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BRIDGES AFRICA

Trade and Sustainable Development News and Analysis on Africa

VOLUME 6, ISSUE 2 – MARCH 2017



Is Infrastructure the Key to Africa's Economic Transformation?

INTERVIEW

Talking infrastructure with ECOWAS' Commissioner for Industry and Private Sector Promotion

SUSTAINABLE DEVELOPMENT

How can transport infrastructure promote sustainable development in Africa?

EMPLOYMENT

Cross-border infrastructure: What potential in terms of job creation?



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SUSTAINABLE DEVELOPMENT

Sustainable Infrastructure: A Driver to Achieve the Sustainable Development Goals in Africa?

Hans-Peter Egler and Juraj Jurik

In light of Africa's current development challenges, how can sustainable and resilient infrastructure pave the way for the successful implementation of the Sustainable Development Goals on the continent?

The successful implementation of the Sustainable Development Goals (SDGs) depends heavily on infrastructure, as according to the OECD more than 80 percent of the SDGs rely on infrastructure development of some form. Given the long-term nature of infrastructure, its benefits for society, and its undeniable impact on the environment, sustainable and resilient infrastructure systems will be vital in ensuring that sustainable development, particularly on the resource-intensive African continent, is able to succeed. Sustainable infrastructure is a means to mitigate environmental, economic, and social risks, as well as to increase resource optimisation and benefit creation. However, in order to turn this potential into reality – through the development of sustainable and resilient infrastructure projects – the roles of the private sector, master planning, public procurement, and public-private partnerships (PPP) are vital.

Sustainable and resilient infrastructure: A backbone for the SDGs

Infrastructure such as telecommunication networks, transportation systems, water treatment and waste management facilities, hospitals and schools, are necessary to ensure effective economic and social development. Humanity strongly depends on the services such types of infrastructure provide. However, besides the undisputable benefits they deliver, they also have significant impacts on the environment – resulting in a loss of biodiversity and a decrease in human well-being. Including the right sustainability and resilience aspects into the development and financing of infrastructure projects is becoming increasingly important, and could turn infrastructure into the backbone of sustainable development. In light of the following two trends, it has become even more important to integrate these crucial aspects into infrastructure planning in Africa.

Firstly, the continent's population is booming. Secondly, it is experiencing a huge demographic shift from rural to urban areas. After Asia, Africa is the world's second-fastest region in terms of pace of urbanisation. The total population living in Africa's urban areas is expected to rise from 400 million in 2010 to around 1.26 billion in 2050.¹ According to the McKinsey Global Institute, the number of urban-based Sub-Saharan African households is likely to grow at a rate of 4.1 percent per year until 2025.² This expected growth demonstrates a need for better urban management, institution building, and a new paradigm for planning and implementing infrastructure projects.

Today, however, Africa is lacking appropriate and sustainable infrastructure solutions to meet these growing challenges. For example, 80 percent of Africa's agriculture still relies on rainwater rather than irrigation networks. Electricity production plants, as well as health and educational services, are also insufficient. Not only does this rapid development threaten the fulfilment of African people's most basic needs today, it also indirectly affects the ability of future generations to meet theirs. Sustainable and resilient infrastructure has tremendous potential to help achieve the SDGs and other sustainability-related targets set by international agreements, such as keeping the global temperature increase to no more than 2 degrees Celsius by the end of this century. In particular, through better roads, ports, and other transport means, sustainable and resilient infrastructure can improve the connectivity of goods, services, and people, thus strengthening African economies, supporting their integration into global trade and international value chains, creating more jobs, and offering better income possibilities for their growing population.

A new element to consider: Nature-based solutions

Nature-based solutions (NBS) are increasingly recognised as complementary solutions that provide infrastructure projects with numerous benefits and increase their levels of sustainability and resilience. These solutions are especially important for Africa as they can help tackle many of its current challenges. NBS are natural systems – like wetlands, forests, or mangroves – that can substitute for conventional man-made infrastructure, such as dams and water treatment plants, and are integral to the health of ecosystems and human well-being. There is a strong business case for investing in NBS, as they can reduce construction and maintenance costs, improve operation costs, and generate financial gains. Furthermore, in many cases, NBS can generate more co-benefits and function longer than conventional, man-made infrastructure.

These qualities of NBS are especially interesting in the context of Africa's future development trajectory. For example, NBS can contribute significantly to soil restoration, green space rehabilitation, the development of food gardens, and disease prevention. They also reduce the occurrence of disasters due to their ability to strengthen soil, control floods, and produce microclimates in cities. Furthermore, they can help purify water supplies and support the retention capacity of soil.

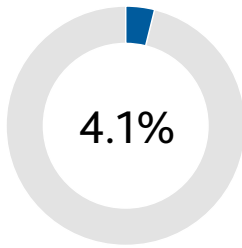
Using new tools to integrate sustainability-related aspects into planning

How can the resilience and sustainability aspects of infrastructure projects be demonstrated to city planners, project developers, investors, and decision makers? Are there currently any tools that could look at an infrastructure project and assess its qualities, risks, and benefits for infrastructure stakeholders?

Standardised approaches can contribute to benchmarking, increase the comparability of infrastructure projects, and create a common language between the main stakeholders. Therefore, credible standards are essential.

Standardised approaches can contribute to benchmarking, increase the comparability of infrastructure projects between countries and sectors, and create a common language between the main stakeholders. Therefore, credible standards are essential. GIB, together with the French investment bank Natixis, has been working with a wide range of stakeholders across regions and sectors to produce a standard that can achieve these objectives. The Standard for Sustainable and Resilient Infrastructure (SuRe®) was launched at COP21 in Paris in December 2015, and provides a basis upon which infrastructure projects can be certified as sustainable and resilient. It integrates the IFC performance indicators and relevant international conventions – such as the Sendai Framework for Disaster and Risk Reduction, the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change, and the ILO Declaration on Fundamental Principles and Rights at Work – into its performance assessments. GIB has also included nature-based solutions in this standard, which ensures that it provides benefits beyond the immediate scope of the SDGs. The SuRe® Standard creates a common understanding between the public sector, project developers, and the financial sector. In order to channel larger financial flows from institutional investors towards sustainable and resilient infrastructure, complementary tools focussing on the default risk assessments of debt financing and underwriting are also needed. Therefore, GIB is also working with market players to develop these complementary tools.

How can these and similar tools help vulnerable African cities handle and overcome the challenges they are facing? First, they facilitate appropriate procurement criteria, enable the comparison of infrastructure projects, and help the project selection process. Second, they ensure that environmental, social, and governance criteria are covered, thus



According to the McKinsey Global Institute, the number of urban-based Sub-Saharan African households is likely to grow at a rate of 4.1 percent per year until 2025.

increasing the quality of infrastructure, improving risk management, and creating benefits. Third, they prepare projects for the scrutiny of potential financiers, who increasingly focus on such criteria when assessing projects. In this regard, the involvement of private investors helps such projects to access private finance.

The risk mitigation and benefit creation potential of sustainable infrastructure

Considering the social, economic, and environmental elements of an infrastructure project helps mitigate risks, and is particularly cost-effective when done at the beginning of the development process. An illustrative example is the construction of a renewable energy water dam that creates risks for the local biodiversity and ecosystem as well as the habitat of indigenous people. Such a project could endanger the fish population and potentially lead to the displacement of the local indigenous population. Mitigation measures would include stakeholder engagement: preparing, informing, and negotiating with the indigenous communities before such displacement decisions take place, and better assessing the impacts on biodiversity and ecosystems, resulting in the possible redesign of the project in question.

Embedding the aspects of sustainability and resilience into infrastructure projects can provide benefits such as lower energy, repair, and maintenance costs, as well as proactive environmental approaches. This results in better environmental and biodiversity protection, including through reduced CO₂ emissions. Infrastructure development and upgrade present significant opportunities in relation to climate change adaptation and mitigation, since such projects are usually built to last for decades and influence the livelihoods, lifestyles, and consumption behaviour of many people every day. Houses built according to energy efficiency standards, wind farms that replace coal-fired power plants, innovative water and waste treatment plants, as well as public transport systems, can save large amounts of greenhouse gas emissions throughout their life cycles, including by increasing the share of renewable energy consumption and protecting carbon sinks.

Using innovative tools – such as the SuRe® Standard – to assess the sustainability and resilience of infrastructure projects can generate significant benefits for the various stakeholders involved: it helps financiers to identify sustainable investment opportunities (particularly for unlisted infrastructure) and compare the performance of infrastructure projects across sectors with regard to ESG elements; it also supports project developers in identifying how to use project resources efficiently (financial and natural) and communicate the benefits clearly, which can in turn make the relevant project more acceptable to the public and attract additional financial resources from the private sector; and it allows the public sector to benefit from the increased quality of infrastructure, greater resilience, and the more efficient use of limited public resources, while also encouraging the establishment of appropriate procurement criteria.

The crucial role of the public sector

Given the key role of infrastructure design and implementation in the whole sustainable development process, the public sector will play a crucial role in the successful integration of sustainability and resilience elements into projects, in particular regarding the adoption of appropriate public procurement systems and the design of public-private partnership (PPP) models. Such action should be based on well-designed master plans, laying the foundation for the creation of safe, secure, and healthy urban environments with access to basic services for all. In the majority of African countries, public procurement needs to be improved in order to implement innovative infrastructure solutions.

In Africa, there is growing pressure on government budgets, insufficient investments due to scarce financial resources, and a lack of capacity within the infrastructure sector. Therefore, PPPs have emerged in the African market as a solution to overcome local challenges. In general, PPPs allow public and private know-how to be combined in order to enhance the quality of services, increase resource efficiency, improve risk allocation and – due to the skills and effectiveness of the private sector – contribute to reducing the whole life cost of a project compared to those developed via standard public procurement. In addition, such collaboration will allow projects to access innovation and additional

technical know-how, both of which are key inputs. Recognising the great potential of PPPs, GIB has teamed up with C.R.E.A.M. Europe to develop the ImPPPact initiative, which aims at stimulating innovative approaches and resource efficiency with regards to infrastructure projects. Such initiatives have the potential to foster the implementation of the SDGs through PPP infrastructure projects.

Conclusion

The African continent is urbanising rapidly and must provide its growing population with the necessary goods and services. Built infrastructure, although needed, is having a detrimental effect on the environment and human well-being. In this context, it is critical to ensure that infrastructure development becomes a driver to achieve the SDGs and other targets set by international agreements. This will in turn boost economic development, protect the environment, and provide African societies with a variety of social benefits.

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Thanks to the fact that sustainability and resilience elements can contribute to the mitigation of risks and even increase the benefits associated with infrastructure projects, sustainability and resilience thinking should be considered not as an additional cost, but rather as a return-providing investment. Nature-based solutions can contribute to lower cost solutions and enhance the benefit creation potential and resilience of infrastructure. Strengthening the ties between the public and the private sector (PPPs), efficient public procurement systems, and well-designed city master plans are all key ingredients to implementing sustainable and resilient infrastructure projects. The public sector, construction companies, and financial intermediaries need to apply more innovative tools. Together with renowned business players, GIB has started to provide such market-oriented tools and services. Halting the current tempo of urbanisation is not an option. However, introducing sustainability and resilience aspects into infrastructure projects can shift us onto a more sustainable path.

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