as the rise of a middle class suggests that the gains of growth are being more inclusively distributed, providing structural robustness to long-term trajectories. These economies accounted for almost 40% of the continent's total GDP and almost two-thirds of sub-Saharan Africa's total GDP in 2019. They also account for 50% of the continent's total population, led, of course, by Nigeria (the continent's most populous country) and Ethiopia (its second-most populous country).

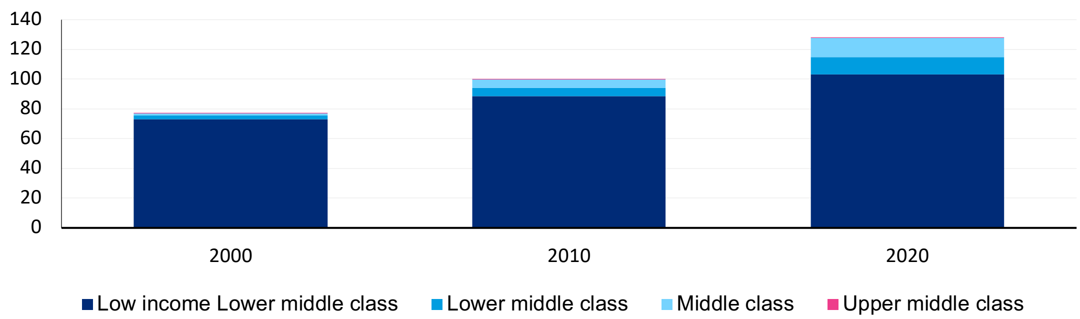
**Table 1. The 11 economies that account for half of Africa's population**

| **Country** | **Population** (2020 estimate, millions) | **GDP** (2019, US$ billion) | **GDP growth** (2019, %) |
|---|---|---|---|
| **Angola** | $33 | $200 | -1.5 |
| **Ethiopia** | $115 | $244 | 8.9 |
| **Ghana** | $31 | $205 | 6.1 |
| **Kenya** | $54 | $191 | 5.6 |
| **Mozambique** | $31 | $45 | 2.2 |
| **Nigeria** | $206 | $1,215 | 2.2 |
| **South Sudan** | $11 | $22 | 11.3 |
| **Sudan** | $44 | $175 | -2.5 |
| **Tanzania** | $60 | $194 | 6.3 |
| **Uganda** | $46 | $119 | 4.9 |
| **Zambia** | $18 | $76 | 1.5 |
| **Combined** | $650 | $2,686 | 4.1 |

Sources: UN International Monetary Fund, Standard Bank Research.

The first finding of an assessment of these economies is how their collective incomes have clearly swelled over the course of the past two decades. Average per-capita GDP across these 11 economies rose from US$360 in 2000 to US$1,480 in 2018. This has naturally led to meaningful middle-class growth (see Figure 4). By our measurements, the number of middle-class households across these countries grew from 1.6 million in 2000 to 5.4 million in 2010 and 12.6 million today.

**Figure 4. Households by income across the 11 economies (millions) as of June 2020**



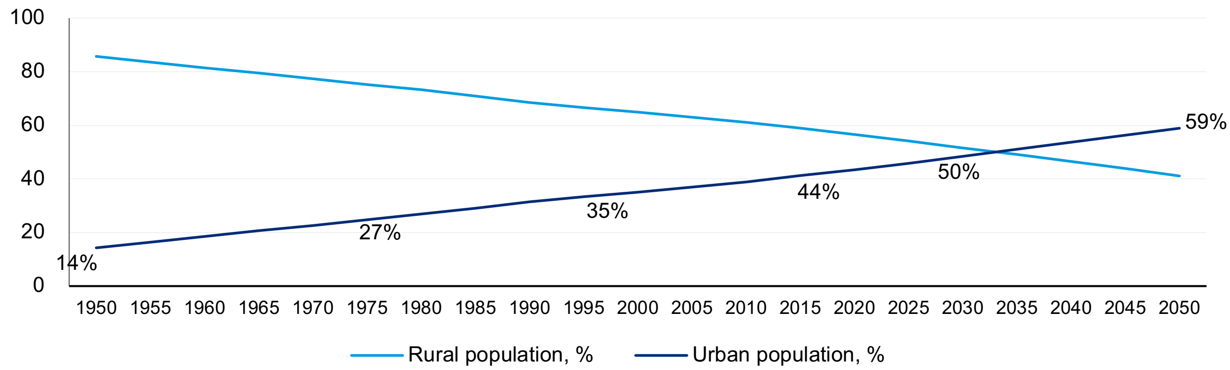

## Trend 2: Africa’s transformational urban swell

A second trend driving Africa’s ongoing economic and institutional appeal is the continent’s rapid urbanization. As we know, a clear and mutually enforcing relationship exists between economic growth and urbanization. Though, for the most part, urbanization supports socioeconomic development (indeed, institutions such as the World Bank and the UN have suggested that sustained economic growth and rapid social development cannot be achieved without urbanization), it is also true that economic growth inspires more rapid rural-urban migration. Evidence is unambiguous in displaying a clear correlation between the economic success of nations and the prosperity of their cities. Over the past decade, Africa’s urban transformation has continued at a rapid pace. A range of data points indicate this trajectory:

- Since 2010, the continent’s total urbanization rate has increased from 39% to 44%. At this rate, by 2030, half of Africa’s population will be urban-based, and by 2050, almost 60% will be (see Figure 5).
- Nominally, this means that since 2010, Africa’s total urban population has grown from 408 million to 588 million — a staggering 44% increase (and a rise of 180 million people). By a significant margin, this is the largest urban swell Africa has experienced in any 10-year period in its history.

- This effectively means that in 10 years, Africa has added to its urban mass the equivalent of the total combined urban populations of the world's seven most populous cities (Tokyo, Delhi, Shanghai, Mumbai, Sao Paulo, Beijing, Mexico City and Osaka).

**Figure 5. A shifting urban-rural portrait in Africa**




Sources: UN, Standard Bank research as of June 2020.

## Trend 3: Leapfrogging through technology

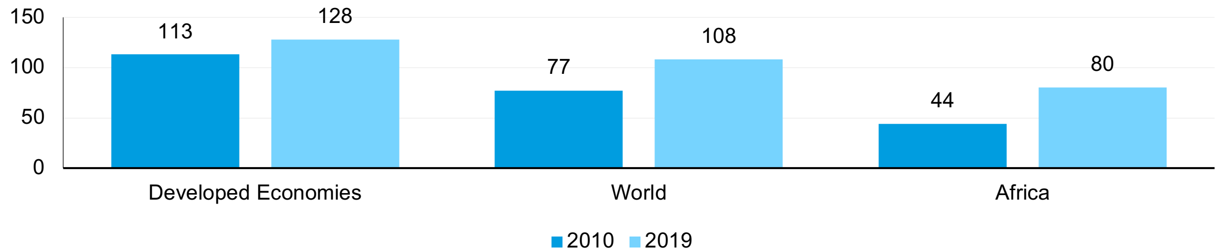
As we know, ongoing and seismic technological changes continue to fundamentally transform the way individuals and firms connect, communicate and transact, providing new avenues of commercial nutrition. As we noted in our original series, in this area, Africa has certainly not been left stranded. In fact, the continent's fast-rising population has vigorously embraced technology in general and telecommunications in particular to enhance socioeconomic prosperity.

No technological area has seen more impressive change in Africa than the uptake of mobile telephony.

- In 2000, Africa had just 15 million mobile subscribers. By the time we wrote our original report series, this had risen to around 440 million. Today, the continent's mobile subscription base totals around 840 million.
- Further, by last year, 90% of Africa's population was covered by a mobile network, and 80% of the population was covered by at least a 3G mobile network.[3]

[3] International Telecommunication Union. "Measuring Digital Development," 2020, available at www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx.

**Figure 6. Mobile subscriptions per 100 inhabitants**




Sources: International Telecommunication Union, Standard Bank Research as of June 2020.

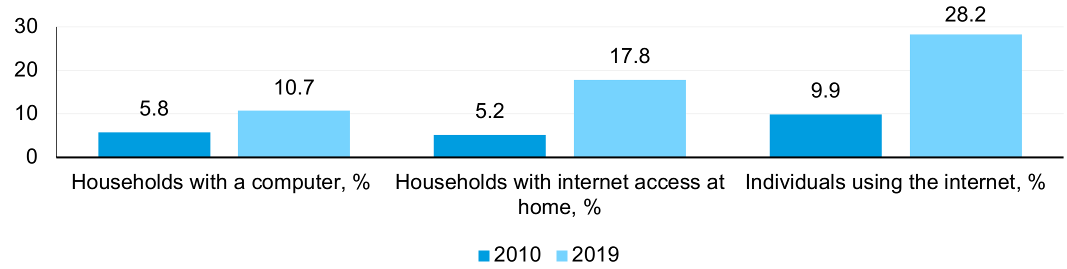
Internet access and usage across the continent has improved, too. Much of this enhanced access is being driven by the increased uptake of mobile (and smart) phones across the continent, together with ongoing improvements in data availability and cost. A decade ago, fewer than 100 million Africans (less than 10% of the population) were regularly using the internet. Across the world, just 4% of total internet users were African.[4] This rate clearly reflected a rift in connectivity between the continent and the rest of the world and presented challenges regarding Africa's ability to participate in — and benefit from — the so-called Fourth Industrial Revolution.

- In 2019, Africa had almost 300 million active internet users, reflecting a 260% increase since 2010. During this same period, Africa's share of global internet users has almost doubled, to just over 7%.[5]
- According to International Telecommunication Union data, the share of African households with a computer has doubled since 2010, while the share of households with internet access at home has more than tripled during this same period (see Figure 7). However, wide variations still exist in internet usage across the continent.
- Africa's information and communications technology (ICT) opportunities are sufficiently compelling for investment in Africa's ICT sector to be driven mostly by the private sector.

[4] Ibid.

[5] Ibid.

**Figure 7. Internet access is slowly deepening in Africa**



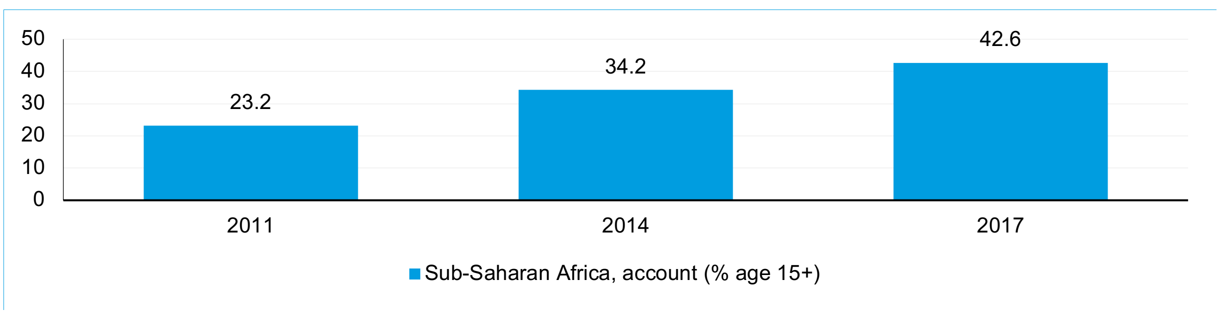

Sources: International Telecommunication Union, Standard Bank Research.

## Trend 4: Africa's deepening financial sector

Africa's financial services sector is responding rapidly to the continent's altering economic reality. The most evident symbol of the manner in which Africans are being empowered to embrace financial services is in the realm of banking. Banking systems vary hugely across Africa, and nascent developments are often unequally dispersed. Yet, increasingly, Africa's cash-based economy (consider that the ratio of M1 to M2 on the continent is the highest in the world) is finding a more formalized outlet.

- According to the World Bank's Global Findex database, the share of people over the age of 15 in Africa with access to a bank account almost doubled between 2011 and 2017 (see Figure 8).
- Using UN population data, this implies that the number of adults in sub-Saharan Africa with bank accounts increased from 110 million in 2011 to 270 million in 2017, a 145% increase in the span of just six years.

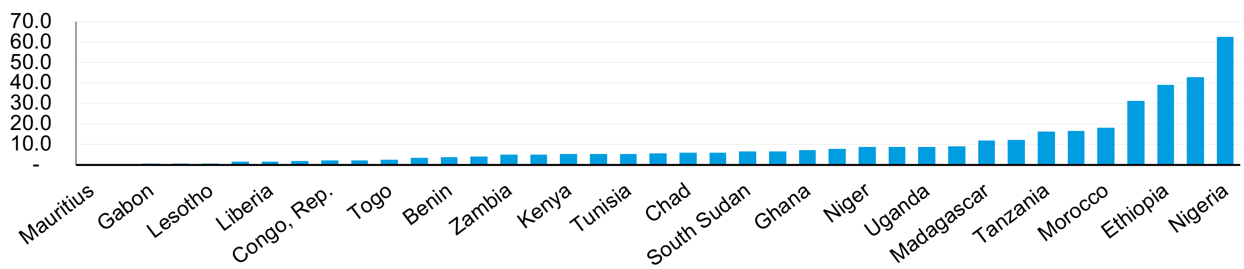
**Figure 8. Adult bank account penetration has grown**




Sources: World Bank, Standard Bank Research as of 2017.

- However, despite this recent growth, Africa's population remains predominantly unbanked, which emphasizes both the challenges and opportunities present in this sector. Returning to the Global Findex database, as would be expected, the nominal scale of the unbanked opportunity is clearly most pronounced in countries such as Nigeria, Ethiopia, Egypt and the Democratic Republic of the Congo. Nigeria alone is estimated to hold around 5% of the world's unbanked population.[6]

**Figure 9. Number of adults without a bank account in select African economies (millions)**

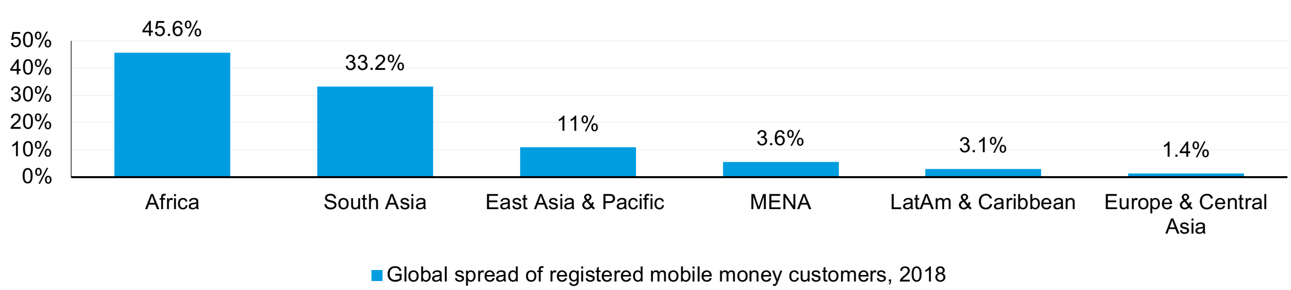



Sources: World Bank, Standard Bank research as of 2017.

Over the past decade, the intersection of rising mobile penetration and elevating incomes has continued to drive the uptake of mobile money across the continent.

- According to the GSMA, Africa accounts for almost half of all mobile money activity in the world, with an estimated transaction value in 2018 alone of US$26.8 billion (and this figure excludes bank-operated solutions). Further, in 2018, Africa added more than 17.5 million new active mobile-money accounts, while in 13 African countries more than one-third of adults are active mobile-money users.

**Figure 10. Half of all mobile-money accounts are in Africa**




Sources: World Bank, Standard Bank research as of 2017.

[6] World Bank Group. *The Global Findex Database 2017* available at https://globalfindex.worldbank.org.

The decade since 2010 has been abundantly more challenged than the prior decade was — large African economies have struggled to emulate their early 2000s growth trajectory, and a range of other challenges attached to commodity-price declines and rising government-debt trajectories has cooled sentiment toward the continent. However, what this report suggests is that the fundamental drivers of Africa's ongoing promise remain firmly intact. More than this, many have seen notable advances in the past decade. Indeed, the confluence of a youthful population, improving economic and healthcare standards, rising urbanization, and deeper telecommunications and financial access are, in our view, continuing to create profound improvements in the continent's structural potential and resilience.

# Case studies of infrastructure financing in sub-Saharan Africa

### by Daniel Bond, Principal Advisor, MiDA Advisors

As a follow-up to our previous report on infrastructure in Africa, this report examines in some detail examples of infrastructure projects and programs successfully carried out and involving or have the potential to involve foreign institutional investors. The projects involve a mix of sectors and countries, but all have been structured in ways that have successfully attracted private-sector financing. Short overviews of the case studies are below, and more-detailed, full case studies will follow in the final report.

## Nigeria — Azura-Edo Independent Power Producer

Most institutional investors in the developed countries that are investing in sub-Saharan Africa infrastructure are doing so indirectly. They do so by becoming limited partners in infrastructure investment funds that investment in infrastructure, energy or real estate projects across a number of countries, often across a number of the major regions — Asia, Latin America, the Middle East, Eastern Europe and Africa. The Azura-Edo Independent Power Producer (IPP) and Jabi Mall projects are good examples of projects that received funding in this way.

The Azura-Edo IPP project is the first private, large-scale, nonrecourse-project-financed greenfield IPP project in Nigeria. It developed out of the country's restructuring of the electric power sector in 2005. Its centerpiece is a 461-megawatt open-cycle gas turbine power station located near Benin City in Edo State, Nigeria. The project also includes the construction of a short 330-kilovolt transmission line connecting the power plant to the Benin North substation and a short, underground gas pipeline spur connecting the power plant to the country's main gas trunk line. The project delivers power not only to Nigeria but also the broader West African Power Pool.

The Azura-Edo project required US$876 million in financing. Of this, US$190 million (22%) was provided in the form of equity investments and US$686 million (78%) in debt financing. Putting together a group of project sponsors to supply the equity, as well as the necessary skills and experience, to complete a project of this size and complexity was a major task. In addition, three organizations in the World Bank Group played a key role in helping to mobilize the financing. The International Finance Corporation (IFC) provided US$50 million in senior debt and US$30 million in subordinated debt. It also facilitated the participation of other DFIs in the project. A partial risk guarantee was provided by the International Bank for Reconstruction and Development (IBRD), and political risk insurance was provided by the Multilateral Investment Guarantee Agency (MIGA).[7]

After initial financial close and start of construction, some of the initial investors made secondary sales to several infrastructure investment funds — the Actis Energy Fund 4, the Africa50 Infrastructure Fund, African Infrastructure Investment Managers' African Infrastructure Fund 2, ARM-Harith Infrastructure Fund and the Pan Africa Infrastructure Development Fund (PAIDF).

The Azura-Edo power plant achieved full commercial operations on May 1, 2018. Since then, the plant's operational performance has been among the highest of any new-build plant anywhere in the world. Its availability rate, to date, has exceeded 96%, and its equivalent forced outage rate has been lower than 2%. As a result, during the period since it reached commercial operations, the plant has provided more than 8% of all the power sent to the national grid.[8]

## Nigeria — Jabi Lake Mall

Foreign investment in sub-Saharan African real estate (outside of South Africa) is still limited but has been increasing in recent years. Swift economic and population growth, rapidly increasing urbanization and a growing middle class have created demand for real estate that is outstripping supply. This demand–supply imbalance will likely persist for some time.

[7] MIGA's guarantees for the project total US$492 million. They cover equity investments by Amaya Capital Ltd., American Capital Energy and Infrastructure, Aldwych Azura Limited, the African Infrastructure Investment Fund 2 Power Holding, and Asset and Resource Management Ltd. MIGA is also covering commercial lending by Siemens Bank, KfW IPEX, Rand Merchant Bank and Standard Bank. Hedging instruments by Standard Chartered and RMB are also covered by MIGA's guarantees. See https://www.miga.org/press-release/miga-guarantees-support-nigerias-azura-edo-ipp.

The IBRD provided a partial risk credit guarantee, which backstops payment obligations by the Nigerian Bulk Electricity Trading (NBET), which provides security under the PPA in the form of a letter of credit (LC) issued by a commercial bank in favor of the IPP. The LC can be drawn in the event the NBET or the Nigerian government fail to make timely payments to the IPP. Following the draw under the LC, the NBET would be obligated to repay the LC bank, failing which, the LC bank would have recourse to the IBRD for reimbursement. This, in turn, would trigger the obligation of the federal government of Nigeria under the standard indemnity agreement with the World Bank. The PRG also provides direct support to commercial lenders in the event of a debt payment default caused by the NBET's failure to make undisputed payments under the PPA or the government's payments under a termination of the PPA. There is also an LC for gas supply. See https://openknowledge.worldbank.org/bitstream/handle/10986/23970/9781464808005.pdf.

[8] Vanguard. "How $900m loan for Azura Power Plant was raised — Mgt," 2020, available at https://www.vanguardngr.com/2020/08/how-900m-loan-for-azura-power-plant-was-raised-%E2%80%95-mgt/.

Actis is the largest private capital investment firm in Africa and the largest private capital real estate investor on the continent.[9] It has US$4.5 billion invested in Africa, spread across real estate, private equity investments, energy and infrastructure.

One of Actis's major real estate projects in sub-Saharan Africa is the Jabi Lake Shopping Mall. It is situated in Abuja, Nigeria's capital city of more than two million people, just 10 minutes from the city's central business district. Jabi Lake is currently the largest completed retail mall in Nigeria, with 24,000 square meters of shopping space — three times the size of the previous large malls in Abuja. Two levels of parking have a capacity for 733 cars in addition to motorcycle and bicycle parking. Construction began in November 2013, and the mall opened in November 2015. It cost US$122 million to build, with 40% equity funding and 60% debt.[10] The mall is located on a five-hectare parcel of land at Jabi Lake waterfront. It was to be part of a larger 35-hectare mixed-use development bringing together hotels, residential apartments, offices and relaxation centers; however, construction of the additional components has yet to begin.

Actis provided equity financing for the mall via the Actis Africa Real Estate Fund 2 (AREF 2). This is a limited partnership organized under the laws of the UK as a 10-year closed-end private-equity fund dedicated to investments in real estate companies and projects in sub-Saharan Africa. Jabi Lake Mall has been successful in attracting pan-African and international retailers to launch their products to the Nigerian market. Shoprite, the South African supermarket chain, and popular appliances store Game secured their positions as anchor tenants even before construction began in November 2013. By 2019, the mall was attracting about 500,000 shoppers every month. At the start of 2020, it had more than 100 tenants (including a multiscreen movie theater) and a 91% occupancy rate.[11] Rents are collected in local currency, but leases are US-dollar-based, with tenants paying the dollar equivalent. Thus, currency devaluations can increase costs to tenants.

[9] Actis was formed in July 2004 as a spinoff of CDC Group (formerly the Commonwealth Development Corporation), an organization established by the UK government in 1948 to invest in developing economies in Africa, Asia and the Caribbean. The Actis management team initially acquired majority (60%) ownership of CDC's emerging markets investment platform. The UK government's remaining 40% share was sold to management in 2012 (with the government sharing in future profits of the company). CDC continued to support Actis by investing in investment funds raised and managed by Actis. As of 2020, Actis has US$12 billion in assets under management globally.

[10] Standard Bank played a lead role in arranging the financing. Standard Bank's roles included: Mandated Lead Arranger, Lender, Account Bank, Facility Agent/Security Trustee, Hedging Counterpart. Equity was provided by Actis, the project site was contributed by land owner Duval Properties (a Nigerian property developer), and debt financing was provided by Guaranty Trust Bank (a leading Nigerian bank). The International Finance Corporation (IFC) also invested US$9.5 million in the project. Laurus Development Partners (a Nigerian company) was the project manager. Bouygues International Nigeria was the primary construction contractor.

[11] Project participant interview, July 2020.

## South Africa — Renewable Energy Independent Power Producer Procurement Program

When institutional investors provide financing for infrastructure projects, they normally prefer to invest in operating projects given their relatively low risk and immediate provision of income. However, the greatest demand for infrastructure financing in sub-Saharan Africa is for greenfield projects. Exceptions include the many solar and wind farms being constructed in the region. These often have relatively short construction periods and have "bankable" off-take contracts that provide institutional investors with low-risk investment opportunities. The Renewable Energy Independent Power Producer Procurement Program (REIPPPP) in South Africa is providing such investment opportunities.

In 2009–2011, the South African government developed and launched a new energy procurement approach whereby private companies submitted competitive bids to design, develop and operate large-scale renewable energy (RE) power plants across South Africa. Bids were required to contain information on the project structure; legal qualifications; and land, environmental, financial, technical and economic development qualifications. A key requirement was that a commercial bank had done thorough due diligence on projects prior to bids being offered and had provided a letter indicating that the financing was locked in.

All REIPPPP projects incorporate standard, nonnegotiable contract documents, including:

1. A 20-year power purchase agreement (PPA) with the national electric power utility, Eskom
2. An implementation agreement whereby the Government of South Africa guarantees to back-stop Eskom's payments under the PPA and specifies the obligations on the IPP to deliver economic development targets
3. A direct agreement that provides step-in rights for lenders in the event of default[12]

This procurement approach has proved successful in attracting bids from both domestic and international project sponsors. Around 209.4 billion rand (approximately US$20 billion) of private capital has been committed to the REIPPPP projects — 24% of which is direct foreign investments.[13] The majority (two-thirds) of the REIPPPP projects were financed on a project-finance basis. The bulk of the debt financing at initial financial close of these projects was provided by banks and DFIs/export credit agencies. However, the banks sold down some of their debt positions early on to large

---

[12] Eberhard A, Kåberger T. "Renewable Energy Auctions in South Africa Outshine Feed-In Tariffs," *Energy Science and Engineering*, Volume 4, Issue 3 (2016), available at www.researchgate.net/publication/301568240_Renewable_energy_auctions_in_South_Africa_outshine_feed-in_tariffs.

[13] Nomjana L. "REIPPPP Comes of Age," FutureGrowth Asset Management, 2020, available at https://futuregrowth.co.za/newsroom/REIPPPP-comes-of-age/.

institutional investors (especially large insurance companies) to position themselves for additional exposure in future REIPPPP rounds.

There is significant potential for refinancing project debt in the REIPPPP projects now in their operating phase. This would allow some of the initial equity and debt of project sponsors and banks to be freed up and made available for investing in new projects. Some banks have reached their single-exposure limits to some of the key project sponsors and need to free up this capacity to provide support for these sponsors in the future. Unfortunately, little thought was given to debt refinancing when the projects were initially financed. And the South African government did not set out guidelines for sharing potential refinancing gains. This is complicating the process of arranging debt refinancing now.

## Kenya — Acorn Student Housing

In many developed market economies, project bonds are a common means of financing infrastructure projects. They can provide investors with a long-term and predictable stream of income that helps institutions such as pension funds and life insurance companies more easily match their assets and liabilities. Of particular attraction to institutional investors are project bonds that are rated and/or listed on exchanges. One of the few examples of the use of project bonds in SSA are those recently issued by Acorn Holdings.

In November 2015, the Acorn Group, a property development and project management company, entered into a joint venture with Helios Investment Partners to form Acorn Holdings Limited (AHL). This development platform primarily focused on developing and managing purpose-built student accommodations (PBSA) in Kenya.[14] Universities in Kenya are experiencing an acute shortage of student housing, and AHL is now the largest PBSA property developer in the country.[15]

---

[14] AHL is a Mauritian private limited company owned 50% each by Acorn Investments Ltd. (AIL) and Accord HoldCo Limited (Accord) (see http://acornholdingsafrica.com). Accord's equity funding comes solely from Helios Investors III LP (Fund III). US investors own about half of Helios; the other half comes from Asian investors, DFIs in Europe and a small amount of African capital. AHL is one of several investment funds managed by Helios Investment Partners, a London-based private equity investor with a broad portfolio of African interests. See www.heliosinvestment.com. Helios's diverse LP base comprises a broad range of the world's leading investors, including sovereign wealth funds; corporate and public pension funds; endowments and foundations; funds of funds; family offices and development finance institutions across the US, Europe, Asia and Africa. (One such US investor is the New York State Common Retirement Fund. In 2014, this pension fund committed US$100 million to Helios III.) Helios has had a long relationship with the US Overseas Private Investment Corporation (OPIC). In 2004, OPIC chose Helios as co-manager of OPIC's US$110 million Modern Africa Growth Fund (MAGIC). A few years later, OPIC provided financing of US$78.5 million for the US$908 million Helios Investors II Africa fund. The strong performance of that fund led OPIC in 2010 to provide US$100 million in financing for a successor fund, Helios Credit Partners.

[15] For an overview of the PBSA market in Kenya, see: Cytonn Report. "Student Housing Market in Kenya," 2020, available at https://cytonnreport.com/topicals/student-housing-market-1.

In 2017, the US International Development Finance Corporation (DFC) (formerly the US Overseas Private Investment Corporation) approved a US$50 million housing project loan facility to support Acorn's development, construction and operation of affordable accommodation for students in Kenya. In September 2018, Acorn received the first loan of US$3.8 million in debt financing under this facility for the Edenvale project, a 300-unit development costing US$6.49 million.[16] Since then, Acorn has not drawn additional funds from DFC.[17]

In 2019, Acorn also launched a medium-term note (MTN) program to raise local-currency financing. Although it had good access to local bank financing, it decided to go to the domestic capital markets to establish its name in this market and to build relationships with institutional investors. It also wanted to secure fixed-rate financing for its projects.

The MTN effort was arranged and placed by Stanbic Bank Kenya Limited and SBG Securities Limited, in conjunction with Standard Investment Bank, which acted as a placing agent. It was a "limited public offer," targeting only institutional investors. The offering secured KES 4.3 billion in commitments by October 2019, slightly less than its target of KES 5 billion (equivalent to a little less than US$50 million).[18] In January 2020, Acorn Holdings Ltd. dual listed the KES 5 billion (equivalent to approximately US$47 million) green-bond program on the Nairobi Securities Exchange and the International Securities Market of the London Stock Exchange.[19] The funding raised will finance the construction of green-certified student properties that will provide housing for 5,000 students in Nairobi. Structured as a project bond, and the first with a deferred drawdown structure, the program is also the first ever to achieve green certification in Kenya, which ensures that it contributes to reducing carbon emissions.[20]

[16] Early Warning System. "ACORN — Edenvale Developments LLP," available at https://ewsdata.rightsindevelopment.org/projects/2018-acornedenval-acorn-edenvale-developments-llp/.

[17] Acorn has a large future pipeline that doesn't have specific financing facilities, so that's where DFC funding could once again be used. Since the DFC line is in dollars, this exposes Acorn to exchange rate risk, so it aims for an optimal mix of cheap-dollar financing and local-currency financing, which is more expensive but has no foreign exchange risk. (When accepting DFC's initial funding, Acorn recognized it had exchange-rate risk, but it decided not to hedge. It thought that rents would track inflation and thus provide a natural hedge, but Kenya's subsequent exchange-rate volatility showed this was shortsighted.)

[18] Acorn had an 85% subscription for the bond placing; all investors got full allocations.

[19] At the time of issuance, it was the 23rd green bond from Africa and the first from Kenya.

[20] Acorn Holdings Limited (2019). "Green Bond Framework," 2019, available at https://acornholdingsafrica.com/wp-content/uploads/2020/06/Acorn-Green-Bond-Framework-_July-2019.pdf.

## Multiple countries — Climate Investor 1

Blended financing — that is, using development finance to mobilize private capital flow — can provide sufficient risk mitigation to allow institutional investors to invest in projects and countries that they otherwise find too risky. Though there are numerous examples of the use of blended finance for individual projects, Climate Investor 1 (CI1) stands out as one of the few examples of how it can be used at each stage of project development and at scale for a portfolio of projects.

CI1 is an innovative approach to infrastructure financing for renewable energy infrastructure. The focus of CI1 is developing countries, with roughly 70% going to low-income countries and lower-middle-income countries and 30% to upper-middle-income countries.[21] It also focuses on countries experiencing sizable energy deficits while also being overly reliant on fossil fuels. Climate Fund Managers (CFM), formed in October 2015 by FMO (the Dutch Development Bank) and Phoenix InfraWorks, developed the design and is responsible for implementation of CI1 and its day-to-day operations.

CI1 provides complete lifecycle project financing using a blended finance structure. It combines three investment funds into one facility to finance a project's entire operational life. As each phase of the project (development, construction, operation) is financed by a separate fund, CI1 can create investment vehicles that meet different investors' risk appetites. The risky development phase is funded by donor capital. (The money is reimbursed only if the project goes forward into the construction phase.) The financing for the construction phase is provided by three tiers: tier 1 by donor capital, tier 2 by DFIs and commercial investors, and tier 3 by institutional investors. The financing is in a defined proportion of 20/40/40 from tier 1, tier 2 and tier 3, respectively.

The CI1 structure addresses some key bottlenecks to increased private financing of infrastructure in developing countries:

1. The pipeline of "bankable" projects in most developing countries is inadequate due to the limited funding available for project development.
2. Once developed, infrastructure projects are often severely delayed by prolonged negotiations with multiple potential sources of financing.
3. Private investors are risk-averse, making it difficult to attract financing in developing countries.
4. Often, little thought is given at initial financial close to refinancing projects once they are operational.

CI1 has successfully raised about US$850 million for its development and construction equity fund. A number of European institutional investors provided financing for the construction equity fund. CI1 has

[21] Climate Fund Managers. "Funds," 2021, available at https://climatefundmanagers.com/funds/.

deployed most of these to develop an initial pipeline of projects, around a half dozen of which are now reaching their operating phase. CI1 is now seeking funding for its refinancing fund, which will provide long-term senior-debt financing for the operating projects. This will free up capital for the CI1 construction equity fund to invest in new projects.

# Investing for impact in African infrastructure

## by Mercer

"Impact investing" refers to investments made with the intention of generating positive and measurable social and environmental impact alongside a financial return.[22] It is one of many responsible investing approaches, including ESG integration, active ownership, socially responsible investing (screening) and sustainability-themed investing.[23]

Impact investing as an investment strategy has a growing focus. This is evidenced by the size of the impact investing market, which has grown from just US$60 billion in 2014 to US$715 billion in 2019. Of this US$715 billion, 59% is directed to emerging markets, with 21% of this directed to sub-Saharan Africa.[24]

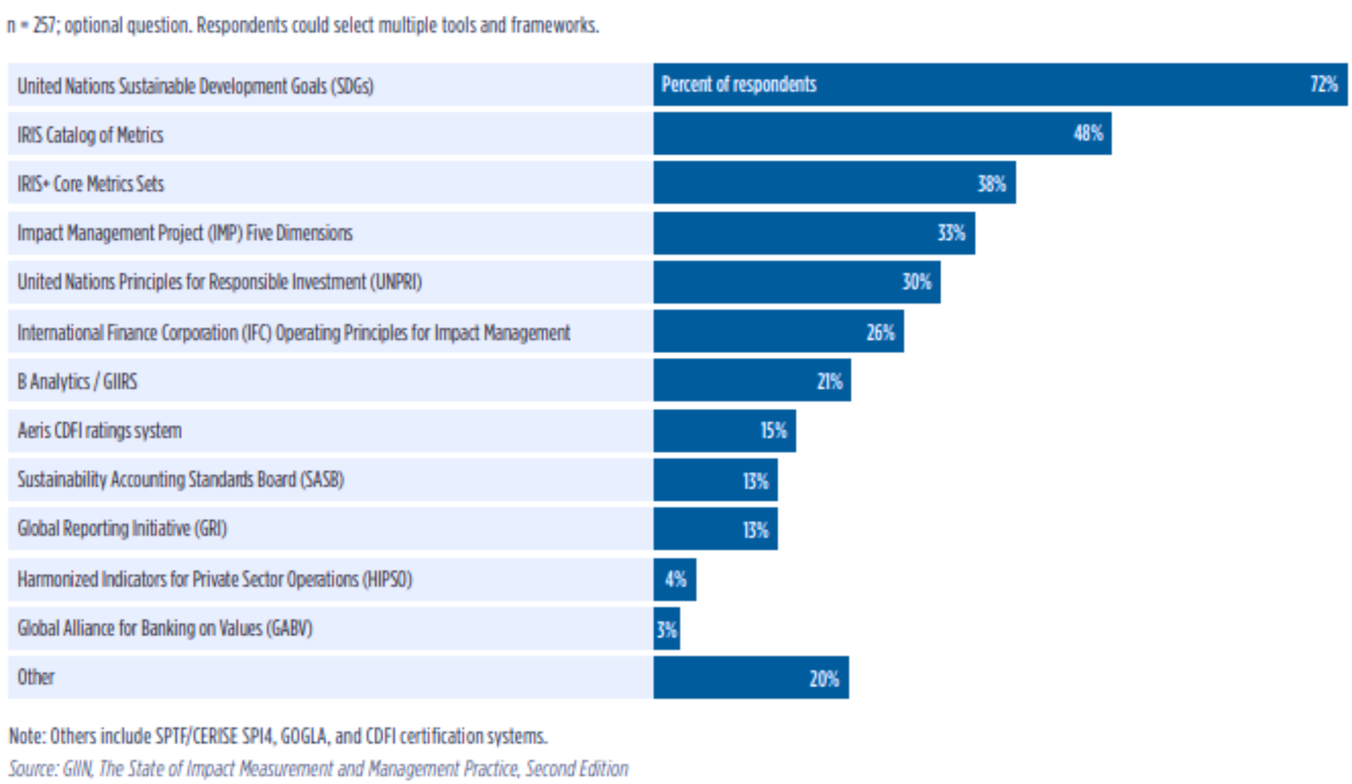

[22] The Global Impact Investing Network. "What Is Impact Investing?" 2021, available at https://thegiin.org/impact-investing/need-to-know/#what-is-impact-investing.

[23] Mercer. *The ABC of ESG*, 2018, available at: https://www.mercer.com/content/dam/mercer/attachments/private/nurture-cycle/gl-2018-wealth-the-abc-of-esg-mercer.pdf.

[24] The Global Impact Investing Network. *Annual Impact Investor Survey*, 2020, available at https://thegiin.org/assets/GIIN%20Annual%20Impact%20Investor%20Survey%202020.pdf.

Impact measurement and management (IMM) practices have shown considerable progress over the last three years, most notably in relation to investor and/or donor understanding of IMM practices and reporting, the availability of guidance for IMM, and sophistication of IMM tools and frameworks. Since the development of the UN Sustainable Development Goals (SDGs) in 2015, the application of this framework in measuring impact has seen strong growth. Though targeted at policymakers, many asset owners and managers have adopted the SDGs as a framework to categorize the world's sustainability challenges and align their positive impact investments to the themes, goals and/or targets. In fact, the use of the SDGs has almost doubled since 2017[25] as these global goals have gained traction among investors and other stakeholders.

### Figure 11. Tools and framework used in IMM




Another framework that has attracted interest from the impact-investing community is the Impact Management Project (IMP) Five Dimensions framework, an initiative with input from more than

---

[25] Global Impact Investing Network. *Annual Impact Investor Survey 2020*, available at https://thegiin.org/research/publication/impinv-survey-2020.

2,000 impact management professionals globally that aims to build consensus across the industry concerning how we talk about, manage and measure impact.

The foundation framework includes the five dimensions of impact, which outline what problem is being solved, who is impacted, how much impact is being created, the contribution toward impact of the investment intervention and the impact risk.

### Figure 12. Impact Management Project – Five Dimensions of Impact

**What**

- What social and/or environmental problem has been identified and to what degree have you solved it? What is your target outcome? What SDGs are being addressed?
- How important is the outcome to the people (or planet) experiencing it?

**Who**

- Who experienced the outcome by the measures you've taken?
- And in which countries could stakeholders benefit from the social and/or environmental measures?
- How underserved were the stakeholders prior to the measures you have taken?

**How much**

- How much of the outcome occurred – across scale, depth and duration? Was it sufficient to meet your targeted outcome?
- How were the outcomes defined, measured and evaluated?

**Contribution**

- What is your contribution to the outcome, accounting for what would have happened anyway?
- Did anything else (e.g. government regulations) contribute to the outcome?
- Is social and/or environmental impact relevant to your business?

**Risk**

- What is the risk to people and/or planet that this impact does not occur as expected?
- Have you experienced any challenges and have you been able to solve them?

For investors assessing allocations to African infrastructure, understanding how prospective investment managers take impact considerations into account in their investment and reporting processes can ensure that multiple objectives, both financial and impactful, can be achieved.

# Asset owner opportunities

## by Mercer

International asset owners reading this report may wish to better understand their available options for investing in African infrastructure. Our 2018 report addressed a number of potential pathways for asset owners to gain exposure to African infrastructure, including investing with specialist asset managers or making direct investments in projects.

A key recommendation of the 2018 report was for interested parties from the public sector, DFIs, or nongovernmental or affiliated organizations to organize “club deals” of investors into syndicated investment structures. A second recommendation was for international investors to seek to partner with local institutional investors in a given country or region to co-invest in a single project or invest in a fund.

Since the publication of the 2018 report, some welcome and favorable developments have addressed both of these recommendations and may offer new avenues for international investors to gain exposure to productive and impactful African infrastructure investments, as well as achieve strong alignment with local institutions.

### Kenya Pension Funds Investment Consortium (KEPFIC)

Launched in October 2020 but in development for a number of years, Kenya Pension Funds Investment Consortium (KEPFIC) is intended to enable pension plans in Kenya to jointly make long-term infrastructure and private-market investments in the region. Supported by USAID’s Kenya Investment Mechanism, Power Africa, the World Bank Group and MiDA Advisors (in partnership with USAID INVEST), the consortium is also intended to facilitate beneficial investment collaboration between Kenyan, American and other institutional investors.

Kenya’s infrastructure funding gap has been identified as US$1.8 billion on an annual basis,[26] a sum that cannot be met with public financing alone. KEPFIC estimates that over US$1 billion of private capital can now be invested by Kenyan pension funds into infrastructure, primarily as a result of recent reforms undertaken by the Retirement Benefits Authority (RBA).[27] Those reforms began in 2016, when the RBA allowed pensions to invest up to 10% of their total capital into private equity and venture capital, and continued as infrastructure holdings of up to 10% also were permitted.

---

[26] Ibid.

[27] KEPFIC. “Bringing Us Together So We Can All Go Further,” 2021, available at https://kepfic.co.ke/about-us/.

Sundeep Raichura, Group Chief Executive Officer of Zamara Group, the largest pension administrator in Kenya, and board Chairperson of KEPFIC, noted in an interview with Mercer that, although pensions have been allowed to make such private-market investments for some years, their allocations thus far have been notably low.[28] RBA data for year-end 2020 bear this out, as Kenyan pensions had invested only 0.12% of total assets in private equity, far below the 10% maximum allowed; no data are available yet for infrastructure-related investments by covered pensions.[29]

Sundeep observed that the reasons behind such low allocations to private-market assets may comprise a number of factors, including a lack of comfort with these newly investable assets among pension investors and fiduciaries — and therefore a highly deliberative and careful process for selecting initial projects and partners for investment. A secondary factor in low allocations to infrastructure may be related to simple math: Given the capital-intensiveness of infrastructure projects, a single pension making an allocation could easily exceed the 10% regulatory threshold unless the ticket size is at a manageable level. Due diligence and technical analysis costs can be other prohibiting factors for local pensions.[30]

KEPFIC is organized to address these key issues, primarily through a "strength-in-numbers" approach intended to share costs and risks across a number of Kenyan pensions as well as with international asset owners, connections that MiDA Advisors has been facilitating. Kenyan pensions require that regional investments be made in Kenyan shillings, whereas overseas investors typically prefer transactions to be made in hard currencies. Each investor group would therefore have to invest in different vehicles within the same fund.

One model proposed by MiDA Advisors would be for a selected asset manager to work in a syndicated structure with both local and international investors, similar to a co-investment approach. In this model, local pensions would pool their assets into a collective investment scheme to exceed investment minimum thresholds to gain access to the fund and be able to invest alongside international investors.

[28] Interview with Sundeep Raichura, 2021.

[29] RBA. "Industry Brief — December 2020," 2021, available at https://www.rba.go.ke/download/industry-brief-december-2020/.

[30] Interview with Sundeep Raichura.

## Asset Owners' Forum — South Africa

The Asset Owners' Forum is a nascent consortium of South African pension funds, investment consultancies and other financial institutions, supported by MiDA Advisors with funding provided by USAID Southern Africa via the USAID INVEST Project.

It is currently being incubated under the auspices of Batseta, the Council of Retirement Funds for South Africa. The forum is premised on accelerating real-assets investments by asset owners in a collaborative manner, which can facilitate the reduction of due diligence and legal costs, as well as potentially offering greater negotiating power with asset managers through pooling assets.

As in Kenya, recent regulatory reforms have been proposed to support greater infrastructure and private-markets assets by pension funds in South Africa — more specifically, amendments to Regulation 28 of the Pension Funds Act, which were proposed in February 2021 and were open for public comment through the end of March.[31] The legislation proposes that pensions may have up to a 45% total exposure to domestic infrastructure across asset classes (for example, infrastructure debt, infrastructure equity and private equity infrastructure) and an additional 10% limit on exposure to African infrastructure outside South Africa. Specific asset-class-level limits are proposed for exposures to any single issuer or entity, as well as across issuers and entities.

In addition, the proposed regulations set out new limits around alternative asset class investments for pensions, as well as a "delinking" of such investments, as current regulations limit "hedge funds, private equity funds and other assets not referred to in this schedule" collectively to 15%. In particular, private equity is limited to 10% of a pension's total holdings, hedge funds are limited to 10% and "other assets" is limited to 2.5%.[32] Overall, the proposed regulations, if adopted, would allow for much greater diversification of South African pension funds' portfolios and, therefore, potentially greater protection of retirement savers' assets.

The Asset Owners' Forum is geared toward helping pension funds to take advantage of newly available investment opportunities within infrastructure and broader private-markets instruments and provide a venue for potential collaboration with and investment alongside international asset owners. For international investors interested in gaining exposure to South African infrastructure, the Asset Owners' Forum will be worth watching as it develops.

---

[31] South African Government. "Treasury on Draft Amendments to Pension Funds Act Regulations to Encourage Investment in Infrastructure," 2021, available at www.gov.za/speeches/treasury-draft-amendments-pension-funds-act-regulations-encourage-investment-infrastructure#.

[32] Ibid.

# Conclusion

**The opportunity set for international asset owners to invest in African infrastructure has never been more robust or the conditions more supportive than they are at present. Between a strong macroeconomic outlook across most countries, deepening capital markets and potential partnership opportunities with local institutional investors, international asset owners have a range of beneficial trends to consider in sub-Saharan Africa.**

**Although this executive summary is an abbreviated version of the full report to be released in Q3 2021, we hope it provides compelling information to support asset owners in taking a closer look at opportunities on the African continent.**

# Important notices

References to Mercer shall be construed to include Mercer LLC and/or its associated companies.



This does not contain investment advice relating to your particular circumstances. No investment decision should be made based on this information without first obtaining appropriate professional advice and considering your circumstances. Mercer provides recommendations based on the particular client’s circumstances, investment objectives and needs. As such, investment results will vary and actual results may differ materially.

Mercer does not provide tax or legal advice. You should contact your tax advisor, accountant and/or attorney before making any decisions with tax or legal implications.

The findings, ratings and/or opinions expressed herein are the intellectual property of Mercer and are subject to change without notice. They are not intended to convey any guarantees as to the future performance of the investment products, asset classes or capital markets discussed.

Mercer’s ratings do not constitute individualized investment advice.

Information contained herein may have been obtained from a range of third-party sources. Although the information is believed to be reliable, Mercer has not sought to verify it independently. As such, Mercer makes no representations or warranties as to the accuracy of the information presented and takes no responsibility or liability (including for indirect, consequential or incidental damages), for any error, omission or inaccuracy in the data supplied by any third party.

This does not constitute an offer to purchase or sell any securities.

For Mercer’s conflict of interest disclosures, contact your Mercer representative or see http://www.mercer.com/conflictsofinterest.

Investment management and advisory services for US clients are provided by Mercer Investments LLC (Mercer Investments). Mercer Investments LLC is registered to do business as “Mercer Investment Advisers LLC” in the following states: Arizona, California, Florida, Illinois, Kentucky, New Jersey, North Carolina, Oklahoma, Pennsylvania, Texas and West Virginia; as “Mercer Investments LLC (Delaware)” in Georgia; as “Mercer Investments LLC of Delaware” in Louisiana; and “Mercer Investments LLC, a limited liability company of Delaware” in Oregon. Mercer Investments LLC is a federally registered investment adviser under the Investment Advisers Act of 1940, as amended. Registration as an investment adviser does not imply a certain level of skill or training. The oral and written communications of an adviser provide you with information about which you determine to hire or retain an adviser. Mercer Investments’ Form ADV Parts 2A and 2B can be obtained by written request directed to: Compliance Department, Mercer Investments, 99 High Street, Boston, MA 02110.

Sections of this document are made possible by the support of the American People through the United States Agency for International Development (USAID).

The contents of this document are the sole responsibility of **Mercer, MiDA Advisors** and **Standard Bank Group** and do not necessarily reflect the views of USAID or the United States Government.

**Mercer Investments LLC**
99 High Street
Boston, MA 02110
www.mercer.com