CHAPTER 10

A Strategic Approach and Business Model for Scaling Up Ecosystem-Based Adaptation for Sustainable Development in Africa

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Ecosystem-based adaptation (EbA) is a known strategy for building climate resilience and enhancing the ecosystems that underpin the productivity of key socioeconomic sectors in Africa. EbA for agriculture is an approach used to build climate-resilient food systems; it encompasses climate-smart agriculture (CSA) and a broad range of other techniques. In light of mounting climate impacts and escalating degradation of ecosystems, the urgent need to scale up such climate-resilient approaches as EbA and CSA and safeguard future food systems cannot be overstated. And effective scaling-up calls for a break from classical approaches that view EbA and CSA as a silo climate resilience technique, and a move toward embracing a new paradigm that portrays them as part of an integrated composite solution to maximizing the productivity of agriculture and food systems in Africa for accelerated socioeconomic transformation. This transformation is critical to achieving the goals of the Malabo Declaration and the Sustainable Development Goals (SDGs). Recognizing ecosystems' catalytic place in Africa's socioeconomic transformation and realization of these goals can provide impetus for market-based incentives to expand EbA and such resilience approaches as CSA. Actualizing this integrated approach will require inclusive partnerships among complementary actors to bridge the requisite policy and nonpolicy gaps and foster practical means to achieve this integration. UN Environment is already fostering these inclusive, mutual, multistakeholder partnerships at the policy and operational levels by facilitating a country-driven policy and implementation framework through the Ecosystem Based Adaptation for Food Security Assembly (EBAFOSA).

Background and Context of Ecosystem-Based Adaptation

Ecosystem-based adaptation implies building or boosting the resilience of ecosystems to climate change impacts (by sustainably managing, conserving, or restoring them) so they can continue providing the ecosystem goods and services, such as hydrologic regulation, biodiversity, and healthy soils, that human communities need to adapt to climate change (UNCCD 2017). EBA purposefully uses "green infrastructure" and ecosystem services to increase human societies' resilience to climate change, reducing their vulnerability to its effects. EbA comprises measures to conserve, restore, or sustainably manage ecosystems and natural resources, such as CSA, and it complements or even substitutes for conventional adaptation approaches that involve "hard," or "gray," infrastructure measures. In addition, EbA is often cheaper than gray hard-and-fast engineering approaches. For example, in Viet Nam it has been proven that planting and maintaining mangrove forests to act as breakwaters and protect the coast is significantly cheaper, costing approximately US$1.1 million for 12,000 ha, than mechanical repair of wave-induced dike erosion, which can cost up to US$7.3 million annually (Olivier et al. 2012). Similarly, in New York City, two schemes were evaluated to manage storm-water flows. One, green-infrastructure-based, emphasized stream-buffer restoration, green roofs, and bio-swales (landscape elements designed to remove silt and pollution from surface runoff water). The other was a gray infrastructure plan involving tunnels and storm drains. The green infrastructure option presented a cost savings of over US$1.5 billion (Talberth and Hanson 2012). Decision makers in Idaho and North Carolina found similar cost savings through green infrastructure.

To enable communities to adapt to climate change, EbA has been applied to a range of ecosystems that communities depend on for livelihoods—mountains, coasts, agricultural landscapes, and so on. Examples of practical EbA interventions include the following (Reid et al. 2017):

- Restoration of coastal ecosystems such as coral reefs, mangrove forests, dune systems, and salt marshes to dissipate the energy of powerful tropical storms. This EbA intervention responds to coastal climate change impacts, especially sea-level rise, and is applied in place of, or in complementarity with building sea walls, a gray approach.
- Wetland and floodplain management to prevent floods and maintain water flow and quality in the face of changing rainfall patterns in place of building dikes/levees/ embankments, which is the gray approach.
- Conservation and restoration of forests and other natural vegetation to stabilize slopes, prevent landslides, and regulate water flow. Cumulatively, these strategies also improve the groundwater recharge rate and prevent flash flooding.
- Establishment of healthy and diverse agroforestry systems and CSA practices to cope with increasingly variable climatic conditions by improving soil structure, preventing erosion, enhancing groundwater recharging, and so on.

Ecosystem-Based Adaptation for Food Security: A Strategic Thrust

In Africa, agriculture is the most inclusive economic sector, providing livelihood opportunities for the majority of people on the continent, including vulnerable women. The sector employs on average 64 percent of labor in Africa (Calestos 2011), and women produce a significant 47 percent of Africa's food (Kanu, Salami, and Numasawa 2014). It is thus the most promising sector for enhancing the economic participation of the majority of people in Africa.

In addition, Africa holds a comparative advantage in agricultural resources to leverage toward building a competitive agriculture sector. Maximizing productivity can potentially accelerate socioeconomic transformation. For instance, the continent has 65 percent of the world's arable land (UNESCO 2017) and 10 percent of its renewable internal freshwater resources (Pietersen et al. 2006). With growth in Africa's middle class, currently estimated at 300 million people (Mubila and Aissa 2011), the continent's food market is projected to grow to US$150 billion by 2030. If harnessed, the entire agriculture and agribusiness sector is projected to grow to be worth an estimated US$1 trillion by 2030 (World Bank 2013), thus enhancing agriculture's contribution to Africa's gross domestic product.

Agriculture has been documented to be at least two to four times more effective at reducing poverty than any other sector (Calestos 2011) and to have the potential to catalyze achievement of all of the Sustainable Development Goals (SDGs) and many of the Malabo Declaration goals (Marks 2016a, 2016b). Agricultural growth also stimulates productivity in other sectors, such as processing and transportation, whose value chains link with the agricultural value chain, resulting in economywide impacts.

Furthermore, in Africa, a 10 percent increase in crop yields translates to approximately a 7 percent reduction in poverty. Neither the manufacturing nor the services sector can achieve an equivalent impact (Imhoff 2015). This capacity, coupled with the agricultural sector's inclusivity, indicates

its unique potential to enhance inclusive economic growth for substantial poverty reduction and achievement of multiple SDGs.

Regardless of this potential, however, Africa's current socioeconomic development challenges mean that the continent is far from achieving inclusive growth. Poverty is high, with more than 40 percent of the population living on less than US$1.90 daily (United Nations 2016). Youth unemployment is another stressor, with young people ages 15–25 representing more than 60 percent of the continent's population (AfDB et al. 2013), 60 percent of them unemployed (Agbor, Taiwo, and Smith 2012) and more than 70 percent living on less than US$2.00 per day (Montpellier Panel 2014b). Related to poverty is low labor productivity, with Africa's productivity 20 times lower than that of developed regions (United Nations 2016). Low productivity, in turn, implies minimal value addition and growth of industry. Food and nutritional insecurity is also high, with more than 50 percent of the adult population in Africa south of the Sahara (SSA) facing moderate or severe food insecurity (United Nations 2016).

In light of the potential inherent in agriculture, maximizing its productivity stands out as strategic in orchestrating the much-needed turnaround. This vital truth has been acknowledged in pivotal policy declarations and development blueprints, led at the continent level by the African Union (AU) and at the global level through the SDGs. Among these are the Maputo (African Union 2003) and Malabo (African Union Commission 2014) declarations and the related Vision 2025 for Africa's agriculture, as well as a commitment by the AU heads of state and government to end hunger, halve poverty in Africa by 2025, and reduce postharvest losses by 50 percent. In addition, the Comprehensive Africa Agriculture Development Programme (CAADP) implementation strategy recognizes EbA approaches as key strategies, among others, to enhance agroproductivity in Africa (African Union and NEPAD n.d.). Further, the AU Agenda 2063 recognizes agriculture as the means to achieve inclusive, sustainable development on the continent (African Union Commission 2015). It also underscores the need for gender parity and enhancing women's agroproductivity through access to financing, for instance calling for dedication of 30 percent of agricultural financing to women. Agenda 2063 also underscores the need to achieve more than 50 percent clean energy, which will be vital in modernizing and transforming Africa's agriculture in a sustainable way.

An overriding theme implied in these blueprints is the need to modernize and optimize Africa's agriculture while at the same time ensuring that the productivity of the ecosystems that underpin agricultural productivity are safeguarded for future generations. At the global level, the 2030 Agenda for Sustainable Development and the SDGs align with these noble continental aims. Specifically, SDG 1 aims for poverty eradication. SDG 2 aims to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture, with targets to be achieved by 2030. SDG 13 calls for action to combat climate change. SDG 15 calls for sustainable management and restoration of ecosystems. SDG 5 aims to empower women in areas including agriculture, where they produce up to 80 percent of the food. These goals overlap considerably with the Malabo Declaration goals, which include commitments to end hunger and halve poverty by 2025, to supporting agriculture-led growth, and enhancing resilience of livelihoods and production systems to climate variability and related risks.

These development blueprints and policy declarations provide the first principles and theoretical solutions for transforming Africa's agriculture. Their implementation constitutes an impactful practical solution.

Eliminating Inefficiencies to Realize the Potential of Agriculture: The Place of Ecosystem-Based Adaptation

In spite of the promise of the blueprints and declarations mentioned above, the African agricultural sector is vulnerable to ecosystem degradation, climate change, and postharvest losses, among other inefficiencies. As an example of the first vulnerability, ecosystem degradation, SSA's food loss due to agroecosystem degradation is estimated to be as high as the equivalent of 6.6 million tons[50] of grain annually, enough to meet the annual caloric needs of approximately 31 million people (Munang et al. 2015). Land and ecosystem degradation in SSA is estimated to cost US$68 billion annually (Montpellier Panel 2014a). It is noteworthy that healthy ecosystems are the foundation of long-term productivity, underpinning food production through ecosystem goods and services such as water, soils, and pollinators. For instance, pollination by bees is an ecosystem service necessary for 75 percent of all crops used as human food (Bradbear 2009). Increasing the quantity and variety of pollinating insects can increase crop yields by more than 20 percent (INRA 2016).

In relation to the second vulnerability, climate change, the 2015 technical report on Africa's adaptation gap (Schaeffer et al. 2015) observes that for a global warming scenario of less than 2.0°C, the agriculture sector will be hit by yield declines of up to 40 percent, resulting in a 25–90 percent increase in the incidence of undernourishment, not to mention economic losses. Based on *The Emissions Gap Report 2015*, produced by UN Environment, the globe is on track for a warming of around 3.0°C to 3.5°C by 2100, with a confidence level greater than 66 percent (UNEP 2015), implying that impacts could be worse. Adapting to climate change is therefore an imperative to safeguard Africa's future food security. The costs are expected to be no less than US$50 billion annually by 2050, and the pace of international support does not reflect this continental urgency.

As for postharvest losses, low value addition (World Economic Forum 2015) means that Africa's average annual cereal grain losses are high, estimated at US$4 billion annually (Nomathemba et al. 2010), or enough grain to feed an extra 48 million people for a year (FAO n.d.; Formo et al. 2014). Postharvest losses in SSA average 30 percent of total production (World Economic Forum 2015). In 2010, the Food and Agriculture Organization of the United Nations (FAO) estimated Africa's cumulative postharvest losses of cereals, roots and tubers, fruits and vegetables, meat, milk, and fish to be about 100 million tons with a total value of US$48 billion (FAO 2010). In light of Africa's US$35 billion food import bill in 2011, recovering these losses would essentially eliminate the need for imports without increased production and inject an extra US$35 billion to capitalize other sectors of the continent's economy.

The Africa Competitiveness Report 2015 noted that the continent's below-par performance in agriculture undermines poverty reduction and inclusive growth (World Economic Forum 2015). There is therefore an urgent imperative to optimize the productivity of Africa's agriculture by eliminating these inefficiencies.

Cumulatively, prioritizing efforts to maximize the productivity of Africa's agriculture will have a ripple effect of improving the livelihoods of the majority of people on the continent, including vulnerable women, thereby accelerating achievement of multiple goals, including SDGs 1, 2, 5,

50 *Tons* refer to metric tons throughout the chapter.

and 10. But this cannot happen without eliminating prevailing inefficiencies along the entire agricultural value chain.

Ecosystem-Based Adaptation for Food Security: Positioning EbA and CSA Strategically

Rather than being viewed as a silo climate adaptation technique not directly connected with socioeconomic priorities, EbA, including CSA, must be strategically positioned as a key element in a composite solution to eliminate the leading inefficiencies along Africa's agricultural value chains in order to accelerate socioeconomic transformation and achieve the SDGs and Malabo Declaration goals. EbA's compatibility with the approaches of smallholder farmers (UNCCD 2017), who produce up to 80 percent of the food in SSA (FAO n.d.), coupled with its ability to increase yields by up to 128 percent (De Schutter 2011) under the changing climate and to safeguard long-term production (Munang and Andrews 2014), makes it pertinent to such integration as part of a potential composite solution. Such strategic positioning of EbA as part of a broad solution to address a leading socioeconomic challenge in Africa has potential to create incentive for scaling up this approach.

Policies integrating EbA for on-farm production will contribute to climate adaptation, addressed in SDG 13 and Malabo Commitment VI, given that EbA is a climate adaptation technique. EbA will also boost food security through yield increases of up to 128 percent as well as healthier food with more immune-boosting compounds (Kirsten and Jens 2001), hence contributing to SDG 2 (Targets 2.3 and 2.4) while also enhancing farmer incomes to combat poverty (SDG 1 Targets 1.5 and 1b). It will also enhance the capacity of ecosystems to continue providing ecosystem goods and services that enable communities to adapt to climate change (SDG 13 Targets 13.2 and 13.3; SDG 15 Targets 15.1, 15.2, 15.3, and 15.5; and Article 7 of the Paris Agreement on climate change). In addition, some EbA techniques that should be prioritized, such as agroforestry or farmer-managed natural regeneration, will enhance carbon sinks, contributing to SDG 13 and Paris Agreement Articles 4, 5, and 7. For example, based on inference, Rohit, Brent, and John (2006) calculated that a single large-scale forest regeneration project of 25,000 ha can ensure that a country sequesters up to 15.6 million tons of CO_2. The clean energy value addition of EbA production will not only create further incentive for application of EbA but also minimize emissions sources (SDG 13; Paris Agreement Article 4). For example, solar-powered irrigation can sequester more than 1 million tons of CO_2 equivalent by 2030 (REEEP 2015). Value addition will also eliminate postharvest losses, leading to the recovery of both food and finances, while creating additional higher-order jobs along the entire agricultural value chain. This paradigm can potentially create up to 17 million jobs (Bafana 2014) along the value chain and catalyze an agricultural sector worth US$1 trillion by 2030 (World Bank 2013), without adding to aggregate greenhouse gas emissions and pollution, thereby minimizing health risks (SDG 3). EbA will also contribute directly to SDG 1 (combating poverty) and SDG 2 (enhancing food security), and catalyze SDG 7 (affordable and clean energy). It will also catalyze SDG 8 by enhancing high-quality jobs and structural transformation as well as contributing to macroeconomic expansion through increased agricultural GDP.

Positioning EbA and CSA techniques as part of a composite solution to eliminate inefficiencies along Africa's agricultural value chains and to work toward realizing the Malabo Declaration goals and SDGs stands out as potentially catalytic to scaling up of EbA. This is the strategic trajectory

that the continent is actualizing through multistakeholder, mutual, and complementary partnerships being fostered under the Ecosystem-based Adaptation for Food Security Assembly (EBAFOSA) policy action framework facilitated by the UN Environment, discussed below.

Moving from Talk to Action: The Ecosystem-Based Adaptation for Food Security Assembly Business Model for Scaling Up EbA and Allied Climate Resilience Techniques

EBAFOSA's strategy for scaling up EbA is to position it as part of a menu in an integrated solution to climate-proof and maximize the productivity of Africa's agricultural value chains. Such a solution would aim to ensure that the socioeconomic benefits of food security, jobs, and income and macroeconomic growth are created alongside climate resilience and enhanced ecosystems, hence catalyzing the achievement of multiple SDGs—as opposed to considering EbA as a stand-alone climate adaptation strategy implemented only as a climate obligation and not connected to any direct socioeconomic action. Positioning EbA in this way is the foundation of EBAFOSA's EbA business model, aimed at incentivizing business-driven actions to scale up EbA.

The model covers two components:

Integrating EbA, including allied resilience techniques of CSA, as a key component to sustainably industrialize Africa's agriculture. This component involves amalgamating on-farm EbA and CSA actions with various forms of clean energy–powered value addition; information-and-communications-technology (ICT)–enabled market and supply chain linkages, especially market prices, input suppliers, advisory services, financial intermediation, and the like, for efficient access to support services; and official standardization to enhance the marketability of products—all in a continuum toward establishing clean energy–powered agro-industrialization. This approach places EbA and CSA among the ingredients required to industrialize Africa's agriculture, contributing not only to food security but also to the creation of additional income and business opportunities along the entire agricultural value chain and the intervening value chains.

This paradigm is implemented under the EBAFOSA policy action framework by ensuring that actors practicing EbA are linked with these complementary actors through mutual partnerships. For example, in Turkana County, Kenya, EBAFOSA Kenya is convening stakeholders from the county government, the private sector (financiers; providers of ICT, irrigation, and other technologies; and advisory service providers), and faith-based organizations in a complementary partnership toward developing a 100-acre solar-powered irrigation enterprise. The crops targeted are amaranth and sorghum, grown using nature-based approaches. These are high-value, climate-resilient crops known to improve soil structure and enhance water retention, making them well suited to EbA's goal of enhancing ecosystems. The enterprise is linked to markets and supply chains, including advisory extension services and financial intermediation through ICT. Cumulatively, this enterprise is incentivizing the application of EbA to ensure food, income, and livelihood security in order to meet SDGs 1 and 2. It is also building biophysical resilience through incentivizing scaled-up use of EbA and clean energy (SDG 13; Paris Agreement Articles 7 and 4), as well as enhancing ecosystems' productivity and resilience (SDG 15).

In the Democratic Republic of the Congo (DRC), a group of young university graduates who are EBAFOSA DRC members have channeled their skills, networks, and capital to optimize the cassava value chain. These young people are using clean energy to process cassava, an indigenous, climate-resilient crop, into flour, and then packaging and standardizing the flour for sale on high-value markets. Through this integration, the youth generate up to US$4,000[51], [52] in weekly income, translating to US$16,000 monthly and US$196,000 annually. In addition, they are incentivizing the production of climate-resilient cassava (an EbA approach that fulfills Paris Agreement Article 7 as well as SDG 13) and clean energy value addition (Paris Agreement Article 4; SDG 13), while creating incomes and jobs, and enhancing food security (SDGs 1 and 2). Through EBAFOSA, these youth are set to train youth groups across the 40 EBAFOSA countries in Africa on their business model, thus expanding their business aims while contributing toward building the capacity of more youth across Africa to replicate this model of clean energy–powered value addition through EbA.

Integrating EbA and CSA techniques as a component to remove risk from agricultural value chain financing. Studies show that a leading constraint on the development of private financing for agriculture is its perceived high risk (World Bank 2015). Climate change–induced crop failure is a key contributory factor to this risk given the up to 40 percent yield reductions under climate change as projected in the 2nd Africa Adaptation Gap Report. For example, private-sector lending to the catalytic agriculture sectors remains underdeveloped due to perceived high risk. This constraint can be remedied through risk-sharing facilities that cover key climate-related risk factors (driven by climate change–induced crop failure) and financial risk (driven by repayment defaults). By leveraging the climate risk–reducing properties of EbA, EBAFOSA aims to integrate EbA into these climate risk–sharing facilities in order to reduce some of the risk of climate change–induced crop failure, with the end goal of lowering the risk and cost of agricultural value chain financing, thereby attracting more private financing.

Makueni County, Kenya, is the first county in Africa to legislate creation of a climate change fund to domestically finance resilience-building efforts. Through EBAFOSA, stakeholders are working with the county government to leverage this fund for additional private-sector resources, as opposed to using the whole fund as a social program to finance climate-resilience actions. The fund is setting aside 50 percent of its portfolio to securitize up to 10 times its value in private banks. These securitized monies will be loaned to entrepreneurs engaged in actions that optimize the agricultural value chain using EbA and clean energy. Thus, the fund will indirectly finance the scaling up of EbA-driven agriculture (relevant to SDGs 2, 3, 13, and 15) and clean-energy agricultural value addition to create multiple low-carbon, higher-order income and job opportunities (SDGs 1, 7, 8, and 13). In Makueni County, then, EbA is integrated into a solution to mitigate the risk of agricultural value chain financing through a risk-sharing facility that covers both climate risk (through climate risk–mitigating EbA approaches) and financial risk (through cash deposits that cover repayment defaults).

51 https://www.afdb.org/fileadmin/uploads/afdb/Documents/Events/ayaf2017/Statements/2017_04_25_Statement_by_AfDB_President_AYAF.pdf

52 http://www.iita.org/news-item/iita-trustees-field-visits-tour-kalambo-station-facility/

Innovative Volunteerism: The EBAFOSA Modus Operandi

To achieve all of the goals mentioned above, EBAFOSA, established in 40 countries, has become an inclusive, country-driven policy action framework that convenes multiple stakeholders in a country—individual and institutional, state and nonstate—drawn from complementary sectors. These actors volunteer their physical and nonphysical resources, such as professional skills, networks, partnerships, ongoing and planned initiatives, time, products, and services. They thus build mutual partnerships that address their respective business and organizational objectives (such as expanding market share and operationalizing policies) while remaining geared toward realizing the larger, shared EBAFOSA strategic objective: bridging relevant policy gaps (by harmonizing policies across multiple relevant line ministries) and operational gaps (such as financing, technical expertise, and technology) toward establishing EbA-based agro-industrial zones powered by clean energy to accelerate the achievement of multiple SDGs. These zones integrate EbA as a crucial component of agro-industrialization in operationalizing their business model.

These voluntary mutual partnerships among complementary actors at both policy and operational levels, aimed at bridging the gaps, constitute the EBAFOSA modus operandi, called *innovative volunteerism*. This process uses voluntary actions to build partnerships that address the immediate business and organizational objectives of the partners but also align with achieving the larger EBAFOSA strategic objectives.

Examples of Innovative Volunteerism in Practice

Innovative volunteerism is not blind optimism. It is already on the move, demonstrating that the strength of this paradigm can be channeled through voluntary, state-driven partnerships. The spirit of innovative volunteerism is mobilizing youth groups through EBAFOSA in countries like Nigeria.

Innovative volunteerism at the policy level. EBAFOSA is convening policy makers from ministries of transportation, agriculture, the environment, lands, energy, and industrialization, among others, across countries in Africa to form interministerial policy task forces. Driven by the objective of maximizing the impact of their policies, ministerial staff are volunteering their professional skills, networks, and time to work together to harmonize their relevant line ministry policies to ensure that they support the amalgamation of EbA-driven agriculture with clean energy–powered value addition and links to markets and commercial supply chains. Already EBAFOSA Cameroon, Côte d'Ivoire, Gambia, Ghana, Nigeria, Sierra Leone, and Tanzania have formed these task forces. In Tanzania, the FAO supported the first seating of the task force. Though a recent development, this is an innovative solution that has mobilized cross-cutting support. Countries around the globe should likewise contextualize this harmonization as critical to accelerate achievement of the SDGs.

Innovative volunteerism at the operational level. EBAFOSA Kenya provides a test case of work at the operational level. An enterprise resource planning system for agribusiness management called EdenSys, developed by an EBAFOSA Kenya stakeholder, is currently integrating the entire EbA-driven agriculture and clean energy value addition value chain in the

country and set to expand across the 40 EBAFOSA countries. By collaborating with clean energy actors, banks (including microfinancers), extension and advisory service providers, and farmers' groups on the EBAFOSA platform, the EdenSys application, accessible by phone and computer, has mapped and archived the intervening services needed to optimize the entire agricultural value chain. The application allows enterprises along the EbA- and clean energy–based agricultural value chains to post their financial records online and, based on their balance sheets, apply for loans by phone or computer. The application is enhancing market access for all of these intervening actors while also contributing to broader EBAFOSA aims by bridging financial inclusion and access gaps to indirectly finance scaled-up use of EbA (addressing SDGs 2, 3, 13, and 15) and clean energy (SDGs 7 and 13), as well as enhancing food security and incomes, and creating jobs, including high-quality off-farm jobs in agroprocessing, ICT, and clean energy (SDGs 1, 2, and 8).

In Nigeria, through the EBAFOSA framework, premised on the spirit of innovative volunteerism, mobilized youth groups have volunteered their skills and partnered with farmer cooperatives to develop EbA farming and expand the reach of EbA actions in Nigeria. The farms are being linked to markets and other commercial value chains to increase their earnings. More than 1,000 youth are currently engaged in these partnerships.

Through EBAFOSA Malawi, stakeholders have engaged with the Malawi Bureau of Standards to develop quality standards for sesame, a high-value and drought-resistant crop. This partnership is enhancing the marketability of sesame, increasing earnings from this crop, and incentivizing its wide-scale growth. Cumulatively, these effects are combating poverty and food insecurity.

These pockets of success are a clarion call and an encouragement for us to build on them and create full-scale solutions. Harnessing the spirit of innovative volunteerism, Africa can achieve a market-driven scaling-up of EbA to attain the SDGs, ensuring that truly no one is left behind.

Conclusion

To effectively scale up EbA and allied climate resilience techniques such as CSA, there is an urgent need to break away from a silo perspective that views EbA as only a climate resilience strategy. Rather, EbA and CSA must be positioned as part of a solution for achieving Africa's leading socioeconomic priorities and driving realization of the SDGs and Malabo Declaration goals, which the region urgently needs to attain. This positioning of EbA and CSA, as part of a composite solution to maximize the productivity of the region's agricultural value chains, provides the gateway to generate market-based incentives to scale up both EbA and CSA.

To actualize this trajectory in a practical sense, the region needs to bridge gaps at the policy and operational levels. To do so, inclusive, country-driven mutual partnerships among multiple but complementary actors—institutional and individual, state and nonstate—at both policy and operational levels are a prerequisite. And EBAFOSA provides a ready policy action framework whereby these partnerships are being forged on a continental scale.