



EBAFOSA

Ecosystem Based Adaptation for
Food Security Assembly

FRAMEWORK DOCUMENT



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EBAFOSA seeks to Combat food insecurity, climate change, ecosystems degradation and poverty.

Context and Rationale of EBAFOSA

Escalating nexus challenges of food insecurity, poverty, high youth unemployment, low labour productivity, energy poverty, environmental degradation, and climate change - which compounds these challenges - across Africa hampers the continent's progress towards actualizing the Sustainable Development Goals (SDGs) and Agenda 2063. Ensuring efforts to combat climate change in implementing the Paris Agreement climate change unlock opportunities to accelerate the socio-economic transformation and unlock multiple SDGs is a leading priority for Africa. This region is vulnerable environmentally and socioeconomically. In this context, sustainability of climate actions must be linked directly to actualizing socio-economic priority areas- food security, job creation, entrepreneurial opportunities, macro-economic growth, etc. This is achievable by targeting climate actions at catalytic sectors that can simultaneously unlock socio-economic development opportunities and meet climate objectives. These are sectors in which Africa holds a comparative advantage in resources, are economically inclusive and can unlock leading socio-economic priorities in the continent - especially achieving food security, creation of income & job opportunities and expansion of macroeconomic growth - simultaneously with enhancing ecosystems and offsetting carbon to meet climate objectives under the Paris Agreement. By this drives the realization of the SDGs in the continent.

Climate proofing and maximizing the productivity of Africa's food systems by leveraging clean energy¹ & Ecosystem-Based Adaptation (EBA) driven agriculture² approaches potentially represent Africa's catalytic area and sectors. Likewise, these sectors have been endorsed through an African Ministerial Conference on the Environment (AMCEN) decision³ as critical to realizing multiple SDGs. In supporting in-country stakeholders – state and non-state; individual and institutional -the Ecosystem-Based Adaptation for Food Security Assembly (EBAFOSA) was established to forge partnerships to bridge policy and non-policy gaps toward unlocking investments in these catalytic sectors. And implement climate commitments popularly called Nationally Determined Contributions (NDCs) in a manner that unlocks socio-economic opportunities. It is worth noting that clean energy and agriculture are prioritized in **over 70%** of Africa's NDCs. So EBAFOSA stands at the crossroad of multiple global change challenges - land degradation, desertification and recurrent drought and Climate Change that are the root causes of food insecurity in Africa. EBAFOSA is tailored to provide a nexus solution that also addresses pollution.

What is EBAFOSA

EBAFOSA is an inclusive pan-African policy implementation action framework that provides a platform and technical guidance to all stakeholders - state and non-state to drive transformational climate action right down to communities through innovative Volunteerism. Including academia and research institutions, individual citizens, international and intergovernmental organizations, NGOs, CSOs, CBOs etc., to forge mutual partnerships in implementing policy and operational solutions to upscale EBA-driven agriculture and clean energy towards climate-proofing Africa's food systems to unlock multiple SDGs. The inclusive partnerships to bridge implementation gaps draw from section 5 of the Paris Agreement and goal 17 of the SDGs, which underscore multistakeholder partnerships as a practical means to bridge implementation gaps. d up duplicating efforts rather than working together for synergy which has bigger impacts. EBAFOSA provides a common framework to convene these partnerships and ensure complementarity & synergy towards a common end-goal can be generated amongst diverse actors. By doing this, EBAFOSA builds on already ongoing initiatives and aggregates them for bigger impacts rather than launching new initiatives from scratch and reduces the problem of silos in Africa – where different stakeholders and through this approach, EBAFOSA provides an optimized channel to implement existing and envisaged development plans for the continent, including by tapping two of Africa's most critical constituencies – the youth – who form up to 60% of Africa's population, and the informal sector that engages up to 80% of Africa's productive workforce. EBAFOSA also provides a channel through which empirical data and lessons of successful ground actions in climate-proofing and maximizing the productivity of Africa's food systems leveraging EBA and clean energy can inform targeted policy implementation trajectories.

1 Africa holds significant clean energy resources - hydro potential estimated at 1852TWh annually, 3 times the continents current demand, [1300GW wind potential](#). Huge amount of untapped geothermal energy and the best solar resource in the entire planet. A mere 0.3% of the sunlight that shines on the Sahara could supply nearly all of Europe's energy needs. To enhance productivity, there is need for clean energy development to be diversified beyond domestic application to also prioritize dedicated clean energy development for productive use in powering agro-value addition & processing.

2 Most inclusive sector employing majority of the population – [average of 64%](#), and as high as 90% in some countries. [World Bank reports](#) that a 10% increase in crop yields in Africa translates to up to 7% reduction in poverty. The highest of any sector in Africa. Growth in agriculture is documented to reduce poverty [2 – 4 times faster](#) than any other sector in Africa. EBA approaches are potentially cheaper, more accessible & compatible to indigenous approaches used by Africa's smallholder farmers who produce most (up to 80%) of the continent's food. Africa holds significant comparative advantage in agriculture resources – 65% of global arable land & 10% of renewable internal freshwater resources, and a growing middle class currently at 300million people representing a ready domestic market.

3 6th Special Session Decision SS.VI/1: Implementation of the 2030 Agenda for Sustainable Development, the Sustainable Development Goals and the African Union's Agenda 2063: the contribution of natural capital http://wedocs.unep.org/bitstream/handle/20.500.11822/25880/amcenmin_rpt_2016.pdf?sequence=1&isAllowed=y

Objective

- ▶ Combating food insecurity, climate change, ecosystems degradation and poverty,
- ▶ Decentralizing the development and application of EBA & clean energy solutions to climate-proof food systems in country-stakeholder driven channels,
- ▶ Unlocking multistakeholder partnerships to bridge implementation gaps towards upscaling EBA & clean energy to climate-proof food systems and maximize their productivity
- ▶ knowledge sharing and cross-hybridization towards enhanced investments in upscaling EBA & clean energy to climate-proof food systems and maximize their productivity.

Formation

EBAFOSA was formed out of the Africa Adaptation Knowledge Network (AAKNeT) as a framework initiative to respond more effectively to the continent's priorities. AAKNeT was an online adaptation knowledge-sharing portal established in 2012, the African node of the UNEP Global Adaptation Network (GAN). It specialized in sharing and cross-hybridizing climate adaptation knowledge to guide climate change adaptation decision making across Africa. So, it was a repository of adaptation knowledge and best practices applicable in Africa that was available for public use.

However, continental priorities on adaptation shifted more towards tapping food systems and member states communicated this at the highest environmental policy and political forum – the African Ministerial Conference on the Environment (AMCEN) at its 5th Special Session⁴ through the Gaborone Declaration on Climate Change and Africa's development. This declaration recognized the need for continued continental dialogue on food security and climate change adaptation by harnessing Africa's ecosystem-based approaches. Following these expressions, a continental task force on Ecosystems Based Adaptation (EBA) for food security in Africa was established to develop a comprehensive strategic framework to upscale EBA for food security in Africa as part of the implementation of the Gaborone Declaration. The task force published a report⁵ that was then discussed at the 2nd Africa Ecosystems Based Adaptation for Food Security Conference (AFSAC2). This conference, organized by UNEP, the African Union Commission (AUC) and other partners, convened over 1,200 experts from science and academia, policymakers, non-state actors and operational level actors to deliberate upscaling EBA for food security in response to the continental priorities. The conference adopted the Nairobi Action Agenda on Ecosystem-based adaptation for food security to establish the Ecosystem-Based Adaptation for Food Security Assembly (EBAFOSA) as the framework to operationalize the continental priority for enhancing EBA investment and application on food systems. EBAFOSA is guided by its instruments – its constitution and rules of procedure that were all adopted at the conference. AMCEN then formally endorsed the EBAFOSA, its constitution and Nairobi Action Agenda through the Cairo Declaration⁶ of the 6th AMCEN [Special Session](#).

EBAFOSA replaced AAKNet as UNEP's and GAN's regional node for Africa. It further takes the knowledge on adaptation – specifically EBA - by harnessing tangible implementation actions targeted at Africa's key priority – food systems. EBAFOSA is focused on agriculture and socioeconomics aspects of adaptation as the leading priority of Africa.

4 https://wedocs.unep.org/bitstream/handle/20.500.11822/25792/Gaborone_climate.pdf?sequence=1&isAllowed=y

5 https://www.innovativevolunteerism.ebafosa.org/index.php/mediaa/item/download/79_563c7b3db88408d350604040f9e0986f

6 https://wedocs.unep.org/bitstream/handle/20.500.11822/25880/amcenmin_rpt_2016.pdf?sequence=1&isAllowed=y

Engagement Approach and Operational Modalities

The EBAFOSA modus operandi is founded on one fundamental principle - building on ongoing work by diverse stakeholders on a voluntary basis by filling their gaps towards upscaling EBA and clean energy to climate-proof food systems. Not starting new initiatives from scratch. The EBAFOSA approach is based on section 5 of the Paris Agreement and goal 17 of the Sustainable development Goals, which calls for bringing multiple stakeholders to work in complementary partnerships to bridge implementation gaps at policy & operational levels to unlock leading socio-economic status priorities. This is a “proof of concept” approach where the risk of failure needs to be reduced as much as possible. Hence, the standard is to work with those with already ongoing work/climate action enterprises and linked to the policy level. Not re-invent the wheel by engaging new actors with no experience.

Based on the above, EBAFOSA structure and composition are defined under articles 7 & 9, respectively. The engagement with countries is through EBAFOSA National Branches, which are creatures of the EBAFOSA constitution and rules of procedure. These National Branches are formed voluntarily by country stakeholders and are led by a representative selected by country stakeholders. These national branches are the nerve centre of country-driven activities, where diverse stakeholders in a country – state and non-state, individual and institutional - drawn from different sectors convene and engage in mutual partnerships towards upscaling EBA and clean energy to climate-proof and maximize the productivity of food systems. As the continental secretariat of EBAFOSA, UNEP provides technical guidance to all these national actors.

Each national branch is hosted by a national institution called the EBAFOSA National Secretariat. The National Secretariat is a voluntary institution, which means such an institution accepts to host or to be the seat of EBAFOSA activities in the country based on this crucial provision of “voluntary” and indicates its acceptance by writing a letter confirming its acceptance thereof in accordance with Rule 18(ii) of the Rules of Procedure.

Beyond National Branches, EBAFOSA engages with in-country and continental stakeholders whose ongoing work can be leveraged to integrate climate action solutions of EBA and clean energy and climate-proof food systems. Across Africa, willing diverse actors engage in actions that can be bridged to drive EBA, clean energy, and climate-proof food systems are engaged. EBAFOSA provides a platform where these actors can register their initiatives voluntarily, leverage knowledge, and be structurally guided to bridge their gaps to enhance uptake of EBA and clean energy to climate-proof food systems.

All who register are engaged – but not all reciprocate. The process is voluntary, which means that those who respond are the ones who are engaged further and guided to take lessons of EBA and clean energy climate action solutions forward by integrating them into their work and enterprises. Hence, the modus operandi to build on existing initiatives with willing actors to reduce start-up risks and operational risks is also realized with actors who may not be directly affiliated with a national branch within a country.



Innovative Volunteerism is an approach of structurally guiding and inspiring willing youth and the young at heart to improve, refine and adapt their enterprise action to delivering climate action solutions – specifically clean energy solutions for affordable agro-value addition.

Innovative Volunteerism

Another component of the engagement approach targeting willing youth is the “skills-based” incubation approach called Innovative Volunteerism⁷, especially for engaging young people. Through this incubation approach called Innovative Volunteerism, young people of different backgrounds who register are structurally guided and inspired to turn their passion into profits and retool their skills in developing and decentralizing climate action solutions that address on-demand areas among communities. They are guided to work with the informal sector to decentralize these climate action solutions to bridge the productivity gaps of these informal sector actors using EBA and clean energy solutions. The language that attracts the young people is the enterprise opportunities they can get, and skills retooling equips them to tap such opportunities through non-capital-intensive actions.

How Innovative Volunteerism youth are selected

Innovative Volunteerism is an approach of structurally guiding and inspiring **willing** youth and the young at heart to improve, refine and adapt their enterprise action to delivering climate action solutions – specifically clean energy solutions for affordable agro-value addition. The key here is “willing” – meaning they are engaged voluntarily. An online portal has been developed on the EBAFOSA Website for all willing youth to register voluntarily and develop their profile of what they are doing and the areas of value addition solutions they are interested in.

⁷ Innovative Volunteerism is structured guidance & inspiration to youth, to trigger them to purpose-driven actions so they can leverage their skills, talents, interests and ongoing initiatives as the premium to build mutually beneficial & complementary partnerships with the end goal of closing gaps along the agro-value chain by sustainably industrializing it using clean energy. In the process, they benefit by creating wealth opportunities while driving climate action and implementing the SDGs

All youth who register and share their profiles are engaged and guided to develop and enhance their enterprises by integrating the climate action solutions lens as an investment and enterprise opportunity. With this, they are guided continually and at various levels of applying this dimension.

Among all guided, some make more rapid progress and hence offer the lowest risk foundation to build on driving climate action from an enterprise dimension. It is these youth who have already made steps in integrating climate action that is then further engaged in incorporating aspects of EBA and clean energy for NDCs implementation into their initiatives. They become a source of empirical data on how an enterprise solution can drive climate action. Data that is then leveraged to drive policy realignments.

For example, lessons on how innovative climate action solutions of affordable solar dryers and waste recovery can be applied to unlock tangible opportunities in value addition, clean cooking, biofertilizer, etc., and drive low emissions development are shared with willing youth who have registered to incorporate into their ongoing work. Through Innovative Volunteerism, this knowledge is leveraged to guide youth and other actors convened under the EBAFOSA structurally, so they take these lessons and infuse them to drive their innovative climate action enterprises.

EBAFOSA pillars

EBAFOSA targets actions in five primary pillar areas to attract investments to climate-proof and maximize the productivity of Africa's food systems to unlock multiple SDGs and drive NDCs. These are as follows:

Pillar 1: Amalgamating on-farm Ecosystems Based Adaptation (EBA) Driven Agriculture with clean energy to power value-added actions. This is the foundational pillar. It entails converging policy and operational investments in clean energy and sustainable agriculture rather than undertaken in silos. The aim is to maximize agriculture productivity by cutting on postharvest losses and thus minimizing loss in incomes and ecosystem services that go into producing food that ends up wasted. The amalgamation also maximizes the productivity of clean energy development by diversifying applications beyond traditional domestic use to include productive use in agro-processing and value addition. And in the process, optimize income & job opportunities simultaneously with offsetting carbon & enhancing ecosystems resulting in multiple SDGs being buttressed. Integrating EBA for on-farm production will contribute to climate adaptation hence SDG 13, given that EBA is a climate adaptation technique. EBA will also boost food security with up to **128% yield increases**¹ of healthier **food having more immune-boosting compounds**², contributing to SDGs 2 & 3 while enhancing farmer incomes to combat poverty (SDG1). It will also enhance the capacity of ecosystems to continue providing ecosystem goods & services of water, healthy soils, pollinators etc. which underpin agro-productivity and enable communities to adapt to climate change (SDGs 13, 15 and Article 7).

In addition, some EBA techniques like agro-forestry or farmer-managed natural regeneration that the project will prioritize will enhance carbon sinks (e.g. based on inference, **one large-scale forest regeneration project of 25,000Ha can ensure a country sequesters up to 15.6 million tons of CO₂**)³, contributing to SDG13, and Articles 4, 5 and 7. Clean energy value addition of EBA agro-produce will not only further incentivize application of EBA but minimize emissions sources SDG 13; Article 4. For example, solar irrigation can sequester **over 1,000,000tCO₂ equivalent by 2030**⁴. Value addition will eliminate PHLs to recover food & finances while creating additional higher-order jobs along the entire agro-value chain. This paradigm can potentially create up to **17 million jobs**⁵ along the whole agro-value chain & allied chains and catalyse an agro-sector worth **\$1 trillion by 2030**⁶. Without adding on to aggregate GHG emissions and pollution hence minimize health risks (SDG 3). This will contribute directly toward SDG 1 to combat poverty, SDG 2 on food security and catalyse SDG 7. It will also catalyse SDG 8 by enhancing quality jobs, structural transformation and contributing to macro-economic expansion through increased agriculture GDP.

The continent's high-level strategic development vision, the African Union [Agenda 2063](#)⁷ and high-level AU heads of state decisions on food security & development - the Maputo and Malabo declarations, imply this strategic thrust. They unanimously underscore modernized agriculture with increased agriculture productivity as critical to inclusive poverty-reducing growth to accelerate socio-economic transformation. They also underscore clean energy development as essential to Africa's socio-economic transformation.

Pillar 2: Market Incentives through leveraging national standards

Quality standardization is a critical market enabler to building a competitive industry. Uptake of climate action solutions of EBA and clean energy needs to leverage national standards as a pull factor. This is achievable by premising these approaches as affordable, effective tools to enable stakeholders to comply with crucial food standards such as those responsible for food safety, organic production etc. Through this, these climate action solutions of EBA and clean energy will be upscaled from a market dimension where stakeholders take them up as affordable tools for compliance. For example, there is a [growing](#) market segment of consumers ready to pay [up to 3 times](#) the price of conventional foods for certified organic, healthy, and environmentally compliant food. EBA is an affordable and effective climate action solution to achieve organic compliance.

At the same time, the application of simple climate action solutions of solar dryers made from locally available materials has resulted in dryers that have proven effective in dehydrating produce to below 10% moisture thresholds set in national standards as critical to preventing the growth of mold, yeast, & aflatoxins. Solar dryers are enhancing food safety by lowering incidents of dangerous [aflatoxin](#) by 53%. These dryers have proven effective in increasing the shelf-life of perishables for longer. This reduces losses and increases revenues of informal market traders who deal in perishables by [up to 30times](#). This pillar focuses on working with national standards bodies to integrate these climate action solutions into national standards as a tool for achieving compliance, which stakeholders then invest in and apply. By this, EBA & clean energy is scaled up through market approaches.

Pillar 3: Innovative Financing

This pillar seeks to tap into the market and enterprise-driven financing to upscale the climate action solutions of EBA and clean energy. A key strategy to this end is to tap into non-typical, low-risk investments by the most prevalent group of players in Africa's economies – the informal sector – through leveraging financing structures accessible to them. Accordingly, while most of the informal sector in Africa remains unbanked, they are tied to communal cooperatives where they save and invest. This pillar seeks to engage with informal sector players to invest in climate action solutions from an opportunities dimension by tapping into their cooperatives as low-risk structures to pool their resources and invest in shared climate action solutions. For example, cooperative members pool together to communally access a solar dryer that they cannot afford to operate individually. They then use it to add value and increase shelf-life of their perishables, increase their incomes, and save more. As a result, a cycle of savings and investing in climate action solutions is established through the structure of communal cooperatives.

Pillar 4: Policy coherence for implementation

This aims to provide an objective basis to inform optimal policy implementation trajectories towards upscaling EBA driven agriculture and clean energy. From NDCs to CSA policies to clean energy – Africa has diverse policy provisions across diverse sectors whose coherent implementation can upscale EBA & clean energy to unlock multiple SDGs. But the gap remains in practical implementation trajectories that can be fostered. This gap is bridgeable by leveraging empirical data and lessons filtered from ground actions of the pockets of successful application across the continent, which can be used to objectively recalibrate and refine policies towards enabling and incentivizing what has been proven to work to expand the pockets of success. This pillar focuses on creating this feedback loop of empirical data of ground

successes towards informing practical implementation trajectories that can be prioritized for large-scale policy implementation.

Pillar 5: Information Communication Technology (ICT)

ICT is leveraged as a tool to enhance operational level mutual partnerships and actions towards upscaling EBA and clean energy towards climate-proofing and maximizing the productivity of food systems. ICT typically is applicable in closing market and supply chain gaps.

EBAFOSA Competitive Strengths:

- 1) Leveraging on inclusive market-driven partnerships to incentivize climate actions:** EBAFOSA provides a common & inclusive framework where multiple complementary stakeholders - form voluntary mutually beneficial partnerships that simultaneously scale-up climate action.
- 2) Strategic messaging:** premising climate action in implementing the Paris Agreement as an opportunity to actualize leading socio-economic development priorities shared across countries in Africa
- 3) Building on already ongoing initiatives rather than starting new initiatives:** The missing link that EBAFOSA is bridging is providing a common convening framework to ensure silo initiatives can be mobilized and implemented within a broader continuum, so they contribute coherently to a wider effort of socio-economic transformation.
- 4) Low-cost implementation:** EBAFOSA uses Innovative Volunteerism, which leverages people's skills, networks, and ongoing actions in market-driven collaborations to bridge implementation gaps.

RESOURCES

- 1) Gaborone Declaration on Climate Change and Africa's development
- 2) Cairo Declaration
- 3) Continental Taskforce Report on EBA for Food Security in Africa
- 4) the 2nd Africa Ecosystems Based Adaptation for Food Security Conference (AFSAC2) conference reports
- 5) Nairobi Action Agenda on Ecosystem based adaptation for food security
- 6) EBAFOSA Constitution
- 7) EBAFOSA Rules of Procedure
- 8) Global Adaptation Network project document
- 8) Innovative Volunteerism Guide

Endnotes

- 1 Agroecology and the Right to Food, Report presented at the 16th Session of the United Nations Human Rights Council [A/HRC/16/49], 8 March 2011. Available online at: http://www.srfood.org/images/stories/pdf/officialreports/20110308_a-hrc-16-49_agroecology_en.pdf
- 2 Kirsten, B. and Jens, P. M. (2001). Organic agriculture: does it enhance or reduce the nutritional value of plant foods? *Journal of the Science of Food and Agriculture*. Special Issue: Nutritional Enhancement of Plant Foods (NEODIET) Volume 81, Issue 9, pages 924–931.
- 3 Rohit, J., Brent, S. and John, K. (2006). Status of carbon sequestration projects in Africa: Potential benefits and challenges to scaling up. World Agroforestry Centre. Nairobi.
- 4 <http://www.reeep.org/projects/solar-powered-irrigation-kenya-futurepump>
- 5 Bafana, B. (2014). Denting youth unemployment through agriculture. UN Africa Renewal. Retrieved from <http://www.un.org/africarenewal/magazine/special-edition-agriculture-2014/denting-youth-unemployment-through-agriculture>
- 6 <http://www.worldbank.org/en/news/press-release/2013/03/04/africas-food-markets-could-create-one-trillion-dollar-opportunity-2030>
- 7 The African Union Commission Agenda 2063 Framework Document. The Africa We Want. A shared strategic framework for inclusive growth and sustainable development & a global strategy to optimize the use of Africa's resources for the benefit of all Africans. September 2015.



Stabilizing Africa Food Security

CONTACT US:

📍 P.O. Box 30552 00100 Nairobi, Kenya

✉ info@ebafosa.org,

innovativevolunteersim@ebafosa.org



www.ebafosa.org



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