



Production & Delivery of Early Generation & Certified Seed for Improved Livelihoods of Smallholders in Farming Communities in Malawi

FINAL NARRATIVE REPORT

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1.0 Introduction

Multi Seeds Company Limited (MUSECO) is a Malawian company whose core business is the production, distribution and marketing of high-quality basic and certified seed such as Groundnut, Soybean, Beans, Pigeonpea, Cowpea, Maize, Rice and Sorghum for use by farmers in Malawi and beyond.

MUSECO implemented the two-year “***Production and delivery of early generation and certified seed for improved livelihoods of smallholders in the farming communities in Malawi***” project.

The project aimed to increase the availability and accessibility of high-quality basic and certified seed for soybean, groundnut, beans, pigeonpea and cowpea among smallholder and commercial farmers, and embraced Public Private Partnerships (PPP) between the Department of Agricultural Research Services (DARS) and Multi Seeds Company Limited (MUSECO) for the joint delivery of early generation seed (EGS) to the seed sector.

The community seed production groups were connected to the seed companies and served as outlets for certified seeds to reach farmers through the agro-dealers.

2.0 Goal, Objectives, and Outcomes

2.1 Goal

The project aims at increasing the uptake of high-quality seed of improved legume varieties for improved income and resilience to climate change effects in the SAPP districts.

2.2 Overall Objective

To increase the availability and accessibility of high-quality seed for soybean, groundnut, beans, pigeonpea and cowpea among smallholder and commercial farmers.

2.3 Specific Objectives

Objective 1: To improve availability of high-quality breeder, EGS (pre-basic and basic seed) and certified seed for groundnut, soybean, beans, pigeonpea and cowpea for the farming communities.

Objective 2: To improve the capacity of DARS, MUSECO, service providers, other seed.

companies and community certified seed producer groups engaged in seed production, handling and distribution.

Objective 3: To create awareness amongst smallholder farmers, private traders (Agro-dealers and Seed Companies) and Non-Governmental Organizations on the importance of using high quality seed of improved varieties and appropriate agronomic practices.

Outcome 1: Improved availability of high-quality breeder, pre-basic, basic seed and certified seed for groundnut, soybean, beans, pigeonpea and cowpea for the farming communities.

Key Output targets:

- 21MT of breeder legume seed produced by DARS for MUSECO (8MT for groundnut, 6MT for soybean, 4MT for beans, 1.5MT for pigeonpea and 1.5MT for cowpea).
- 31MT of pre-basic seed produced by MUSECO (12MT for groundnut, 8MT for soybean, 6MT for beans, 3MT for pigeonpea and 2MT for cowpea).
- 54MT of basic seed produced by MUSECO (20MT for groundnut, 18MT for soybean, 10MT for beans, 4MT for pigeonpea and 2MT for cowpea).

- 500MT of certified legume seed produced by community certified seed grower groups, individuals and private seed companies (170MT for groundnut, 170MT for soybean, 130MT for beans, 15MT for pigeonpea and 15MT for cowpea).

Outcome 2: Improved capacity of DARS, MUSECO, service providers, other seed companies and community certified seed producer groups in seed production, handling and distribution.

Key Output Targets

- 310 community certified seed growers from SAPP target districts, individuals, DARS, MUSECO, other service providers' and companies' staff trained in seed production, post-harvest handling, transportation, and entrepreneurship.
- 21MT of breeder legume seed accessed by MUSECO from DARS.
- 31MT of pre-basic legume seed produced by MUSECO and accessed by basic seed out growers.
- 54MT of EGS produced by MUSECO and distributed to SAPP program, farmers belonging to the community certified seed grower groups, individuals, NGOs and other seed companies.
- 500MT certified seed produced by the community certified seed grower groups off taken, processed by MUSECO.
- 6 Community certified seed producer groups linked with commercial seed companies.

Outcome 3: Increased awareness of farmers on the advantages of using high quality seed of improved varieties and appropriate agronomic practices.

Key Output Targets

Awareness created through:

- Mounting of 20 demonstrations (10 by MUSECO and 10 by DARS).
- Conducting 10 field days, (6 by MUSECO and 4 by DARS).
- Attending/organizing 6 agricultural shows/fairs (3 by DARS and 3 by MUSECO).
- Conducting 1 roadshow by MUSECO, DARS.

Planned activities carried out during the project period

- Identification and engagement of partners.
- Identification and engagement of seed out growers.
- Training of seed out growers, community seed growers, farmers, MUSECO staff and extension staff in seed production, agronomic practices, handling, storage, packaging, transportation, and entrepreneurship in seed production, agronomic practices, handling, storage, packaging, transportation, and entrepreneurship.
- Inspection and supervision of seed multiplication fields and storage facilities.
- Acquire seed from partners and MUSECO seed out growers.
- Produce seed.
- Process, package and distribute seed.
- Mounting of demonstrations.
- Conduct and attend field days and roadshows.
- Linking community certified seed producer groups with commercial seed companies.

- Participate in agricultural fairs and technical meetings.
- Disseminate information through mass media.
- Get involved in M&E and Knowledge management activities.
- Produce instructional videos.
- Production of radio and television programs.

3.0 Target Project Areas

The primary target districts were Lilongwe and Nkhotakota. The secondary target districts were Blantyre, Chiradzulu, Balaka and Chitipa. The target crops were soyabean, beans, groundnut, pigeonpea and cowpea.

4.0 Achievements

4.1 Engagement of Partners

Eight partners were identified and engaged over the project period (Table 1). These partners contributed towards the implementation of the project since each one had a role. For example: If seed is not inspected and certified by Seed Services Unit (SSU) then it is not seed; DARS could not supply all the required breeder seed, hence, MUSECO accessed some breeder seed from other partners such as ICRISAT, IITA and CIAT. RUMARK trained agro-dealers and were strategic when it came to identification of reliable agro-dealers to be engaged in retailing MUSECO seed to farmers across the country; RUMARK also promoted MUSECO seed by mounting demonstrations.

Table 1: Partners and area of partnership

Partner organization	Area of partnership
The Department of Agricultural Research Services (DARS)	<ul style="list-style-type: none"> – Joint IFAD proposal development and agreed to pass on breeder seed for the five target crops to MUSECO – Seed certification is done by Seed Services Unit (SSU) – Train farmers and members of staff – Host demonstrations
Sustainable Agriculture Production Program (SAPP)	<ul style="list-style-type: none"> – The sub-grant was provided to support SAPP on the aspect of seed.
Department of Crop Development (DCD)	<ul style="list-style-type: none"> – Identified community seed multiplier groups – Supervised and inspected community seed producers
Department of Agricultural Extension Services (DAES)	<ul style="list-style-type: none"> – Managed community groups – Organized field days for community demonstrations MUSECO – Provided technical backstopping and extension services
CIAT	<ul style="list-style-type: none"> – Provided additional Breeder seed for beans
IITA	<ul style="list-style-type: none"> – Provided additional Breeder seed for soybean

Partner organization	Area of partnership
ICRISAT	– Provided additional Breeder seed for groundnut and pigeonpea
RUMARK	– Identified Agro-dealers and Village Based Agents – Trained Agro-dealers and Village Based Agents – Mounted demonstrations

4.2 Engagement of seed out growers and community seed multipliers

Applications for seed out growers were called for each year through digital platforms and newspapers, the response by farmers was good and MUSECO engaged a total of 231 seed out growers, with a minimum of five hectares required for seed multiplication in the 2018/2019 production season and 2019/2020 production season (Table 2).

Table 2: Number of out growers engaged and area cropped

Class of seed under production	MUSECO Out growers segregated by gender			Area (ha)
	Males	Females	Total	
Pre-Basic	3	4	7	267.11
Basic	48	31	79	1,195
Certified	88	57	145	1,645.6
Total	139	92	231	3,107.71

Community seed multipliers were also engaged. MUSECO personnel visited each of the target districts and discussed on the terms and conditions for MUSECOs seed multiplication, and the crops to be grown in order for farmers to realize maximum benefit from the contract. Over the project period, a total of 101 farmer groups were engaged in seed multiplication, 65 groups with a total of 705 farmers in the 2018/2019 production season and 36 groups with 305 farmers in the 2019/2020 production season. Therefore, the total number of smallholder farmers engaged over the project period was 1,010.

All smallholder farmers from community seed multiplying groups that were engaged in seed multiplication groups were beneficiaries of SAPP. In the first year, 70% of the contracted farmers were supplied with seed by SAPP, while the remaining 30% were weaned farmers from SAPP. The weaned farmers accessed seed from MUSECO on loan. In the following year, 80% of the contracted smallholder farmers were weaned farmers that got seed on loan from MUSECO. The connection of the smallholder farmers to MUSECO was a game changer since the farmers had a ready market to sell their seed after harvest. Before the engagement with MUSECO, farmers had challenges with finding a market for their seed. Hence, they ended up selling certified seed as grain to vendors.

Inspection and supervision of farmer fields

The quality of seed produced by seed multipliers was assured through extensive inspections carried out on farmer fields. All farmer fields of contracted farmers were inspected by Seed Services Unit, MUSECO field inspectors and para-seed inspectors at district/Extension Planning Area (EPA) level. Hence, all seed multiplication fields for the 231 seed out growers and 1,010 smallholder farmers that were engaged in seed multiplication were inspected and supervised. The inspection and advise given during supervisory trips improved the knowledge and skills of the farmers and as a result, quality seed was obtained. Farmers too benefited from the improved productivity and low rates of rejection from

around 20% to below 10% of fields due to the technical backstopping. In the end farmers had better incomes than ever before.

Seed acquired from seed partners and seed multipliers

When the project was starting, it did not begin from zero as there was seed that had been produced by partners and MUSECO seed out growers in the 2017/2018 season. This seed was required for the production of seed for subsequent classes in the 2018/2019 season. The seed was acquired from DARS, IITA, CIAT and ICRISAT comprising 1.15MT of breeder seed, 26.709MT of pre-basic and 544.714MT of basic seed. Table 3 shows the breakdown of seed quantity supplied by partners and seed out growers.

Table 3: Seed acquired in 2018

Source	Class of Seed	Quantity
CIAT	Breeder	0.050
IITA	Breeder	1.100
DARS	Pre-basic	2.250
DARS	Basic	0.750
ICRISAT	Basic	1.000
Out growers	Pre-basic	24.459
Out growers	Basic	542.964
	Total	572.574

4.3 Seed produced by seed multipliers

Seed that was produced in the 2018/2019 season was as follows: 30.240MT of pre-basic seed, 358.473MT of basic seed and 169.769MT of certified seed. Table 4, shows a breakdown of the quantity of seed produced by out growers.

More basic seed was produced in anticipation of high demand for basic seed, but more than 300MT of basic seed was sold as certified seed since there was low demand for basic seed. CGIARs projects produced a lot of basic seed and as a result more companies and seed growers went to buy from the CGIARs as opposed to MUSECO, since their pricing was not for cost recovery but to meet project targets.

Table 4: Seed produced during the project period

Class of seed	Crop	Quantity (MT)
Pre-basic		30.240
	Soybean	18.956
	Groundnut	10.231
	Beans	0.511
	Pigeonpea	0.000
	Cowpea	0.542
Basic		358.473

Class of seed	Crop	Quantity (MT)
	Soybean	334.911
	Groundnut	9.755
	Beans	10.989
	Pigeonpea	2.117
	Cowpea	0.701
Certified		169.769
Total		558.482

Training seed out-growers, Community seed growers and transporters

Over the grant period, MUSECO trained a substantial number of farmers and staff in production and quality management in efforts to improve seed production, productivity and quality. A total of 212 seed out growers were trained in best field practices for seed production.



MUSECO out growers who participated in the training conducted on 3rd November 2018, at Bridge View Hotel, Lilongwe

Training of DARS, MUSECO, other service providers and companies

Twenty-three agriculture staff and three MUSECO staff were trained in seed production and quality management in efforts to improve seed production, productivity and quality of seed. Capability training on field inspections was carried out for six MUSECO staff. Three MUSECO staff members were trained in Seed Business Management. The trainings improved knowledge and skills for the extension and MUSECO staff that in turn led to improved productivity and quality of seed, as well as the management of seed business.

4.4 Processing, packaging and distribution of produced seed

All the seed that was produced was handled, processed, packaged and distributed. The distribution was conducted through direct sales to NGOs, international organizations, other companies, government projects, and individual farmers. In addition, cash sales and sales through FISP were conducted through agro-dealers and retail outlets. Seed was easily accessed by farmers through the agro-dealers since they were closest to farmers. However, some agro-dealers could not remit the funds to MUSECO after seed sales, and this was a challenge.

4.5 Linking community certified seed producer groups with commercial seed companies

Farmers from the 64 community groups with contracts with MUSECO were advised/trained on seed production, grading and sampling processes. The certified seed realized by the community seed multipliers were sold to MUSECO. The clubs were getting an average of K1.5 million but several clubs got close to three million kwacha each. The money realized by the farmers was used for buying food, paying school fees and others used the money to finish improving their houses.

The groups that were interested in selling seed locally in their communities (Village Based Agents) were trained on how to acquire the licences for seed selling from the government to enable them sell seed closer to their fellow farmers.

4.6 Farmer awareness creation through demonstrations, field days and road shows

At project commencement in 2018, all target districts proposed to establish more than one demonstration in order to showcase the seed varieties and business oriented agronomic practices advocated for by MUSECO. Thus, over the past two years, MUSECO implemented numerous demonstrations in the target districts including 13 demonstrations implemented in the 2018/19 season and 46 demonstrations in the 2019/20 season (Table 5). The demonstrations were a strong vehicle for technology transfers to farmers, including the double row system of planting for soybean and groundnut, early planting of legumes, application of fertilizer to legumes, and the demonstration of new varieties for groundnut and maize. Most farmers who witnessed and followed the demonstrations have since started using the double row system of planting groundnut and soybean. The yield gap for maize from the norm and the output from the demonstrations was quite remarkable. Farmers normally got between 2MT to 2.5MT per hectare of maize, but most demonstrations produced between 7MT and 8MT per hectare of maize. As a result, a Farmers' club at Malingunde bought 200 kg of certified seed for Manthu (MH36) having observed that Manthu produced an average of 8.333MT per hectare in the demonstration plot.

Table 5: Details of the demonstrations conducted over the project period

District	Extension Planning Area (EPA)	Location / Village	Host farmer	Contact number	Number of demonstrations
Balaka	Bazale	Nkomera	Hendreson Malambo	0888014322	1
Balaka	Mpilisi	Mpembedza	Elizabetha Nampula		1
Balaka	Mpilisi	Mpembedza	Clement Munthuwa		1
Balaka	Bazale	Mpulula 1	Ramsy Kuloya	0999185858	2
Balaka	Phalula	Kavala	Steven White	0996806588	1
Balaka	Rivirivi	Jambawe	Joyce Kulisewa	0990027343	1
Balaka	Ulongwe	Mkanongwa	Jimmy Bamusi		1
Balaka	Rivirivi	Lakalaka	Teleza Kambanga	0999042209	1

District	Extension Planning Area (EPA)	Location / Village	Host farmer	Contact number	Number of demonstrations
Balaka	Utale	Khwalala	Mwaiwala Khwalala	0999640576	1
Balaka	Utale	Mkolimbo	Chancy Paul	0995689428	1
Blantyre	LILANGWE	SAIMALA	CHRISTINA ERNEST	0992062797	1
Blantyre	Lirangwe	Ng'ombaera	Iness Jumbe	0884203501	1
Blantyre	Chipande	Chanika	Kenson Mulapula	0998931046	1
Blantyre	Chipande	Maloya	Patricia Chimera	0999279021	2
Blantyre	Kunthebwe	Magombo ngondo	Namwiyo FFS	0994998277	1
Blantyre	Ntonda	Binali	E.Somba	0999950131	1
Blantyre	Lunzu	Kamwendo	Ida Kamanje	0991386081	1
Blantyre	Ntonda	Jiya	Maxwell Bizimarc	0999052698	2
Blantyre	Ntonda	Jiya	Michael Lukambale	0997611158	1
Blantyre	Lunzu	Kumwima	Kakulusi Tembo	0882132001	1
Chiradzulu	Mombezi	Mkonga	Getrude Chikonga		1
Chiradzulu	Thumbwe	Nyambalo	Joseph Matupa	0884125474	1
Chiradzulu	Mombezi	Chingoli	Beatrice Chipapa		1
Chiradzulu	Mombezi	Jekete	CZ-DAO Office	0884317127	1
Lilongwe West	Demera	Madzonga, T/A Khongoni	Kazilala Muwanga	0993185701	1
Lilongwe East	Chitsime	Kokotani Vge, TA Kalumba	VH Kokotani	0999803705	1
Lilongwe East	Mkwinda	Chiumba Vge, TA Chadza	Grevison Mphanje	None	1
Lilongwe West	Chilaza EPA	Mzungu Vge, TA Kalolo	Foster Kambwiri	None	1
Lilongwe West	Chilaza EPA	Mzungu Vge, TA Kalolo	David Sailota	None	1
Lilongwe West	Mitundu	Champanikiza	Francis Majoni	0099621885	1
Lilongwe West	Ukwe	Ukwe	Christina Mtambo	0999375732	1
Lilongwe West	Malingunde	Bongwe	Josephy Kasiya	0888920439	1
Lilongwe West	Malingunde	Bongwe	Masautso Chingolombe	0996509193	1
Lilongwe West	Malingunde	Bongwe	Patricia Chimbakuka		1

District	Extension Planning Area (EPA)	Location / Village	Host farmer	Contact number	Number of demonstrations
Lilongwe West	Malingunde	Bongwe	Khriford Chataika		1
Lilongwe West	Mlomba	Chadika	Lesiya Sackson	0995060402	2
Lilongwe East	ChigonthiPatson Evans	ChimpandoChigonthi	Thokozani Chipela	0995926527	1
Lilongwe East	Chigonthi	Suzumile	Patson Evans	0994552127	1
Lilongwe East	Chitekwere	Chadza	Folosina Langison		1
Lilongwe East	Chitekwere	Chazama	Halale kamwendo		1
Lilongwe East	NYANJA		SELINA MILIWADI	0995832131	1
Nkhotakota	Zidyana	Chitedze	Masauko Kandikole	0881054407	1
Nkhotakota	Mphonde	Mvula	Watson Saikonde	0099158068	1
Nkhotakota	Mphonde	Kalirangwe	Louis S.Betha		1
Nkhotakota	Linga	Katengeza	Suwedi Zimba	0995531224	1
Nkhotakota	Nkhunga	Reuben	Winford Banda	0880321187	2
Nkhotakota	Nkhunga	Reuben	Lucy Mwale	0880321187	2
Nkhotakota	Nkhunga	Reuben	Paul Manjawira	0993711761	1
Nkhotakota	Nkhunga	Samalia	Yohane Manjawira	0995480101	1
Nkhotakota	Zidyana	Bango	Patson Chikondo		1
Nkhotakota	Mtosa	Jinga	Weluzani Nkhoma	0888710689	1
Nkhotakota	Mtosa	Engalande	Sandrom Msokasoka	0993714248	1
Nkhotakota	Mtosa	Engalande	Donex Chayanika	0993714248	1
					59

MUSECO also promoted new maize varieties by distributing small packs of 50g each to farmers for try outs. A total of 9,970 small packs were distributed in the target areas (Table 6).

Table 6: Number of small packs (50 g each) distributed in SAPP districts

District	Manthu	Thanzi	Total
Blantyre	200	2,000	2200
Chiradzulu	-	700	700
Balaka		1,270	1,270
Lilongwe East	400	1,500	1,900

District	Manthu	Thanzi	Total
Lilongwe West	400	1,500	1,900
Nkhotakota	-	1,000	1,000
Chitipa	-	1,000	1,000
Total	1,000	8,970	9,970



Planting Thanzi (MH44A) in Chiradzulu that was given to a farmer as a small pack



Farmers in Mpilisi EPA in Balaka who received small packs

Farmers and the extension staff were impressed with the performance of the varieties that were tried out. As a result, MUSECO received a substantial order from Balaka for Thanzi (MH44A) due to its early maturity, twin cobbing and high yields. Since Balaka experiences frequent dry spells, they chose Thanzi. In Blantyre farmers chose Manthu (MH36) based on its performance during the try outs.

Conduct and attendance of field days and roadshows

During the project period MUSECO in collaboration with Agriculture staff organized a number of field days in the project target areas. A total of 10 field days were conducted over the project period. Over

800 farmers participated in the field days. Table 7 below indicates details of the field days organized by MUSECO and Agriculture staff.

Table 7: Field days conducted by MUSECO and Agriculture staff

District	Epa	Ta	Name Of The Farmer	Crop	Number Of Field Days Conducted	Dates	Attendance	
							Males	Females
Chitipa	Kameme	Kameme	Edsod Sibale	Groundnut, Soy bean, Beans	1	18/03/2020	23	19
Balaka	Mpilisi	Msamala	Elizabeth	Groundnut	1		68	72
Blantyre	Chipande	Makata	Kenson Mlapula	Maize, Soybean, Groundnut, Pigeonpea, Sorghum	1	26/01/2020	23	56
Blantyre	Lirangwe	Lundu	Christina Earnest	Maize, Soybean, Groundnut, Pigeonpea, Sorghum	2		22	41
Blantyre	Kunthembwe	Kuntaja	Nang'omba FFS	Maize, Soybean, Groundnut, Pigeonpea, Sorghum	1	28/02/2020	15	25
Blantyre	Ntonda	Somba	Essmy Cheonga	Maize, Soybean, Groundnut, Pigeonpea	1		33	17
Lilongwe West	Mpingu	Mbwatalika	Tiyanjane club	Soybean, Groundnut	1	16/04/2019	57	33
Lilongwe East	Mkwinda	Chadza	Zimchetera Mazoni.	Groundnut	1	17/04/2019	105	135
Nkhotakota	Mtosa		Yesani Manjawira	Groundnut	1	18/04/2019	58	51
					10		404	449



Field Day in Ntosa EPA in Nkhotakota district on 18th April 2019



Field Day in Mkwinda EPA in Lilongwe East on 17th April 2019



Field Day in Mpingu EPA in Lilongwe West on 16th April 2019

MUSECO participated in the Lilongwe district agriculture executive committee field day in March 2019. Blantyre district also conducted six field days; two in each site.



MUSECO's display that was visited by farmers at Lilongwe DAEC Field Day in Ngwangwa EPA in Lilongwe district on 29th March 2019

There were a number of stands that were visited that day, among them were plots belonging to community seed multiplier groups that had been contracted by MUSECO. Below is a photograph showing a groundnut seed multiplication field of one of the farmers contracted to MUSECO in partnership with SAPP Project.



A groundnut seed multiplication field belonging to one of the farmers contracted to MUSECO in partnership with SAPP Project

About 1000 people attended the field day. All of them visited the seed multiplier's groundnut field. A total of 330 people visited the MUSECO stand. Two hundred and ten were females while 120 were male.

A media tour was also organized by MUSECO to showcase the various on offer and the participation of smallholder farmers in seed multiplication. The tour covered five districts; Balaka, Blantyre, Chiradzulu, Lilongwe and Mchinji in five EPAs and 8 fields from 3rd March to 5th March, 2020.

MUSECO organized a road show from 29th October to 2nd November 2018, to showcase its products and to encourage farmers to use MUSECO seed from recognized agro-dealer shops. The roadshow was conducted in all the six target districts and patronized by more than 5,700 participants. As a result, agro-dealers in Balaka, Blantyre and Lilongwe registered higher sales, by about 30%, compared to the previous year when there was no roadshow.



Participants at a roadshow in Boma, Balaka district



At each trading centre the raffle-draw winners received seed and T-shirts

4.7 Participation at Agricultural fairs, Partner meetings and Knowledge Management activities

MUSECO participated in both district and national agriculture fairs, exhibiting various technologies that had been offered to farmers. Included among these were how to plant with unshelled groundnuts to avoid the problem of poor germination likely to be experienced with shelled groundnut after transporting them over long distances. MUSECO representatives also attended a number of technical meetings during the project's lifespan:



The Lilongwe Agriculture Fair 12th July to 13th July 2018



Mchinji Agriculture Fair from 15th August to 16th August 2018



The MUSECO pavilion at the 15th National Agriculture Fair where MUSECO emerged a winner as the best input supplier for 2018



Blantyre Agriculture Fair 10th to 12th October 2018



MUSECO representative receiving a trophy at Blantyre Agriculture Fair 10-12 October 2018



- The 2018 10K Club meeting took place in Accra Ghana from 27th to 29th November 2018.
- MUSECO participated in the AGRA quarterly review meeting that took place from 7th to 8th October 2019 at Kabumba Hotel, in Salima.
- MUSECO participated in a SAPP review meeting that was convened on 25th October 2019 at Annie's Lodge in Zomba.
- MUSECO participated in the SAPP project quarterly review meeting held on 8th February 2019 at Mkopola Lodge in Mangochi.
- MUSECO facilitated Business Innovation Facility meeting on the Pigeonpea value chain that was held on 3rd January 2019 at Our Lady of Africa, in Lilongwe.
- MUSECO participated in the AGRA Semi-Annual meeting that took place from 10th to 12th July 2019 at Kabumba Hotel, in Salima.
- MUSECO participated in a review meeting was convened by the Department of Crop Development on 24th July 2019 in Salima.
- MUSECO participated in a joint IFAD-AGRA learning workshop that took place from 12th to 14th August 2019 at Livingstonia Hotel, in Salima.
- A follow up meeting for the planning meeting was held on 2nd August 2019 at Linde Hotel at Mponela in Dowa.

- MUSECO participated in the 2019 DARS annual review and planning meeting that took place at Bvumbwe Agricultural Research Station in Thyolo Malawi from 23rd to 28th September 2019.



DARS annual review and planning meeting of 2018 that took place at Bvumbwe Research Station

Involvement in M&E and Knowledge management activities

During the project's lifespan, MUSECO was involved in various M&E and Knowledge management activities. Included in these are several visits from the AGRA M&E team from Nairobi, Kenya. Auditors from Kenya also visited and audited MUSECO. A refresher training on AMIS was conducted from 3rd to 6th September 2019 at BICC in Lilongwe, Malawi, where MUSECO also participated.

Production of instructional videos, radio programs and television programs

Eight radio programs were produced and aired, as were eight television programs that were produced and beamed. Two instructional videos were produced.

5.0 Summary of Achievements

Objective	Indicators	Program Target	Overall Achievement	% of Achievement	
Objective 1	Quantity (MT) of Pre-Basic seed produced	31	30.242	98%	
	Quantity (MT) of Basic seed produced	54	358.473	6638%	The target of 54MT of basic seed was an underestimation since MUSECO has been producing basic seed and has the capacity to produce 358 MT that covered up the target for certified seed
	Quantity (MT) of Certified seed produced	500	169.769	34%	The target of 500MT of certified seed was an overestimation since this was the first time for MUSECO to produce certified seed. It was not realistic to jump from zero to 500MT within 27 months. However, the basic seed covered up for the certified seed
	Total seed produced (MT)	585	558.482	96%	
	Number of partners identified and engaged	6	8	100%	
	Number of agro-dealers stocking MUSECO seed	30	44	147%	
	Number of out growers and farmers identified and engaged	200	231	116%	
	Number of beneficiaries	5,000	10,000	200%	
	Number of community seed producer groups linked to MUSECO	6	38	633%	The overwhelming response from community seed multipliers was unforeseen
	Number of recommended solutions	5	5	100%	Double row system of planting for Groundnut, Soybean and beans; selling unshelled groundnut seed to be shelled at planting; introduction of

Objective	Indicators	Program Target	Overall Achievement	% of Achievement	
					new varieties of beans, groundnut and cowpea
Objective 2	Number of seed out growers and community seed multipliers trained	200	215	108%	
	Number of NARI technicians trained to support the promotion of resilient varieties	N/A	N/A	N/A	DARS responsibility
	Number of seed company personnel trained on promotion of improved varieties	55	29	53%	DARS responsibility. What is reported here was out of the effort of MUSECO
	Number of agro-dealers trained to improve access to inputs and strengthen distribution networks	30	44	147%	
	Number of extension officers trained from public and private sector to support the delivery of good agronomic practices	20	23	115%	
Objective 3	Number of demonstration plots	20	59	295%	
	Number of Field Days conducted	6	6	100%	
	Number of road shows organized to promote ISFM and new varieties	1	1	100%	
	Number of Agriculture shows attended	6	6	100%	
	Number of radio message aired	4	8	200%	
	Number of TV programs beamed that contain MUSECO activities	4	8	200%	
	Number of farmer video clips developed/ distributed	5	2	40%	
	Number of technical meetings attended	2	6	300%	
	Number of case studies documented	2	0	0%	Documentation ongoing by AGRA Consultant
	Number of success stories	2	2	100%	

6.0 Lessons emanating from the Project

What went well

- Involvement of Private Sector in SAPP illustrated a great difference in seed multiplication. Farmers knew the market and price of the seed before production started giving them an opportunity to make informed decisions.
- PPP including investors and donors is possible.
- Almost all targets were achieved.
- Willingness of farmers to continue working with MUSECO.
- Farmers from Lilongwe East, Blantyre, Chiradzulu and Mpilisi EPA of Balaka are business minded.
- Supervision of farmers on postharvest handling of seed enhanced tracking of seed.
- Unshelled groundnut seed being adopted by national and international organization but not yet for government yet still complaining of poor germination of groundnut seed.
- The registration of community seed multipliers by MUSECO was a tool for tracking the extent of side selling.
- The partnership between MUSECO and DARS also went well.

What did not go so well and the mitigation measures

- The project did not include funds to pay seed growers. Hence there were delays in paying seed growers.
- Side selling of seed by farmers. MUSECO recovered seed less than 50% of expected volume. The delay in paying seed growers led to massive side selling by seed growers.
- Farmers complained about the lack of startup capital. Hence, seed was given to farmers on loan but farmers did not appreciate that gesture leading to poor recovery of seed given on loan to farmers.
- There need for partners to support MUSECO with resources for paying seed out growers on time and also support farmers with funds for accessing inputs on time.
- Default by some agro-dealers.
- Retrieving data for demonstrations was a challenge. After conducting demonstrations, retrieval of data was a problem. There is need to place staff members in areas where demonstrations are conducted to provide technical back-stopping as well as collecting all the required data.
- Level of funding *vis a vis* the expected results. The funding was too low against what was expected to be achieved. Most of the activities were financed from MUSECO funds to ensure compliance to the agreement. In addition, MUSECO was expected to buy seed from seed multipliers yet the AGRA and SAPP projects had no funds allocated for this. As the company waited to sell the seed in order to pay the farmers, the farmers went ahead and were involved in side selling the seed.

Lessons Learnt

- Farmers are not patient enough to wait for the right time to sell their seed; they will not hold their seed for long. Hence side selling.

- Existence of opportunistic buyers who want to reap where they have not sown. Other companies were keen to buy seed from farmers that multiplied seed for MUSECO on contract.
- Partnership-building takes a long time to gel. Projects that involve partnerships should have longer project cycles for meaningful impact to be realized and not just assume outcomes and impact.
- To enhance communication and to address issues of contract signing and seed delivery, MUSECO worked directly with community seed multipliers with backstopping from the agriculture office.
- Involvement of Private Sector as an afterthought. There is need to involve the private sector at planning stage.
- Enough funds need to be allocated for activities to be undertaken by the private sector.
- There are some capacity gaps for extension staff and farmers. There is still more work to be done on capacity building for government staff and for farmers to appreciate what a contract means and its implications.
- Seed companies need adequate amounts of funds at once (cash flow) to pay seed out growers. There is need to raise funds so that farmers are paid on time to avoid side selling.
- Collaboration with Government staff helped in the identification of reliable community groups to work with.
- The renowned cooperatives are the ones that are at the forefront in side selling. One in Blantyre at Lirangwe EPA and another at Kasitu EPA in Nkhotakota.
- The partnership between MUSECO and DARS did well and MUSECO was able to access some new markets because of the partnership.
- Some of the specific activities that were implemented by the district staff such as data collection required funds that were not budgeted for in the project.
- Selling groundnuts in shell for farmers to shell right before planting proved to be the best way of preserving the germination percentage of groundnuts since they easily deteriorate when transported to farmers in already shelled form. Demonstrations that were planted with freshly shelled groundnuts resulted in good germination that ranged from 90% to 100%. Planting groundnuts in shell is another trial that was taken and results of this was a germination percentage ranging from 94% to 99%.
- Scattered fields by community seed multipliers presented challenges in terms of quality control hence farmers were advised to cluster into two or three fields.
- Sampling of seed from each farmer was also a challenge hence farmers per club were advised to pool their produce in order to cut down sampling costs.
- It is cheaper to introduce varieties and technologies in partnership with several stakeholders.
- The inclusion of some activities that depend on third parties in the implementation is challenging since MUSECO has no control over the delivery of those targets.

7.0 Suggestions for the future

The major bottleneck for MUSECO is shortage of funds for paying seed growers on time. Future initiatives should aim at making available funds for paying seed growers.

Farmers too have challenges accessing funds to enable them invest in land, labour, seed and chemicals. Hence, the need for a component for loan/grant facility for farmers.

When a project involves several partners, each partner should have clear roles accompanied by funds to carry out those roles. In the past project, the District Agriculture Offices were involved in inspection using their para seed inspectors, the mobilization of clubs, monitoring of the clubs and training farmers, but there were no funds allocated for such activities. This became a constraint to MUSECO as well as agriculture staff at district level.

Mobility is critical when it comes to inspecting and supervising smallholder farmers since their fields are small and scattered.

Warehousing is critical at the level of MUSECO as well as at Club level. Hence, the need to make provision for infrastructure development to enable the construction of warehouses on both levels.

The use of an information management system is important for quick sharing of results and progress of activities. However, there were unfortunate experience with AMIS, leading to AMIS lost data up to three times. Each time the data was reloaded and verified, some of the data was missing. This was frustrating. In future, the proposal is to use information systems that AGRA is sure of and that are user friendly.

6.0. Success Stories

Three months' worth of food from a single demonstration: The story of Mr Kondwani Chimbalame

By: Multi Seeds Company Limited (MUSECO)

Kondwani Chimbalame, is a 40-year-old man from Mbalame village, Traditional Authority (TA) Masula, Malingunde Extension Planning Area (EPA) in Lilongwe district. He is a member of Mbawe Cooperative along with 129 other smallholder farmers.

Kondwani was chosen to host a demonstration for Multi Seeds Company Limited (MUSECO), who supplied the seed and fertilizer for the demonstration. He was also guided by MUSECO technical team and members of the Department of Agricultural Research Services (DARS) throughout the period. He received 1.2 kg of high quality certified maize seed comprising four different varieties: Manthu (MH36), Limba (ZM523), Mlera (ZM623) and Thanzi (MH44A), which he planted on 0.048 hectare.

The farmer was given 300 grams of each of the four maize varieties that was sufficient to cover a plot size of 0.012 hectares. The demonstration performed very well. He harvested 100 kg (8.33 MT/ha) of MH36 (Manthu); 98 Kg (8.17 MT/ha), of ZM523 (Limba); 98 kg (8.17 MT/ha) of ZM623 (Mlera); and 89 kg (7.42 MT/ha) of MH44A-(Thanzi). In total, 385 kg of maize was harvested from the 0.048-hectare demonstration plot.

Kondwani, members of Mawe Cooperative and other farmers from the EPA were impressed and surprised in equal measure by the performance and the results of the demonstration. They have since realized the importance of planting high quality certified seed from MUSECO and following good agricultural practices. They have picked out their preferred varieties and intend to acquire seed of those varieties from MUSECO for planting in the 2020/2021 production season.

According to Kondwani, the demonstration delivered his family a bonus. From the harvest, he had enough maize to feed his wife and two children effortlessly for three months.

Quality seeds and contract farming for sustainable agriculture

By: Multi Seeds Company Limited (MUSECO)

Ten farmers from Mphesi club in Mwadzungu Village, Traditional Authority (TA) Chadza, Mkwinda Extension Planning Area (EPA) in Lilongwe district signed a contract with Multi Seeds Company Limited (MUSECO) for soybean seed multiplication.

The farmers had all suffered similar constraints associated with small land holding size, despite their common goal to improve their livelihoods. Upon learning about contract farming opportunities as a club, they decided to give it a try. Their motivation for contract farming was the higher price that seed attracts compared to grain. They were determined to attain more higher revenues by dedicating their small pieces of land to seed multiplication.

As a club they received 400 kg of high-quality soybean seed which they planted in the 2018/2019 production season. The seed was sufficient for four hectares of land using the double row system of planting. They received technical support from MUSECO's technical staff, the district agriculture staff, EPA and section level on good agricultural practices and the protocols of seed production. Mphesi club did exceptionally well in seed multiplication, harvesting 4.9MT of certified soya bean seed from the four hectares. MUSECO bought the seed from them at the agreed price.

Gladson Zuze, the chairperson of Mphesi club said the proceeds from the sale of seed greatly improved their lives. Some club members used the money made from seed multiplication to procure additional land to be used for seed multiplication, while others diversified into livestock production.

Going forward, the group is committed to continuing their contract farming relationship with MUSECO and excelling together as a group.



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