



**IMPACT OF CLIMATE
ACTION SOLUTION OF
SOLAR DRYER CENTRE TO
VILLAGE SAVINGS AND
LOANS ASSOCIATIONS
(VSLAS)
DURING COVID-19**

CASE OF UGANDA

TABLE OF CONTENTS

INTRODUCTION.....	1
Objective	2
Methodology of the study	2
Findings	2
> How many people are coming to the dryer centre;?.....	2
> Impact of COVID-19 to solar dryer centre.	3
> Losses experienced before the solar dryer centres were active	4
Youth impact	6
Additional incomes generated	6
What value chains are they bringing to dry; (Kgs when and how).....	7
What was the amount of postharvest losses (PHLs) they used to experience before – in kgs & monetary.	9
Challenges faced by VSLA group during lockdown	9
Coping Strategies and opportunities of VSLA during COVID-19 lockdown.....	10
> HOW UNEP-EBAFOSA supported recovery of the VSLA group from COVID-19	10
CONCLUSION	11
Implications for Policy	11
ANNEX	13

INTRODUCTION

COVID-19 has become an unprecedented and unpredictable global crisis. On 21st March 2020, Uganda reported its first **COVID-19 case** and this triggered its first lockdown. According to Daily Monitor on June 18, 2021, President Museveni ordered a 42 day lockdown to reduce the rising cases of COVID-19 as the country experienced the second wave of the pandemic¹. These restriction measures meant to contain spread of the virus are resulting in undesirable effects of slowing down the economy as enterprises close down or admit fewer patrons. The result especially for actors in the agro-value chains is a slowing down in stock movement, resulting to increased losses especially for perishables that have a very short shelf-life. Across Africa, a sharp increase in losses in the stock of perishables of **up to 50%** in some cases, which was the highest globally, has been recorded. Because of COVID-19, the proportion of food insecure has increased by **up to 44%** in Uganda. In addition, firm revenues and worker earnings have remained **lower** than pre-pandemic levels by 30%. The informal sector in Uganda **accounts** for over 50% of GDP and 80% of employment, **including** for the youth. Most of the population is employed in the agricultural sector, which accounts for **about 70%** of work in the continent. These critical economic realities imply that the productivity of the informal sector and agriculture stand out as key resilience building avenues for the country by virtue of their carrying capacity that covers most of the population. Reversing postharvest losses that are **up to 25%**, is an accessible and effective way by which these critical & inclusive sectors of the economy can recoup losses and turn them into income opportunities to build socioeconomic resilience of many as called for in flagship strategies and policies such as the vision 2040 and its derivative, the 3rd National Development Plan (NDP3). And all this achieved while meeting the climate commitments as captured in Uganda Nationally Determined Contributions (NDCs). To this end, affordable solar dryers, a climate action solution that aligns to Uganda's NDCs, have proven capable of reducing losses and increasing revenues of informal market traders who deal in perishable food products by **up to 30times** through dehydrating their produce, and increasing its shelf-life to enable them recoup would be losses by converting into dried products that fetch a market as well. This solution is highly applicable in the COVID-19 market slow down as the rate of stock turnover declines necessitating the need for stock to remain unsold for longer. This leftover stock requires affordable accessible means to preserve to ensure food & livelihood security.

Uganda has been suffering from the effects of the COVID-19 lockdown and this has affected the financial sector and local communal cooperatives called village savings and loan associations (VSLAs) located in both urban and rural areas of Uganda. The increased losses and reduced incomes of agro-value chain actors who are members of VSLAs, has meant that the incomes are lost, and contributions to these VSLAs decline. To remedy this, UNEP-EBAFOSA Uganda is supporting five VSLAs in Uganda to establish the impact climate action solutions of solar dryers have had in providing means to buffer against COVID-19 induced agro-productivity losses.

This report presents the findings and impacts of this decentralisation of solar dryers to VSLAs to enable them to reduce their PHLs and enhance earnings during the COVID-19 lock-down, and by this demonstrate the effectiveness of the climate action solutions during this time. These findings are the direct experiences of how the VSLAs have adapted to COVID-19 lockdown by bringing their produce to the drying centres during the lockdown. Three VSLA groups have been studied to find out the impact of Climate Action Solution of Solar Dryer Centre to Village Savings and Loans Associations (VSLAs) during the COVID19 lockdown.

1 What next after 42-day lockdown? <https://www.monitor.co.ug/uganda/news/national/what-next-after-42-day-lockdown--3484088>

OBJECTIVE

The primary objective of the study is to establish the impact of the solar dryer centres in enabling agro-value chain actors to avert productivity, income, and food security losses arising from the COVID-19 lock -down. The specific objectives are:

- ▶ to establish the amount of produce brought to the dryer centre during COVID lock-down period
- ▶ to establish the amount of postharvest losses (PHLs) they used to experience before the dryer was active – in kilogram and monetary
- ▶ to establish the income savings registered by the actors from averted losses
- ▶ to establish the amount of solar dryer maintenance fee paid
- ▶ to establish the gender disaggregation of actors coming to the solar dryer centres as well as youth benefit registered.

METHODOLOGY OF THE STUDY

Key informants' interviews and observation were the key techniques used to collect data. The COVID-19 pandemic had major limitation on the study. The interviews were initially face to face but due to the pandemic and Uganda ministry of health COVID19 restrictions, the interviews were conducted over the phone denying the ability to monitor body language and facial expression.

FINDINGS

HOW MANY PEOPLE ARE COMING TO THE DRYER CENTRE;?

VSLA groups operating in both urban and rural areas have been affected, this was observed with reduction on the number of VSLA group members who came to co-operate around the solution of the communal solar dryer centre for agricultural produce.

Table 1 Number of members coming to the VSLA solar dryer centre during COVID-19 lockdown

Number of VSLA members coming to the solar dryers during COVID-19 lockdown						
Months of lockdown	VSLA group focal persons interviewed					
	Mukama Mulungi VSLA		Sugu Agalyawamu women group		Ggera Fortune women group	
	Women	Men	Women	Men	Women	Men
July	8	4	5	1	2	0
June	4	2	0	0	0	0

During the lockdown Mukama Mulungi VSLA had the highest number of women who accessed the solar dryer centre to conduct activities with 8 women and 4 men. In Sugu Agalyawamu women group 5 women came to the solar dryer because of its nearness to their homes. and in Ggera Fortune women group members feared for their life due to the high death rates in the area members were advised to suspend all activities concerning the solar dryer centre.

IMPACT OF COVID-19 TO SOLAR DRYER CENTRE.

- ▶ Limits on the mobility; During the lockdown Mukama Mulungi VSLA was sub contracted to pumpkin farmers to dry their pumpkins. Those farmers were facing a challenge that they couldn't find transport of those pumpkins to the agriculture markets, pumpkins were rotting in the garden. Mukama Mulungi VSLA provided a solution of solar dryers to enable dehydrating of this products at a cost of UGX 150,000.
- ▶ Increase in income; VSLA group income increased and slightly members improved their livelihood, for example Mukama Mulungi VSLA members won a contract to dry pumpkins on behalf of pumpkin commercial farmers during the lockdown. The farmer's pumpkins were rotting in the gardens due to the transport restrict and immobility of farmers from one town to another².

"We were contacted by pumpkin farmers in our village to help them dry their pumpkins. The farmers had 7 tonnes of pumpkins which were rotting in the garden and store. We managed to save 3 tonnes of pumpkins by chipping the pumpkins into small pieces, we were paid 150,000 for labour and 50,000 as maintenance fee." Fred Mbayo Mukama Mulungi VSLA chairperson.

- ▶ Increase in income of VSLA group compared to the previous COVID19 lockdown from solar drying centre. Mukama Mulungi VSLA managed to get 150,000 UGX as labour and 50,000 UGX as maintenance fee. While Ggera Fortune women group sold 150 kilograms of cassava chips to EBA FOODS and was paid 105,000 UGX. this enabled the VSLAs members
- ▶ Food insecurity; While demand for food in both rural and urban areas increased, food insecurity³ in June and July, where by the VSLA group members of Sugu Agalyawamu Women group members most of them were food insecure. When the Ugandan government announced the second lockdown there was a high migration rate of people from town to villages, many families received visitors, this forced those members to consume the cassava they dried and also the raw cassava in the garden they had planned to dry was also consumed, this caused food to be expensive.

"During the second lockdown, my members of the VSLA collected 150kiligrams of cassava chips they dried, most of them were lacking food to feed their families and raw cassava to dry in the solar dryer due to the high population in their homes which came from urban centres. As a group we are located in rural area, our sons and daughter brought their children to the village to prevent them from hunger and COVID-19 in town.

- ▶ Access to Raw materials; In general, raw materials such as raw materials especially in rural and urban areas, VSLA group members would access the raw material in any location before lockdown. However, during the lockdown some of the VSLAs stopped crop like cassava and vegetables because their gardens are located in villages outside their districts. In additional also gardens which were in the same sub county or district transport to access the garden to get harvest raw materials was expensive and difficult to get. Even where markets are open, people have no products to sell and/or have lost their purchasing power.

"My garden is located in other sub county; I couldn't manage to harvest my cassava to bring to the solar drying centre because it was difficult to find transport means. My home was food insure but I had the food in the garden".Bwabwe Muhammad Cassava farmer – Buikwe district.

2 Sugu Agalyawamu women group chipping pumpkins: https://drive.google.com/drive/folders/1aD-0_9y6sbcrgegoDwF17KUOKHr7q4Mw?usp=sharing

3 Food insecurity is defined as the disruption of food intake or eating patterns because of lack of money and other resources

VSLA committees-built resilience: Due to the presence of VSLA committees created by this work, enabled members receive information from their leaders. And when the lockdown was waved committees made sure income generating activities of cassava value addition resume. VSLAs committees of five members were established including Chairperson, Vice Chairperson, treasurer, secretary and publicity officer where put in place. Committees included Solar dryer centre committee, EBA Cassava growing committee, Disciplinary committee. Even in times of stress committees' members managed to call members to know their health status and encouraging them to save, protect themselves against COVID-19 by wearing masks, washing hands⁴.



Figure 1 Some of the women of Mukama Mulungi VSLA chipping pumpkins to be dried in the solar dryer during the lockdown

A video testimonial of solar dryer impact can be found on this link: <https://drive.google.com/file/d/1OSNj3gZLKz55prjQ3AQLzp0S8S2tEE7D/view?usp=sharing>

LOSSES EXPERIENCED BEFORE THE SOLAR DRYER CENTRES WERE ACTIVE

NAME OF ACTOR	VSLA	VALUE CHAIN ENGAGED IN	LOSSES IN KGS	LOSSES IN MONETARY (UGX)
Bwabwe Muhammad	Sugu Agalyawamu women group	Cassava Vegetables	300 Kgs of raw Cassava 100 Kgs of Africa Egg plants which ripened on the stalk plant	80,000 35,000
Namuli Zaina	Sugu Agalyawamu women group	Cassava	50 Kgs was lost due to decay of the roots because it had over stayed in the garden. But after she managed to dry it using the solar dryer	10,000
Fred Mbayo	Mukama Mulungi VSLA	Pumpkin farm	Half of an acre was lost because it difficult to access the pumpkin farm on regular basis to spray pests and diseases	500,000

SOCIAL & FINANCIAL IMPACTS OF THE DRYER CENTRE

Name of actor	gender	VSLA	Value chain engaged in	Amount dried in (kgs)	Value in UGX	Market opportunities gained (e.g. supply for dried product for EBAFoods)	Amount of produce used for household food	Amount paid in maintenance fee (UGX)
Fred Mbayo	Male	Mukama mulungi VSLA	Pumpkins	1,000 kgs	150,000	It was contract and 150,000 was a fee paid to the 12 members of Mukama Mulungi VSLA	The group didn't consume their cassava chips	50,000
Iren Ssemakula	Female							
Oliver Nambowa	Female							
Naggayi Margaret	Female							
Bettu Gitta	Female							
Allen Nakawese	Female							
Sarah Namitala	Female							
Nassojo Joan	Female							
Nakibuka Mariah	Female							
Anold Sembuuze	Male							
Mbaizi Gerald	Male							
Wandera Moses	Male		Cassava	150 Kgs	105,000	50 Kgs		
Nassanga Gorriet	Female	Ggera Fortune Women group	Cassava	200 kgs	105,000	150 Supplied to EBAfoods	50 Kgs	10, 500
Alibakiriza Racheal	Female		Cassava					
Namuli Zaina	Female	Sugu Agalyawamun women group	Cassava	125 Kgs	161,000	No cassava was sold to EBAFoods most of it was consumed	150 Kgs	23,000
Rwantare Sarah	Female			20 Kgs				
Najjemba Azzena	Female			20 Kgs				
Bwabwe Muhammad	Male			40 Kgs				
Nabatanzi Fatina	Female			20 Kgs				
Najjemba Nuulu	Female			5 Kgs				

YOUTH IMPACT

Youth led in fabricating and decentralising the solar dryers to the 3 VSLAs. The use of these dryers attracted a small maintenance fee of UGX100 per unit of produce dried. A total of UGX 98,500 was generated in the payment of this maintenance fee and it directly benefited the youth to enable them build socioeconomic resilience during these COVID-19 difficulties.

ADDITIONAL INCOMES GENERATED

A total of UGX 161,000 was saved by the VSLAs from being able to preserve their food, and a total of UGX 140,000 was earned from the sale of dried produce including to EBAfoods flour processors. Farmers in Africa face post-harvest losses estimated at around US\$48 billion, In Uganda EBAFOSA Uganda has engaged cassava farmers to enable them add value to this crop to reduce on PHLs through agriculture VSLAs by establishing solar drying centres have changed lives of women⁵



Figure 2 Youth at Sugu Agalyawamu Women Group inserting cassava chipped tray into a solar dryer

Video testimonial of VSLA member speaking on impact of solar dryer in enhancing their earnings & cutting losses:
<https://drive.google.com/file/d/1MP0SStpG8sXQoFCbgTkihjwA4HprLoOT/view?usp=sharing>

WHAT VALUE CHAINS ARE THEY BRINGING TO DRY; (KGS WHEN AND HOW)

In spite of these challenges faced by group members in the lock-down. VSLA groups of Mukama Mulungi VSLA managed to create an income generating activity. Restrictions to movement on citizens and residents, which resulted in food price hikes, reduced income, and growing food insecurity affected the population. VSLA groups had to think out of the box and make solar dryer centres perform while putting in place standard operating procedure of washing hands, keeping a distances and wearing masks. In addition, VSLA Committees of solar dryer, cassava EBA-garden and disciplinary committee enabled the group to stand on its fit during the COVID-19 Lockdown. ⁶

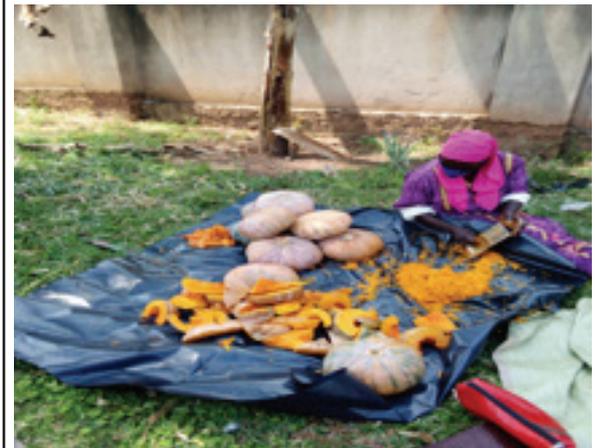
Mukama Mulungi VSLA located in Luwero district conducted contract work of drying of 1 tonne of pumpkins in the solar dryer centre, this enables the group to practice what EBAFOSA Uganda trained them before the lockdown, this worked enabled them earn 150,000 UGX and maintenance fee of 50,000 UGX to enable the dryer be in good shape.

“As a group we received training from EBAFOSA Uganda on value addition of agriculture products, during lockdown we were amused to see a farmers group of pumpkins approaching us to give them a services of chipping and drying pumpkins. This excited the group since most of the members were idle and jobless. We managed to work on the contract and we earned 150,000 as labour and 50,000 as maintenance fee.” Fred Mbayo Mukama Mulungi VSLA – Luwero district.

Sugu Agalyawamu women group managed to dry 230 kilograms of cassava chips but this was shared by the VSLA group members because of the food insecurity has faced due to high population which migrated from town to the village⁷.

“When the lockdown started members started collecting the cassava chips we had dried, most of the homes had insufficient food and limited travel to go their garden. This food acted saver against hunger” Sugu Agalyaawamu chairperson

Kilograms of Value chains dried in the solar dryer during COVID19 lockdown			
Agriculture value chain	Mukama Mulungi VSLA	Sugu Agalyawamu women group	Ggera Fortune women group
Pumpkins	1 tonne		
Cassava	150 kgs	230 kgs	kgs



Women preparing pumpkins during COVID-19 lockdown to be dried in the solar dryer



Women coming to the solar dryer centre to chip pumpkins



Women of Mukama Mulungi VSLA drying Pumpkin chips in the solar dryer



Sugu Agalyaawamu Women group dehydrating cassava chips during Covid-19 lockdown



Youth drying cassava using solar dryer during COVID-19 lockdown



WHAT WAS THE AMOUNT OF POSTHARVEST LOSSES (PHLS) THEY USED TO EXPERIENCE BEFORE - IN KGS & MONETARY.

However, generally, about 6 tonnes out of 7 tonnes are rendered unfit for consumption due to spoilage, after harvesting caused by delay of pumpkins in the garden, and storage room. This huge loss of valuable food was due to immobility of farmers to their garden during the two months' lockdown. Post-harvest loss came as a result of leaving mature pumpkins in the garden and were exposed to high and low temperatures, rainy conditions, short length of a pumpkin handle due to careless handling during harvesting, bruising and cracking. Therefore, pumpkins damaged were prone to pathological attacks like rotting and decaying.

Post handling losses experienced where mainly Economic losses, a reduction in quantities of pumpkins means a corresponding commercial loss that is evidenced as a loss of money, over 3 million were lost by the pumpkin farmers during lockdown.

However, Mukama Mulungi VSLA group came as a saver of the pumpkins and managed to save 1 tonne of pumpkins during the lockdown by drying them using solar dryer

STAGES	AMOUNT BROUGHT AT DRYING CENTRE
Pumpkins lost during Harvesting due to decay.	800kgs
Pumpkins left in the garden	300kgs
Pumpkins rot in storage due to poor storage,	3000kgs
Kilograms losses during drying	1900kgs
Final kilograms got after drying	1000 kgs
Total	7000 kgs

CHALLENGES FACED BY VSLA GROUP DURING LOCKDOWN

- ▶ Women lacked money /capital to buy cassava to be dried in the solar dryers, this led to a standstill of this activities at Ggera Fortune Women group. Usually when members don't have cassava to dry in the solar dryer from their gardens. Ggera VSLA mobilizes funds usually mobilizes UGX 1,000 every Wednesday to purchase cassava. But during the lockdown women communicated to their chairperon that they no longer have money to contribute for this activity because they don't have any income and they no longer work. Despite the fact that the 7 women who used to work on cassava didn't have money two women continued using / bring cassava to the solar dryer centre, where over 200 kilograms was dried.
"As VSLA group leader I couldn't leave the solar dryer empty I continued drying cassava on the individual basis during COVID-19 Lockdown ". Gorriet Nassanaga – Ggera Fortune VSLA chairperson
- ▶ Dry spell led to harsh conditions which prevented farmers from conducting agricultural activities yet they were idle at their homes during the lockdown. Women at Sugu Agalyaawamu Women group couldn't continue planting due to hard soil, hot sunshine
- ▶ Fear in the community to meet due to the COVID-19 virus. The community still has fear to conduct income generating activities even if they have masks due to the presence of virus. Many think that the virus is still available in their community.

- ▶ Some members stopped saving on weekly basis because they lacked sources of income and market for their agricultural products.

“Members were saving UGX 20,000 on a weekly basis, due to COVID-19 negative effects, over 80% of the VSLA group members saved less than UGX 10,000 weekly. This has affected our performance as a group because right now we stopped members from borrowing and loan defaulters are on a run”
Sugu Women group chairperson.

COPING STRATEGIES AND OPPORTUNITIES OF VSLA DURING COVID-19 LOCKDOWN

The availability of the solar dryer centres offered the VSLAs members a significant reprieve as they were able to dry the little harvest they had and fetch markets for it. Specific impacts were as follows:

- ▶ Sell of cassava chips to Eba Foods by the VSLA groups this enable them receive an income to enable them increase their saving. Ggera Fortune Women group managed to sell 200kgs of cassava chips to Eba FOODs. The group was paid UGX 140,000 and this enabled the members to save this income during the lockdown.
- ▶ Contract to dry pumpkins. Mukama Mulungi VSLA was contracted to dry pumpkins which help them have an income during COVID-19 lockdown. 8 women and 4 men worked on this work and they accessed the solar dryer. This group was contracted by an informal group of Kalungu Pumpkin Farmers group during COVID-19 lockdown, the group got this contract because it had acquired pumpkin value addition training from UNEP-EBAFOSA before the lockdown⁸.
- ▶ Nsonga VSLA managed to plant 2 acres of ground nuts which is going to be intercropped with cassava from their cassava EBA garden.
- ▶ Increased dependency on aid from families and friends through donation of food and income.
- ▶ Family took a loan from a money from the VSLA groups to meet basic needs. Sugu Agalyawamu women group, 5 women borrowed 50kgs the cassava chips they had dried as group to enable them pass through lockdown.

HOW UNEP-EBAFOSA SUPPORTED RECOVERY OF THE VSLA GROUP FROM COVID-19

- ▶ Presence of the solar dryer centres were critical and ensured income generated of up to UGX 280,000 arising from sale of dried produce. In addition, household food security was ensured with up to 380 Kgs of produce made available for household food security.
- ▶ Use mobile money to save and avoid regular sitting of the VSLA group members.
- ▶ VSLAs with bank accounts are being encouraged to use mobile money to save and access their savings
- ▶ Use mobile messaging to communicate Loan repayments and use WhatsApp to communicate
- ▶ Members to continue saving but at least borrow them on welfare money not saving and also give members their Social Security
- ▶ Constant monitoring of VSLA group members on mobile phones.
- ▶ Youth were able to generate 170,000 UGX and this resulted in building their resilience during this COVID-19 lockdown

CONCLUSION

The climate action solutions of solar dryers delivered through communal centres proved to be very timely climate action solutions that enabled communities to minimise the socioeconomic damage of the COVID-19. A total of 22 households, cutting across 3 VSLAs benefitted from the dryer centre by preserving their produce, gaining income from sale of dried produce, and ensuring availability of food in their households. A total of 1,000 Kgs of pumpkin chips and 580 Kgs of perishable produce valued at a total of UGX 406,000s preserved from eminent loss from the supply chain lock down where the product could no longer get to markets. In addition, the solar dryer centres generated revenue for youth engaged in their maintenance through payment of a minimum maintenance fee for every unit of produce brought to the centre. These aspects demonstrated the effectiveness of climate action solutions of solar dryers in enhancing socioeconomic resilience including during emergencies. It demonstrated the effectiveness of the approach of solar dryer centres that offer solar dryer services, as opposed to purchase, and by this enhance accessibility of these much-needed solutions.

IMPLICATIONS FOR POLICY

1. Leverage on climate action solutions that are accessible to the majority in the informal sector. These findings have demonstrated practical trajectories by which key climate resilience and development policy in Uganda can be implemented by leveraging climate action solutions that are accessible to the majority of the population, which is in the informal sector level. This is critical to enhance much needed economic inclusiveness to buffer majority of the population against emergencies that escalate socioeconomic risk like the COVID-19. The Uganda vision 2040, and its derivative the 3rd National Development Plan (NDP3), all converge around the urgency to enhance socioeconomic inclusivity and the agriculture sector is among the most critical sectors highlighted. The Uganda Nationally Determined Contributions (NDCs) set a **target** of cutting emissions by 22% while driving this much needed inclusive economic growth and agriculture is among the most critical sectors highlighted.

Through this work, a practical trajectory has been demonstrated of how these policy ideals can be actualised leveraging on actions that are accessible to the majority in the informal sector.

2. Drive NDCs implementation using synchronization of actions at the ground level to enhance policy coordination and harmonisation at the top which is crucial in formulating policies that are implementable leveraging on sectorial co-dependencies. This work has demonstrated practical means by which diverse policies can be implemented coherently to drive realisation of the social, environmental, economic dimensions of the Sustainable Development Goals (SDGs). For example, through this work, the aims of the NDCs to enhance application of clean energy & sustainable agriculture as strategic to cut emissions and enhance environmental sustainability, have been realised simultaneously with key **Climate Smart Agriculture strategy** objectives of improving agro-productivity & incomes, and realising value chain integration. Simultaneously realised also are the **national adaptation plan for agriculture** objectives of enhancing agro-processing & cutting postharvest losses (PHLs) among key ones. Trade policy aims through the Uganda National Bureau of Standards (UNBS) of ensuring food safety have been achieved through the solar dryers dehydrating food to threshold

levels stipulated in standards benchmarks as key to prevent mold, yeast, aflatoxins among key mycotoxins. The NDP3 aims for driving inclusive economic opportunities, including for the youth, through the agriculture sector, have also been actioned through this work. This synchronization at the ground/implementation level is critical to enhance policy coordination and harmonisation at the top which is crucial in formulating policies that are implementable leveraging n sectorial co-dependencies that are unavoidable.

3. Going forward, **targeted policy incentives, informed by data on socioeconomic successes of applying these climate action solutions are crucial to catalyse more impacts.** Examples of these incentives include targeted tax breaks for young people engaged in the fabrication and decentralisation of these climate action solutions of solar dryers to enable them get tax holidays in the formative years of their enterprises so they can accumulate revenues, build capital and stringer foundation for long term operations. Another set of targeted incentives can focus on providing tax waivers on key spare parts and components needed in the fabrication of the solar dryers to significantly lower the cost of production.
4. **Leverage cooperatives as innovative financing conduits to deliver NDCs implementation and have them prioritize investing what they pool into actions that generate more.** Development budgets at local level can be impactful in bringing development to scale if part of them is administered through cooperatives. In this way co-operatives will be premised as the anchors for traceability & accountability for development at the ground level. And the instruments to use can for example be- cash deposits, which are given to cooperatives that act as security and targeted at members willing to acquire value addition solutions. The cash guarantee, which is drawn from local taxes is used to cover in case some members default to ensure cooperatives do not go out of business.

The key policy angle of local taxes/revenue used for cash guarantees is that it must be targeted at enabling these people of same mindsets, to get the capital assets for value addition. So cooperatives that can pass the test of time are those that are formulated on people working to deliver solutions to shared challenges but in a climate action enterprising approach should be leverage. Members to benefit from these are trained on the value addition using climate action solutions and they must work together in solutions process to lower risks of failure which only increase where people work in silos. This model is then used as case study to further teach future administrators and councillors to ensure this culture of saving and co-operating for solutions become the norm and not the exception

5. **Leverage ground level climate action innovations empirical data and knowledge to inform youth job creation.** With this, youth can start fabricating these accessible climate action solutions of solar dryers, and hence create enterprise opportunities for many.

ANNEX

List of VSLAs group members

https://docs.google.com/document/d/1SyZlxMYYx_kNpf1hG2LKfAX23K6JRsze/edit?usp=sharing&oid=101411984631064665927&rtpof=true&sd=true

<https://docs.google.com/spreadsheets/d/1JalG3hJbCaqi45aGSMHga59Kb0sCrWkg/edit?usp=sharing&oid=101411984631064665927&rtpof=true&sd=true>

<https://docs.google.com/document/d/1uW9N3XAY-1wy4lpmVxCfZypfW14FUtml/edit?usp=sharing&oid=101411984631064665927&rtpof=true&sd=true>



info@ebafosa.org



P.O Box 30552 00100
Nairobi
Kenya

WWW.EBAFOSA.ORG