

Climate Action

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Members of community being trained by an EBAFOSA expert on best community practises that are more sustainable and resilient to the adverse climate change effects. The trainings were carried out in different countries in Africa.

ANALYSIS OF THE IMPACT OF CLIMATE ACTION & ADAPTATION SOLUTIONS IN ADDRESSING THE TRIPLE CRISES FOR FOOD AND LIVELIHOOD SECURITY : LESSONS LEARNT ACROSS AFRICA

There are various pilot countries in the Africa region who have put forth policy positions targeted at driving the realisation of the Sustainable Development Goals (SDGs) ideals through enhancing environmental action, food security and socioeconomic transformation. Environmentally, all the target countries have ratified their commitments to climate action, popularly called Nationally Determined Contributions (NDCs) and have also submitted updated NDC commitments. Furthermore, 2 of these countries – Cameroon and Nigeria – have committed to the methane pledge to cut methane emissions. In addition, these countries have put in place, various national climate change legislations to operationalise these commitments. Uganda has the National Climate Change Act of 2021.

ANALYSIS OF THE IMPACT OF CLIMATE ACTION & ADAPTATION SOLUTIONS IN ADDRESSING THE TRIPLE CRISES FOR FOOD AND LIVELIHOOD SECURITY : LESSONS LEARNT ACROSS AFRICA



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Meeting with ministry officials to discuss various undertakings and local governance interventions. The involvement of local governance to support adaptation interventions is critical to drive adaptation action at community level.

The three target countries – Cameroon, Nigeria, and Uganda – have put forth policy positions targeted at driving the realisation of the Sustainable Development Goals (SDGs) ideals, including through enhancing environmental action, food security, and socioeconomic transformation. Environmentally, all three countries have ratified their commitments to climate action, popularly called Nationally Determined Contributions (NDCs) and have also submitted updated NDC commitments. As an example, in Nigeria, its updated NDCs prioritise cutting methane by up to 61% by 2030 while cutting crop residues being burnt by up to 50%. Uganda on its part has committed to reverse deforestation, increase use of sustainable cooking energy by 25 - 40%, as well as clean cook stoves. Cameroon, on its part, has committed to substituting unclean biomass with biogas by increasing biodigester investments by 5 - 10%. Furthermore, 2 of these countries – Cameroon and Nigeria – have committed to the methane pledge to cut methane emissions. In addition, these countries have put in place, various national climate change legislations to operationalise these commitments. Uganda has the National Climate Change Act of 2021. Nigeria has the Climate Change

Act, which also mandates the country to put in place national climate change action plans every 5 years and a carbon budget to operationalise its commitments. Cameroon, on its part, has key sectorial policies to operationalise the NDCs – including the forest code, as well as policies, including the National Adaptation Plan to Climate Change and the National Development Strategy 2020-2030 (NDS30) among key ones. The countries also have elaborate agriculture and other socioeconomic policies that prioritise not only enhanced food security but also value addition, reversing postharvest losses (PHLs), and climate-proofing agriculture. Uganda has a National Agriculture policy in addition to national food standards issued through the Uganda National Bureau of Standards (UNBS). Nigeria has the National Policy for Agriculture, as well as a strong entrepreneurship culture in its academic institutions that train youth in accessible enterprise areas where agriculture fits, considering that it is the most inclusive sector in the country. Cameroon has the National Development Strategy (NDS30), which prioritises increasing agricultural productivity and creating income & opportunities.

ENHANCING SOCIOECONOMIC GROWTH AS EXPRESSED IN THE COUNTRY DEVELOPMENT BLUEPRINTS

These policies are in the context of enhancing socioeconomic growth as expressed in the country development blueprints, which also include environmental action and agriculture and food systems as an area of economic diversification and growth, with key interventions including the reversal of PHLs. This includes the National Development Plan (2021-25) in Nigeria, vision 2035 and SND30 in Cameroon, and vision 2040 and 3rd National Development Plan in Uganda. Their realisation is also prioritised in the United Nations Sustainable Development Frameworks (UNSDCFs) of these countries through the UN country teams (UNCTs), wherein each of them, there are “enviro-centric” priority areas that aim to enhance environmental sustainability simultaneously with the actualisation of socioeconomic priorities.

Enhancing socioeconomic growth as expressed in the country development blueprints, which also include environmental action and agriculture and food systems ;

In Cameroon, these are “Strategic Priority 1: Inclusive and sustainable growth through a structural and green transformation of the economy that creates decent jobs” and “Strategic Priority 4: Environmental sustainability and efficient climate and disaster risk management”.

In Nigeria, it is “Outcome 2.1: By 2027, Nigeria benefits from improved food security and nutrition, and sustainable food systems and natural resources management”, and “Outcome 2.2: By 2027, Nigeria is implementing improved management of climate change risk and building resilience to adapt to its long-term impact through the National Determined Contribution (NDC), sustainable energy production/consumption and climate finance”.

In Uganda, it is “Strategic Priority 2: Shared prosperity in a healthy environment”.

The work done focused on the application of environmental solutions – nature, climate, pollution action – towards enhancing food and livelihood security and realisation of multiple Sustainable Development Goals (SDGs), all which aligns to actualise different socioeconomic priorities of the development blueprints.



Sample products generated from EBAFOSA training where communities were empowered to recycle wastes to make chicken feeds which when sold could earn them a living.

“ Strategic Priority 1: Inclusive and sustainable growth through a structural and green transformation of the economy ”



Transforming waste into biogas and biofertilizer is more than an innovative solution; it's a revolution. EBAFOSA is inspiring community-led action, bolstering financial wellness, boosting food security, and enhancing health and safety.



A display of organically made confectioneries made from cassava grown using organic method , the confectioneries are a creation of value addition of cassava after training by EBAFOSA experts to diversify the income avenues of local farmers using sustainable produced harvests to empower their economic status while acting on climate action.

The approach taken was linear. Starting off with feasibility studies to establish environment, socioeconomic, and food security gaps aligned to the country policy positions that could be addressed through application of nature, climate, pollution/waste action solutions. These feasibility studies also focused on key actors that need to be engaged in bridging these gaps at the operational level, with a focus on youth and the informal sector as the core constituency of implementers. Over 80% of Nigeria's working population is engaged in the informal sector, which also contributes up to 50% of the GDP, while up to 70% of the country's population is youthful and under 30 years. In Uganda, up to 90% of the working population is engaged in the informal sector, while over 70% is youthful. In Cameroon, up to 90% of the working population is engaged in the informal sector which contributes up to 50% of the country's GDP, and over 60% is youthful under 25 years.

Based on these gaps, targeted actions were undertaken towards bridging them. Accordingly, informal and youth actors were trained in bridging the gaps and guided to undertake actions towards bridging them. These actions generated experiences, information, and data that were then used to inform policy implementation pathways of policies needed to enhance the uptake of these solutions and inform UNCT uptake of nature, climate, and pollution/waste solutions.

This work constitutes an example of how environmental

solutions can be leveraged to meet countries' leading socioeconomic priorities that enhance realisation of the SDGs. This is an example that can be expanded through UNCTs and direct engagements with other stakeholders across Africa

Bridging gaps and generating data on impacts

The focus after feasibility study was done centred on training and capacity enhancement, especially of youth and community members engaged in the informal sector towards development & deployment as well as application of the environmental solutions respectively.

This training leveraged inclusive structures to engage key constituencies of implementers (youth and informal sector) to enhance skills towards expanding the uptake of environmental solutions. The focus was on enhancing the capacity of these operational stakeholders to uptake the nature, climate, and pollution action solutions to implement them in their own enterprises and, in so doing, generate data on impact and key enablers for expansion. In Nigeria, the trainings leveraged the structure of local governance and academic institutions to enhance uptake of solutions to bridging the gaps as established in the feasibility. Through the local governance structures of the emir of Nasarawa, communities were trained and engaged in taking up clean cooking and solar dryer solutions & incentivized uptake of of nature-based solutions as well.

In Uganda, training covered over 300 community members, with up to 74% being women. Specifically, 58 young people were trained in the development/fabrication of solar dryers. Up to 139 agro-value chain actors drawn from 5 VSLAs were trained to apply solar dryers for processing & preservation to cut PHLs & enhance their incomes. 150 community members holding a total of 92 acres of farmlands were trained on diverse EBA techniques to improve their knowledge of EBA application. These trainings indirectly benefitted over 8000 community members spread over 21 VSLAs represented by family members in the trainings.

In Cameroon, over 200 - 1000 community members, including 20 youth, were trained in the uptake of environment solutions for food and livelihood security, including solar dryers, biofertilizers, biopesticides, biogas production and use, among key areas. Training manuals were developed from experiences in these countries to facilitate continental-level knowledge uptake.

Trainings translated to impact actions

The trainings were then followed by the development and deployment of the environmental solutions to bridge the analysed gaps and generate impact data that informs optimal policy implementation trajectories.

In Cameroon, out of this training, five agroforestry nurseries were established to supply seedlings for uptake within the cooperatives. These were a 4000-plant nursery in Mogazang, a 200-plant nursery in Maga, a 2000-plant nursery in Pitoa, a 1000-plant nursery within Kaélé, and a 2000-plant nursery in Ngong. Specifically, the application of solar dryers resulted in PHLs decreasing from 90% to less than 5% of the initial product, while the shelf life of potatoes, carrots, and onions increased by at least 50%. In addition, the application of solar dryers results in diverse value-added product lines being developed from cassava, including starch production: 20kg/week; Production of cassava flour:300kg/week; production of Gari/tapioca: 200kg/week; production of cakes and bread from processed dried cassava; dried fruits:50kg/Month; dried vegetables:10kg/month.

In Uganda, impacts were generated as follows:

- 7 giant solar dryers of over 400kgs capacity each were designed and decentralised to be tested by over 300 agro-value chain actors through communal solar dryer centres where the use of the dryers is shared.
- Gender inclusion in the application of climate solutions for food and livelihood security undertaken. Up to \$1300 of the solar dryer value addition opportunities accrued to women farmers. Decentralisation of solar dryers created up to 3.8 times more income opportunities for women than men.
- On EBA, after training, a total of 60 agro-value chain actors,

representing 125acres and 609 household members, directly benefited from the testing uptake of organic cassava cuttings to be cultivated using EBA approaches and to be used for multiplication gardens to reach more beneficiaries.

- On fuel briquettes, over 500 pieces were made, tested and proven capable of creating earning opportunities for the community. This uptake of clean cooking solutions unlocked diverse income opportunities

In Nigeria, a dryer each was decentralised for testing and use in Azuba, Layuza, and the NSUK entrepreneurship centre.

Specifically, a 1,500-kilogram Greenhouse solar dryer was developed at NSUK.

A 2500-kilogram capacity Greenhouse Solar Dryer was constructed by trained youth and decentralized for communal use at Shabu.

In Azuba, a 2000 kilogram Greenhouse Solar Dryer was developed and decentralised, which helped improve the shelf life of the garri, reduced impurities and pest infestation, and increased the income of the farmers, processors, and manual workers operating.

Impact data informing policy decisions, UNCTs, and continental uptake of environmental solutions

In Uganda, the policies are the 3rd National Development Plan (NDPIII) that prioritises agro-industrialisation, the Nationally Determined Contributions (NDCs) that underscore reversing forest degradation, and the US2241 market incentive standards guideline, a policy from the Uganda National Bureau of Standards (UNBS) that drives food safety, as well as a new policy – the solar dryer standard.

In Cameroon, two national workshops on data for policy were held by the government to evaluate data generated from ground implementation actions by diverse actors taking up environmental solutions to the triple crises and how these enhanced food and livelihood security and the SDGs. These workshops brought together diverse actors crucial to taking up this empirical information to inform policy processes in various dockets towards implementation of different policies – including the NDCs and the national development strategy by 2030 (SND30) – in a manner that enhances food and livelihood security, addresses the triple crises, and buttresses the SDGs.

In Nigeria, a multistakeholder meeting to take up data on the impact of climate, nature, and pollution actions for food and livelihood security and to inform pro-SDGs policy implementation pathways was hosted by the Nasarawa State University, Keffi (NSUK). The data informed policy at two level, one conceptual, and then followed by implementation. At the conceptual level, the impact data informed the integration of environmental action solutions into the academic curriculum of the entrepreneurship centre at the Nasarawa State University.



EBAFOSA trained youth taking roles in building a solar dryer to help avert post harvest losses from the local community. The solar dryers are an inexpensive tools built to help drying of cereals and other leguminous produce. The drying allows the farmers to later add value to their produce and increase their shelf life.

The data and lessons on the technical, social, economic, and financial impacts of applying environment action solutions of fuel briquettes and solar dryers among local communities in Nasarawa and the food & livelihood security benefits this generated were used to engage with faculty of the Nasarawa State University at Keffi (NSUK) towards taking up environment action as an area of enterprise training. The entrepreneurship school takes in students from multi-disciplinary backgrounds. Integrating environmental action solutions into the curriculum is a critical step to ensure the uptake and implementation of these solutions by actors drawn from diverse sectors towards SDG implementation. To this end, a climate action and entrepreneurship centre was established at the NSUK to take the lead in operationalising this curriculum that engages students of diverse disciplinary backgrounds to take up environment action as an enterprise area to drive food & livelihood security and the SDGs. At the implementation level, data informed the implementation of this environmental action Entrepreneurship Curriculum of the NSUK and its revisions to ensure entrepreneurship training aligned to enhancing food and livelihood security from the lens of tapping nature, climate, and pollution action solutions.

Beyond academic policy, the data also informed the implementation of the Standards Organization of Nigeria (SON) tomato quality standard, a policy for ensuring quality

standards, including for dried tomatoes to reduce spoilage/PHLs, and thus enhance food and livelihood security, the Nigeria NDC which prioritise clean cooking, to ensure the ecological base of producing food is not destroyed by the leading risk driver – wood fuel, and also the reduction of food waste that ends up disposed of irregularly/burned to enhance emissions, the climate change act with anchors these targets, and the National Development Plan which calls for economic diversification.

Continental lessons sharing, including through UNCTs

- lessons informed the preparation of a policy background paper on One-Health and AMR that informed an AMCEN decision,
- Informed policy papers on sustainable budgeting approach for Cameroon that are being shared for uptake by UNCTs to support countries to re-engineer their budget making and make nature, climate, and pollution action a priority area,
- Informed topical issues discussions with UNCTs on how leading countries' socioeconomic priorities and needs of interest, including in emerging areas, can be addressed through nature, climate, and pollution action. Discussions have been held with Benin, Botswana, Cameroon, Gabon, Namibia, and Nigeria on topical issues like food systems and socks from the energy crisis and leveraging accessible solutions to drive SDGs.

- Data used to update the UN-wide information portal – the UNINFO, for continental-wide accessibility,
- Data is used to update the continental information portal with knowledge materials. The knowledge portal registers an average of 5000 visits per month. The data was also shared in a continental lessons-sharing webinar.
- Data used to inform policy papers on One-Health/AMR for AMCEN decision, SBA, and updates shared on the UNINFO portal .
- A continental cross-hybridization forum organised to share lessons on the uptake of environmental solutions towards enhancing food and livelihood security and buttressing multiple SDGs attracted over 300 persons convened for this forum. Lessons on informing entrepreneurship curriculum were also shared with the Ba Isago University in Botswana, resulting in the setting up of a climate action entrepreneurship centre at that university. Lessons sharing also focused on the uptake of clean cooking solutions in the DRC, whose food systems are highly threatened by degradation, with timber harvesting for fuel being a major risk driver.

Summary of interventions achieved

The application of environmental solutions – i.e., nature, climate, pollution/waste in unlocking socio-economic priorities in key areas of food and livelihood security that is also key to the realisation of multiple SDGs – calls for a closer linkage of empirical data on proven successes and policy. Policy is the biggest driver of change. However, for effective implementation, data is one of the core enablers of objective policy implementation. Empirical data that leverages on successful actions – even pockets of success - in addressing on-demand gaps among critical groups of implementers, to inform policy implementation pathways towards prioritising pathways that address those gaps and enables the expansion of proven successes among key constituencies of implementers is critical. These connections were the focus of this intervention, which was conducted in three stages.

The first was gap analysis in key on-demand areas of the community - food & livelihood security, and the SDGs and how environment (nature, climate, pollution action) solutions could be applied to the enhanced realisation of these core aims.

The second was the application of environment solutions to these on-demand areas to generate impact on how these gaps were bridged, thus matching gaps with practical solutions.

Third was leveraging the impact data to inform policy implementation pathways of relevant policies, UN strategies in countries – the UNSDCFs, and work of other stakeholders, towards enabling investments that will expand the application of environment solutions for food & livelihood security and drive the continent toward realising multiple SDGs.



Regular trainings at community level to enhance adoption of climate action and sustainable production amidst challenges of climate change.



A group of graduates from Nasarawa State University (NSUK) from Nigeria posing for a photo after an EBAFOSA sponsored conference training.



A group of women in a farming field listening to experts guiding them on Ecosystem Based Adaptation best practises.



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