



Taking the Lead: Case Studies Reflecting New Sustainability Trends in Africa

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INTRODUCTION

According to the World Bank (World Bank in Africa, 2021), Sub-Saharan Africa alone is home to more than 1 billion people, half of whom will be less than 25 years old by 2050. It is truly an emerging economy in this way—the next frontier. Unfortunately, up to 20 countries in the region are fragile and or dealing with conflict, and the region as a whole is burdened by poverty. This is arguably the single biggest sustainable development issue being faced by Africa. According to the World Data Lab, more than 150 million people are living in extreme poverty in just two countries—Nigeria and the Democratic Republic of Congo. At a broader scale, about 40% of Africans live below USD 1.90 daily. Overall, it estimates that about 80–90% of countries unable to eliminate extreme poverty by 2030 will be in Africa (Hamel et al., 2019).

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In addition, the young, growing population means that even if poverty percentages might go down, the absolute number of people living in poverty is likely to increase. Given this challenge, several sustainability trends in the region are ultimately rooted in poverty reduction and alleviation.

The United Nations Human Development Report (1998) defines poverty as a complex phenomenon that generally refers to inadequacy of resources and deprivation of choices that would enable people to enjoy decent living conditions. While Yunus (1998) defines it as the denial of human rights relating to the fulfillment of basic human needs—food, shelter, and security.

There have been numerous research about the causes of poverty, though most agree that they are multi-dimensional. For example, SIDA (2005) identifies some causes such as a lack of information, knowledge about market prices for the goods people in poverty deal in, issues related to health and access to affordable healthcare, availability of public services, and inability to exercise their rights. Another underlying cause is the inability to be visible and heard, with no political influence to change fundamental and systemic issues that keep them in poverty.

International Monetary Fund (2004) takes even more factors into consideration observing that poverty may be caused or exacerbated by the lack of capacity of the poor to influence social processes, public policy choices, and resource allocations; low capacities through lack of education, as well as vocational and entrepreneurial skills; poor health; the disadvantaged position of women in society; exposure to risks through lack of financial, social or physical security; and low levels of consumption through lack of access to capital, social assets, land and market opportunities. In addition, it includes many other factors such as exposure to shocks due to limited use of technology in Agriculture (and so more vulnerable to the effects of drought, floods, pests, environmental degradation, etc.); inadequate environmental protection measures; lack of macro-economic stability that erodes meagre resources saved (e.g. inflation); and habits and conventions based upon superstition and myths giving rise to anti-social behaviour.

Further to the above, The World Bank and IMF share several other macro factors that cause poverty, notably civil wars and elongated civil unrest, corruption and bad governance, poor infrastructure, and poor health facilities. The United Nations Human Rights Commission further noted in the 2018 Equinet Conference that poverty could also be

caused by general exclusion of the people from social life. Exclusion meaning discrimination, which is a process that denies individuals from full participation in material exchange or interaction.

But sustainable development means that even as we ensure the well-being, and take due care of, future generations, we must still improve the current situation of communities, countries, and regions by promoting socio-economic development. This means a continuous effort to remove populations from poverty now by addressing these root causes. This has been a key thrust in the topical sustainability activities and trends seen in Africa (particularly Sub-Saharan Africa).

NEW AND EMERGING SUSTAINABILITY TRENDS

Key sustainability trends in Africa discussed below are around the following: impact investing as a more sustainable model of funding social and environmental projects; scaling renewable energy to improve productivity for all, especially in rural communities; finding opportunities for employment and reduced environmental pollution in proper waste management; incorporating sustainable agricultural practices to enable subsistence farmers improve their productivity to match the significant population growth being expected; and finally, central bodies increasingly recognizing the need to facilitate corporations to do their part in sustainable development. This section examines these trends in detail.

The Rise of Impact Investing

Impact Investments are defined as investments that are made to generate a measurable social and environmental impact alongside financial returns (GIIN, 2019, p. 1). This type of investment was popularized by the push for institutional investors, asset managers, and corporations to increase accountability and reporting on how their investments are managed. Some countries even instituted regulatory controls to encourage responsible investment practices. Initiatives have also been formed, notably the United Nations Principles for Responsible Investing (UNPRI) which work to promote responsible and accountable deployment of funds in ways that address environmental and social challenges. As of 2014, 1,276 institutional asset managers, with combined assets of over \$45 trillion, had signed up to the UNPRI. By 2021, this had grown to 3,400 institutional asset managers, with combined assets of over \$121 trillion.

In 2014, Africa received 15% of all impact investment Assets Under Management (AUM), with sub-Saharan Africa constituting the second-highest regional allocation when compared to the rest of the world. By 2020, allocations to sub-Saharan Africa had risen to about 21% of AUM (GIIN, 2020). In fact, up to 43% of investors surveyed by Global Impact Investing Network (2020) have funds allocated to Africa.

Africa is an obvious region for impact investors because of its vast need for socio-economic development. Alongside the financial returns, impact investors hope to address social challenges such as creating employment, creating and/or strengthening infrastructure, providing affordable housing, supporting sustainable agriculture, etc. Up to 52% of investors surveyed by the Global Impact Investing Network (2020) said they planned to increase their exposure to Africa over the next five years.

Most impact investors take guidance from the Sustainable Development Goals (SDGs) to shape the social impact they want to make through their investments. Many managers in private equity firms align their strategies with the SDGs in such a way that private equity investors focused on Africa have become almost synonymous with impact investors (Private Equity International, 2020). For example, Old Mutual Alternative Investments has three impact funds, but across its business, it uses 12 of the 17 SDGs (for example, Climate Change and Decent Work and Economic Growth) to guide its social and environmental priorities and set its metrics used to measure the success of its funds—not just its impact funds (Old Mutual 2020 Sustainability Report).

So far, there have been notable funds being allocated to the region. For example, Vital Capital launched its \$350 million investment fund focusing on healthcare, affordable housing, and agriculture. Leapfrog Investments has \$700 million under management (as of 2020) focusing on Africa and Asia and investing in financial institutions, and distributors and enablers of financial products and services—with recipients meeting strict environmental and social requirements, but providing these recipients with the necessary training and knowledge sharing. Bamboo Capital has about \$500 million AUM and is focusing on financial services, micro-finance, energy, and healthcare. And Acumen Capital has a \$70 million fund targeted specifically for clean energy in Africa.

Despite having the biggest share of impact investments globally, Africa still needs much more investments than it is getting to address its core issue—poverty. On a whole, the continent needs about \$260 billion in financing every year until 2030 to be able to achieve the SDG targets.

But there has been growing recognition that private capital plays a significant role in closing this gap, especially as the model is seen as more sustainable and long-term than traditional philanthropic grants and donations from donors.

The Rise of Renewable Energy

Overall, the number of people globally who have gained access to electricity has increased (more than 1 billion people have gained access in the last decade). But in Africa, the number of people without electricity has actually increased. Africa has long been plagued by an energy deficiency and significant energy inequality between urban and rural areas. The region accounts for three-quarters of the global electricity deficit. This deficit is the largest in three countries—Nigeria, the Democratic Republic of Congo, and Ethiopia. Unless this gap is closed in Africa by significantly scaling up efforts, the world will not meet the SDG 7 target by 2030 (World Bank, [2021a b](#), Overview of the World Bank in Africa). And, we will not be able to mitigate/end poverty and boost incomes.

Similarly, almost 3 billion people globally do not have access to clean cooking fuel, leading to millions of deaths from harmful smoke annually. Again, without significant action to scale up clean cooking, the world will fall short of meeting its target by 30% come 2030 (World Bank, [2021a, b](#)).

Corporations and governments have turned to renewables as the more effective, resilient, and scalable solution to energy. It has seen significant growth over the last 10 years but because overall energy consumption also grew significantly, the share of renewables in the global energy mix has largely remained steady at about 25% as of 2018 (though largely due to East Asia, rather than Africa).

The success of renewables in Asia has, however, helped to prove that the solution works (CleanTechnica, [2021](#)). Much focus has therefore been placed on expanding the share of renewables in Africa's energy mix. And as renewable energy products grow more affordable (e.g. cheap lighting products, solar phone chargers, clean cookstoves, etc.), it is also seen as a viable option for rural electrification.

It is estimated that even though hindered by COVID-19, renewable electricity is expected to expand by 8% year on year globally (IEA, [2021](#)). Whereas most of the developed world is pushing for clean energy because of climate change, Africa needs it to sustainably increase its use of energy

for electricity, agriculture, etc. In doing so, renewable electricity becomes a tool for mitigating poverty and increasing productivity for personal and business growth.

Propagators of renewable energy are increasing due to increase in clean energy investors and financing, and dropping prices of enabling technology (such as batteries—cost of solar decreased by 77% between 2010 and 2018, and has continued to decrease by 20% year on year over the past five years). This is driving estimations that Africa's electricity capacity will double by 2030 as it starts to unlock its vast energy potential with solar energy leading the way (United Nations University, 2014).

There has been plenty of activity around this to make it happen as African governments have started working on significant renewable energy projects. For example, Egypt currently has the fourth-largest solar power plant in the world constructed by the state-owned New and Renewable Energy Authority (NREA). Also, Kenya recently completed its geothermal power plant in Menengai, now making the country the largest African producer of geothermal energy (the country also has a state-developed solar power plant which it started work on in 2011). In addition, South Africa has a massive solar power plant being developed called the Redstone Project which is expected to power over 200,000 households once completed.

Likewise, significant financing is being put into renewable energy. For example, in 2020, the World Bank approved \$465 million to expand energy access and renewable energy to West African countries. This is expected to provide electricity to over a million people in the region. Also in 2020, the Sustainable Fund for Africa (managed by the African Development Bank) approved a \$760,000 grant to develop small energy projects (focusing on solar and hydro) across the region. In 2021, the Africa Renewable Energy Fund II also raised \$145 million for investments in early-stage renewable energy projects in Africa. The Global Energy Transfer Feed-in Tariff (GET FiT) program mobilized \$450 million in investments in 2021 and is currently assisting some African states to generate renewable energy starting with the development of 17 small-scale renewable energy generation projects in Uganda. In Nigeria, Helios Investments is partnering with Africa Infrastructure Investment Managers (AIIM) to establish a platform called Starsight, which is building the largest distributed solar, storage and cooling business in Nigeria and Ghana. In addition, several renewable energy projects in South Africa are

being financed by South African banks (South Africa is currently being seen as having the most renewable energy activity in Africa).

Closing the energy deficit in Africa by increasing clean energy consumption is essential in the fight against poverty in the region. This is because energy determines the quality of life—how we live, how long we have to be productive, how we power our tools (e.g. phones, laptops, the Internet) to be able to take part in the global economy, and how we power our businesses and industries for effectiveness, efficiency, and competitiveness. Using an affordable and dependable power source that can be deployed at scale (e.g. solar products) can drive better standards of living, productivity, and ultimately, economic transformation.

Waste and Recycling

Global waste is expected to grow to 3.4 billion tonnes by 2050. This is more than double the expected population growth rate over the same period of time. Within emerging economies alone, the quantity of waste generated is expected to increase by more than three times come 2050. Sub-Saharan Africa has one of the fastest growth rates for waste—with total waste generated expected to more than triple. Even though Africa generates far less waste than developed nations (about 125 million tonnes was generated by the region in 2012—with 65% of this in Sub-Saharan Africa), its negative effects are already being experienced (World Bank Data Topics).

For example, in Africa, more than half of the waste generated is currently openly dumped. This has adverse implications on many fronts—health, environment, water pollution, fisheries, agriculture, etc. Waste collection and disposal is obviously a critical issue to tackle given the growing problem, but only about 44% of all waste generated in cities in Sub-Saharan Africa are collected (compared to 90% in Europe, central Asia, and North America). Outside of cities, only about 26% of waste is collected. Upon collection, up to 93% of waste is dumped, compared to only 2% in high-income countries (World Bank Data Topics).

Unfortunately, this situation has arisen because most African countries do not have the resources, infrastructure and skills needed to handle the complexity of collecting and properly disposing of waste. About 19 out of the world's 50 biggest dumpsites are located in Africa (NSWAI, 2014). A growing waste concern has been plastics, with about 13% of municipal waste generated in Africa being plastic. Food waste is also another area

of concern, with up to 37% of food produced is lost or wasted in Sub-Saharan Africa (FAO, 2011).

Despite these, there has been growing recognition that solid waste could also present an opportunity for growth and inclusion. Opportunities are arising around plastic recycling, creation of employment within the waste value chain, and even technology and innovation around new ways of waste disposal (e.g. waste-to-energy conversions).

Recycling of waste plastics is only just emerging in Africa, but recycling activities have started in a few countries. For example, South Africa is noted as leading the way for recycling in Africa, with about 43% of plastics being collected and recycled. The country has an established South African Plastics Recycling Organization which represents plastic re-processors working in the country. Organizations such as PET Recycling Company also help to create awareness and contribute to recycling. Both organizations also work with informal waste pickers to help collect plastics for recycling.

Working with local informal waste pickers to collect plastic has become a growing trend. In South Africa, up to 200,000 informal waste pickers have helped to grow the recycling sector. In Kenya, a company called Taka Taka purchases waste from informal waste pickers. In Nigeria, startups such as Recycle Points and Wecyclers purchase recyclable waste from any person or household who is willing to sell them. The startups purchase the waste in-kind by exchanging them (depending on weight) for useful household products. Bekia is a startup in Egypt which uses the same model. Regenize is another startup in South Africa that does the same but in exchange for vouchers that collectors can use to shop. It is expected that working with such informal waste collectors can provide viable employment for the masses. As well as opportunities for entrepreneurs who in turn, create employment and value for communities and governments.

As mass awareness grows about the need for recycling, this trend is expected to also grow. For example, a survey of 4,200 young Africans run by Ichikowitz Family Foundation revealed that 58% of them were dissatisfied with the recycling efforts in their countries; and 79% were annoyed at the mounting plastic issue.

Meanwhile, in an effort to reduce non-biodegradable waste, several governments such as Benin, Tanzania, and Senegal have turned to outright bans of some products, specifically single-use plastics. Plastics are currently at the top of the international agenda for waste management

because of increased awareness about how long it takes to break down, consequences on marine life, and microplastics in everything (including food that humans eat).

More and more African governments are choosing to reduce the production and use of these items by banning them. For example, Benin banned non-biodegradable plastic bags in 2017. Tanzania banned plastic sachets used to package water and other beverages and tourists are not allowed to bring in plastic bags. Senegal also banned single-use plastic and coffee cups in 2020. Rwanda instituted a complete ban on all single-use plastics in 2019 and also prevents tourists from bringing them into the country. Finally, Kenya probably has the strictest plastic ban in the world—using a single-use plastic bag could attract a fine of \$500 and being in the business of manufacturing or distributing a plastic bag could attract up to \$40,000 fine on the company. Meanwhile, all the countries in the Southern Africa Development Community (SADC) have single-use plastic bag bans on their agenda.

Promoting Sustainable Agriculture

The SDGs once again made agriculture a priority in the development agenda, alongside other declarations that came before, such as the 2014 Malabo Declaration to achieve accelerated agricultural growth and transportation for increased prosperity and improved livelihoods. The SDGs themselves aim to double the agricultural productivity of small-scale farmers while reducing post-harvest loss and improving nutrition. In Sub-Saharan Africa, rapidly increasing population and urbanization, as well as the increasingly negative impact of climate change, means that sustainable agriculture is a growing concern.

Africa is the fastest-growing region in the world with expectations that it will be home to up to 2.2 billion people by 2050, and 4 billion people by 2100. Sub-Saharan Africa alone could account for more than half of the world's population growth between 2019 and 2050—projected to be home to up to 1.05 billion additional people. And as the population is expanding, so is urbanization—about 42% of Africa's population is believed to reside in urban areas. Agriculture in Africa is largely subsistent with substantial losses incurred after harvest due to storage and transportation challenges. So increasing productivity for larger populations in a sustainable way, while creating viable opportunities for jobs among African youth, is a challenge many bodies are working on addressing.

One area of interest so far has been in instituting climate change resilience and adaptation within agriculture. Recently, at least one month per year has broken the hottest month on record. Heavy rainfall has led to flooding in Uganda, Zimbabwe, and the Democratic Republic of Congo. Desertification has led to the drying up of critical water bodies such as Lake Chad. And the effects of these changes have hit smallholder farmers disproportionately—even though they produce more than 70% of food across Africa. Technology and innovations being pushed to improve smallholder farmers' adaptation to climate change have included initiatives such as the introduction of more resistant crop varieties.

For example, the Drought Tolerant Maize for Africa initiative released about 200 drought-resistant varieties between 2007 and 2015. They, and other bodies, are looking to scale these achievements over the coming years with even more effective crop varieties. In addition, initiatives to promote agroforestry that integrates trees and crops in a harmonious way (e.g. cocoa being planted in the shade of trees), as well as intercropping (e.g. planting cocoa and palm oil together rather than the traditional palm oil mono-cropping), are gaining traction. Furthermore, incorporating affordable and sustainable irrigation systems has been top of mind. For example in Benin and Togo, low-cost irrigation systems are being designed and developed by farmer groups, and in Morocco, a system of local trees and shrubs is designed to creatively collect runoff in areas with small rainfall.

Another trend quickly gaining ground in sustainable agriculture is precision farming—the ability to make targeted decisions and take action based on specific data, e.g. farmers being able to make nutrients available to crops only when the crops actually need them, or to match the optimal amount and type of fertilizer to the crop based on the specific soil type. Precision farming has been facilitated by advancements in GPS (Global Positioning Systems), Internet of Things, and mobile mapping, and is a critical part of using technology, even among subsistence farmers. For example, farmers can now use their mobile phones to capture visual observations of their crops (for growth, diseases, etc.) and seek advice. This has promising implications for food security. In Nigeria, Zenvus is a precision farming startup that helps to monitor soil data and help farmers apply the optimal amount of fertilizer and irrigation. In Kenya, UjuziKilimo is another startup with a similar solution, including using digital tools to bring farmers together for knowledge sharing so that they can

better understand and incorporate the insights from the startups' data analysis.

More generally, farmers, especially in East Africa, have been able to leverage their mobile phones for improved productivity and faster access to markets. The East African region has the most progress with regard to mobile money and mobile services, and much of these services are related to farming. These include providing farmers with information about crop prices, micro-insurance, and general training about sustainable agriculture best practices—numerous Kenyan startups provide such services, e.g. Farmerline, M-Farm, iCow, Sokopepe, Arinifu, etc. Several others such as Farmers Market allow farmers use simple SMS to sell their produce online. And others such as ifarm360 in Kenya and Farm-Crowdy in Nigeria provide crowdfunding platforms that connect farmers to individual investors.

This intersection of digital technology, as well as local low-cost innovations in irrigation and farming practices are being used to continually scale sustainable agriculture.

The Push for Sustainable Reporting

A growing trend has been stock exchanges and central banks' awareness about their role in fostering sustainable development. Most see this role as facilitating and even mandating the corporations they oversee to report on their Environmental, Social and Governance (ESG) practices. This is not surprising given the increased focus investors (both companies and individuals) now have on sustainability reporting.

To this end, some stock exchanges in Africa, as well as central banks, have published guidelines that corporations can use to report on their sustainability activities. This is an acknowledgement that they are ready to mandate that financial institutions and other corporations must also do their part towards inclusive and sustainable development.

For example, the Central Bank of Nigeria (CBN) published the Nigeria Sustainable Banking Principles (NSBPs) in 2012 to be adhered to by most financial institutions in the country. The Principles cover nine areas consisting of the banks' risk management processes, the banks' environmental footprint from its daily banking and branch operations, human rights, women economic empowerment, financial inclusion, environmental & social governance, capacity building, collaborative partnerships, and reporting. The banks provide the CBN with mid-year and year-end

reports and have continued to engage with the CBN on several issues they encounter during their reporting activities. Even though all acknowledge that there is a lot of work to be done, this has provided a significant push for Nigerian banks to start considering environmental and social issues on a regular basis.

Furthermore, the Nigerian Stock Exchange issued its Sustainability Reporting Guidelines in 2018 strongly encouraging companies to comply with the proposed topics and formats within. The Guidelines are largely based on the Global Reporting Initiative (GRI) standards. By 2019, it became mandatory for companies listed on the Premium Board of the Exchange to report their sustainability activities. This has helped facilitate a consistent approach to ESG reporting, thus making it easier for investors and other stakeholders to assess progress.

In addition, other exchanges that require companies to disclose their ESG metrics and activities, (though are yet to issue guidelines) are the Johannesburg Stock Exchange, the Namibian Stock Exchange, and the Zimbabwe Stock Exchange. All strongly reference internationally accepted reporting standards (such as the GRI Standards) to be followed by corporations in the Exchanges. Several also organize and co-host events around ESG reporting to share knowledge across the corporations.

The exchanges and central banks themselves also report on how they are incorporating sustainability into their own processes and operations, as well as joining global knowledge bodies to further foster sustainability across the industry. For example, the South African Reserve Bank (SARB) joined the Network on Greening the Financial System. The Network consists of 42 central banks from across the world and it aims to promote effective environmental and climate risk management practices in the financial sector. Moreover, 10% of the annual reports published by stock exchanges around the world are from Africa (Suresh & Dhara, 2020).

Furthermore, reporting using the Global Reporting Initiative (GRI) Standards has also increased, with more than 100 Sub-Saharan Africa corporations submitting and validating their report with GRI in 2020 (GRI, 2021). Some of these corporations include Dangote Cement in Nigeria, Prudential Assurance in Uganda, Vodafone in Egypt, and many more.

CONCLUSION

An examination of key trends above shows that sustainability in Africa is largely around addressing the root causes of poverty and facilitating increased productivity and better standards of living for Africans. The rise of impact investing shows that investors focused on Africa are increasingly incorporating social and environmental metrics to their traditional financial return metrics—an investment in Africa is an investment in social inclusion and environmental management.

Furthermore, the significant focus being placed on scaling renewable energy, proper waste management, and incorporating sustainable agricultural practices showcase the need for increased (but sustainable) productivity and economic well-being. Corporations are also increasingly being encouraged by stock exchanges and central banks to incorporate ESG into their operations and their activities in the communities within which they operate.

These topical issues have direct connections to the Sustainable Development Goals, and continued implementation of these trends will help push the world towards achieving the SDG targets by 2030.

Points to Ponder

- How can some of the current activities and innovations across the trends (e.g. in renewable energy, sustainable agriculture, etc.) be scaled and made mainstream?
- How are some of these trends interconnected, and where can there be synergies whereby advancements in one lead to further advancements in other trends?
- What are the roles of stakeholders—from individuals, governments, and businesses, in furthering activities for mainstream adoption of sustainability across industries and sectors?

Actionable Recommendations

<i>Private leadership</i>	<i>Public leadership</i>
<p>Company executives should design their sustainability strategies to fit with and address the peculiar environmental and social needs of their industries and to align with their overall company strategies. This will ensure that they focus their efforts on the trends which are most meaningful to their work.</p> <p>Leaders can collaborate towards advocacy for public policies and guidelines that advance the sustainability trends in their industries.</p> <p>Leadership may assess initiatives that have worked in other companies and markets and adopt them as appropriate.</p>	<p>Public leaders should incorporate policies and guidelines that foster increased ethical responsibility among stakeholders, e.g. ethics guidelines aimed at company Board of Directors.</p> <p>Leaders need to establish and grow public sector capacity for sustainability because this is necessary to develop the right policies and monitor progress effectively. Advancement of several trends across industries will need resources and capital. Public sector leaders can help facilitate some of this needed capital, especially for industry-wide sustainability initiatives.</p>

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