

WEALTH CREATION FOR PIGEON PEA SMALLHOLDER FARMERS IN MALAWI

Malonda biannual project report

July 2021 – December 2021





1. Executive Summary

The Malonda project is targeting 3361 pigeon peas farming households with an aim of reducing income poverty through creating sustainable market and financing mechanism for the production of pigeon peas.

The project will create sustainable markets through:

- 1) Conducting Market intelligence to identify and securing access to international markets alternative to and including India.
- 2) Creating and strengthening domestic markets by increasing local consumption through
 - (a) Developing pigeon peas nutrition recipes
 - (b) Production of Fish and Livestock feed, using pigeon peas as a raw material
 - (c) Advocacy with Malawi Government to prioritize pigeon peas in Government institutions such as Prisons, Schools and Hospitals.

The project is also establishing Village Savings and Loans Associations (VCSA) and providing access to seed capital to enable businesses growth, access modern farm inputs and cushion them financially in between seasons.

During the reporting period,

- the project conducted a stakeholder which brought together pigeon pea value chain market actors to collectively discuss on the strategies on how the program of buying pigeon pea will be conducted based on already available market in India to ensure that smallholder farmers have access to the market.
- The project has also taken an active use of its SMS information system to ensure farmers are constantly being updated on technical knowledge on pigeon peas production considering late rains in Malawi to ensure high yield.
- Two warehouses have also been built in Balaka and Machinga districts with support from the project which will promote aggregation of the pigeon peas and encourage farmers to sell pigeon pea when prices are high hence increase revenues earned from the commodity.
- The project has also procured and installed a pellet making machine for Khamalathu Cooperative to process pigeon peas into animal feed and a Ddhal making machine has landed in Malawi ready to be installed in next quarter.
- To complement pigeon peas production, farmers have engaged in livestock production in which 7 cooperatives have either built kraals or secured land.
- Market Assessment of Dhal is still underway in Malonda Project districts However feedback has shown a demand for dhal and 0.15 tonnes has been distributed to local outlets to increase consumption and aid in growing the market pigeon peas.
- The project had recruited Umodzi Consulting to conduct review of governance of NFAM so that it can perform effectively and efficiency to satisfy its stakeholders.
- Loans amounting to £12,531 have been disbursed and 48.65% of the loans disbursed so far have been recovered.
- Monitoring and business advisory services were conducted to 109 VSLAs during the reporting period.

IMPROVING PIGEON PEA STORAGE AND INCREASING INCOME



Caption: Post- harvest training

The Malonda Project promotes reduction of post-harvest losses through use of Purdue Improved Crops Storage (PICS) bags. NFAM organised a Refresher Training on Post-Harvest handling and orientation on the use of PICS bags. 115 farmers attended the training.

Grain storage can be a risk to farmers especially in rural areas.

Loss of agriculture produce is a challenge to the farmers. Moisture, pests and temperature are all significant threats to stored grains and to food security. However grain losses can be prevented with the simple and effective technology of PICS bags.

Mr Osman from Mpapa said that:

“PICS bags keep insects out. After we fill the bags with harvested grains, the bags are tied so tightly that no air penetrates. Without new oxygen flow through the bag, the insects inside the bag die and bag prevents new insects from entering. The bags are very economical for to us farmers which cost around £1.16 per bag. Even though it is more expensive than traditional bags we can use them for two to four years as long as they don't have holes and we don't buy chemicals to apply to our gains hence saves us a lot money that we can use for other priority areas of my household”.

PICS bags remove the pressure on farmers to sell their produce quickly and therefore enables famers to wait for favourable market conditions.

Mr Chamveka from Khamalathu said that the

“PICS bags innovation will help us to keep our crops and be able to sell them at our convenient time. This will potentially protect us farmers against food insecurity post-harvest and increasing income potential, we are really thankful for the Malonda Project as we now earn more from pigeon peas. We do store pigeon peas until the rainy season in order to fetch a better price but unfortunately by this time the majority of pigeon peas are discoloured and fetch low prices. The PICS will help us to solve this challenge”

NFAM have been distributing PICS bag to all cooperatives under the Malonda Project. The PICS bags are very practical to farmers as they can open them for consumption or sell at a favourable future time. The PICS bags have the capacity to hold 50 to 100 kilograms of pigeon pea or grain and are portable enough for farmers.

2. Project Progress

Outcome 1: To strengthen linkages among value chain actors to increase and sustain access to both local and international markets and enhance equity.

There is notable progress being made under outcome 1 where most of the indicators have been exceeded as indicated in **Table 2.1**. Below details the progress of activities conducted during the reporting period under outcome 1.

Table 2.1: Indicator Table for Outcome 1 for project achievement to date and for reporting period

	Indicator	Project Target	Achievement to date	Completion Rate	Jul-Dec 2021 Achievement
1.1	Number of cooperatives who have established linkages with commercial market organizations/buyers	21	21	100.0%	21
1.2	Number of platforms meetings conducted	3	1	33%	1
1.3	Number of cooperatives trained in value addition	21	21	100%	0
1.4	Number of cooperatives producing feed	17	0	0%	0
1.5	Volume of feed manufactured (tons)	30	70	233.3%	30
1.6	Value of feed manufactured and (MWK)	22,000,000	31,000,000	140.9%	9,000,000
1.7	Number of pigeon peas recipes popularized	NA	13/17	100.0%	1

Activity 1.1: Mobilising pigeon peas farmers into processing.

In a drive to process pigeon peas, the association piloted with Khamalathu Cooperative one strong cooperative in Machinga District. The project procured the Dhal processing machine from India which has since arrived awaiting installation and electrification of Khamalathu building. It is estimated that Khamalathu will be processing about 500kgs in a day and indirectly support over 600 farmers in TA Chikweo, Machinga. The machine is expected to be functional during the 2022 season. The link below is the cost-benefit analysis of Khamalathu as calculated by NFAM.¹

Activity 1.2: Establish linkages to market information systems for 15 cooperatives to access timely and appropriate market price information for pigeon peas.

NFAM continues to use bulk SMS messaging to send market information to 972 farmers under the Malonda Project. Farmers are regularly informed on project activities and updates via mobile phones. Technical information is also sent to farmers' providing training and support for good agricultural practise.

¹ Cost Benefit Analysis Appendix 1

Table 2.3: Bulk messages summary

Nandolo Farmers Association of Malawi (NFAM)					
Bulk Messages Summary for Malonda Project					
District	Number of Farmers with	Gender		# of times sending of Messages	Total number of messages
		Male	Female		
Balaka	571.00	218.00	353.00	2.00	1,142.00
Mwanza	193.00	105.00	88.00	2.00	386.00
Machinga	208.00	69.00	139.00	2.00	416.00
Total	972.00	392.00	580.00		1,944.00

Activity 1.3: Facilitate Development of pigeon peas nutrition recipes.

The project has successfully promoted pigeon pea recipes through exhibitions at Malawi Sun Hotel with various stakeholders within the pigeon peas sector and various hotel patrons. It received overwhelming support from almost everyone and recommendations were given on the need to have the recipe book that can engage a wider audience. The raw recipe book have been translated in to Chichewa to increase local consumption of pigeon peas foods. NFAM plans to launch the book in March/April in Lilongwe.

Activity 1.4: Procure and install feed making machine (pilot the production of industrial animal feed such as fish, chicken and pig feed).

The Khamalathu Cooperative has started construction of a fishpond for fish farming which will be completed very soon. Mpapa Cooperative has also secured a dam for fish production. The project also is installing solar powered water supply to facilitate access to clean water for fish farming at Khamalathu cooperative which is currently at 80% completion. Four cooperatives are engaging livestock production (pig farming). All 21 cooperatives are interested in livestock production and 9 cooperatives have built housing already.



Picture 1: Pellet machine after installation.

A pellet making machine was procured and installed at the Khamalathu Cooperative. The machine will process 120 – 180 kgs of animal feed per hour. Due to unavailability of electricity connection at this cooperative, 20 horsepower diesel engine was brought as alternative power source. The construction for water installation for fishpond is almost 80% complete which will make Khamalathu as learning centre for other cooperatives in term of fish farming and animal feed. Upon successful implementation, the results will be replicated to other cooperatives. 9 cooperatives have managed to build houses which ranges from pig to poultry production which will promote animal feed hence creating market for pigeon peas. Mpapa cooperative is also expected to engage in fish farming as dam site have been identified.

Activity 1.5: Capacitate Strategic alliances (platforms) for pigeon peas value chain actors to lobby and advocate for conducive Business Economic Environment

NFAM continued attending DAEECC meetings in Balaka, Mwanza and Machinga districts for awareness on project progress and to collaborate with partners to ensure pigeon pea farmers have access to profitable markets. One cooperative namely Mazimboko has received first phase Agcom Grant whereby

NFAM was signed through Nandolo Trading Company being its Off taker. Agcom grant will support the Association's members to successfully build their capacity for increased productivity as well as marketing through access to inputs, infrastructure development and promotion of value addition.

The project also conducted the stakeholder meeting to review the 2021 market season including the agreement with India which Malawi Government signed. Find the link for the report.

Activity 1.6: Construct warehouses for cooperatives to promote primary aggregation



Picture 2: Warehouse at Namibawa in Balaka



Picture 3: Warehouse at Mpandazi in Mwanza

Two warehouses have been built in Balaka and Machinga districts that will promote aggregation and encourage collective marketing. This is one way of helping farmers to keep their produce until the market is favourable. The warehouse at Nkhonde cooperative has been completed at the time of reporting while that of Khamalathu was due for completion in August.



Picture 4: Warehouse at Nkhonde Cooperative



Picture 5: Warehouse at Khamalathu Cooperative.

Activity 1.6: Test local market for processed pigeon peas (Dhal)

The project continued to assess marketing performance of dhal on the local market by analyzing response of the product and strategically plan for future sales. The 1 ton of dhal was bought at MK900 per kg from the processor. The selling price of each kilogram is at MK1,200 which is below other competing brands who sell within the ranges of MK1,300 to MK1,500 in the mega supermarkets like Chipuku Supermarket and Sana Supermarkets. The dhal was packed into 25kg, 1kg and 500g packs to suite all buyers ranging from wholesalers and retailers. This was one of strategy to penetrate the market by lowering the price to attract target customers considering that it is new brand on the market. Below is the profit and loss account for the association under the reported period.

Table 2.4: Profit and Loss account for Marketing of dhal

NANDOLO FARMERS ASSOCIATION OF MALAWI (NFAM)			
INCOME STATEMENT FOR MARKET ASSESSMENT OF DHAL			
Description	Quantity	Unit Price (MK/Kg)	Total
Revenues			
Selling of Processed Pigeon Pea Dhal	1000	1200	1,200,000.00
Sub Total Revenues			1,200,000.00
Cost of Goods Sold			
Purchase of Dhal from HMS	1000	900	900,000.00
Sub Total Cost of Goods Sold			900,000.00
Gross Profit			300,000.00
Operation Expenses			
Labor	3	4000	12,000.00
Electricity	1	2000	5,000.00
Packaging	2000	17	34,000.00
Distribution Cost	2000	30	34,000.00
Sub Total Operation Expenses			85,000.00
Net Profit			215,000.00

The Table 2.4 shows that the selling price of dhal is being sold MK1, 200.00 per kg, a total MK1, 200,000.00 is expected to be realized as sales from an investment of about MK985, 000.00 giving NFAM a profit of MK215, 000.00 representing 22% profit rate. This demonstrates that venturing into processing and selling dhal has potential for profit realization for farmers to increase their income. Last quarter, NFAM managed to sell 0.7 tons via bulk selling and MK684, 000.00 was realized as sales. From this reporting quarter, 0.2 tons have been sold via local outlets in Malonda Project districts and MK280, 000.00 as revenue and total of MK964, 000.00 have been achieved so far from this assessment.

EDUCATION MADE POSSIBLE WITH PIGEON PEAS



Rose Lovani is a married 48 year old with three children. She is a smallholder farmer growing pigeon peas and rearing goats and is a member of the Malonda, Tikondane cooperative in Chotseni village.

“In past I used to harvested a low yield of pigeon peas because we were always exploited by vendors offering low prices which discouraged me from growing more, but when I joined the cooperative, I was privilege to learn the benefits of pigeon peas and how we can make more profits by selling together as a group”.

“This encouraged me to grow pigeon peas at a much larger scale by renting more land and I managed to harvest 48 bags (2400 kgs) last season. I sold 45 bags (2250 Kgs) and kept 3 for food and seed for next season. I earnt £565 which was huge for me. This money has helped me so much; I paid school fees for my son who was studying at Lilongwe Technical College which has

been a great challenge for me in past and was often sent home because I was unable to pay school fees”.

“I also procured four bags of fertilizer for my maize as I was relying on subsidy program which is very unpredictable. Lastly, I purchased 5 goats (one male and four females) which I am raising now and am very optimistic about the income from breeding”.

Mrs Lovani said that she is living an independent life because of pigeon peas; she plans to purchase dairy cattle next year so that she can increase earning from the sale of milk which is scarce in the area.

Caption: Mrs Rose Lovani tying up her goats for feeding which were brought from pigeon pea sales.



Outcome 2: To facilitate access to sustainable financial services and financial literacy

Activity 2.1: Facilitation of formation of Village Savings and Loans Associations (VSLAs).

Cumulatively the project has formed 216 Village Saving and Loans Associations comprising of 2624 farming households with 1,773 being females and 851 being males.

Activity 2.2: Training VSLA in Business skills financial literacy and VSLAs Methodologies.

Through work with ADAF, cumulatively 2,624 Pigeon peas farmers (1,773 F:851M) have developed entrepreneurial and financial literacy skills with 1357(405M:952F) being trained this reporting period. Among the trained farmers, 31 direct beneficiaries are persons with disabilities. No new training was conducted this period. Below is the current status which hasn't changed as previously reported.

Table 25: Members who have so far been trained in business management and have accessed loans as of June 2021

DISTRICT	COOPERATIVE	TRAINED BUSINESS MANAGEMENT	IN MEMBERS ACCESSED LOANS	TOTAL LOANS ACCESSED (MWK)	PROPORTION ACCESSED LOANS (%)
MACHINGA	Chikala	209	194	9,430,000	92.8
	Sub-total	509	194	9,430,000	92.8
	NKhonde	117	99	4,700,000	85.2
	Talandira	113	47	4,580,000	41.6
BALAKA	Nsamala	361	304	14,800,000	84.2
	Phalula	138	89	4,435,000	64.0
	Bazare	556	331	16,240,000	59.5
	Sawali	177	57	2,290,000	32.2
	Utale	298	200	9,910,000	69.2
	Sub-total	1760	1127	56,955,000	64.0
MWANZA	Khudze	22	21	1,030,000	95.5
	Lipongwe	29	26	1,270,000	89.7
	Kunenekude	32	23	1,150,000	71.9
	Mwanza	24	23	1,150,000	95.8
	Mpamadzi	77	67	3,260,000	87.0
	Mazimboko	145	119	5,870,000	82.1
	Sub-total	329	279	13,730,000	84.8
	Total	2,479	1600	80,115,000	64.5

Activity 2.3: Provide VSL Interest-free loans

During the reporting period, a total of £12,531 was disbursed. Cumulatively, a total amount disbursed to date is £100,140 to **2170** pigeon peas farmers (1,324F,531M). Following the training, all the trained VSLA members have developed business plans, of which cumulative 2170 have been financed. Below is the summary of loans account:

Summary of the Loans Account					
	PP Farmers	Amount GBP			
		Disbursement	Repayment	Balance	
Total Loans Recipients- Cohort 1 (N)	1,093	£56,637	£56,637	£0	
Total Loans Recipients- Cohort 2 (N)	762	£30,972	£30,472	£500	
Total Loans Recipients- Cohort 3 (N)	13	£684	£171	£513	
Total Loans Recipients- Cohort 4 (N)	302	£11,847	£2,962	£8,885	
Pending disbursement (N)	454	£25,919			
Total Trained (N)	2,624	£100,140	£90,242	£9,898	

Activity 2.4: Provide technical support and monitoring of VSLAs including capacity building to provide affordable financing to members

The monitoring visits also focused on performance of VSLAs. Areas examined included share contribution, loan circulation, and frequency of borrowing/participation. Some of the outstanding findings include:

- Second cycle savings portfolio, from 34 VSLAs monitored stands at GBP3,719. First Cycle VSLA Savings Portfolio stands at GBP18,500, data collected from 100 VSLAs with average individual share of GBP24.3.
- Khudze Cooperative has shared out their first cycle savings amounting to GBP1,471.95 with 18 members. Mazimboko club has shared out GBP1,061.64 in their second cycle.
- **Business activity.** 19 Case Studies have been collected in this quarter bringing to a total of 190 case studies.

BUILDING A HOME WITH PIGEON PEAS

Eneless Byson is 34 and her and her husband have four children. She is a smallholder farmer growing pigeon peas in Mowele Village and a member of the Chamira Cooperative in 2017. She joined the cooperative because she was failing to pay fees for her children and food each year their food became increasingly scarce.



“This season I harvested 18 bags which were sold at MK350 per kg I earned £319 from pigeon peas, which was so overwhelming for me and family. This happened because of capacity building by Nandolo Farmers Association. I managed to build an iron sheet house. I also paid school fees for my secondary school son who is studying at Chipoka Secondary School in Salima. The remaining funds, I brought a bicycle for our family. Me and my husband, we are happy people having realized our long dream of having an iron roofed house, we are glad that even at our young age we have managed to achieve this and we know that we have made history because of pigeon pea farming.”



Mrs Byson is very optimistic that next season, she will do far better as NFAM have provided them with high quality seed. She is also planning to buy a motor cycle that will be used for business so that it can bring daily revenue in the household. Mrs Byson is so thankful for NFAM and Christian Aid for supporting farmers like her.

Caption: Mrs Byson and her husband with their house built from pigeon pea sales.

3. Project Plan for the next 6 months

RESULT	PLANNED ACTIVITIES
<p>To strengthen linkages among value chain actors to increase and sustain access to local and international markets and enhance equity</p>	<ol style="list-style-type: none"> 1. Procurement of two smaller pellet making machine. 2. Finalization of installation of water system for fish farming at Khamalathu and Namibawa. 3. Construction of three warehouses. 4. Launching of Nandolo feed and Recipes Book. 5. Procurement of Pics bags 6. Training in production of Fish/livestock feed 7. Facilitate production of pigeon peas recipes (Support at least 10 VSLAs to commercially uptake pigeon peas recipes).
<p>To facilitate access to sustainable financial services and financial literacy</p>	<ol style="list-style-type: none"> 1. Training the remaining 737 beneficiaries. 2. Loan disbursement to 454 trained beneficiaries with total amount of MK22,700,000 3. On-going periodic monitoring to all VSLAs and also provide business advisory services to beneficiaries 4. 3 monitoring visits per month is scheduled with average of 20 VSLAs per Monitoring visit.

LIVES TRANSFORMED THROUGH PIGEON PEAS



*Caption:
Mr Laston
Banda
with his
motorcycle
purchased
through
pigeon
pea sales.*

Laston Banda is married with three children. According to Mr Banda, life was difficult before coming going the Malonda project which promoted the production of the hybrid *Mwaiwathu Alimi* variety or pigeon peas as well as teaching new agronomic practices.

“for a long time I have been harvesting only two 50kg bags of pigeon peas from my 1.5 acres of land which was only ever enough to feed my family. I could only dream of having food security, and a happy family where our children are supported as they go to school.

Mr Banda, became a member of Chamira Cooperative and following training and support these by Nandolo Association in the 2019/20 season he harvested 10 bags. He managed to earn £150 which he kept for next season. In 2020/21 season he harvested 12 bags and earned £190, which with his previous years savings he managed to buy motorcycle to use to increase income. His son now runs the motorcycle business bring in almost £8 per week.

Mr Banda says

“Pigeon peas are an underestimated crop among farmers, they have transformed my life”.