



EBAFOSA

Ecosystem Based Adaptation for
Food Security Assembly



JANGUI GREEN DIGITAL INVESTMENT PROJECT

FINAL REPORT

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ADEID

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INTRODUCTION

This intervention aimed to enhance coherent cross-sectorial actions towards informing coherent policy implementation pathways for food and livelihood security and buttress the realization of different Sustainable Development Goals (SDGs). Accordingly, coherent actions cutting across the application of EBA, clean energy, tapping communal cooperatives, and digital tools for low carbon market linkages were undertaken to inform practical implementation pathways for diverse policies towards enhancing food and livelihood security and buttressing different SDGs.

Implementation was through communal cooperatives called “green community tontines (TVC)” or “janguis”. This was to ensure structure, accountability, and potential for savings and investing in these coherent actions for longevity. The initiative was implemented in 13 Councils, with 13 green community tontines (TVC) and a total of 2000 women and 200 youths. Among the main activities engaged included EBA approaches of using improved and adapted seeds, the bio-fertilizers and bio-pesticides, clean energy specifically in the post-harvest handling where solar dryers were applied, the support of cassava processing units, the capacity building on processing techniques, standards, packaging and marketing, data collection and commercialization. The impact of the intervention was diverse and included enhancing gender inclusion. In general, women improved their production with the utilization of bio-inputs and their income with the processing of their products. The youths created more than 100 green jobs. In the end, an estimated CO₂ sequestered or avoided was done to assess the project’s contribution to the Cameroon NDC targets. From these coherent multistakeholder actions, empirical knowledge, experiences, and data were shared with diverse policy decision-makers to inform implementation trajectories that enhance food and livelihood security and buttress diverse SDGs. Accordingly, a national workshop on data for policy was held. This workshop brought together diverse actors crucial to taking up this empirical information to inform policy processes in various dockets towards implementing different policies – including the NDCs – to enhance food and livelihood security and buttresses the SDGs. Among stakeholders in this workshop included the Cameroon UNRC coordinator, who was also representing the UN Cameroon team implementing the UNSDCF priorities on environmental sustainability & energy; government policy experts from ministries of environment, agriculture, youth, and energy; specialist technical agencies of the government that leads the data dimension to inform planning - the ONNAC, among others. Based on the presentations made on the coherent ground actions driving food and livelihood security and buttressing different SDGs, deliberations were held, resulting in the policy actors adopting a communique to establish the data uptake to inform policy as a permanent mechanism of receiving empirical data from ground actions to inform the implementation of policies including NDCs, in a manner that enhances food and livelihood security and buttresses different SDGs. This is hosted by the Ministry of Environment, Nature Protection and Sustainable Development (MINEPDED). The MINEPDED hosted this workshop and led the process of adopting a communique. Specific interventions are expounded hereafter.

EBA DEVELOPMENT AND DECENTRALIZATION FOR FOOD VALUE CHAINS

B.1- Context

1- Cameroon NDC and sustainable agriculture

Cameroon's NDCs are among high-level policy provisions whose coherent implementation contributes towards enhancing food and livelihood security. [Commitments](#) to lower emissions by up to 35% prioritize actions in clean energy, sustainable agriculture/forestry, and waste, among key areas that can be implemented coherently towards enhancing food and livelihood security to unlock multiple SDGs. Through an analytical model, forecasting has shown that greening Cameroon's agro-value chains using clean energy, nature-based solutions, and ICT to enable market linkages can maximize emissions reduction potential and actualize food and livelihood security to enhance socioeconomic growth. To this end, the country has developed a national development strategy by 2030 (SND30). This SND30 is an overarching high-level policy that cuts across diverse sectorial policies – including NDCs and climate action, renewable energy, agriculture, and ICT, among key ones—whose coherent implementation can enhance food and livelihood security and unlock multiple SDGs. The focus of interventions was how these cross-cutting sectorial priorities could be implemented coherently to enhance food and livelihood security. Tontines/TVCs engaged in actions cutting across these areas were engaged and guided to implement their actions targeted at enhancing food and livelihood security. From these actions, lessons, data, and knowledge was generated to inform implementation pathways for diverse policies covered in the SND30 in a manner that enhances food and livelihood security. The tontines engaged covered the key agroecological zones of Cameroon.

Intervention approach

The intervention targeted a wide range of women's and youth organizations within the communal territories. Out of around thirty municipalities visited, twenty were the subject of particular attention. In the end, 15 tontines, primarily cooperatives or women's associations, were selected for the project's first phase. The selection criteria were based on the mode of organization, the activities already implemented as part of the adaptation, the income-generating activities in progress, and the existence of functional tontines. Finally, the desire to embark on the circular green economy and the greening of the landscape, in particular with the planting of trees in the concessions and Agroforestry, which we have named by SARE-VERT.

In the end, 13 associations/cooperatives from 13 municipalities developed their action plan. Each has agreed to set up a tontine for greening local and adaptation activities with EBA techniques. We have decided to call this the "Tontine Verte Communautaire" (TVC).

Near these TVCs, we have worked with young people to develop green projects, focusing on the local availability of a market for their products. In general, the activities of the young people focused on the manufacture of organic fertilizers and pesticides, the production of ecological charcoal, and the production of biochar and nurseries.

The choice of crops was based on local dietary habits, ecosystems, and the existence of a market for the products. The TVCs were clustered according to the activities cutting across diverse sectors that they undertake that drive food and livelihood security.

:Table 1: Women TVC activities and areas

Activities Villages	Production bio/ EBA techniques (Biofertilizers and pesticides)	Post-harvest Technology	Processing/ Transport	Marketing & Selling
Maga	rice	rice huller		
Mogazang	Onions, goats, poultry			
Pitoea	Corn, poultry	Krips		
Garoua	PFNL	Oil press		Shop for exhibitions
Ngong	Corn, onions	Krips		
Lagdo	Rice	rice huller	Three-foot motorbike	
Mbé	corn, yam	krips		
Ngaoundéré	Poultry			
Velembai	Arish potatoes, carrots, cassava, poultry	Krips		
Nganha	Cassava	Solar dryer Grading machines	cassava flour starch, bread, Gari	local
Meiganga	Honey, poultry, cassava, Sweet potatoes			
Abonbang	Charcoal, biochar Poultry, planting, cassava	Casamase wheel		Local and national
Mve2- Awae	Cassava	Solar dryer	Cassava flower, Bread, Gari, starch	



(Traditional authorities in Nganha during the lunch ceremony of Holballi green village (TVC

B.2- Community organization and empowerment



TVC Mbé, Adamaoua



TVC Maga, Far-Nort



TVC of Lagdo, North.



TVC of Maroua 2, Far-North



Training in management with the community green Tontine (TVC) of Ngaha

Gender inclusion

Rural women are responsible for growing an [estimated](#) 90% of the food consumed in Cameroon, making them a critical constituency to tap into driving coherent cross-sectorial actions towards enhancing food and livelihood security. To this end, the focus was on engaging tontines with the majority of women to implement actions that enhance food and livelihood security. These were engaged in training and capacity enhancement and then

structurally guided to take up diverse climate solutions towards enhancing food and livelihood security”.



Family photo after the training of the members of Holballi cassava cooperative on cassava processing techniques, finances, activity and equipment management. This also includes marketing, negotiation techniques and food standards for better market access

Through these tontines, it is possible to mobilize groups and their cash and in-kind contributions towards driving the uptake of climate solutions for food and livelihood security. The following table expounds:

Regions	Converged Tontine	Nombre of contributing member	Monthly fund contribution/ tontine	Monthly savings	Possible assistance	Tontine in kind	Total cash contribution per month
East	Abong-Mbang	50	-	2 000		3 shovels of wood (env 65 bags de charcoal)	100 000
Adamawa	Meiganga	47	Variable (according to the means of everybody)	1 000		Oil	
	Vela-Mbaii		Variable (according to the means)	500		-	
	Ngan-Ha	103	Variable (according to the means)	500		-bucke of kassava	51 500
	Mbe	29	Variable (according to the means)			-Oil -Loincloth	-
North	Lagdo	22	1 500	200			39 600
	Ngong	32	500	100 F (black box)		-Assiettes	19 200
	Pitoea	20	3 000 F	-		Soap of 150 F	60 000

Far-North	Mogazang (Maroua II)	30	1 000 F	300 (black box)		- Pebbles (gravel) - Soap	39 000
	Maga					- Carpet - Loincloths	
Total							CFA 309,300

METHODOLOGY

The tontines were trained and guided in the uptake of climate action solutions- including diverse, accessible EBA approaches, clean energy (solar dryers and clean cooking fuel briquettes), and application in food systems - in a manner that enhances food and livelihood security. The end is to inform coherent policy implementation pathways across different sectors towards enhancing food and livelihood security and driving diverse SDGs.

EBA UPTAKE

1. Seeds

With the issue of climate change and adaptation, we worked on local, improved and adapted seeds. The choice of seeds is very important in the climate change context.

2. Soil preparation

We have developed bioherbicides since one of the main obstacles to organic farming is chemical herbicides that pollute the soil. Land preparation techniques include ploughing and introducing agroforestry with endogenous species. Regarding production techniques, in addition to EBA techniques, we consider local knowledge in terms of adaptation.

B.4- The Production of crops in and ecosystem-based



Cassava farm, Velembei-Ngaoundere



bio-Carotte farm, Velembei-Ngaoundere



Rice production in Maga



Cassava in Ngan-ha, dry season



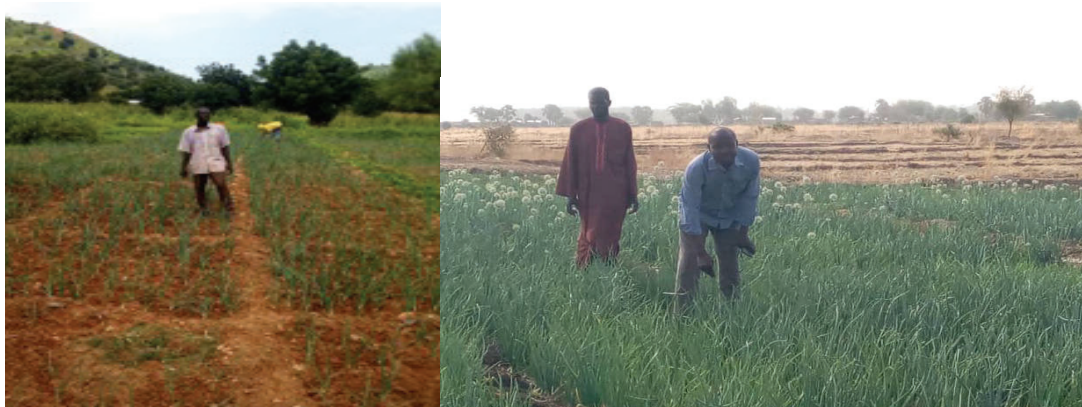
Arish potatoes with biofertilizer, Mvelembai



Yam production in Mbé near Ngaoundere



Sweet potatoes in OMBESSA



Onion production Mogazang near Maroua and Kaele



Sorghum production with bio-fertilizers produces by the youths in Mogazang



Maize with biofertilizer, Ngong near Garoua

B.5- EBA Techniques used in the productions

1. Agroforestry

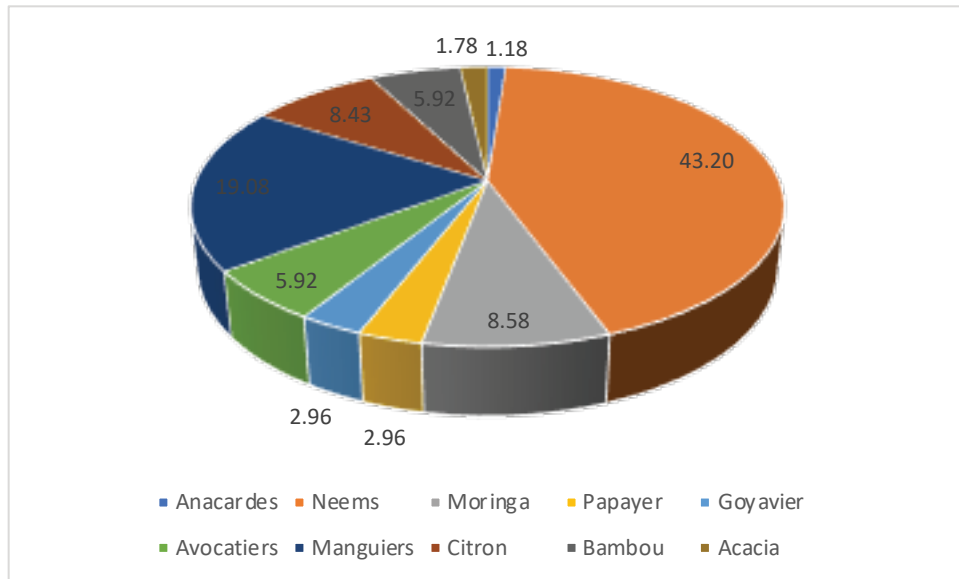


Nurseries



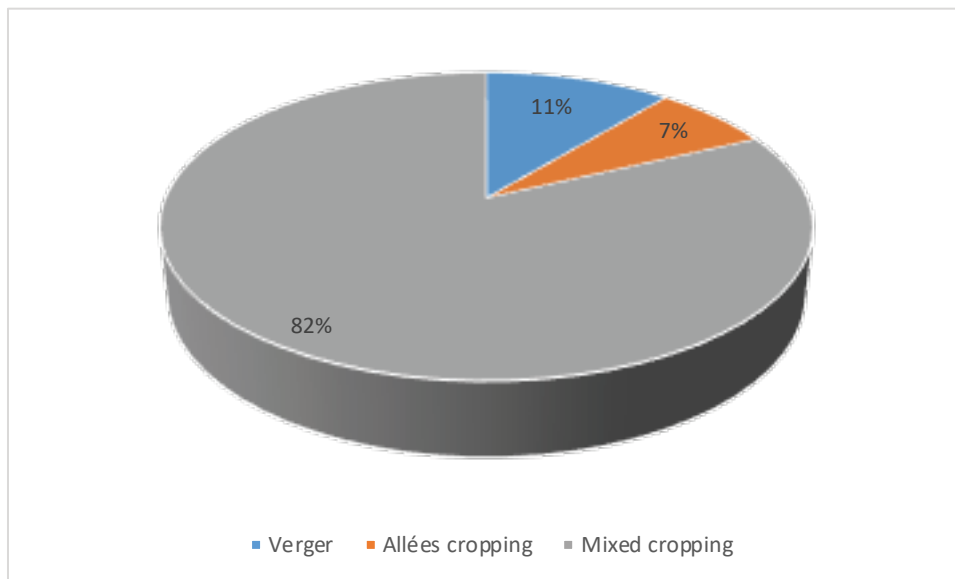
Plants from nurseries to the house (SARE-VERT) or farm

The graph presents, in summary, the proportion of main species products by groups.



.Main species des vulgarize by tontines

2. Concerning the development of agroforestry, three systems were developed as follows



.Widespread agroforestry trends

3. Alternative livelihoods Apiculture/Beekeeping to increase yield, income, and food



Beekeeping in Meiganga

4. Alternative livelihoods - Livestock for manure, food and income - waste recovery to value (biofertilizer and biopesticides)



Traditional and Brahma poultry in Ngaoundere



Incubator in Bafoussam



Poultry Mvelembai



Goat breeding in Mogazang

5. Bio-fertilizer

Biofertilizer in Velembéi



Biofertilizer in Pitoa near Garoua

with the association of compost

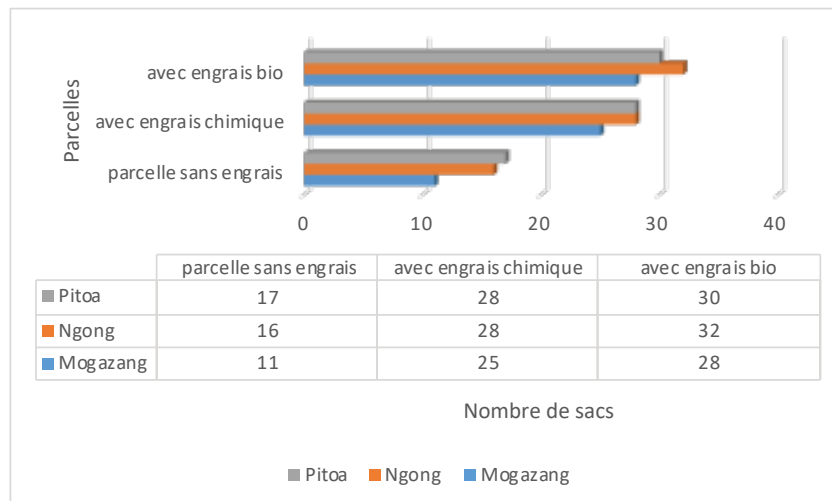


Biofertilizer in Mogazang



Compost in Ngong with the youths

According to the experiments carried out in the corn plots, the production for the use of the different fertilizers are as follows:



.The global production is presented in the last part of the document

Biopesticides from cow urine and other vegetables in Ngong 5*Biopesticide from wood vinegar in Abongbang***Impact:**

The transformation of waste into biofertilizers and bio pesticides helps to create green jobs for youth and increase the plants' yield. It also helps to have healthy soil and a sustainable ecosystem. Application of EBA resulted in the total area covered by EBA inputs (biofertilizer and biopesticides) increasing by 920 hectares to enhance the ecological base of food production.

B.6- Harvesting and products



Corn harvesting Ngaoundere



Sorghum harvesting Maga



Rice harvesting, Maga



Arish potatoes Mvelembai



Bio-carot, Mvelembai



Onion harvesting, Mogazang



Clean energy uptake for value-added actions

Post-harvest technologies

Here we advise women to use well-mastered techniques. We are particularly interested in cassava which is our main crop.

Once the cassava is harvested, it can be processed the same day or canned. The shelf life is 72 hours maximum after our tests in sawdust.

The transformation makes it possible to obtain various products and by-products. For the moment, by-products are cosettes, flour, starch, pasta, gari, doughnuts, bread, etc.

As for the cosettes, they have dried in the solar dryer away from dust. After drying, it is the stage of the production of flour and derivatives.

Renewable energy

Solar energy comes here to power the batteries for the fans

Processing

In order to add value to agricultural products, women process them to make them more presentable and according to market demand.

Standards, packaging, and Marketing

ANOR is responsible for quality standards at the country level. For this, it defines the standards for packaging and food quality. We work with women to raise the quality of their products, from healthy farming techniques to transformation processes. As for marketing, we have an experimental space in Garoua where long-lasting products are exhibited.

B.7- POST-HARVEST TECHNOLOGIES

1- Solar dryer





Solar dryer dried Fruits, fish and meat using a solar dryer

Impact:

Reduction of post-harvest food losses (PHL) with a gain between 30 to 50 %. Then more food is available for the family and for the market. Long storage period.

Added value:

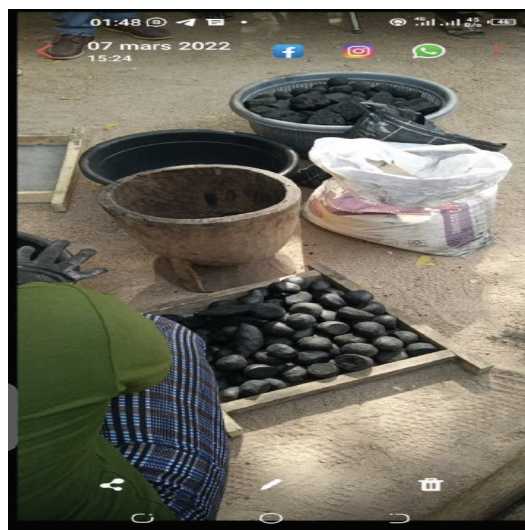
- ▶ In the case of Cassava, At farm level, 1Kg of Cassava is CFA 75; after drying, the kg is CFA 300
- ▶ In the case of maize, after 4 Months, the price increases by 40%.
- ▶ Application of solar dryers results in cassava PHLs decreasing from 90% to less than 5% of the initial product, while potatoes, carrots and onions, shelf life has increased by at least 50%
- ▶ 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

B.8- Energies for cooking and drying – waste recovery to clean cooking solutions

1- Ecological charcoal/waste briquette



Ecological charcoal production



Ecological charcoal

2- Charcoal from the timber wastes industry



Casamance oven for charcoal, wood vinegar and biochar production



Résidu charbon

sacs charbon

charcoal wastes for Biochar production



Wood vinegar as bio-pesticide

Transportation of charcoal

This charcoal from Casamance Oven is also a raw material for the production of ecological charcoal. We are also promoting the utilization of improved stoves for cooking.

Impacts:

- ▶ - Reduction of indoor pollution
- ▶ - More jobs' creation with wood briquettes/ecological charcoal production

Added value:

- ▶ - The wood-briquettes are long-live fuel charcoal, free from CO and cheap for cooking;
- ▶ - wood vinegar is a by-product from wood-charcoal production, and its utilization as biopesticide generates more income for producers.

B.9- STORAGE

The solar dryer dried produce had increased shelf-life allowing for long-term storage to enable better market earnings, reduced PHLs, enhanced food security, and increased income opportunities.



Maize storage in Holballi and Mbe



Onion storage in Mogazang and Ngong

-Impacts

- ▶ development of post-harvest food technologies

-Added value:

The added value is generally more than 40% of the initial price after 6 Months of storage for maize, and 40% after 4 Months of onion storage.

Up to 30 green jobs created for the community in making of organic inputs as well as application of solar dryers,

B-10- Transformation/processing

Some of the solar dryer dried produce were further processed into higher value produce that fetch more in the markets.



Starch process



preparation of fruit for drying



Gari processing



cassava drying for flower



fruits drying



Visite de l'unité de de boulangerie-pâtisserie avec farine de manioc



Cassava flower bread production with traditional oven



Impact:

Added value

Processing into gari, flour and bread can help women multiply their incomes by up to 4 times compare to the initial state as tuber, in the case of cassava.

B.II- Packaging - MARKETING / digital marketing -Commercialization

The climate solutions applied in food systems resulted in the generation of diverse product lines – including dried organic foods cultivated using EBA and hygienically dried in the solar dryers, as well as clean cooking fuel briquettes to substitute charcoal/firewood. These product lines were linked to markets using digital marketing tools that lower the carbon footprint of farm-to-market supply chains to align with NDCs commitments.




BIOCHARBON 100%ÉCOLO

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-Impact:

Better Market access for bio-product

An increase in earning opportunities resulted in membership in local cooperatives called tontines/janguis/ community cooperatives increased from 0 to 15, with a growing number of members, including 2000 women and 200 youth.

-Added value:

The value of dried and well-packaged fruits and vegetables is 3 to 5 times the initial price per kg of non-processed products.

B.12- Transport, Commercialisation and digitalisation

1- Transportation



Maize, beans, dried cassava transportation



Charcoal and biochar transportation

Commercialization



DATA COLLECTION TO INFORM DECISION MAKERS AND PARTNERSHIP FOR NDC



A national workshop on data for the policy was held to evaluate data generated from ground implementation actions by diverse tontines taking up climate solutions and how these enhanced food and livelihood security. This workshop brought together diverse actors crucial to taking up this empirical information to inform policy processes in various dockets towards implementing different policies – including the NDCs, the national development strategy by 2030 (SND30) – in a manner that enhances food and livelihood security and buttresses the SDGs. Among stakeholders in this workshop included the Cameroon UNRC coordinator, who was also representing the UN Cameroon team implementing the UNSDCF priorities on environmental sustainability & energy; government policy experts from ministries of environment, agriculture, youth, and energy; specialist technical agencies of the government that leads the data dimension to inform planning - the ONNAC, among others. Accordingly, data on coherent multistakeholder actions in applying these climate solutions of nature-based on-farm approaches, clean cooking solutions, and solar dryers – towards food and livelihood security was documented and leveraged to inform implementation pathways of diverse policies towards food and livelihood security. Accordingly:

The data was shared with policy actors in the Ministry of Agriculture and Rural Development (MINADER), Ministry of Environment, Nature Protection and Sustainable Development (MINEPDED), Ministry of Water

Resources and Energy, Ministry of Youth Affairs and Civic Education (MINJEC), and the Standards and Quality Agency (ANOR) – for their uptake. All these align to implement SND30. The deliberations resulted in the data being tied to inform implementation pathways of the Nationally Determined Contributions (NDCs) on priority areas of solar and sustainable agriculture, the climate-smart agriculture policy, and the agriculture investment plan – which align to implement the SND30 - all towards enhancing food and livelihood security.

Deliberations further resulted in the policy actors adopting a communique to establish the data uptake to inform policy as a permanent mechanism of receiving empirical data from ground actions to inform the implementation of policies across different ministerial dockets, including NDCs, in a manner that enhances food and livelihood security and buttresses different SDGs. This is hosted by the Ministry of Environment, Nature Protection and Sustainable Development (MINEPDED). The MINEPDED hosted this workshop and led the entire process resulting in the adoption of this communique.

This working session was facilitated by the Cameroon UN Resident Coordinator office and the entire UN country team, among other stakeholders and led by the Ministry of Environment, Nature Protection and Sustainable Development (MINEPDED).

LESSONS LEARNED AND PERSPECTIVES

- ▶ Communities are awarded on their vulnerabilities to climate change and are struggling to adapt; this means that they have developed various solutions to overcome the different threats. So, in agriculture, we can learn from traditional knowledge both in adaptation and mitigation; some of the EbA technics are already done by the women
- ▶ The spray of chemical inputs in food production has threatened the population's health. The lack of labour for farm cleaning leads to the use of chemical herbicides to wipe the bad grass and sherop,
- ▶ leveraging the structure of communal cooperatives proved to provide the much-needed traceable framework by which the informal sector that engages over 90% of Cameroon's working population could be tapped to drive their diverse actions towards enhancing food and livelihood security and the SDGs. It also enhances gender inclusivity by enabling women who produce up to 90% of food in Cameroon to invest more in income activities in the food supply chain.
- ▶ The demand for biofertilizers is increasing due to the war in Ukraine and the rising up to 70% price of chemical fertilizers.
- ▶ About innovative green finance, we are building on the traditional experience of women by modernizing their tontine and making it more sustainable That facilitates the internal mobilization of resources for their contribution to the activities related to the implementation of EbA;
- ▶ The importance of good leadership at the community level to fulfil the objectives.

CONCLUSION

The coherent application of climate solutions of EBA, solar dryers, and clean cooking fuel briquettes, to food systems, was shown as a critical strategy for coherently implementing NDCs and the national development strategy – the SND30, which convenes diverse sectorial policies – in a manner that enhances food and livelihood security and buttresses multiple SDGs – including SDGs 1, 2, 3, 5, 7, 12, 15 among key ones. This work was implemented by leveraging the structure of communal cooperatives that proved to provide much needed traceable framework by which the informal sector that engaged over 90% of Cameroon’s working population could be tapped to drive their diverse actions towards enhancing food and livelihood security and the SDGs. Working through communal cooperatives/tontines to target food systems also enhanced gender inclusion considering that majority of the food in Cameroon is produced by women, and the structure of tontines enabled them to invest in expanding beyond farm-level production and increasing their incomes.

The Cameroon UN working with the Ministry of Environment, Nature Protection and Sustainable Development (MINEPDED), convened diverse policy actors to take up lessons, and this will become a continuous exercise towards reconciling what works on the ground with the policy processes and thus ensure policies are more targeted at incentivizing the expansion of what has been proven to work.

NEXT STEPS

The communique to establish the data uptake to inform policy as a permanent mechanism of receiving empirical data from ground actions to inform the implementation of policies across different ministerial dockets, including NDCs, in a manner that enhances food and livelihood security, and buttresses different SDGs will continue to be implemented. EBAFOSA will be the framework by which ground actions will be engaged to generate the data and knowledge for policy uptake to inform implementation pathways towards enhancing food and livelihood security and unlocking SDGs.



ANNEXE: SUMMARIZED RESULTS

N	SUB-PROJECT / COMPONENT	LOCALITIES	MAIN RESULTS	IMPACTS	SDG	NDC
1	Sare-vert (greening of concessions, landscapes, VCs, promotion of agroforestry, etc.)	- Lagdo (No) - Mogazang (FN) - Pitoa (No) - Ngong (No) - Ngan-Ha (Ad)	- 26,800 plants produced by TVCs - On average 15 species popularized - 3,305 m ² allocated to the nurseries of the 5 TVCs; - 7.4% reforestation in the Sare/compounds against 82.8% in the rural plots, - 69 green jobs created in nurseries, including 07 permanent - Perceptions of reforestation are multivariate and oscillate around the supply of goods and services from trees.	- More and more TVCs have raised funds through the sale of plants (cumulative profits of 300,763 CFA francs for 4 TVCs). - More green jobs are operational and available, reducing youths' unemployment. - Landscapes are increasingly green with the gradual introduction of agroforestry system; - Environmental training and education are increasingly popularized.	1, 2, 3, 5, 11, 13, 17	
2	Development of sustainable animal husbandry	- Mogazang (EN) (small ruminants)	- 500 sheep obtained for fattening and breeding; - 100 beneficiaries, including 80 women at the rate of 5 animals per member, i.e. 30 indirect jobs created - Monthly profits of about 90,000 CFA francs per campaign per member. - 3,500 kg of manure produced per month for the production of biofertilizers.	- Improvement of living conditions through developing small livestock in 30 households. - The protection of the environment through the recovery of livestock waste is further popularized in the community; - Diversification of sources of income in the village.	1, 2, 5, 13, 15, 17	

N	SUB-PROJECT / COMPONENT	LOCALITIES	MAIN RESULTS	IMPACTS	SDG	NDC
		<ul style="list-style-type: none"> - Abang-Mbang -Meiganga - Vela Mbai - Mogazang - Pitoa. <p>Poultry farming (Traditional Brahma chickens.)</p>	<ul style="list-style-type: none"> - 3,000 chicks made available to TVCs, - 100 beneficiary groups; - 03 incubators for hatching eggs and rapid production of chicks made available to TVCs; - Monthly collection of approximately 4,000 kg of excrement for fertilization of rural plots. 	<ul style="list-style-type: none"> - Improvement of livelihoods through the added value of products as follows: <ul style="list-style-type: none"> • Average price of an egg: 250 CFA francs • Average price of a chick (month): 2,000 CFA francs • Price of an adult hen: 15,000 CFA francs; - Diversification of secondary sources of income. - Better availability of animal proteins (white meat) in the communities. <p>-----</p>		
		<ul style="list-style-type: none"> - Meiganga. <p>Beekeeping (raising bees)</p>	<ul style="list-style-type: none"> - 50 Bee-hives ; - 20 bénéficiaries; - 800 litres of honey per year - 2 500 F CFA /litre on the market 			
3	Production of organic inputs (fertilizers, pesticides and field application)	<ul style="list-style-type: none"> - Mogazang (FN) - Maga - Pitoa (No) - Ngong (No) - Vela-Mbai (Ad). 	<ul style="list-style-type: none"> - Local recipes and resources are used for the production of biofertilizers - A production estimated at 5 tons for dry organic fertilizers, 2,000 litres for wet organic fertilizers and 3,000 litres for biopesticides: - To date, the production of biofertilizers has enabled the cumulative capitalization of 1,258,640 CFA francs for fertilizers and 382,500 CFA francs for biopesticides; they are more economical than chemical fertilizers. - Better production for organic fertilizers; 	<ul style="list-style-type: none"> - Increasingly green production and the greening of value chains are increased - More green jobs are created, which reduces idleness and youth unemployment; - Positive socio-environmental impacts are more and more noticeable with the popularization of biofertilizers, in particular, the preservation of health, the improvement of yields and the restoration of soils... 	1, 2, 3, 5, 13, 17	

N	SUB-PROJECT / COMPONENT	LOCALITIES	MAIN RESULTS	IMPACTS	SDG	NDC
4	Production of biological charcoal (by-products)	<ul style="list-style-type: none"> - Lagdo (No) - Abong-Mbang (Es) 	<ul style="list-style-type: none"> - Recovery of local scrap/waste, which are sources of CO2 emissions - Production estimated at 1,050 kg in Lagdo. In Abong-Mbang, production is around 306,000 kg of eco-charcoal. 100,000 Kg of biochar 4,800 L of wood vinegar 200 L of tar. - Significant financial benefits for the TVCs (monthly gross profits from ecological charcoal production in Lagdo are estimated at 63,200 CFA francs; and at 6,300,000 CFA francs in Abong-Mbang.) - 92 jobs created including 39% held by women 	<ul style="list-style-type: none"> - More jobs are created through the deployment of biochar, which limits idleness and improves living conditions; - Increasingly, the environment is preserved through a large amount of emissions avoided (3010 households) - Wood derivatives further promote the practice of organic farming - IGAs abound more in TVCs... 	1, 2, 3, 5, 7, 13, 17	
5	Organic farming practices	<ul style="list-style-type: none"> - Abong Mbang Development of seed fields; - Mbe (Ad) - Ngong (No) - Lagdo (No) - Maga - Mogazang (EN) - Pitoa (No) Agricultural production; 	<ul style="list-style-type: none"> - 2 seed fields developed for maize and cassava on approximately two hectares each; - 60 bags of corn seeds obtained - 30 bags of selected cassava cuttings obtained - About ten speculation produced including 5 main ones which are among others: Corn, Rice, Sorghum (Red), Onions, Cassava, - All productions are made with ecological inputs; - More than 95 Ha intended for the production of these speculations, of which more than half is reserved for rice. - Significant organic yields obtained, such as 60 tons of corn, 300 tons of rice, 70 tons of sorghum (Red), 10 tons of onion... - More than 500 green jobs created/enhanced, of which women hold more than 95% - Onion and groundnut storage activities have generated more than 1,295,000 CFA francs for women in 6 months of activity. 	<ul style="list-style-type: none"> - Availability of quality seeds for the next agricultural campaigns - - Increasing availability of organic food in TVC communities; - Significant green jobs (direct and indirect) linked to agricultural wage labor are created and make it possible to reduce the problem of unemployment and vacancy among young people; - For storage, women benefit from about 40% of the investment price in half a year (6 months). 		

N	SUB-PROJECT / COMPONENT	LOCALITIES	MAIN RESULTS	IMPACTS	SDG	NDC
		<ul style="list-style-type: none"> - Mbe (Ad) Processing and small catering 	<ul style="list-style-type: none"> - 100 women received support for the development of an IGA - Thanks to the additional benefits, these 100 women take care of households made up of around 1000 people 	<ul style="list-style-type: none"> - Poverty reduction through the development and promotion of IGAs. - Daily profits vary between 3,000 and 12,000 F CFA depending on the period - job creation and improved well-being; 		
6	Establishment of a green village and development value chain of agri-food	<ul style="list-style-type: none"> - Ngan-Ha (Ad) -Awae (Mve II) 	<ul style="list-style-type: none"> - Development of post-harvest technologies - Acquisition of a solar dryer with high production potential of 60 000 CFA francs in less than 3 months of operation. ; - Equipment of a cassava processing unit with appropriate machines (05) - Operationalization of a Gari production unit (1,500 kg) and a pastry unit (7,379 breads)... - 32 jobs created including 12 permanent And as a result, the resources mobilized this semester are distributed as follows: - Costs resulting from the opening of the mills to local communities: 100,000 CFA francs. - Costs of drying products in a solar dryer: 317,000 CFA francs. - Costs resulting from the telephone connection by the solar panels: 107,775 F CFA. 	<ul style="list-style-type: none"> - Valorization of local flours and local know-how in bread production processes; - The reduction of the hardship of the activities and the working time in particular, the drying time by half with the obtaining of a solar dryer. - More families have diversified and multiplied their sources of income through training in processing cassava into by-products. 	1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 13, 14, 15, 17	

Table 2: Youth green activities in different areas

Villages	Bio Fertilizer	Bio pesticide	Ecological charcoal	Beekeeping	Poultry	Tree nursery
Maga			Rice wastes			
Mogazang	Cow dung & urine	Neem leaf			Trial	Neem, moringa and fruit's nursery
Maroua1	Cow dung & urine	Neem leaf				Neem, moringa and fruit's nursery
pitoa	Cow dung & urine	Neem leaf			Trial	
Ngong	Cow dung & urine	Neem leaf & garlic				
Lagdo	Cow dung		Rice+ Groundnet wastes			
Mvelembai	Cow dung & urine				Trial	
Meiganga				Traditional and Kenyan bee hives	Trial	
Abongbang	Poultry waste	Wood vinegar	Biochar		Traditional fowl	
Bafoussam	Poultry waste				Traditional fowl	

- explain the community members trained - include the number of women and youth and the EBA areas they were trained in - e.g., production of biofertilizer, biopesticides etc.,

Capacity building

	women	youth	In-situ	Online/webinar	National seminar
Cooperative management	1000		x		
Tontine/savings and loans management	1000		x		
Loan management	200	50	x		
Accountability and finances	20	10	x		
Infrastructure's management	50	50	x	X	
Biofertilizer production		50	x	X	
Biopesticides and bioherbicides		50	x	X	
Ecological charcoal	50	50	x	X	
Tree nursery and agroforestry	100	50	x		
Postharvest technologies	200	50	x		
photovoltaic Solar dryer construction and maintenance	100	30	x		
Gari production	100		x		
Starch production	100		x		
Local Flowers' production	100		x		
Cake and bread production	100		x		
Fruits drying	x	x	x		
Food standards	x		x		
Beekeeping		x	x		
Goat breeding	x		x		
Poultry livestock	x	x	x		
Pakaging and marketing	50	50	x		
Digital marketing		30	x	X	
Data collection	50	50	x		
Cimate champions and Ambassador		100		X	x
LED-EBA agribusiness opportunities		100		X	x

- decentralizing and application of EBA by tontines and the total number of people using EBA, including the breakdown of women benefiting from the EBA.

	Improved Adapted seeds	Agroforestry Mix cropping	Biofertilizer biopesticide	Solar dryer Postharvest technology	Processing unit & packaging	Digital marketing, trading
Maga	100ha rice	-	30ha	-	2 Machines	
Mogazang	traditional sorghum & onion	50ha	30ha	-	-	
Moutowra	50ha corn	20ha	10ha	Green transport	-	
Kaele	-	-	-	-	-	
Figuil		-	-	-		
pitoa	50ha corn	20ha	30ha			
Ngong	50ha maize 20 ha onion	50ha	50ha			
Lagdo	50ha	50ha				
Mbe	50ha Corn 30ha Yam	30ha	30ha			
Velembai	20ha Carot 10ha Irish potatoe	-	10ha	-	-	
Nganha	100ha	100ha	50ha	-		
Nyambaka	50ha Cassava					
Meiganga	50ha cassava					
Abongbang	50ha Cassava					
Mve2						
Ombessa						
Ndiki						



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