



*Development Initiative for  
Northern Uganda - DINU*



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# Annual Progress Report

for

## Building Resilience to Enhance Food and Nutrition Security, Income and Health in Northern Uganda

Reporting Period:

January – December 2021

CRIS Number:

**UG/FED/2016/038-781**

Due Date: **30<sup>th</sup> March 2022**

Submission date: **30<sup>th</sup> March 2022**



## ACTION DETAILS

Programme Title	Development Initiative for Northern Uganda (DINU)
Action Title:	Building Resilience to Enhance Food and Nutrition Security, Income and Health in Northern Uganda (BRENU)
CRIS No:	UG/FED/2016/038-781
Implemented by:	International Institute of Tropical Agriculture (IITA)
Area of Implementation	Lango sub region: Kwania, Apac, Amolatar, Dokolo, and Otuke districts Teso sub region: Amuria and Kapelebyong districts
Starting date:	1 <sup>st</sup> /January/2020
End date:	31 <sup>st</sup> /December/2022
Implementing partner(s):	Volunteer Efforts for Development Concerns (VEDCO), Rikolto International, Kilimo Trust, Ernest Cook Ultrasound Research and Education Institute (ECUREI) and Bioversity International (Bioversity)
Direct beneficiaries	51,250 small holder farmer households
Final beneficiaries	51,250 small holder farmer households, additionally, 268,650 indirect households beneficiaries
Project Duration:	36 months
Total budget:	Euros 5,578,949
Financial contribution:	Euros 557,895 (10% of total)
European Commission financial contribution:	Euros 5,021,054 (90% of total)
Reporting period/ No. of report:	1 <sup>st</sup> /January/2021 – 31 <sup>st</sup> /December/2021 / annual report two (02)
Specific Objective(s) of DINU targeted by this Action:	(i) Increase household food and nutrition security (ii) Increase household incomes (iii) Improve maternal and child nutrition (iv) Improve public and reproductive health
Specific Result(s) of DINU targeted by this Action:	<b>Result 1.1:</b> Increased production of diversified foods <b>Result 1.2:</b> Increased market accessibility <b>Result 1.3:</b> Nutrition and public health interventions

Specific Activity(ies) of DINU targeted by this Action:

**Activity: 1.1.1** Facilitate the adoption and production of diverse food crops and animal products.

**Activity: 1.1.2** Facilitate access to key inputs and output markets for women and men small-scale farmers.

**Activity: 1.1.3** Train farmer groups and other small market operators along the value chain in community saving and credit schemes.

**Activity 1.2.1** Foster linkages between smallholder farmers, agro-processors and market operators.

**Activity: 1.2.4** Assess and identify market opportunities and product niches along the stages of the value chain and facilitate market exchanges and contractual agreements.

**Activity: 1.3.1** Developing and promoting community-based nutrition initiatives including micronutrient supplementation & deworming, promotion of maternal and young child feeding practices, hygiene and sanitation and childcare.

**Activity: 1.3.2** Increase the use of effective family planning methods with the aim of decreasing the number of teenage pregnancies and increasing child spacing which address both nutrition and population growth issues.

**OPM Programme Outcome**

Improved incomes and sustainable livelihood for the people in disadvantaged areas through improved production and wealth creation.

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## List of Abbreviations

AO	Agricultural Officer
BDS	Business Development Skills
BRENU	Building Resilience to Enhance Food and Nutrition Security, Income and Health in Northern Uganda
B2B	Business to Business
CDFs	Community Development Facilitators
CDPs	Community Development Promoters
CLGs	Community Livelihood Groups
C&V	Communication and Visibility
DCO	District Commercial Office
DINU	Development Initiative for Northern Uganda
DLG	District Local Government
DOFs	Divine Organic Foods Limited
ECUREI	Ernest Cook Ultrasound Research and Education Institute
EULA	End User Licence Agreement
FBOs	Farmer Business Organizations
GAP	Good Agronomic Practices
HH	House Holds
HIB	High Iron-rich Beans
ICT	Information and Communication Technology
IITA	International Institute of Tropical Agriculture
LSB	Local Seed Business
MIS	Market Information System
MoU	Memorandum of Understanding
MT	Metric Tonnes
OFSP	Orange Fleshed Sweet Potato
OPM	Office of the Prime Minister
PHH	Post-Harvest Handling
SACCO	Saving and Credit Cooperative Society
SMEs	Small and Medium Enterprises
SMFE	Small and Medium Food processing Enterprise
SOPs	Standard Operating Procedures
SRH	Sexual Reproductive Health
TIMPs	Technologies, Innovations, Management Practices
ToT	Training of Trainers
TWG	Technical working group
Var	Variety
VC	Value chain
VEDCO	Volunteer Efforts for Development Concerns
VSLAs	Village Savings and Loans Associations
WASH	Water Sanitation and Hygiene

## 1 Executive summary of the action

Building Resilience to enhance Food and Nutrition security, Incomes and Health in northern Uganda (BRENU) is a three-year project implemented by International Institute of Tropical Agriculture (IITA) and consortium of five partners with funding support from the European Union through the government of Uganda (OPM) in the seven districts of Lango and Teso targeting 51250 small holder farming households. Having had a slow start in 2020 due to the pandemic, 2021 was largely a year to ensure catch up for activities in all the three result areas.

From the annual evaluation that was carried out in December 2021, to date, overall performance against target indicators is at 43% as per the detailed performance achievement table below. Performance is slightly below 100% due to prolonged drought between April - July leading to (46% experience hunger month in April- July) generally 74% experienced more than 2 hunger months. the drought affected farm production leading to less yields, elections and Covid -19 lockdown in 2021. In the table below is the performance for each result area.

The reporting period also had several monitoring missions that acted as avenues for discussions to ascertain work being done and receiving recommendations for improvement. This included the visit of the Technical Working Group (TWG) in Abalirela Amuria, the Result Oriented Monitoring (ROM) that was led by Dr. Ruth and towards the end of the reporting period, a Joint Monitoring Review Mission that was led by the Commissioner and comprised of members from the European Union, National Authorizing Office of the Ministry of Finance, OPM -PMU, Technical Advisory Team (TAT) and local governments. The review mission in November concluded that the consortium was delivering based on what was observed but also made recommendations that are to be addressed in year three.

## 2 Update on the context of the Action (if any changes)

Over the past year (January - December 2021), there were major changes that impacted the implementation of the action. At the start of year two, Uganda's political landscape was preoccupied by national presidential, parliamentary, and local government elections. This affected the implementation of some activities planned for quarter one (January - March) with majority of the project beneficiaries prioritizing participation in different election-related activities (ranging from voters' registration, attending campaign rallies to community meetings with their preferred candidates). As a result, there was significantly low attendance and participation by project beneficiaries at planned meetings or trainings.

During quarter two, the President of the Republic of Uganda instituted a 42-day country-wide lockdown to curb the surge of the second wave of COVID- 19 on the national scene that went into quarter three. Starting early June, the suspension of inter-district travels curtailed project field activities and the ban on mass gatherings also greatly affected implementation of planned activities that required human physical presence. Most of the affected activities were deferred to when the restrictions were relaxed, and movement permitted. The lockdown coincided with the onset of the farming harvest season and the affected activities included (a) trainings that were suspended due to restrictions on gatherings, (b) total suspension of the market assessments process, (c) engagement between off takers and the producer groups hindered by restrictions on inter-district movement and gatherings, (d) business to business meetings - halted entirely due to the need for farmer quorum during the meetings for consensus; which would otherwise violate the restriction on gatherings, (e) distribution and demonstration on usage of post-harvest technologies, review meetings, Joint monitoring activities, FBO trainings, establishment of demonstration gardens, and other field activities. In some instances, phone calls were used as an alternative way of bridging the communication gap. However, it was not the most effective method of implementation.

Additionally, the vagaries of weather paused a major challenge (the region experienced a prolonged drought, negatively affecting both planting seasons). There were heavy rains accompanied by windstorms that caused significant crop damage, especially in Kapelebyong district. A noteworthy number of gardens were destroyed by the drought, poor yields were registered from the gardens that survived the drought. These unfortunate challenges undermined the efforts of the farmers/ beneficiaries. BRENU continued to support farmers with water and soil conservation strategies, coupled with sensitization and training on climate change mitigation and adaptive measures.

### 3 Results achieved

#### Summary of the project progress according to results and indicators for the reporting period

Result (Outcome/output)	Indicators	Baseline	Progress todate	Remarks
<b>Result 1.1: Increased production of diversified food</b>	60% increase of households adopting production of introduced diversified resilient food crops	-	70%	This is OPM custom indicator that agreed introduced for tracking from a series of M&E meetings organised by OPM with other IPs. Therefore, by the time of its introduction, the baseline had been. However, results from the Midterm Evaluation survey (MTES) indicate 70% households adopting production of introduced diversified resilient food crops including (Soyabean, G-nuts, Cassava, Rice, OFSP, Maize, Vegetables among others). The over achievement of 117% against the target (60%) is attributed to various, trainings on nutrition, GAP, and adoption of various seeds that were distributed.
	Average of 4 acres of diversified food crops	-	2.12	This is OPM custom indicator that agreed introduced for tracking from a series of M&E meetings organised by OPM with other IPs. Therefore, by the time of its introduction, the baseline had been completed. Farmers reported to have planted diversified food crops on 2.12 acres average. This represents an achievement of 53% against the target.
	40% of farmers adopting improved technologies (TIMPs - Technologies, Innovations, Management Practices)	-	61%	This is OPM custom indicator that agreed introduced for tracking from a series of M&E meetings organised by OPM with other IPs. Therefore, by the time of its introduction, the baseline had been. Results from MTES, indicated 61% of farmers had adopted and using improved technologies, innovations and management practices especially using ox plough and tractors. This is attributed to increased knowledge on improved technologies resulting from trainings in GAP, farming as business trainings among others.

<b>Outcome 1: Increased household food nutrition and income security</b>	At least 60% households eating 6 different foods in 24hrs period.	22%	25%	At baseline, the percentage households eating five (05) or more different foods was 22%. The Midterm evaluation results at the end of year two revealed 25% of HHs consumed five (05) or more nutritious foods reflecting a slight achievement against set targets. The slight achievement is attributed to continuous training of HHs and the 205 CDPs and follow-up on improved nutrition initiatives, and adoption of GAPs. The foods commonly eaten include roots and tubers -73%, pulses -72% cereal -62%, vegetables -42%, fish-23%, Sugar/honey -18%, fruits-15%, condiments -14%, oil, fat or butter -13%, meat-11%, diary -9% and eggs -4%. However, 46% of households experienced hunger months between April- July and long drought in both farming seasons which affected most crops hence resulting in low yields. The project aims at introducing cooking demonstration sessions, setting up nutrition care groups and committees. With continuous support, a more diverse dietary consumption level is expected thus improving food and nutrition security.
	At least 60% households experiencing less than 2 hunger months in a year.	0%	26%	At baseline, only 5% of beneficiaries were food secure. Currently 26% of the farmers experienced less than two hunger months, while 74% experienced more than two (02) hunger months this is due to prolonged drought which affected farm production thus less yields.
	At least 60% households saving \$100 annually using VSLAs	0%	1%	Results from a sample survey indicates 1% could save 1\$ a year in VSLA. It's a representative of 50% of the beneficiaries who are actively saving with VSLAs. The slow progress is attributed to low saving culture and limited income source(s).
	Percent 60%households earning \$2 or more per day.	0%	25%	Results from the Midterm evaluation reveal that 25% of the beneficiaries earn more than USD 2 a day. An increase from 0% at baseline. The increment is attributed to sale of vegetables, farm produce and other off-farm income generating activities like tailoring, hairdressing, casual labor, brick making, art and crafts sells and retailing general merchandise. Despite the slight increase in income diversification, prolonged drought and high prevalence of pests and diseases were a major setback to the beneficiaries' income(s) thus falling short of the 60% annual target.



	50% of households completing repayment of loan after accessing credit from VSLA.	0%	42%	42% of beneficiaries reported to have completed loan repayment to VSLAs. The 84% achievement is attributed to income from both off-farm and on- farm activities, and because of linkages to financial institutions, ability to access credit.
<b>Output 1: Increased adoption and production of high quality foods</b>	At least 6 Good Agronomic - Practices adopted by farmers.	0	6.41	<p>There has been increased adoption of good agronomic Practices from 0% at baseline to 6.41% at midterm project-year two. Overall, 100% of the beneficiaries practiced more than three GAPs, including, weeding (88%), harvesting (87%), quality seed selection, plant spacing and land preparation at 77%, site selection at 72%, crop rotation at 69%, compost making at 36% while organic pest management and rainwater harvesting was at 29%.</p> <p>This is attributed to continuous technical guidance from the agricultural extension workers, training in GAPs, supervision and support from the community development promoters, training and mentoring on farming as a business, formation of cluster associations. The project aims to promote more GAP activities including farmer field days and exposure learning visits among farmers to boost increased productivity.</p>
	At least 6000 Kg average yield increase per harvest of the promoted crops.	0kgs	1103Kgs	<p>Overall average farm yield increased per harvest from the crops promoted by the project from 0kgs at baseline to 1103kgs currently. This is an achievement from five crops; groundnuts - 487.6Kgs, soyabeans- 270Kgs, rice - 1892kgs, cassava - 2790kgs and sweet potatoes - 70Kgs.</p> <p>The achievement is attributed to continued mentoring on good agronomic practices by 205 community development promoters and agriculture extension workers, farmer adoption of good agronomic practices, provision of improved seeds for multiplication and demonstration purposes. Farmers embraced crop diversification, increased farm acreage using animal traction and application of own-made manure, earning them increased farm yields in kilograms per harvest. However, it should be noted that the slow achievement of 18% against the project target is a result of low yields caused by pest and diseases, and prolonged drought in year two that destroyed a variety of crops.</p>

<b>Result 1.2: Increased market accessibility</b>	80% of farmers linked to other VC actors (disaggregation by actors- types and sex).	0%	75%	75% of farmers have been linked to other value chain (VC) actors. This is a 94% achievement against the project target. The VC actors include wholesalers and buyers -40%, agro input dealer companies -16%, marketing, and trading companies – 14%. This was aimed at providing sustainable market for farmer’s produce.
	50% of small holder farmers with knowledge on innovative market information technologies.	0%	84%	84% farmers have been able to make sound market decisions.
<b>Outcome 2: Sustainable market systems and value chain efficiency</b>	5,120 MT of produce bulked and sold together.	0 MT	1,454 MT	To date, 1,454 MT of produce worth USD 403,888 have been traded. This is 73% of the annual target and 28% of project target.
	28 buyer/off taker linkages established (one per value chain).	0	14	A total of 14 business linkages have been established between identified off takers (Lira Resort Enterprises, Diners Group Ltd, Oasis Agribusiness Ltd) and the producer groups. This represents 50% of the project target.
<b>Output 2: Increased access to markets for agricultural produce</b>	50% of small-scale farmers (women and men) accessing quality agro - input markets.	0%	46%	46% of small-scale farmers reported to have access to quality agro – input markets. This was due to activities such as linkages to agro input dealers, training in production and marketing, post harvest handling, linkages to off takers , all of which enhanced their knowledge on advantages of production, bulking and marketing for local, regional and international markets.
	50% of smallholder farmers with access to viable agricultural markets.		70%	The set target was not achieved due to prioritization of cooperatives over individual farmer groups. Following on from off taker requirements at the B2B meetings, it made more economic sense because cooperatives offer better options in price negotiation and assurance of reliable quantities and quality of produce. Working with Rikolto International, the consortium is encouraging farmer groups to join cooperatives. An increment is expected to catch-up with the set project target within the first quarter of year three.
	55% of established producer groups accessing markets.	0%	70%	70% of farmers under producer groups have had access to local and international markets. This is attributed to activities such as linkages to market off takers, B2B meetings, and 11 trade agreements established between buyers and suppliers leading to increased agricultural trade.

	60% of farmers adopting modern post-harvest technologies.	0%	59%	59% of the farmers reported to have adopted and utilized improved post-harvest technologies, these include mechanized threshers, grain cleaners and cassava chippers. This represents 98% of the project target. The distribution was completed after lifting the COVID-19 lockdown travel restrictions in August 2021, so there is an expectation of further uptake and utilization of the technologies as farmers have only had one season to try out the equipment. Up take is projected to be much higher in the coming seasons.
<b>Result 1.3: Nutrition and public health interventions</b>	30% decrease in prevalence of anemia among children under 5 and women of reproductive age.		0%	This is beyond the project reach but will be captured after an evaluation by ministry of health
	60% of women of reproductive age (pregnant, breastfeeding & non-pregnant) counselled on optimal breast feeding and complimentary feeding practices.		0%	The midterm survey conducted at the end of year 2 revealed that 42% of women had been counselled on optimal breastfeeding and complimentary feeding practices. This represents 70% achievement progress health training by consortium staff, CDPS and health workers to the women.
	50% of infants breastfeeding within one hour of birth.		76%	The midterm survey conducted at the end of year 2 revealed that 76% of infants were breastfed within an hour of birth. This represents 152% achievement progress and it's attributed to the trainings to the lactating mothers.
	70% of HH practicing recommended WASH practices.	-	-	This indicator was not considered during the survey, since we had not done serious interventions addressing it. The Consortium through ECUREI was able to construct only two (2) toilets in Dokolo and Kpelebyong districts which could not be a representative for the 5 districts. And later on the toilet/ latrine construction activity was revised upon advise from local governments and is being replaced with provision of safe water in the areas. It will be reported on in year 3.
<b>Outcome 3: Improved nutrition, sanitation, reproductive health and</b>	60% households practicing good	-	-	This indicator was not considered during the survey, since we had not done serious interventions addressing it. The Consortium

<b>health seeking practices.</b>	hygiene and sanitation practices.			through ECUREI was able to construct only two toilets in Dokolo and Kpelebyong districts which were done as trials before the activity was revised upon advise from local governments and is being replaced with provision of safe water in the areas. It will be reported on in year 3.
	60% households with knowledge and practicing good nutrition.	7%	43%	43% of the beneficiaries were equipped with knowledge on practicing good nutrition through training using modules one (01) and two (02) as a guide that recommended more than four (04) crops for dietary diversification. As a result, the health of households has greatly improved with continued consumption of healthy dietary meals and adoption of good nutrition practices, up from 7% at baseline.
	6 food items eaten by households in 24-hour period. (Household Dietary diversity score).	0	3.56	Beneficiaries reported an increase in the number of foods items eaten by households in a 24-hour period from 0 at baseline to 3.56 by end of year two. The performance is attributed to improved food security, nutrition knowledge attained, adoption of good nutrition practices and continuous support and mentoring from the 205 CDPs. The common foods eaten; roots and tubers -73%, pulses - 72% cereal - 62%, vegetables - 42%, fish-23%, Sugar/honey - 18%, fruits - 15%, condiments -14%, oil, fat, or butter - 13%, meat - 11%, diary - 9% and eggs - 4%.
	14 youth friendly corners established in health facilities.	0	14	During year two, the project established youth friendly corners in 14 health facilities with one staff (nurse/midwife) selected from each facility to oversee the corner. The nurses and facility- in-charge personnel were trained in year two. Equipping the health facilities began with painting and stocking is planned for year three.
	35% Percentage of young people reporting access of SRH information on developed application platform or any other means.	0%	32%	32% of young people reported to have accessed SRH information from the digital application and other means (health centres, trainings, CDPs, text messaging platform). This achievement is attributed to the training on SRH information dissemination, adolescent peer counselling, efficient usage of the android application and text messaging platform. The peer leaders receive sexual and reproductive health information which is cascaded to the rest of the adolescents in their groups.

	% increase in use of family planning methods (disaggregation by method).	0%	47%	There is increased use of family planning at 47% as registered from a survey. This is attributed to sensitization sessions, training, and distribution of family planning commodities to communities.
	% Proportion of adolescents using modern family planning.	35%	20%	20% of young people use modern family planning mostly condoms and emergency pills. There is a plan to increase adoption of modern family planning within the communities.
	70% of children & women dewormed.	70%	52%	During year two, a 52% of children and women is reported to have been dewormed. This is attributed to deworming tablets and syrups (albendazole tablets and syrups - 55,000 deworming tablets for children aged 24 months and above 2,050 deworming tablets for adults, 2,500 deworming syrups for children 12-24 months); distributed by CDPs to households with children aged 1-14 years and adults to fight worm infestation. A broad age range was considered for deworming to deter infection of dewormed from non-dewormed individuals in the households.
	Proportion (60%) of women of reproductive age (pregnant, breastfeeding & non-pregnant) counselled on optimal breast feeding and complimentary feeding practice	60%	37%	37% women reported to have been counselled on optimal breast feeding.

#### 4 Activities carried out

##### 4.1 Result Area 1.1: Increased production of diversified foods

Year two report details activity progress under the project result area one of increased production of diversified food managed by IITA. Key activities covered in the report include procurement and dissemination of superior, disease-tolerant, and resistant crop varieties to smallholder farmers. Development of training materials for agricultural production activities including good agronomic practices (GAPs), six-step weed management, local seeds business (LSB) and subsequently training beneficiaries. Achievements of year two include 205 CDPs trained in GAPs; 28 smallholder farmer groups trained, and 26 groups established six-steps weed management; smallholder farmer groups trained in LSB.

#### 4.1.1 Startup activities under result area 1.1

##### 4.1.1.1 Startup activity: Identification, profiling and selection of households and formation of community livelihood groups.

The main target group for the action is vulnerable smallholder farming households in Lango sub-region (Amolatar, Apac, Kwanja, Dokolo and Otuke districts) and Teso sub-region (Amuria, Kapelebyong districts). In 2021, a total of 16,694 new beneficiaries (male 7,903 and female 8,791) were selected, increasing the number of beneficiaries from 38,250 households in 2020 to 54,944 households depicting a 107% achievement. The new beneficiary households were selected from existing community groups and as deemed necessary, where groups were non-existent, new groups were formed. The total number of beneficiaries (54,944) 107% is higher than the targeted beneficiaries (51,250). As a result, a total 865 community livelihood groups (CLGs) were brought on board. This increased the number of CLGs to 2057(107%) exceeding the planned target of 2050 CLGs. The increase in the number of CLGs from the planned target is attributed to increased interest from the community thus forming so many groups and some groups have more than 25 members.

##### Outputs

- The total number of beneficiaries selected is 54,944 representing a 107% achievement. 57% are female while 43% are male.
- 2057 CLGs were formed making and 100.3%% achievement

##### 4.1.1.2 Start-up activity: Recruitment and orientation of community development promoters

In year 2021 additional 865 CDFs (601 males and 265 females) were selected, increasing the number of CDFs from 1,192 in 2020 to 2,057 CDFs (100.3%) with 1,507males and 550 females. As a result, 53 CDPs (46 males and 7 females) were selected which increased the number of CDPs to 205 (female 48(23%) and male 157(77%).

After project orientation, all the CDPs were furnished with ToT trainings which they are expected to continually cascade down to the CDFs and finally benefit all group members under their remit. Thus, the community facilitation group approach has increased community access to extension services, continuous mentorship and follow up on households' welfare, farmer or group support supervision and hands- on capacity building. This is fundamental for robust activity implementation and project sustainability.

##### Outputs

- 205 CDPs (48 female and 157 Male) and 2,057 CDFs (1,507 males and 550 females) selected, oriented about the project, and trained.

#### 4.1.2 Activity: 1.1.1 Facilitate the adoption and production of diverse food crops and animal product.

##### 4.1.2.1 Sub activity: 1.1.1.0: Develop and promote local seed systems for adoption of clean improved varieties linked to high value output markets and nutrition:

##### Procurement and dissemination of superior, disease- tolerant and resistant crop varieties to smallholder farmers

To increase production, during year 2, BRENUE procured seed for promotion and multiplication by selected farmer groups in the seven districts in season 1&2 (i.e., March to July 2021 as the first season and August to November 2021 as the second rainy season). These crops include (1). high iron beans (HIB)- (NAROBAN1), (2). orange flesh sweet potatoes (OFSP)-(NASPOT 13 and NASPOT 8), (3). groundnuts (Red beauty and Serenut 14R), (4) pawpaw, (5) cassava (NAROCAS 1), (6) soybean (MAKSOY 3N), and (7) maize (bazooka). The quantity of seed procured and distributed in the second season includes (1) 3,980 kgs of high iron beans (HIB)- (NAROBAN1), (2). 5,124 bags of orange flesh sweet potatoes (OFSP)-(NASPOT 13 and NASPOT 8), and (3). 5,100 kgs of groundnuts (Red beauty and Serenut 14R). Additional total of 683

smallholder farmer groups (i.e., 398 CLGs and 285 CLGs in season 2 and 1 respectively) each received at least 10 Kilograms of beans (NAROBEAN1), 683 groups (i.e., 255 CLGs and 428 CLGs in season 2 and 1 respectively) received each 20kgs of groundnut (Serenut 14R and Red beauty) seeds, and 805 groups received vegetable seed for multiplication at group level and have already established group gardens. The seeds distributed in season 1 resulted into establishment of 892 group gardens in the 7 districts.

The OFSPs rich in vitamin A, early maturing, and other mentioned seeds above, tolerant to diseases and pests were distributed to all beneficiaries across the seven districts. A total of 5,124 bags of orange flesh sweet potatoes (OFSP)-(NASPOT 13 and NASPOT 8) were distributed in season two to a total of 2049 community livelihood groups (CLGs) receiving at least 2.5 bags each group of OFSP vines for multiplication but also to supplement their diet with vitamin rich food aimed at addressing nutrition insecurity in the region. As a result, the groups that have received the vines and other crops, after the cropping season and harvests will in the subsequent season of 2022 share part of the planting materials with individual group members through the innovative approach known as "giving double the quantity received". This will enhance access of seed at household level and to ensure that all the targeted 51,250 beneficiary farmer households receive good quality seed.

**Table 1: Table showing distribution of seed**

Crop	Seeds distributed(kgs)	Quantity (kgs)	Total Groups that received
<b>NAROBEAN 1</b>	3980	10	683
<b>Serenut 2 and Red Beauty</b>	5100	20	683
<b>Vegetables</b>			805

**Table 2: Orange Flesh Sweet potato Vines distribution**

District	Sub-County	Target Groups	No of groups that received OFSP	Number of bags received per group	Number of OFSP Bags distributed
<b>Kapelebyong</b>	Acowa	168	168	2.5	420
	Kapelebyong	125	125	2.5	313
<b>Amuria</b>	Orungo	92	92	2.5	230
	Abarilela	130	130	2.5	325
<b>Apac</b>	Chegere	180	180	2.5	450
	Ibuje	170	170	2.5	425
<b>Kwania</b>	Nambieso	190	190	2.5	475
	Abongomola	150	150	2.5	375
<b>Dokolo</b>	Okwongodul	160	160	2.5	400
	Amwoma	168	168	2.5	420
<b>Otuke</b>	Olilim	119	119	2.5	298
	Ogor	110	110	2.5	275

<b>Amolatar</b>	Arwotcek	147	147	2.5	368
	Muntu	140	140	2.5	350
<b>Total</b>		<b>2049</b>	<b>2049</b>	<b>2.5</b>	<b>5123</b>

The first season farmers in the region did not get good harvest because of severe drought that affected crop yields.

#### **Outputs**

- Over 06 improved seed systems have been promoted across the seven districts i.e., OFSP (NASPOT 13 and NASPOT 8), Leafy vegetables, groundnuts (Red beauty and Serenut 14R), cassava (NAROCAS 1), rice, soybean, iron rich beans (NAROBAN1).
- A total of 2049 groups each received 2.5 kgs of OFS
- 683 groups received beans.

#### **4.1.2.2 Sub activity 1.1.1.1, Training seed producer groups in internal mobilization of resources for procurement of foundation seed, seed production and marketing.**

Smallholder farmers in northern Uganda are faced with a challenge of accessing improved quality and affordable seeds within their communities. As a result, some farmers plant grains purchased from the produce dealers while others store inferior and hybrid seed for replanting. This challenge has a significant impact on agricultural yield- affecting both productivity and income of the farmers.

Efforts to build sustainable and affordable seed system of superior, disease- tolerant and resistant crop varieties for smallholder farmers were undertaken by developing a community seed model known as the local seed business (LSBs). As part of this initiative, local seed business (LSB) training was conducted by IITA in collaboration with partner VEDCO and sub-county agricultural officers of the respective beneficiary sub-counties. The training attracted a total of 28 LSBs and 10 participants from each of the group where their capacity was built in seed production and marketing quality declared seed of preferred crop varieties. Thereafter, the 10 trained representatives from each of the LSB groups were able to roll down the training to group members. To date, at least 700 members of the 28 LSB groups have been trained in production of quality declared seed (QDS) for value chains of rice, soybean, and cassava. In addition, 630 LSB members (249 males and 381 females) received training in organizational management and setting up of LSB management structures. This resulted into establishment of LSB structures with different committees i.e., finance, production, marketing etc. who plan and monitor the LSB activities. The 473 seed producers who did not turn up for the training, will be trained in the coming year.

#### **Outputs**

- 28 LSBs groups (280 members) were trained in seed production and marketing quality declared seed of preferred crop varieties.
- At least 700 members from the 28 LSB groups have received the training in production of QDS
- 630 LSB members (249 males and 381 females) received training in organizational management and setting up of LSB management structures.

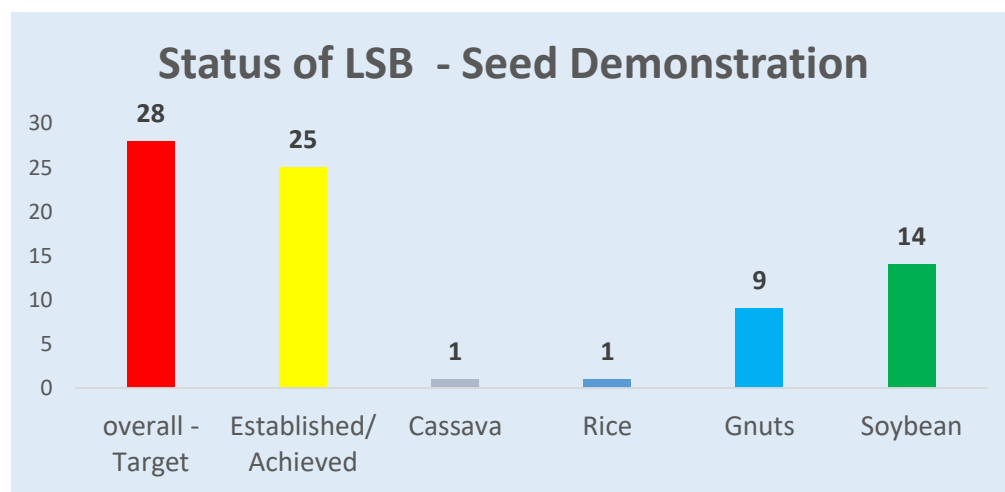
#### **4.1.2.3 Sub activity 1.1.1.2. Establishment of seed demonstration**

The project is investing in a sustainable seed system, where the capacity of 28 LSBs with a membership of 1,103 farmers (521males and 582 females) from 7 districts (14 sub counties each hosting two LSBs) has been built to establish local seed businesses for the production and marketing of quality declared seed (QDS). During the year, 25 demonstration gardens were established for 25 local seed businesses (LSBs) in 14 sub counties. 50 acres of seed were established with: 28 acres of soybean (Maksoy 3N) - 14 demonstration gardens, 18 acres groundnuts (Serenut14) - 9 demonstration gardens, 2 acres of rice



(Namse1) - one (01) demonstration garden and 2 acres of cassava (Narocas1) - one (01) demonstration garden. Each LSB hosts 2 acres of its preferred crop. Unfortunately, due to drought that was experienced during second season of the year, three seed demonstrations for three LSBs were not established but will be established in year 2022.

During year 2, technical support visits to LSBs were conducted and 25 seed demonstrations were monitored. The monitoring visits revealed good performance after recovery from the mild drought that was experienced at the end of May and beginning of June 2021. The seed from the demonstration gardens were distributed to members while other LSBs sold out seed to members within the community. The LSB approach is increasing the production of QDS in the region and increasing small holder farmers access to superior, disease- tolerant and resistant crop varieties at the right time, in the right quantities, and at an affordable price. Financial benefits from the sale of seed has contributed to excellent management of the seed fields.



### Output

- 25 seed demonstration gardens were established covering 50 acres: Soybean – 14 demonstration gardens, groundnuts – nine (09) demonstration gardens, rice –one (01) demonstration garden and cassava – one (01) demonstration garden.

#### 4.1.2.4 Sub activity 1.1.1.5 Seed inspection by district seed inspectors.

VEDCO worked in collaboration with the local government officers at district and sub-county levels especially the agricultural production departments for promotion of quality seed for farmers. Eight (08) seed field inspections were conducted for eight (08) LSBs (02 in Apac, 02 in Dokolo, and 04 in Otuke) by the sub-county agricultural officers on behalf of the districts. The seed inspectors ascertained the extent to which seed quality procedures and set standards had been followed by the LSBs during seed production. The recommendations by the seed inspectors improved the quality of QDS produced by the LSBs. This activity was affected by the country-wide lock down due to COVID-19 pandemic and related travel restrictions. 20 fields will be inspected in year 2022.

### Outputs

A total of eight (08) demonstration and seed multiplication gardens were inspected by the sub-county agricultural officers on behalf of the district.

#### 4.1.3 Activity: 1.1.2 Facilitate access to key inputs and output markets for women and men small-scale farmers.

##### 4.1.3.1 Sub Activity: 1.1.2.1 Training community livelihood groups in good agronomic practices (GAP)

The training manuals on good agronomic practices (GAPs) that were developed and printed in quarter one and were distributed to 205 selected community development promoters (CDPs) and 14 sub-county agricultural officers during the Training of Trainer (ToT) trainings. The training package included 13 different training manuals/materials to aid in the training of GAPs to beneficiary farmer groups. Hardcopies of the GAP training manuals on maize, beans, soybean, and groundnuts were also received from MAAIF to supplement the manuals developed by IITA.

Starting 29<sup>th</sup> April 2021 through 22<sup>nd</sup> May 2021 the project led by IITA undertook the training of trainer (ToT) course in good agronomic practices (GAPs) with an aim of equipping community development promoters (CDPs) with the requisite skills and knowledge in GAPs. These include, input selection, appropriate site identification, land preparation, identification of and control of pests and diseases, particularly for the value chain crops promoted by the project.

The CDPs were also furnished with skills on establishment of large-scale seed and on-farm demonstration plots meant to portray production yield benefits from a combination of both genetic improvement and good agronomic practices such as integrated crop management. CDPs from Amuria & Kapelebyong were trained at the Amuria district headquarters, CDPs from Amolatar & Dokolo were trained in Dokolo district and Otuke, Apac, and Kwania districts GAP training was held at their respective district headquarters. The five training sessions were delivered in an interactive mixed approach with presentations by the facilitators from IITA, VEDCO and local government extension/technical staff, participatory group work, question(s), and answer(s) sessions on related topics for each of the value chain crops promoted by the project. A total of 195 CDPs (150 males, 45 females) were trained in GAPs with the expectation of passing down the training to the community development facilitators (CDFs). Throughout year 2 (succession offer farmer-to-farmer peer support to the 51,250 farmers under the supervision of the CDPs).

During the quarter three and four, all the 195 community development promoters (CDPs) previously trained in good agronomic practices (GAPs) with their respective community development facilitators (CDFs) continuously cascaded and rolled out the GAP training to small-holder farmer groups including the 10 newly selected CDPs. Some of the knowledge and skills passed on included: enterprise/crop selection, site identification, land preparation, timely planting, proper crop spacing, roguing, gap filling, thinning, timely weeding, pest and disease management, timely harvest, proper storage, soil, and water conservation among others. The training has enhanced farmers' capacity for increased production and productivity of diversified food crops as a strategy to tackle food and nutrition insecurity in the region.

As a result of the Gap training to beneficiaries, results from the midterm evaluation indicate 93% of farmers practice more than three (3) GAP and the average GA- Practices are 6.41 that have been adopted by farmers. Percentage of farmers who practice different GAP include; Weeding (88%), Harvesting (87%), seed selection. Plant spacing and land preparation all at 77%, site selection at 72%, crop rotation at 69%, compost making-36% while organic pest management and rain water harvesting was at 29%

#### **Outputs**

- Seven (07) GAP trainings conducted
- 195 CDPs trained directly while 10 were trained by others.
- 1955 community development facilitators trained in GAPs
- Total of 2050 community livelihood groups trained in GAPs

#### 4.1.3.2 Sub activity: 1.1.2.2, Establish on-farm demonstration plots for selected diversified crops

To increase production and adoption of diversified crop varieties, VEDCO established a total of 217 on farm demonstration gardens for selected diversified crops. The established demonstration plots serve as innovative learning centers in the villages and have been effective for demonstrating recommended agronomic practices that have been adopted by farmers in their individual fields. The demonstration gardens cover 111.75 acres of preferred crop varieties including, 14 gardens of rice - 14 acres, 10 gardens of Cassava covering 10 acres, 12 gardens of ground nuts - 18 acres, 14 gardens of iron rich beans - 14-acres, 28 gardens of maize - 28 acres, 14 gardens of sukuma wiki - 3.5-acres, 15 gardens of Dodo (Amaranthus) - 3.75 acres, 14 gardens of spinach - 3.5 acres, 14 gardens of okra - 3.5 acres, and 27 gardens of cow peas and 27 gardens of pumpkin in 13.5 acres each, 28 gardens of soyabean. Due to drought experienced between July 2021 and August 2021, orange flesh sweet potatoes (OFSP) & pawpaw on farm demonstrations were not established during the year but will be established in 2022 i.e., a total of 49 demonstrations to be established next year. Practical training sessions on planting, weeding etc. have been conducted at the demonstration sites. Adoption of recommended agronomic practices has been observed on individual fields of group members. The proceeds from the demonstration gardens were distributed to group members for replanting which increased seed access.

**Table 3:**

ESTABLISHED GARDENS											
DEMONSTRATION	Target	Dokolo	Amuria	Kapelebyong	Apac	Kwania	Otuke	Amolatar	Total	%-achieved	size per garden
SOYA BEAN - SEED	7	3	1	3	3	1	2	1	14	200%	2acres
CASSAVA SEED	7	0	0	0	0	0	1	0	1	14%	2acres
G. NUTS SEED	7	1	2	1	1	1	0	3	9	129%	2acres
RICE SEED	7	0	0	0	0	0	1	0	1	14%	2acres
<b>ON-FARM GARDENS.</b>	266	30	31	34	30	30	30	32	217	82%	0.8acres

#### Outputs

- A total 217 on-farm demonstration gardens covering 153.5 acres of groundnuts were established

#### 4.1.3.3 Sub activity: 1.1.2.5 Promote the six-step labor-saving technologies to control weeds and increase yield.

In the first quarter, IITA developed six-steps training manuals with 240 copies printed and distributed to CDPs and local government officers during GAP trainings. A total of 28 cassava farmer groups (two groups per sub-county) across the 14 sub-counties in the seven districts were selected, and assessments made to ensure capability in hosting demonstration gardens for the six-step labour-saving technologies aimed at controlling weeds and increasing crop yield. The selection criteria was based on interest in commercial cassava production, availability of block land of one (01) hectare, and recommendation from agricultural extension workers. 28 hectares of land were inspected and verified by the project implementation team led by IITA for appropriateness to host the six-steps demonstration gardens. Towards the end of first quarter, field preparation and ploughing were near to completion in preparation for the rains and planting.

During quarter two, primary and secondary tillage of the land was completed at 26 hectares out of 28 hectares of the land, awaiting harrowing, ridging, and planting. There was a delay in land preparation by

two groups due to the scarcity of tractor operators. In addition, the planting schedule was temporarily disrupted by the country-wide lockdown executed by the government of Uganda to curb the spread of COVID-19. In quarter three, 26 demonstration gardens for the six-step labour saving technologies were re-ploughed, harrowed, and planted. The gardens were re-ploughed because the long dry spell coupled with the COVID-19 lockdown led to pausing of the activity.. The gardens were planted across the seven districts except for the gardens in Nambieso sub-county, Kwanja district which will be planted in season A 2022. The reason for not planting/establishing the two demonstration gardens in Kwanja district included withdraw of the land offered by farmer groups for establishment of the demonstration gardens. This was because the owner of the land opted to use it for their personal use after the second COVID -19 lockdown, moreover the long dry spell within the subcounty did not favor continued land preparation for planting this year. However, post-planting monitoring of the established gardens is underway and preliminary observation indicates excellent germination rates. Bosco who is the chairperson of one of the six-steps cassava demonstration gardens in Abongomola, Kwanja district said ***“the secret to increased production of cassava solely rests in the identification of a suitable site, proper and thorough land preparation, timely weed control, use of recommended spacing, and planting improved cassava varieties. He added, look at our cassava garden now; it is only 2 months old and looks like an 8-month-old cassava variety we usually plant here.”***

#### Outputs

- 28 smallholder farmers groups received training in six steps weed control labour saving technology
- 26 weed control demonstration plots established (04 per district, except in Kwanja district where only 02 plots were established)

**Table 4:**

SIX STEPS CASSAVA DISTRIBUTION ESTABLISHMENT						
DISTRICT	Overall Target group per district	weed control gardens established per district	Qty (bags) per garden	Type	Size of land per garden	
AMURIA	4	4	20	NAROCAS1	2.5 acres	
APAC	4	4	20	NAROCAS1	2.5 acres	
AMOLATAR	4	4	20	NAROCAS1	2.5 acres	
DOKOLO	4	4	20	NAROCAS1	2.5 acres	
KWANJA	4	2	20	NAROCAS1	2.5 acres	
KAPELEBYONG	4	4	20	NAROCAS1	2 acres	
OTUKE	4	4	20	NAROCAS1	2 acres	

#### 4.1.4 Activity: 1.1.3 Train farmer groups and other small market operators along the value chain in community saving and credit schemes.

##### 4.1.4.1 Sub activity: 1.1.3.1: Training community livelihood groups (CLG) in village savings and loans associations (VSLAs)

To increase saving and financial credit services available in the CLGs, VEDCO introduced the VSLA methodology. In year 2, a total of 409 SLA groups were trained *on VSLA methodology* CLGs and CDPs were specifically trained on: Key principles of the VSLA methodology, qualities of good VSLA members, leadership and qualities of a good leader, the savings box and its contents, records kept in a VSLA group, procedures taken in a savings meeting, group constitution among others.

The project continued with field support visits to CLGs during saving days which improved cash management in CLGs. Loans and interest accrued were repaid on time. Funds were reinvested in income generating activities in agricultural production- purchase of seed, harvesting etc. which increased saving and lending capacities of CLGs. Subsequently, 1,180 VSLAs with a membership of 35,838 (23,351 female and 12,487 male) actively saved during the year. VSLA group members are encouraged to pool their money into a fund from which members borrow and pay back with manageable interest, allowing the VSLA fund to grow. VSLA members are now saving for investment a shift from saving for consumption and feasting as before. By the end of September 2021, a total of Ugx 1,309,436,550 had been saved by 1,180 VSLAs and total borrowed out was Ugx:1,104,334,250 across the 7 districts. On average, each VSLA saved Ugx 1,190,000 and borrowed out Ugx 1,003,000. Apac district performed best with Ugx 377,967,800 saved, Ugx 290,225,650 borrowed by 168 CLGs. Dokolo district performed least with Ugx 87,577,950 saved and Ugx 73,552,700 borrowed by 123 VSLAs. On average, each CLG saved Ugx 1,190,000 and borrowed out Ugx 1,003,000. The VSLA members were able to fund their production activities and established other Income generating activities. Table of VSLA training in year 2.

**Table 5:**

<b>DELIVERABLES</b>	<b>PROJECT-TARGET</b>	<b>DOK</b>	<b>AMU</b>	<b>KAP</b>	<b>APAC</b>	<b>KWA</b>	<b>OTU</b>	<b>AMO</b>	<b>TOT</b>	<b>%-ACHIEVEMENT</b>
<b>SEED PRODUCERS TRAINED</b>	1103	104	77	103	87	111	80	69	631	57%
<b>CDPS TRAINED IN VSLA</b>	205	33	22	30	34	34	23	29	205	100%
<b>FARMERS TRAINED IN VSLA</b>	51250	1474	1435	1464	1548	1337	1515	1441	10214	20%
<b>GROUPS TRAINED IN VSLA.</b>	2050	65	57	54	61	55	60	57	409	20%

The project will continue to promote the saving for investment approach within the CLGs as a motivational factor in CLGs since farmers can easily access funds for agricultural production processes such as procurement of seeds, fertilizers, pesticides etc.

#### **Outputs**

- The financial management capacity of 655 farmer groups (VSLAs) has been built thus far. This reporting year 199 CDPs (151males, 48males) and 409 VSLAs were trained in VSLA methodology.
- 1180 VSLAs with a membership of 35,838 (23,351 female and 12,487 male) actively saved during the year.

#### **4.1.4.2 Sub activity: 1.1.3.2 Link VSLAs to financial institutions**

VEDCO linked VSLAs to viable agricultural financial services to enable them access agro-credit to boost their agricultural business operations. Strong VSLAs with the capability to borrow and timely loan repayment were linked to financial institutions. VEDCO signed a memorandum of understanding (MoU) with Opportunity bank to offer affordable credit facilities to some farmers. Farmers can access credit from Opportunity bank at an interest rate of no more than 3% per month payable after six (06) months (after harvesting and selling their produce). During the year, 271 CLGs with 934 farmers (459 males and 475 females) were linked to financial institutions to access credit, i.e., 15 Linkage meetings were conducted with Opportunity bank. In addition, Opportunity bank boosted decision making, financial literacy and funds management skills for the VSLAs. VEDCO also monitored progress made from previous financial

linkage activities which revealed that 368 beneficiaries (219 males and 149 females) from across the seven districts accessed funds worth Ugx 471,828,000 from different financial institutions including Centenary bank, Opportunity bank, DFCU, Post bank, Stanbic bank, Vision fund and various SACCOs within the sub-counties. The funds accessed by the VSLA members were invested in productive ventures such as agricultural production, business support, and construction, which can be hard to finance at VSLA level and only to a few financially stable members. This activity was slowed down by the countrywide lock down aimed at curbing the spread of COVID-19. The project will prioritise VSLA linkages to microfinance support centre in 2022.

#### Outputs

- An additional 271 CLGs with 934 farmers (459 males and 475 females) were linked to financial institutions to access credit.
- 368 farmers (219 males and 149 females) previously linked to financial institutions were able to access funds worth 471,828,000 from different financial institutions.

### 4.2 Result 1.2: Increased market accesibility

Table 6:

Market Accessibility	Project Target	Cumulative achievement to date	%Achieved
# of potential market actors reached in buy-in meetings	12	11	92%
# of agreements signed between selected market offtakers and BRENU	5	4	80%
# of input and output market partnerships/business consortia established	5	5	100%
# of training materials developed	3	2	67%
# of producers trained in business skills, negotiation skills and management of contracts.	30,750	28620	93%
# of farmers adopting the new post-harvest technology	7,000	451	6%
# of postharvest handling technology demonstrations conducted	75	66	88%
# of postharvest handling equipment demonstrated/promoted	3	3	100%
# of farmers benefiting from postharvest handling equipment demonstration	7,060	1366	19%
# of post-harvest handling equipment purchased and distributed (soya and rice)	71	64	90%
# of Cassava Chipping machines distributed	85	84	98%
# of Cassava drying racks distributed	85	84	98%
# of groups/cooperatives with upgraded stores	7	5	71%
# of stores upgraded and rehabilitated	7	5	71%

# of stores equipped	14	13	93%
# of SHF aggregating commodities in identified collection centres	7,060	2207	31%
# of B2B meetings conducted	63	40	63%
# of producer groups taking part of the B2B meetings	30	40	133%
# of business buyer/off taker linkages established	28	14	50%
# of trade agreements signed between buyers and suppliers	11	11	100%
# of producer organizations linked to VC actors	30	37	123%
# of farmers linked to other VC actors	25,625	7992	31%
Volume and value of commodities traded (MT)	5,120	1454	28%
# of market assessments conducted	3	3	100%
# of key market off takers and actors profiled	15	15	100%
# of market assessment reports updated and developed	3	3	100%
# of new market opportunities identified	28	2	7%

#### 4.2.1 Activity 1.2.1. Foster linkages between smallholder farmers, agro-processors and market operators

##### 4.2.1.1 Sub activity 1.2.1.1 Train suppliers on business skills, negotiation skills and management of contracts.

During the year Kilimo Trust continued to train producer groups in business development skills (BDS) and conducted refresher ToT trainings for the project change agents/ community development promoters (CDPs). Technical backstopping and monitoring of BDS training roll out by CDPs to farmer groups was also accomplished. To date, a total of 28,620 farmers from the seven districts of Apac, Kwanja, Amolatar, Dokolo, Otuke, Amuria and Kapelebyong have been trained (male- 12,070; female- 16,550). These trainings are meant to promote business development skills within the cooperatives to stimulate business astuteness i.e., commercialization (doing farming as a business), collective marketing, contract negotiation and management, record keeping, among others. The training manual was revised to address gender issues in-order to bridge the gender gap. As a result, increased commercialization and collective marketing at group and cooperative level has been observed. This is projected to continue on a positive trend given the capacity building and farmer linkages to markets. On another hand, Kilimo Trust also conducted business orientation for 19 cooperatives on business skills from the districts of Apac (03), Kwanja (03), Amolatar (03), Dokolo (03), Otuke (02), Amuria (02) and Kapelebyong (03). The leadership of these cooperatives was involved leading to a total participation of 69 farmers (male= 51, female= 18, youth=19).

#### Outputs

- An accumulative total of 28,620 farmers (males- 12,070; females - 16,550) have been trained in BDS thus far. This represents 114% of the annual target and 93% of the project target.
- 19 cooperatives from the seven districts have been oriented in business skills.

#### 4.2.1.2 Sub activity 1.2.1.2 Upgrade and equip storage facilities

As a prerequisite to contracting, Kilimo Trust on behalf of BRENU published a call to tender for construction in quarter two 2021, followed by site visits and evaluation of tender documents. Tender bid documents for 21 companies were opened and evaluated by an evaluation team comprising of five Kilimo Trust technical staff, who after due diligence, shortlisted the most competitive potential tenderers per lot. Two contractors were selected for the construction works i.e., Sanqua Engineering Ltd and Oyam construction & trading company limited for construction works in Teso and Lango sub regions respectively. Construction of three new storage facilities is underway in Otuke, Kapelebyong and Amolatar while in the rest of the districts, rehabilitations of four storage facilities is underway being.

In October 2021, site handovers were conducted in groundbreaking ceremonies engaging local government officials, cooperatives, contractors and managed by the BRENU team. To date, work commenced at six (06) of the sites i.e., Acowa, Muntu, Nambieso, Okoboi, Alworoceng and Chegere sub counties – currently at an average of 63% completion.

To fulfill the storage equipping mandate, evaluation of tenders for supply of equipment for the storage facilities was concluded i.e., moisture meters and weighing scales. The contractor, Green Weighbridge Ltd provided 10 digital platform scales and 12 moisture meters which were distributed to 12 cooperative societies with over 5,500 farmers in quarter three and quarter four. This aimed at promoting transparency- curb the issue of farmers being cheating by traders due to faulty scales as well as ensure good quality standards of produce is observed.

#### **Output**

- Sanqua engineering ltd and Oyam construction & trading company limited commenced store construction and rehabilitation at six of the sites in Teso and Lango sub region i.e., Acowa, Muntu, Nambieso, Okoboi, Alworoceng and Chegere sub counties. Currently at an average of 63% completion.
- 10 digital platform weighing scales and 12 moisture meters were distributed to 12 cooperative societies composed of over 5,500 farmers across the seven districts. Thus attaining 85.7% of the project target.

#### 4.2.1.3 Sub activity 1.2.1.3 Purchase postharvest and processing technologies equipment for target commodities

##### **Purchase of soybean processing machines and rice threshers:**

As part of the procurement process for the postharvest technologies, Kilimo Trust made an assessment for the technology requirements of the different cooperatives and groups. With engagement of technical personnel and consultation from some farmers, identified the specifications for the different processing equipment. This was followed by a transparent procurement process and the contract was awarded to the most competitive supplier in terms of price, capacity and references and quality verification before distribution i.e., Munyegera Agro-Machinery Ltd. The postharvest technologies including motorized soybean thresher, motorized rice thresher and automated grain cleaner were tested and approved for distribution and delivery to producer groups started in August 2021. To date, out of the targeted 71 machines for distribution, 64 machines have been distributed to 39 producer groups. To ensure sustainable usage and management of the machines, each producer group nominated two youths based on merit and business acumen, that were trained in utilization, operation, and maintenance. The youth operate the machines under the supervision of the producer group, offering a subsidized rate to members and commission to the cooperative. Therefore 69 youth have been able to gain employment as machine operators.



**NB:** It is to be noted that rice threshers were an addition to the list of equipment to be purchased following on from the initial plan that included only soybean processing technologies. The project deemed the addition of rice threshers prudent because rice is the predominant value chain for some cooperatives. This decision did not affect the budget as the available resources were utilized.

#### **Output**

- A total of 64 machines (motorized soybean threshers, motorized rice threshers) were distributed to 39 producer groups, representing 90% of the project target. The remaining seven machines will be distributed in year three.

#### **Purchase and distribution of mobile cassava chipping machines and construction of cassava drying racks**

IITA procured and is distributing cassava chipping machines and cassava drying racks to women and youth groups, cooperatives and smallholder farmer groups engaged and/or interested in cassava production at a commercial level in all the seven districts. The technology donation aims at addressing the challenges of poor postharvest handling that results into poor quality cassava chips that yield low prices. Smallholder farmers' capacity to produce high-quality cassava chips will be enhanced with the hope of attaining better market prices for their produce and increase income level. In addition, tarpaulins were also distributed to farmers for cassava drying.

In quarter two, IITA made an assessment to establish and select cassava producing groups to be supported with chipping machines and drying racks. A total of 84 groups (19 women groups, 08 youth groups and 57 mixed- gender groups) and seven (07) cooperatives were selected to benefit from the cassava chipping machines and drying racks across the seven districts. The increased interest in cassava machines led to adjustment of original target from 71 to 84 machines. Additionally, a request for proposals advertisement was published to source for a potential service provider for supply of cassava chipping machines and construct drying racks. Tender bids were received by IITA procurement unit, and following a transparent bid evaluation process, Tonnet and Anyibi were selected by IITA to supply 85 cassava chippers and 85 drying racks respectively. Distribution of the equipment was flagged off by district stakeholders led by the resident district commissioners in October 2021.

A total of 84 smallholder farmer groups received the mobile cassava chipping machines, it was observed and reported that the groups are already using the machines and earning some income from charges for a service to non-group members. *"A group in Otuke district got a contract (informal/verbal arrangement) to chip 40 acres of cassava and each day they are charging UGX 50,000. In addition, groups reported significant reduction in cassava chips drying time in comparison to manual chipping. Bosco who is one of the farmers noted that, "drying cassava chipped by hands used to take between 4 to 7 days for the chips to dry and due to long drying time the chips would develop molds significantly reducing on the quality and marketability of the chips".*

The introduction of mobile cassava chipper has resulted in high-quality cassava chips because of the reduced drying time to a single day from 4-7 days when manually chipped by hands.

#### **Outputs**

- 85 cassava chippers and 85 drying racks were produced by Tonnet and Anyibi respectively.
- A total of 84 groups (19 women's groups, 08 youth groups and 57 mixed- gender groups) and seven (07) cooperatives were selected to receive cassava chipping machines and drying racks across the seven districts.
- So far 84 groups have each received a cassava chipper and a drying rack pending one group that will receive in year three.

#### 4.2.1.4 Sub activity 1.2.1.4 Introduce/demonstrate/promote use of efficient post-harvest handling, processing equipment and technologies

Kilimo Trust procured postharvest handling (PHH) and processing technologies for target commodities including motorized soybean threshers (45), motorized rice threshers (8), and automated grain cleaners (18) which were distributed to smallholder farmers in the seven target districts. During equipment distribution, farmers are trained on efficient technology machine operation to prevent machine misuse. The technologies are also promoted for their potential for commercial production with a capacity of 800-1200kg coupled with fuel efficiency and labor-saving nature especially for women. To drive uptake, 66 technology demonstrations were conducted targeting the host producer groups. These engaged 1,366 farmers (male- 973, female-393) belonging to the different producer groups. To date, 451 farmers (male-376, female-75) adopted and are utilizing improved postharvest technologies. i.e., The highest adoption and utilization rate was with the rice thresher, followed by the soybean thresher. To date, with 28 operational machines during the harvesting season, a net income of UGX 5,746,950 was generated by the host cooperatives.

As result of using modern post-harvest machines, results from midterm evaluation indicate that 59% of the farmers practice post-harvest handling by using modern technologies while 67% have knowledge on the existing PHH technologies.

##### **Out put**

- Three (03) improved technologies including the motorized rice threshers, motorized soybean threshers and automated grain cleaners were distributed, promoted for adoption and efficient utilization demonstrated to farmers.
- 66 technology demonstrations were conducted across the seven districts representing 88% of the project target and 132% of the annual target.
- 451 farmers have adopted and started using the improved postharvest technologies.

#### 4.2.1.5 Sub activity 1.2.1.5: Training of farmer business organizations (FBOs) in postharvest handling (PHH) quality and standards.

To address losses registered during pre and post harvesting process, **1,860 FBOs out of the targeted 2,050 FBOs were trained in PHH representing** an achievement of slightly over 90%. This was achieved in partnership with 186 CDPs (Kapelebyong – 30 (11 females, 19 males), Amuria – 22 (2 females, 20 males), Otuke – 23 (5 females, 18 males), Amolatar – 29 (7 females, 22 males), Dokolo – 33 (6 females, 27 males), Apac – 24 (6 females, 18 males), Kwanja – 25 (4 females, 21 males), who received a ToT training by Rikolto on post-harvest handling (PHH) practices for soya bean, rice, and cassava over a three-day period. The training focused on six systematic ultimate stages in postharvest handling which include: harvesting, transportation, drying to required moisture content, processing, pest control and appropriate storage. These trainings are aimed at reducing losses, increasing the longevity and value of the produce, improving the quality of grains which will in turn earn better prices for the produce and ultimately increase farmer incomes. The CDPs conducted FBO-level training on behalf of the Action with beneficiaries from-Kapelebyong – 300 FBOs, Amuria – 220 FBOs, Otuke – 230 FBOs, Amolatar – 290 FBOs, Dokolo – 330 FBOs, Apac – 240 FBOs, and Kwanja – 250 FBOs. Other FBOs will be trained in the first quarter of 2022.

Rikolto is currently engaging with the Uganda National Bureau of Standards (UNBS) for collaboration in training farmers in PHH protocols/quality and standards for the three crops- soybean, cassava and rice promoted by the project as commercial value chains. UNBS was however, unable to work with Rikolto within the financial year (2020/2021) considering the existing demands derived from their approved work plans. These field activities were rescheduled subject to UNBS's availability. The technical teams from both organizations are working on the preparatory requirements such as identifying and prioritizing

activities, preparing, and sharing the joint activity work plan and developing the concept note to guide the collaboration roadmap.

**Outputs:**

- An accumulative total of 186 CDPs received ToT training in pre and postharvest management and value addition.
- Formalization of the collaboration to train farmers in PHH protocols and standards between the project (through Rikolto) and UNBS is ongoing.

**4.2.1.6 Sub Activity 1.2.1.6 Developing of training materials**

Rikolto developed high-quality PHH training materials (manuals and fliers) for soybean, cassava, and rice that were approved by OPM for C&V compliance. The supplier - Platinum general supplies printed the materials that were distributed to project beneficiaries during the training of FBOs by CDPs as already reported under activity 1.2.1.5 above. The materials were printed as follows, (i) 2,000 sustainable rice production (SRP) manuals (SRP) - A4, (ii) 3,000 cassava PHH training manual- A4, (iii) 8,000 dry properly-rice flier - A4, (iv) 8,000 dry properly-rice flier -A2, (v) 2,000 FBO development training manual -A4, (vi) 8,000 Keep it clean rice flier - A4, (vii) 8,000 Keep it clean rice flier - A2, (viii) 2,000 Soya bean post-harvest training manual.

Table 8:

**Outputs**

- A set of PHH manuals were developed approved by OPM for C&V compliance and distributed to CDPs and FBOs during PHH training.

**4.2.1.7 Sub activity 1.2.1.7 Training of small holder farmers' cooperative members and FBOs on access to finance and agricultural insurance.**

Training of cooperative and FBO members on how to access finance and agricultural insurance was undertaken by Rikolto between October-November 2021. Overall, a total of 572 smallholder farmers (male-409/female-163) selected from all the targeted project districts participated in the trainings.

Following the trainings, linkages were also facilitated by Rikolto between farmer organizations (agricultural marketing cooperatives and FBOs), and different financial institutions (Savings and Credit Cooperatives (SACCOs) and commercial/development banks). However, prior meetings between financial institutions (Stanbic bank) and 572 FBO leaders (male-409/female-163) from all 14 sub-counties covered by the project, were held in the month of July 2021. The meetings were aimed at ensuring that both Rikolto project staff and the farmer leaders clearly understand the lending requirements of financial institutions and strengthen the farmer organizations purposely towards meeting those conditions. Some of these lending requirements include (i) cooperative or FBO willing to borrow from the bank should be formally registered (for instance with the registrar of cooperatives for the case of cooperatives), (ii) have audited books of accounts in place, (iii) have a business plan in place, (iv) have a contract with a buyer(s), (v) have a bank account, and (vi) have a resolution to borrow from bank in place.

To date, a total of **21 farmer agricultural marketing cooperatives** (Amolatar-4, Apac-4, Otuke-2, Amuria-5, Kapelebyong-4 and Kwania-2) comprising 11,516 members (5382 M/6134 F), along with **52 FBOs** (32 in Dokolo and 20 in Apac) comprising **2,500 members (1307M/1193F)** have been linked to different financial institutions; twelve (12) of the cooperatives, along with the 52 FBOs were linked to different savings and credit co-operative societies (SACCOs) within their localities, while the remaining ones were linked to different banks of their preferences (such as Opportunity bank Lira branch, DFCU Dokolo branch, Post bank, and Stanbic). More progress on these linkages (in terms of business relationships) will be captured and reported in the next report.

As part of the process towards strengthening cooperatives and FBOs, Rikolto identified and trained local government staff (i.e., 14 (male-11/female-3) sub-county community development officers (CDOs)) to support in the mobilization of those village-level farmer groups in their respective sub-counties that do not belong to any form of higher-level farmer organizations.

The trained CDOs mobilized and trained 548 (male-384, female-164) small holder cooperative leaders on formation and strengthening of the lower-level farmer organizations, which led to the formation of 24 primary cooperatives across the seven districts. The trained CDOs will also be engaged to undertake other trainings such as cooperative governance and management trainings in those newly formed higher-level farmer organizations. They will also support the farmer organizations to register as cooperatives in addition to continuing to sensitize farmers on the lending requirements of financial institutions, and the benefits of agricultural insurance. Upon formal registration, setting up of functional governance and management systems and processes/procedures, Rikolto will link the newly formed higher level farmer organizations to financial institutions.

#### **Output**

- 572 (male-409/ female-163) cooperative members trained/sensitized on access to finance and agricultural insurance.
- 21 **farmer agricultural marketing** cooperatives (11,516 members) and **52 FBOs (2,500 members)** have been linked to financial institutions.
- 548 (384 M,164 F) smallholder cooperative leaders mobilized and trained by CDOs on formation and strengthening of the lower-level farmer organization. This led to formation of 24 new primary cooperatives across the seven districts.

#### **4.2.2 Activity: 1.2.4 Assess and identify market opportunities and product niches along the stages of the value chain and facilitate market exchanges and contractual agreements**

##### **4.2.2.1 Sub activity: 1.2.4.1 Conduct market assessments and profiling**

##### **4.2.2.2 Sub activity: 1.2.4.2 Update and develop commodity and market assessment reports**

##### **4.2.2.3 Sub activity: 1.2.4.3 Identify new markets for target commodities and their by- products**

In the first quarter of year one, Kilimo Trust published the terms of reference for a comprehensive market assessment study and reviewed proposals for consultants to be engaged. Knowledge wells Consults Ltd was the best candidate based on the most competitive bid. The consultant started the assignment in May 2021. While the exercise was halted due to countrywide lockdown to curb the spread of COVID- 19, it resumed in September 2021 with primary data collection. To-date, final reports on market assessment for value chains (VC) of soybean, cassava and rice have been submitted by the consultant for review. Simplified information packs will be disseminated to the producer groups and market actors in the first quarter of year three.

#### **Outputs**

- Three (03) final reports on the market assessment of VC of soybeans, cassava and rice were submitted by the consultant for review. Additionally, the market assessment revealed three (03) market opportunities to tap into. These include bridging the soybean supply gap in the domestic market by increasing production, household level value addition to soybeans and production of high-quality cassava chips.

##### **4.2.2.4 Sub activity 1.2.4.4 conduct service sector analysis undertake digital mapping and assess SMEs and FBO capacity/needs (through SCOPE insight assessment tool).**

In early 2021, Rikolto undertook an assessment to determine the capacity gaps of FBOs and SMEs, and requirement for digital solutions as an enabler to improve business operational efficiency. The assessment revealed FBOs record maintenance challenges (especially production-related records), which made their

production and harvest projections unreliable. Additionally, it was revealed that SMEs (off-takers) need to maintain a database of suppliers (smallholder farmers) for planned purchases of produce from FBOs and provision of technical support at harvest time for quality assurance. With this revelation, Rikolto supported the SMEs in acquisition of a multi-purpose/functional digital solution that can be used as a supply chain management tool, has the capability to disseminate SMS information (both technical advice and market-related information) and integrate with other already existing payment solutions such as MTN mobile money, Airtel Money, among others. The eprod digital solution, which is both a computer and mobile phone-based, was selected and deployed encompassing all the functionalities required by the different market actors (SMEs- off takers and/or processors) and FBOs.

#### **Output**

The eprod digital solution, which is both a computer and mobile phone-based, was selected and deployed encompassing all the functionalities required by the different market actors (SMEs- off takers and/or processors) and FBOs.

#### **4.2.2.5 Sub activity 1.2.4.5 Customize digital solutions (information and payment systems) and install digital market information system (MIS) solution in one region (including user orientation).**

As already mentioned above, one (01) digital solution i.e., the eprod digital solution was customized and installed on computers and smart phones for four produce off-takers/processors (Diners Group Limited, Soya Solution East Africa Limited, Gloford Institute and Acila Enterprises) and 20 FBOs (100 mobile phones). This was done in the five (05) day training by Rikolto where the off takers and FBOs were trained on the use and management of the software. The major hands-on training topics included, mobile app installation, registration of farmers and fields, conducting inspections, field surveys and collections. The FBOs are expected to use the mobile-based digital solution for collecting different field data such as acreage under production per FBO members, crop variety, expected yield, among others. The SMEs (off-takers and processors) will have access to this data (from the FBOs), which they can use to plan their procurement of produce from farmers. Starting 2022, the SMS and payment functionalities of the digital solution are activated, with a phased roll-out of the different functions of the system giving lead time for user appreciation per function, consensus upon milestone/target per function, before introduction of a new function in the system.

#### **Output**

- Digital solution installed on computers and smartphones of four produce off-takers/processors and **20 FBOs (100 mobile phones).**

#### **4.2.2.6 Sub activity 1.2.4.7. User Orientation of the digital solution per region and support**

A total of **100 CDPs (92M/8F) out of targeted 205 CDPs** from the seven districts were oriented on how to use the eprod mobile App i.e., Amolatar – 25 CDPs (Geneber Cooperative Society – 5 CDPs Pedacon – 5 CDPs, Muntu united – 5 CDPs, Par Pi Anyim – 5 CDPs, Oryem can – 5 CDPs), Dokolo – 15 CDPs (Dokolo coffee – 5 CDPs Okwongodul oil Seeds - 5 CDPs Ayemedongeca - 5 CDPs), Kwania - 15 CDPs (Odoloamido - 5 CDPs Ayabi cooperative - 5 CDPs Ayiki amorigoga - 5 CDPs), Apac – 20 CDPs (Chegere ACE - 5 CDPs Kidilani RPO - 5 CDPs Ibuje - 5 CDPs Abulomogo maize farmers - 5 CDPs), Otuke – 10 CDPs (Acan kwete - 5 CDPs Acan kwo ilwete - 5 CDPs), Kapelebyong – 10 CDPs (Ajarata farmers’ cooperative - 5 CDPs Acowa farmers’ Cooperative Society - 5 CDPs), Amuria – 5 CDPs (Orungo joint farmers Coop - 5 CDPs). The exercise was undertaken by technical staff from eprod, along with Rikolto staff. Upon their familiarization with the digital solution, the CDPs went out the field to orient FBO leaders on the use of the digital solution, including how to use it for field data collection from their members, editing the data collected, and uploading it on the eprod central server. To date, the FBO leaders, along with the four off-takers/processors i.e. Diners group, Acila, Soya solutions, and Gloford have so far collected and entered

data (including production data) from a total of 6,028 (3,691M/2,337F) farmers on the system, and the exercise is still on-going.

Staff from Gloford institute of innovation, Acila enterprises, Soya solution, Diners group Limited, and Adyaka millers were also oriented on the use of the digital solution by eprod and Rikolto staff. Overall, a total of **18** staff from the 4 companies are now conversant with the use of the digital solution and are now making use of it.

#### **Output**

- A total of 100 CDPs (92M/8F) out of targeted 205 CDPs from the seven districts were oriented on how to use the eprod mobile App
- Data from a total of 6,028 farmers (3,691M/2,337F) has been entered in the system.

#### **4.2.2.7 Sub Activity 1.2.4.9. Link producer MIS to agro-dealers, buyers, processors and payment platforms.**

Rikolto facilitated the linkage of producer MIS to buyers and/or processors (off-takers). A total of 20 FBOs MIS have been shared with buyers and processors (off takers). These resulted in establishment of four (04) business linkages. The processors with access to the producer MIS are Diners Group Limited, Soya Solution East Africa Limiteds, Gloford Institute and Acila Enterprises. This exercise continues into 2022 were linkages of the producer MIS with other payment platforms will be done. Linkage of agro-dealers to the MIS is also planned upon reaching the set target of 12,300 farmers, a critical number to lower the cost of system usage.

#### **Out puts**

- A total of 20 FBOs MIS have been shared with buyers and processors (off takers) resulting in establishment of four (04) business linkages.

#### **4.2.2.8 Sub activity: 1.2.4.10 Formalize trade agreements between suppliers and buyers and**

#### **4.2.2.9 Sub activity: 1.2.4.13: Undertake Business 2 Business (B2B) meetings for business engagements**

To facilitate formalization of trade, Kilimo Trust established 14 business linkages between identified off takers (Lira Resort Enterprises, Diners Group Ltd, Oasis Agribusiness Ltd) and producer groups. Through these linkages, 35 producer groups have been linked to market off takers. Some of the producer groups include Odoloamido cooperative society Ltd, Ayiki Amorogoga oil seed producers & marketing cooperative society, Aderolongo oil seeds producers and marketing cooperative society Ltd, Gene ber marketing association, Oryemcan farmers' cooperative society Ltd, Okwongodul oil seeds producer and marketing cooperative society Ltd, Dokolo coffee farmer cooperative society among others. Operationalization of trade required conducting business to business (B2B) engagements between producer groups and off takers. To date, 40 B2B meetings have been conducted from which, 11 trade agreements were signed involving 10 cooperatives and two off takers for rice and soybean i.e., Oasis agribusiness and Diners group Ltd. The two off takers committed off taking 1,625 MT of produce worth at least USD 451,388 per year within the next two years which led to increased trade volumes by the producer groups and farmers. To date, 1,454 MT of produce worth USD 403,888 has been traded which represents over 500% increment from the baseline and 73% of the annual target.

#### **Outputs**

- 11 trade agreements were signed involving 10 cooperatives and two off takers for rice and soybean i.e., Oasis agribusiness and Diners group Ltd. This represents 100% of the project target.
- 1,454 MT of produce worth USD 403,888 was traded which represents over 500% increment from the baseline and 73% of the annual target.
- The two off takers committed off taking 1,625 MT of produce worth at least USD 451,388 per year within the next two years.

- Kilimo Trust organized and held 40 pre-season B2B meetings between the off takers and the cooperatives in the target districts.

### 4.3 Result 1.3: Nutrition and public health interventions

#### 4.3.1 Activity: 1.3.1: Developing and promoting community-based nutrition initiatives including micronutrient supplementation & deworming, promotion of maternal and young child feeding practices, hygiene and sanitation and childcare

Table 7:

MEDICAL - SUPPLIES GIVEN OUT								Bags			
District	Subcounty	Vit A	Alb syrup	Alb tabs	MUAC tapes	Sanitizers	CDsx PLS	Peers	CDPs	Nurses	Phones
Dokolo	Amwoma	510 caps	408	8500tabs	34	16	0	16	16	0	16
	Okwongodul	0	0	0	32	17	0	16	15	0	16
Amolatar	Muntu	420caps	336	7000tabs	28	14	0	14	14	0	14
	Arwotcek	0	0	0	30	15	0	14	15	0	14
Otuke	Olilim	360caps	288	6600tabs	24	12	0	11	12	0	11
	Ogor	330caps	0	0	22	11	0	11	11	0	11
Apac	Ibuje	360caps	288	6000tabs	32	16	0	16	16	0	16
	Chegere	0	0	0	36	18	0	17	18	1	17
Kwania	Abongomola	0	0	0	30	15	0	15	15	0	15
	Nambieso	570caps	456	9500tabs	38	19	0	19	19	0	19
Amuria	Abarilela	390caps	312	6500tabs	26	13	240 pkts	13	13	0	13
	Orungo	0	0	0	18	9	0	9	9	1	9
Kapelebyong	Acowa	510caps	408	8500tabs	34	17	0	17	16	0	17
	Kapelebyong	0	0	0	26	13	0	13	13	1	13
<b>TOTAL SUPPLIES GIVEN OUT</b>		<b>3450</b>	<b>2496</b>	<b>52600tabs</b>	<b>410</b>	<b>205</b>	<b>240pks</b>	<b>201</b>	<b>202</b>	<b>3</b>	<b>201</b>
<b>Note:</b>	Vitamin A-supplements, Albendazole Syrups and Tablets were distributed in one subcounty not two as earlier planned due to limited funds.										
	CDsx PLS- Condoms: - Were only distributed in Abarilela-Amuria district and the distribution was halted pending consultation from Communities										
	Bags: remaining Peer Leads, CDPs, Nurses' bags will distributed in year 3.										

#### 4.3.1.1 Sub activity: 1.3.1.1 Training community livelihood groups in nutrition agriculture, maternal and child health:

During the year, CDPs and CDFs that received nutrition training in module one: basic concepts of nutrition cascaded the training content to the community livelihood groups (CLGs) with a total of seven (07) trainings conducted in each of the seven districts. The CLGs are currently being trained in module two: Enhancing smallholder household dietary diversity through kitchen gardens by CDPs and CDFs. Bioversity International team provided backstopping and training materials to the CDPs and CDFs at all levels of training.

The training schedule especially roll out of module one and implementation of module two was delayed due country-wide movement restrictions aimed at curbing the spread of COVID-19.

During quarter three, ECUREI trained 205 CDPs on; how to assess the level of malnutrition in children using oedema and pregnant women using the mid upper arm circumference (MUAC). They were also provided with referral forms and trained on how to use them to refer malnourished cases to the nearest health facilities for further management. The 205 CDPs were equipped with practical knowledge on how to provide food-based nutrition counselling. In general, the activity promotes early detection and management of malnourished cases promoting the health of the beneficiaries.

### **Outputs**

- A total of 1,782 CLG (Amolatar 254; Amuria 209; Apac 305; Dokolo 228; Kapelebyong 265; Kwania 292; Otuke 229) out of the targeted 2,050 CLGs were trained on Module one on basic concepts of nutrition by CDFs.
- 39,785 CLG members (72% women; Amolatar 3,624; Amuria 6,381; Apac 5,818; Dokolo 3,405; Kapelebyong 7,994; Kwania 6,739; Otuke 5,824) out of the target of 51,250 farmers were trained by their CDFs on Module one in June-July 2021. This leads to a 77% achievement.
- 205 CDPs trained on how make assessments for malnutrition in children and pregnant women using MAUC.

#### **4.3.1.2 Sub activity: 1.3.1.2 Training of Community livelihood agents and households on nutrition:**

BRENU is making use of the community development group approach where CDPs and CDFs are used as agents to cascade trainings to the CLGs. A total of 195 CDPs were trained by Bioversity International on Module one- basic concepts of nutrition and Module two- Enhancing smallholder household dietary diversity through kitchen gardens in May 2021 i.e., Amolatar 29, Amuria 22; Apac 32, Dokolo 30, Kapelebyong 30, Kwania 29, Otuke 23. A refresher training for module two was conducted in October 2021 (188 CDPs, 24% women) prior to the roll out that included the additional 10 CDPs and other CDPs training their CDFs and subsequent CLGs.

A total of 1,691 CDFs (30% women; Amolatar 229, Amuria 209; Apac 255, Dokolo 261, Kapelebyong 265, Kwania 260, Otuke 212) were trained by their CDPs in Module 1 in May-June 2021. Subsequently, 1,625 CDFs (28% women; Amolatar 222, Amuria 209; Apac 233, Dokolo 177, Kapelebyong 265, Kwania 302, Otuke 227) were trained in Module two in November 2021. Untrained CDFs by reporting time will be trained in year 3. CDPs were equipped with training manuals and visual aids for modules one and two and the CDFs were equipped with key message booklets on the respective modules.

As a result the training in nutrition increased CDP knowledge levels. “Results from Midterm survey conducted in December 2021, farmers practicing good nutrition practices were 9%- practice and 43%- were knowledgeable of the nutritional practices. Increase in farmers practicing good nutrition is expected to improve in year three after completing training in nutrition, kitchen garden trainings and cooking demonstrations”.

However, the training schedule especially roll out of module one and implementation of module two was delayed due country-wide movement restrictions aimed at curbing the spread of COVID-19. Plans for implementation of module three -concepts of food preparation and utilization are underway.

Low participation of women in project activities was noted with most of the CDPs being male. To address this, direct and increased interaction between the Bioversity International team and the CDFs and CLGs was seen to improve the participation of women in project activities as well as increasing morale among the CDFs, especially they women CDFs.

### **Outputs**

- 205 CDPs were trained by Bioversity International on Module one and Module two leading to a 100% achievement.



- 1,691 CDFs (30% women) were trained by CDPs on Module one.
- 1,625 CDFs (28% women) were trained on Module two.
- 14 trainings were conducted across the seven districts: In each district, two trainings for CDPs and CDFs on module one and module two were conducted.

#### 4.3.1.3 Sub activity: 1.3.1.3 Develop, test, and launch a nutrient rich product:

Bioversity identified Divine organic foods Ltd (DOFs) based in Lira as the suitable small and medium food enterprises (SMFE) for collaboration in the development, testing and launching a nutrient dense product. The contracting process was completed between Bioversity International and Divine Organic foods Ltd with the issuance of the EU designated contract number: FED2019/412-802 and while for Bioversity identified as: BI/UGA/2021/01. Though the contracting process took longer than anticipated DOFs carried out product identification, product development and a market survey analysis which involved a market feasibility study and proto-type testing for the three potential nutrient rich products ongoing in all the seven districts. The potential nutrient rich products identified include, (i) Divine nutrimix, a composite of soy, iron rich beans and OFSP flours, (ii) Divine nutri-snack, a ready to eat snack with OFSP puree or flour and iron rich beans mainly for children, (iii) A porridge with soy and OFSP. The results from these studies will aid the finalization of the product development process which will be followed by community acceptability evaluation and scaling of production in quarter one 2022 and market penetration and distribution planned for quarter two 2022.

#### **Outputs:**

- Divine Organic Foods based in Lira was contracted to develop and test a nutrient rich product.
- product identification, product development and a market survey analysis conducted.
- Potential nutrient rich products identified.

#### 4.3.1.4 Sub activity: 1.3.1.4 Establish nutritious kitchen gardens:

Bioversity procured planting material for the seven crops (sukuma wiki, spinach, pumpkin, OFSP (NASPOT 13), Iron rich beans (NAROBAN 1), Amaranthus and papaya) to establish 560 kitchen gardens by 205 CDPs and 365 CDFs. Trainings on the kitchen gardens will effectively take place in year 3 and the establishment of kitchen gardens will happen in year 3 across the seven districts when the rains begin to avoid losses that may have happened because of drought.

#### 4.3.1.5 Sub activity: 1.3.1.5 Establish on-farm demonstration plots for selected nutritious and diversified crops:

Bioversity International established demonstration gardens for selected nutritious and diversified crops in various community locations managed by CDPs with support from CDFs. During year 2, a total of 228 on farm demonstration gardens were established; (166 established in season 1 and 62 in season 2). The establishment of on farm gardens were supported by extension workers, CDPs and CDFs. Seeds such as Sukuma wiki, spinach, pumpkin, OFSP (NASPOT 13), iron rich beans (NAROBAN 1), Amaranthus and papaya were planted on the onfarm demonstration gardens and also gardening tools such as hand hoes, pangas, watering cans, jerrycans and other agricultural inputs like planting ropes were also procured and distributed to the farmer hosts. As a result, these gardens are continuing to act learning centres for nutritional crops to promote peer support and sharing experiences of new learning and replication of the good practices. The fast adopters will be encouraged to work as a team to support the slow adopters.

The demonstration gardens were visited by group members to learn about the crops and good management practices i.e., 1st season – 4,542 farmers (62% women) and 2nd season – 4,664 farmers (56% women) visited the gardens. These gardens are used as learning platforms for group members on how to grow nutritional crops that can boost their nutrition and used to multiply planting material that will benefit the CDFs and later the CLGs.

**Table 8**

<b>Demonstration</b>	<b>On Farm - Established Gardens</b>										
	<b>Target</b>	<b>Doko</b>	<b>Amu</b>	<b>Kapeleby</b>	<b>Ap</b>	<b>Kwa</b>	<b>Otu</b>	<b>Amola</b>	<b>Tot</b>	<b>%-</b>	<b>Size</b>
		<b>lo</b>	<b>ria</b>	<b>ong</b>	<b>ac</b>	<b>nia</b>	<b>ke</b>	<b>tar</b>	<b>al</b>	<b>achiev</b>	<b>of</b>
										<b>ed</b>	<b>land</b>
											<b>per</b>
											<b>garden</b>
											<b>en</b>
<i>On-farm Gardens.</i>	228	34	29	34	36	33	29	33	228	100%	0.22
											acres

Each of the gardens are being expanded to cover one (01) acre have seven nutrient dense crops i.e., (i) orange fleshed sweet potato (NASPOT 13), (ii) iron rich bean (NARO Bean 1), (iii) collards/ Sukuma wiki, (iv) spinach, (v) papaya, (vi) dodo/ Amaranthus and (vii) pumpkin.

The gardens established in the 1<sup>st</sup> cropping season were greatly affected by drought, pests, and diseases and only 28 gardens reported a harvest. The harvests varied in each sub-county and were mainly of pumpkin leaves, pumpkins, Amaranthus, spinach, Sukuma-wiki, OFSP and iron rich beans. Efforts were made to ensure timely seed delivery in the 2<sup>nd</sup> season as well as support from the agricultural extension regarding pest and disease management. No gardens were established in Amolatar in the 1st cropping season due to the inter district travel restrictions aimed at curbing the spread of COVID-19.

#### **Outputs**

- 228 demonstration gardens were established in the 1st and 2nd cropping season of 2021 respectively.
- Seven (07) crops were planted in each demo garden and season: sukuma wiki, spinach, pumpkin, OFSP (NASPOT 13), iron rich beans (NAROBAN 1), Amaranthus and papaya.

#### **4.3.1.6 Sub activity: 1.3.1.6: Hold seminars for community development promoters**

Review meetings for community development promoters were conducted from 26<sup>th</sup> April through 7<sup>th</sup> May 2021 with the aim of reviewing CDP's experience and engagement in the project. The meeting agendas included reflection on key deliverables and timelines for CDPs, sharing of project successes, deepening the understanding of project expectations under the three project results areas: increased production and productivity, increased market access and linkages, and nutrition & health and finally, signing monthly facilitation agreements. The meetings also aimed at jointly identifying realistic challenges affecting project activity implementation, recommendations on mitigation strategies and actionable solutions.

A total of 205 CDPs participated in the activity across the seven districts. During the reviews a participatory approach was crucial in actively involving CDPs. Group work dynamics were employed to ensure CDPs actively shared their experiences from the community and the impact of the project so far.

During the meetings different project partners exhaustively responded to questions and concerns. Partners also shared their workplans. A total of 205 CDPs attained clear understanding of the project, and this alleviated any possible misconceptions about the project objectives. Potential challenges, opportunities and action points were documented and addressed. This was also an opportunity for interaction and networking, encouraging cross learning.

#### 4.3.2 Activity: 1.3.2 Increase the use of effective family planning methods with the aim of decreasing the number of teenage pregnancies and increasing child spacing which address both nutrition and population growth issues.

##### 4.3.2.1 Sub activity 1.3.2.1: Conduct home visits to monitor uptake of micronutrient supplements, deworming and identify malnourished children and pregnant women.

During quarter two, the action through ECUREI conducted stock taking inventory process in 14 public health centers in the seven districts of implementation i.e., (1). Atangwata H/C III, (2). Olilim H/C III found in Otuke; (3). Nakatiti H/C III and (4). Arwotchek H/C II found in Amolatar; (5) Anyacoto H/C II and (6). Amwoma H/C III found in Dokolo; (7). Abongomola H/C II and (8). Nambieso H/C III found in Amolatar; (9). Kidilani H/C II and (10). Ibuje H/C III found in Apac; (11). Orungo H/C III and (12). Abarilela H/C III found in Amuria; (13). Amaseniko H/C III and (14). AJeleik H/C III found in Kapelebyong. This helped to identify supplements that were needed and those out of stock at the health facilities. Vitamin A was the most available supplement with an average of three (03) tins per facility, Mebendazole- 1.8 tins, folic acid- an average of 1.5 tins per facility and ferrous sulphate with one (01) tin per facility. The inventory findings informed the decision for the procurement and supply process.

In quarter three, ECUREI procured and distributed the following items to community development promoters (CDPs) who were expected to deliver them to households' beneficiaries and use some while implementing project activities at household level. i.e.,

- **Mid upper arm circumference (MUAC) tapes:** used by CDPs to determine malnutrition through measuring the upper arm circumference of children aged 6-59 months and pregnant women.
- **Vitamin A (7500 Vitamin A capsules for children):** distributed by CDPs to households with children aged 6-59 months. Vitamin A supplementation reduces child morbidity and mortality.
- **Deworming tablets and syrups** (albendazole tablets and syrups - 55,000 deworming tablets for children aged 24 months and above, 2,050 deworming tablets for adults, 2,500 deworming syrups for children 12-24 months); distributed by CDPs to households with children aged 1-14 years and adults to help them get rid of worm infestations. A broad age range is considered for deworming because non dewormed individuals in the household can infect the ones who have been dewormed.
- **Folic acid tablets for pregnant mothers (70,000 folic acid tablets):** distributed at the selected 14 health facilities by the health workers in the implementing districts.

To empower the CDPs to distribute micronutrient supplements and identify malnourished children and pregnant women, ECUREI trained the CDPs focussing on the basics of nutrition (definition of key terms), causes of malnutrition, types of malnutrition, nutrition status assessment (assessing and interpretation of the MAUC and bilateral pitting oedema), referral of malnourished cases, deworming, how to fill the monitoring and evaluation tools. In addition to the items above, the CDPs were also given monitoring and evaluation tools to support in data collection.

##### **Outputs**

- A total of 2600 children (1,389 males, 1,466 females) have been dewormed with tablets distributed by CDPs

##### 4.3.2.2 Sub activity 1.3.2.2. Develop a mobile phone application for adolescent reproductive health information

ECUREI recruited a behavioral change communication consultant, developed an adolescent-friendly, tailored message and information mobile application and messaging platform. A mixed method situation analysis was conducted involving desk reviews, focus group interviews and key informant interviews with various respondents. Kwania, Otuke and Kapelebyong districts were sampled for the situation analysis of teenage pregnancy and sexual and reproductive health and rights (SRHR) ensuring the representation of

both Lango and Teso regions. Different levels of respondents were engaged depending on the type of interaction. For Key informant interviews, the team interacted with the community development officers (CDOs) and health in-charges for health facilities within the sub-counties. However, the primary respondents were; adolescents, and their parents/caregivers.

Analysis of this data led to identification of themes and categories of BCC messages to be fed into the android application i.e., menstruation and menstrual hygiene; reproductive organs; body changes; family planning; family planning methods; sexually transmitted infections and youth friendly services. ECUREI also developed adolescent-friendly sexual and reproductive health information that was translated into Ateso and Langi for the target audience convenience and understanding. This was reviewed by the Uganda AIDs Commission board to ensure relevancy to the target audience.

Following the completion of the sexual reproductive health messages development, the consultant developed a prototype for the android application and messaging platform named “brenu”. This prototype was tested in-house and later installed on android mobile phones to be used by the adolescents in the seven districts of implementation. The application can also be freely accessed on google play store (<https://play.google.com/store/apps/details?id=com.brenu.app&hl=en&gl=US>). The android application developed contains adolescent sexual and reproductive health information to be accessed by the adolescents at community level. In addition, the messaging platform was developed to cater for the largest part of the adolescents who have access to non-smart phones.

In quarter three, ECUREI also procured and distributed android smart phones to 205 adolescent peer leaders. The adolescent sexual and reproductive health android application and the text messaging platforms were uploaded on the mobile phones. Therefore, the peer leaders will be able to access sexual and reproductive health information through their smart phones and will be expected to share this information with other adolescents in the adolescent group.

**Output:**

- An android application and text messaging platform was developed and installed on peer leaders’ smart phones. This translates to a 100% level of achievement.
- Smarts phones procured and distributed to 205 peer leaders.

**4.3.2.3 Sub activity 1.3.2.3: Train peer leaders to use adolescent friendly phone app**

In September 2021, ECUREI trained the 205 peer leaders selected from the adolescent groups in the districts of implementation. The training based on offering information and adolescent peer counselling on contraception, family planning, puberty, sexually transmitted Infection, menstrual hygiene, HIV/AIDS prevention, counselling, effective referral, and linkage. They were also trained to use the android application and text messaging platform through which they will receive sexual and reproductive health information to cascade down to the rest of the adolescents in their groups. ECUREI procured 205 phones for the peer leaders and uploaded the “brenu” application on them to aid accessibility of the adolescent SRH information in the communities of project implementation. Adolescents in the community access the adolescent SRH information through this phone. The peer leaders also organize discussion sessions where they discuss SRH in consultation with the information from the app, text messaging platform and the manual. The peer educator works directly with the health facility which was selected in those communities for referral for family planning methods, clarification on SRH matters, teenage pregnancy etc.

These activities are expected to increase the use of effective family planning methods with the aim of decreasing the number of teenage pregnancies and increasing child spacing, which address both nutrition and population growth.

**Outputs**

- 205 adolescent peer leaders were trained on how to offer information and adolescent peer counselling to peers. They were also trained how to use the android app and text messaging platform. This accounts for a 100% target achieved.

#### 4.3.2.4 Sub activity 1.3.2.4: Adolescent peers distribute family planning commodities and hold dialogue meetings and awareness on safe reproductive health

In quarter three, ECUREI procured 70,000 condoms - family planning commodity to be distributed to adolescents through the peer leaders. To promote the increased use of effective family planning methods among adolescents, peer leaders were trained by ECUREI on how to distribute contraceptive commodities to adolescents in their communities. A total of 240 condoms were delivered to peer leaders for distribution as there is not much expertise needed in distribution condoms compared to the hormonal family planning methods. Distribution of condoms was halted due to the negative feedback from the community especially the elders on its possible implication on teenage sexual behaviors.

To ensure that SRH information is disseminated to a large target population, the peer educators were tasked to pass along the information to the adolescents under their groups. With the help of the “brenu” application, the messages were shared at planned group meetings. At the meetings, the adolescents decide on the topic of interest for discussion with the peer leader. ECUREI technical team is involved and attended some of the meetings to support the peer leads during the delivery of this information.

A total of 1,337 adolescents in the community accessed sexual and reproductive health information through the adolescent peer educators with the aid of the SRH app. The peer educators used knowledge obtained from the trainings, the manuals, the messaging platform, and the android phone app.

##### **Output:**

- 70,000 condoms were procured by ECUREI, and 240 condoms were delivered to peer leaders for distribution.
- Community outreaches organized and conducted by peer leads.
- A total of 1,337 adolescents in the community accessed SRH information through the peer educators.

#### 4.3.2.5 Sub activity 1.3.2.6: Support health facilities to set up adolescent youth friendly corners

ECUREI identified and selected 14 health centers, one from each of the 14 sub counties in the 7 districts. The health center in-charges and identified nurses provided space for setting up the youth friendly corners. The adolescent friendly corner is a safe zone for young people- a place where adolescents can access health information concerning their lives, and non-judgmental services relating to reproductive health. These facilities were selected to offer sexual and reproductive health care and information in a way that is reassuring and comfortable to adolescents. The consortium plans to face- lift and equip rooms and space offered for this activity in the health centers. The 14 health facilities selected include; Atangwata H/C III, Olilim H/C III found in Otuke; Nakatiti H/C III and Arwotchek H/C II found in Amolatar; Anyacoto H/C II and Amwoma H/C III found in Dokolo; Abongomola H/C II and Nambieso H/C III found in Amolatar; Kidilani H/C II and Ibuje H/C III found in Apac; Orungo H/C III and Abarilela H/C III found in Amuria; Amaseniko H/C III and AJeleik H/C III found in Kapelebyong. Additionally, 14 health workers from the selected 14 health centers at the cadre of nurses/mid wives agreed to attend to the adolescents’ needs at the adolescent friendly corners. These nurses/mid wives are also engaged in community outreaches, and other activities.

In quarter two, ECUREI identified six (06) local painters from Otuke, Kapelebyong, Amuria, Dokolo, Amolatar and Apac who will give the adolescent friendly corners a face-lift. These are yet to be assessed for suitability and capability as a prerequisite for the procurement and contracting process. These service providers were identified from the districts of implementation to match the funders interest of ensuring that the local community maximizes benefits from the project. When the selection process is completed,

face- lift works will include painting and organizing the designated room or space, pinning up charts and sexual reproductive health (SRH) material and installing television sets at the adolescent friendly corners.

#### **Outputs**

- 14 health facilities identified and selected to host the adolescent youth friendly corners.
- 14 nurses/ midwives were selected and added to the project data base.
- Six (06) painters from Otuke, Kapelebyong, Amuria, Dokolo, Amolatar and Apac were identified. Assessment of suitability and ability to provide face-lifting services is ongoing.

#### **4.4 Advocacy and strategic stakeholder engagement for project visibility, resource mobilization, institutionalization, and catalyzing policy action**

The project engaged the Micro Finance Support Centre to offer support to organized farmer groups and cooperatives. The linkages are aimed at offering feasible financial solutions that are prioritized over commercial banks which usually require collateral and charge high interest rates. The Centre in Soroti will support the groups in Amuria and Kapelebyong, while Lira Centre will support groups in the Lango sub region.

BRENU continued with its planned strategic engagement with district technical officials from Amuria, Kapelebyong, Amolatar, Kwania, Apac, Otuke and Dokolo to further explore the prevalent situation in each district in relation to available project resources. The idea is to Identify opportunities for scaling-out to other sub-counties using jointly mobilised resources and relationships. These district engagements are an avenue to create public awareness, build relationships and foster community co-ownership of the project. The outcome of our strategic engagement lays a foundation for commitment of local government advocacy for the project. Under the leadership of the Chief Administrative Officer (CAO) working with the selected technical persons (heads of department) in charge of the specific development areas in the district, the technical working groups are managed by the DINU focal persons per district.

Some BRENU's priority value chains are prone to aflatoxin and would deter farmer's access to regional markets. As part of our mandate to contribute to food safety and security, income, regional trade, and nutritional health of farming families in northern Uganda, IITA has designed integrated aflatoxin management strategies centered around scientifically proven solutions to minimize aflatoxin contamination. This solution will be beneficiary to farmers we are currently supporting under DINU.

Currently Uganda has a Technical Working Group (TWG) on Mycotoxins involving different stakeholders of which we are a significant contributor. The group works closely with the EAC Regional Aflatoxin Working Group, to liaise activities to manage the pertinent issue of aflatoxin in the country. The collaboration will play a crucial role in the implementation of a suit of aflatoxin prevention strategies, including good agricultural practices, good crop handling and storage structures will be disseminated to actors at various nodes along the value chains, to prevent aflatoxin contamination in the priority commodities

On 14<sup>th</sup> and 18<sup>th</sup> May 2021, IITA participated in the Ministry of Trade Industry and Technology (MTIC's) concept note development on aflatoxins control and post- harvest management. The ministry is leading on a proposal for funding from potential donors for integrated aflatoxin and post- harvest loss management. This is a planned five year UGX 86 billion (\$24 million) project- a coordinated effort between ministries of Trade, Agriculture and Health, development partners and the private sector to tackle the greatest risks to Ugandan health and trade – the double-barreled threat of aflatoxins and post-harvest losses.

IITA proactively fosters partnerships that emphasize support to farmer groups, with a focus on women groups in northern Uganda. AGRA's launch of VALUE4HER- a networking and advocacy panel discussions

on 7<sup>th</sup> May 2021, was one such event in which the project participated. The meeting aimed at promoting interactions between women-led SMEs, markets actors and other public and development actors for better understanding of needs and opportunities for women in agribusiness in Uganda. Also highlighted were how projects like DINU support input and output markets for women in agribusiness through training and market opportunities thus addressing barriers to women in agribusiness.

#### 4.5 Management and operational activities

**Shift of the field office: The BRENU** field office was shifted from Dokolo district to Lira district. The new office address is Plot 14/16 Otim Tom road, African quarters, Adyel division, Lira city.

#### 4.6 Monitoring, evaluation and learning activities

From 2<sup>nd</sup> to 17<sup>th</sup> December 2021, a DINU mid-term evaluation survey was conducted in both Lango and Teso sub region. The purpose of the survey was to measure the relevance, effectiveness, efficiency, impact and sustainability of the project and make any appropriate adjustment to the implementation. The survey that was led by IITA was conducted together with all consortium partners including VEDCO, Rikolto, Kilimo Trust, ECUREI and Bioversity International.

**European Union (donor) commissioned Result Oriented Monitoring (ROM);** BRENU was selected by the donor for an EU commissioned ROM review that commenced on 20<sup>th</sup> September 2021. A ROM review is an external assessment of an ongoing intervention, aimed at enhancing results-based management. The review was conducted by Dr Ruth Malleson, a senior ROM Monitor. In preparation for the review, a virtual meeting was held between the project staff and Dr. Ruth on 20<sup>th</sup> August 2021. The objectives were, to know each other, understand what is expected of the team from the ROM review, and to discuss and agree on interview dates, schedule, participants, and relevant logistics. The review was conducted in three districts, representative of the site where activities are going well (Kwania district), moderately well (Dokolo district) and one where most challenges exist (Amuria district). Ruth held subsequent virtual interviews both individual and focus groups with the relevant stakeholders including; IITA-Uganda country representative – George Mahuku, project manager – Perez Muchunguzi, IITA project management team, consortium partners (VEDCO, Kilimo Trust, Rikolto, ECUREI and Bioversity), Research for development partners – NARO, Local government staff from the implementation sites (chief administrative officers, DINU focal point officer, production and marketing officer) sub county agricultural officers, community levels partners, farmer beneficiaries and other projects operating in the same site.

Starting on 1<sup>st</sup> November to 5<sup>th</sup> November 2021, BRENU hosted a team of reviewers composed of representatives from Office of the Prime Minister (OPM), European Union (EU), ministry of finance (national authorizing officer), Technical Advisory Team (TAT), Technical Working Group (TWG), local government and others. The major objective of the mission led by OPM-programme management unit was to review the progress and performance of implementation of the action from the period; January 2020 to 31 October 2021 (22 months). Specific objectives were i) to review and assess the progress of issues identified in the BRENU 2020 annual report and quarterly reports, ii) to assess if IITA will be able to catchup with implementation in year two and perform in year three, including proposing corrective actions to be taken. iii) to assess the coordination level between IITA and the consortium partners and the measures taken to improve the quality of delivery- IITA plan to cover the lost time. iv) to understand the working relationship of the consortium members and assess their technical and supportive roles towards the success of the grant action implementation. Feedback from the donor indicated an improved performance but they recommended the development of a catch-up plan that acknowledges the risks and takes advantage of the opportunities.

On 14<sup>th</sup> April 2021, BRENU received a donor (Office of the Prime Minister -OPM) visit at the field sites. The purpose for the visit was for the donor to view the project's progress towards implementation of the activities. The OPM technical working group team visited two sites and appreciated the community participatory group model used by the project to implement activities.

A meeting between BRENU management and the donor was held on 8<sup>th</sup> August 2021 to receive donor feedback of the 2020 annual report, seek clarifications and to strategize on how to move forward. IITA had previously responded to donor comments regarding the 2020 annual report i.e., unclear changes in the description of action and budget, unclear documentation on partner Alliance of Bioversity International and CIAT who originally co-applied as Bioversity International, need for justification regarding change of office space from Dokolo district to Lira city among others. The donor appreciated IITA for being able to provide clarification for most of the contractual issues though some programmatic issues still needed more clarification. The donor was keen to understand how the project plans to make up for the lost time especially for activities that were supposed to be implemented in year one but were not implemented due to some challenges like the COVID-19 pandemic. The donor recognised the extra effort put in by the project to recover the lost time from the previous quarter two report. However, the team was requested to submit; A performance Improvement Plan (PIP), changes made in the description of action clearly indicating the deletions and additions, project partners and their roles. The information was collated by the team including the PIP which clearly specified how the year one and year two activities will be achieved and shared with the donor. This was in the hope of hastening approval of year one report and therefore release of year two budget. Another agenda item for this meeting was introduction of Dr George Mahuku to the donor as IITA Uganda's new country representative and strategic manager for the project having taken over from Dr. Regina Kapinga.

From 22<sup>nd</sup> to 26<sup>th</sup> March, **BRENU** monitoring, and evaluation (M&E) expert attended the DINU M&E workshop organized by the office of the Prime Minister (OPM). The five-day workshop was meant for the partners to share progress updates and equip programme M&E focal persons with skills to improve programme data management and reporting. Some output from the workshop included harmonized DINU performance indicators and updated log frame. A foundation for working towards the collective attainment of the programme results was also set.

## 5 Financial performance

In the project year 2021 the Action utilized 1,594,596.30 EUR. Of the disbursed amount, the total amount carried forward from 2020 to 2021 was 1,774,431.57 EUR. After year two, the percentage disbursement is at 43%. The project received no disbursements in 2021. This was pending approval of the first-year report that was done in November after the field visit that was aimed at ascertaining existence of activities and the project being on course. The project utilized the first prefinancing. This however affected project implementation for some partners as their funds had run out by September 2021. This caused challenges of cash flow leading to slowing down of activities struggles of maintaining staff and slowing of activities.

## 6 Mainstreaming of cross-cutting issues

Embedded in the project strategy to strengthen farmer organisations, the right of association to take collective action to pursue group interests is emphasized. Stronger farmer groups protect the rights of vulnerable smallholder farmers and strengthen the power of the weakest actors in the rice, soybean, and cassava value chains. Through usage of internationally adopted and peer-reviewed farmer organization assessment tools (such as the SCOPE RAPID, SCOPE BASIC and SCOPE PRO farmer organization assessment tools), coherent capacity development plans are developed to strengthen farmer organizations. The SCOPE assessment tools were developed based on human rights and the SDGs agenda. They assess farmer



organizations on topics such as child labour, child labour prevention, forced labour, non-discrimination and equal opportunity, diversity, minimum wage, pregnant women, occupation health and safety, and application of chemicals. The project considers the local governments with whom it engages with in the project as duty-bearers to respect, protect and fulfill human rights with vulnerable groups as key right-holders.

The project also adopted key strategies to reducing gender inequality and promote gender mainstreaming and women empowerment. The internal monitoring framework indicators relating to persons (like farmers and entrepreneurs) are disaggregated by age and gender. In the development of governance systems in FBOs, there is deliberate effort to ensure that women participate equally in collective decision-making in member organizations.

Furthermore, to ensure economic empowerment of women and youth, the project takes steps to conduct trainings closer to farmers (at village level), to make it easier for women to participate in the training activities. Furthermore, deliberate efforts are made to ensure that women and youth are also included during the farmer profiling using the eprod digital solution. Through this, they will be able to do business with other off takers (Diners Group, Acila Enterprises) that have access to FBO digital databases of producers.

While the nutrient rich products can be used and benefit the entire household, they were specifically selected to primarily benefit children (the porridge with soy and OFSP and Nutri-snack with OFSP and iron rich beans), and women (Nutri-sauce with OFSP and iron rich beans). In addition, the marketing and distribution plans seek to actively engage women and youth. As such, the market feasibility studies are obtaining key information on women and youth.

## 7 Partnerships and synergies

### **Assessment of relationship between the organization and central/ local authorities**

The project team has invested and built-in time for maintaining and strengthening partnerships with the local government teams (both at district level and sub county level) by attending district work plan and budget sessions and sharing assigned district development community responsibilities within the project consortium members. Tasks related to implementing district development strategies include meetings, phone calls, social and courtesy visits, and signing of partnership agreements and MoUs.

The consortium plays a background leadership role in some of the district implementation processes and ensures that project goals are incorporated into the broader district development agenda.

On 11<sup>th</sup> March 2021, BRENU was represented in the district partners' introductory meeting in Apac district organised by the Office of the Prime Minister (OPM) Gulu coordination office. The meeting aimed at introducing the implementing partners to the district technical team, and for them to formally introduce their activity work packages and implementation progress updates. As a result, district technical team appreciated the partners' intervention and pledged to support and collaborate with the grantees during the entire project life cycle.

On 8<sup>th</sup> September 2021, IITA attended the production performance review meeting organized by Amolatar, one of the BRENU implementation districts. The main meeting objective was to jointly review the progress made in the implementation of the district production and marketing strategy, achievements, and challenges encountered by the local government and development partners in the district. In the bid to bring social services nearer to communities, the proposed parish development model by the government of Uganda is one of the latest strategies, development partners including BRENU are

encouraged to embrace and apply in their activity implementation as a way of complementing government's community development efforts.

The action has been able to engage the local government technical staff in several activities including conducting and attending trainings e.g., VSLA, business development and agronomy trainings among others, distribution of planting materials, seed field inspection advising, and monitoring construction works by the project e.g., store construction, flag-off distribution of technology equipment like PHH machines, groundbreaking ceremony for the construction sites among others.

The project is currently working with local health facility in-charges and selected nurses for nutrition related activities and adolescent sexual and reproductive health. In the forthcoming reporting period, we purpose to engage VHTs. Addition of these community teams to the project will not only improve working relations but also ensure a sustainable link for service provision between the CDPs, VHTs and the local health facilities.

At the sub-county level, community development officers (CDOs) have been engaged in mobilizing and training of different FBOs in the areas of leadership and governance to ensure sustainability after the project phasing out. Agricultural officers have always been made as point of reference even after project closure for technical matters such as issues regarding to post harvest handling technologies.

The action through Rikolto is partnering with the different District Commercial Officers (DCOs), in the strengthening of agricultural marketing cooperatives, and they have played very crucial roles in supporting the registration of newly formed cooperatives.

Overall, the close collaboration with different local government officials (CDOs, Agricultural Officers, DCOs,) have given the project learning opportunities and ability to apply best practices from past projects/programs, including government managed programmes (such as past phases of NUSAF), which were taken into consideration during the planning/design and implementation of our activities.

#### **Cooperation and/or synergies developed with other components of the DINU programme or with other projects/programmes outside DINU**

**Ngetta Zonal Agricultural Research and Development Institute (ZARDI):** Ngetta ZARDI partnered with the BRENUE project and contributes to provision of agricultural development technologies like improved varieties and services like training and quality assurance for example seed germination testing.

The partnership emphasizes support to farmer groups, with a focus on women groups in northern Uganda. Together we source and supply initial quantities of Early Generation Seed (EGS) of climate smart hybrids, develop and promote local seed systems for adoption of clean improved varieties linked to high value output markets and nutrition.

At local government level, support to the Action is in recruiting and training individual farmers and agricultural officers in the various districts of implementation to establish local seed businesses to produce Quality Declared Seed (QDS) that is promoted premium among the local seed business groups.

One of the private sector organizations that the project partnered with is Devine organic foods- a small and medium food processing enterprise (SMFE). The collaboration with Devine that is a Lira based company will ensure sustainable provision of quality seeds to the farmers and ensure that the seed producers get the necessary training and market linkages. This work complements the relevant delivery work by development organizations like NARO, where we ensure that the projects agricultural production proven technologies are transferred through appropriate mechanisms to achieve impact at scale within the regions where we work.

The Orange Flesh Sweet Potato Compact contribution to DINU shares materials from established decentralized vine producers, provision of certified seed of adaptable climate smart drought hybrids adaptable to agro-ecologies of Northern Uganda. Alliance of Bioversity and CIAT is a partner with the expertise and is leading the nutrition component of the DINU- BRENU project, hence adding value to the partnership.

## 8 Main lessons learned

- Established demonstration gardens offer a constant on-field practical learning lessons to farmers. There is technological knowledge and proper agronomic practices transferred to beneficiary households. However, these demonstration gardens should be established at strategic points easily accessible by the entire community. Constant engagement and group training is also necessary to ensure group ownership and belonging.
- Capacity building of Local Seed Businesses (LSBs) in LSB methodology, agronomy and VSLA strengthened their capability to operate on their own. However, there is need for LSBs to diversify production into multiple seed enterprises as back-up in case of crop destruction due to unpredictable weather. The LSB committees should be strengthened to achieve the desired goals.
- Making regular courtesy visits to districts and sub-county responsible authorities/offices stakeholders and participation in district program meetings and NGOs coordination meetings is important as it enhances local government engagement and ownership of the project.
- Consultation involvement of local, cultural leaders and parents is important especially on issues of concern that might impact cultural reservations for the success of activity implementation.
- Including a section on “soft skills for training others” in the training manuals and key message booklets was appreciated by the CDPs and CDFs as having improved their capabilities, motivation, and confidence as ToTs.
- To drive the commercialization among producers, it is important to deal with apex producer groups because of the ease in ascertaining reliability and availability of committed volumes. This provides confidence among the off takers but also allows room for better price negotiation by the producers. Several potential cooperatives have been engaged and they have already motivated members that are market oriented. The project is facilitating their growth and organizing the other groups into apex bodies for better market access.
- Embracing technology and ICT in implementation where possible is a more cost-effective way in reaching wider target beneficiaries and avoiding delays in implementation.
- Future agricultural related projects need to always include a component on climate smart or water for production since it affects the delivery of the entire project, if ignored e.g., in the current scenario, the prolonged droughts have affected three of the four production seasons since project commencement.
- Timely delivery of planting materials is key for increased production. This ensures timely planting reducing destruction by drought.
- Increased engagement of with the district and sub-county officials in planning and monitoring increased rapport and thus enhanced attendance during the training workshops. Participation of sub-county chiefs in activities also increased morale among the CDPs and CDFs.
- Sub-county halls are inadequate venues for trainings; due to not being centrally located, interference by uninvited members of the community, and competition from other sub-county district meetings which are given priority. Other locally available venues like places of worship, youth centers and community halls were identified as readily available alternatives.
- Budget line to cater for SOPs by the government of Uganda due to COVID-19 pandemic is essential as the relevant stakeholders involved will be protected.

- There is need for the project to consider working with the existing SACCOs, in addition to the agricultural marketing cooperatives and FBOs, as most of them are weak and have limited capital to lend out to members, and yet they are the most accessible financial institutions to farmers.

## 9 Main challenges and key messages

**COVID-19 pandemic:** The countrywide lockdown due to COVID-19 pandemic caused delays in activity implementation which affected project implementation timelines and planned monitoring including joint monitoring with local government officials. Some of the affected activities include trainings and field monitoring and visits which required gathering of people. The project resorted to “phone agronomy” through the established structure of CDPs and CDFs to reach farmers during the lockdown and related inter-district travel restrictions. Mobilization of communities in smaller numbers as a way of compliance to COVID-19 SOPs to curb the spread of the virus was also done and designing an implementation catch-up plan.

**Unpredictable weather:** There was drought recorded in the project area that delayed planting as it led to drying of seed gardens which in turn delayed delivery of planting materials. This also led to reduced yield despite the use of quality inputs hence affecting the trade levels within the established trade linkages. Farmers were advised to practice early preparation and planting to avoid effects of weather changes. Re-establishment and expansion (to one acre) of the gardens from the first cropping season of 2021 that were destroyed by prolonged drought. Timing of delivery of seeds for planting was also improved in the 2nd cropping season.

**Devastating torrential hailstorms** due to extreme weather in northern Uganda, some farmers crop in Amolatar district severely destroyed. One of the gardens established to demonstrate six-steps labor-saving technologies to control weeds and increase yield in Akol parish, Arwotcek subcounty was severely destroyed by torrential hailstones with little hope of recovery if at all.

**Floods** also severely affected districts like Kapelebyong where shelters were destroyed/collapsed, farmland was flooded– crops including OFSP, beans, etc. were destroyed in the gardens. The victims of floods seek for relief support from relevant government agencies and implementing partners operating in the districts.

**Political uncertainty:** Uncertainty created by political activities at the beginning of the year led to delayed start of some activities. Engaging local authorities and re-adjusting project activity schedules bearing in mind major political events within the communities was done.

- Very few FBO leaders own android-based smartphones which is the operating system required for the eprod mobile solution. This challenge was mitigated by installing the eprod mobile app on phones of FBO members that accepted to the role of collecting data from other group members.

## 10 Implementation of the Visibility and Communication Plan

**Finalization of the BRENU communication and visibility plan:** Inputs and final feedback from OPM were incorporated and the final document shared.

**Mobile phone application and text messaging platform for sharing adolescent sexual reproductive health information have been developed** tested and uploaded to google play store.

**Branding equipment – vehicles:** Developed the design and managed branding of BRENU vehicles giving visibility to Government of Uganda – OPM, and European Union.

**Establishment of demonstration gardens:** seed demonstration plots and demonstration plots for selected diversified and nutritious crops were established at farmer fields and key community points for increased

visibility. These were visited by several community members to learn about the crops and good management practices. From all the seven districts, a total 4,542 members (62% women) visited the gardens in the 1st cropping season and 4,664 (56% women) visited in the 2nd cropping season.

**Demonstration plot signposts:** Coordinated the design for the six-step labour saving technology demonstrations signpost in November 2021, it gives visibility to the government of Uganda and European Union.

**Managed the design and development of visibility materials** e.g., backdrop banner, 900 branded t-shirts and 450 caps produced by contracted supplier Globaltec graphics, other visibility materials include branded bags, face masks and file folders. These were all approved by OPM for C&V compliance.

**Visibility in recruitment:** Development of branded adverts giving visibility to the government of Uganda and European union i.e., adverts inviting potential suppliers for post-harvest handling (PHH) equipment.

**Branding technology equipment:** Developed the design and managed branding of BRENU technology equipment e.g., soybean threshers, cassava chippers, drying racks among others.

**Media engagement** during project activities like; dissemination of superior, disease-tolerant and resistant crop varieties to smallholder farmers (i.e., Unity radio Lira, Hot FM Amolatar, and Kygoa FM, all in Lango sub-region) and distribution of post-harvest handling technologies to youth groups, women groups, and cooperatives in Teso and Lango subregion. These machines included 85 cassava chippers and 85 drying racks: 45 and 8 soybean and rice threshers respectively and 18 automatic grain cleaners. The flag off news was broadcasted through different social media platforms and radio stations on 6<sup>th</sup> and 7<sup>th</sup> October 2021. i.e., Radio Wa, Unity radio, Dokolo FM, Apac FM, Devine FM.

**Site handover and groundbreaking** for BRENU storage facilities construction works was done by district officials from Apac, Amolatar, and Kwania districts on 11<sup>th</sup> October 12<sup>th</sup> October, and 14<sup>th</sup> October 2021 respectively.

**Website development** – ADON consults contracted and are in the final stages of website development, domain name secured as brenu.ug.

**Planning radio talk shows and spot:** Had discussions with different local radio stations in Northern Uganda including radio unity, Radio Wa, Radio Devine, Dokolo FM, voice of Teso among others. Plans are underway to establish MoU's with the most suitable radio stations to host the talk shows and spots.

**Development of training materials, branding and approval for C&V compliance:** training materials were developed i.e. two of nutrition manuals i.e. module 1: Basic concepts of nutrition and module 2: Enhancing smallholder household dietary diversity through kitchen gardens, 2 key message booklets and 20 visual aids for module 1 and 2 nutrition manuals, Good agronomic practices manuals, local seed business manuals, 2 manuals on health titled; Peer leaders' training manual on sexual reproductive health and assessment of nutrition status for children and pregnant women. These were aligned to the C&V requirements by the donor and later approved by OPM for C&V compliance. Hard copies of the materials were printed out and distributed to CDPs, nurses and peer leaders during ToT trainings.

**Developed and managed presence online** using social media tools such as Facebook (IITA-Uganda), Twitter (@IITA\_Uganda), WhatsApp among others.

**Coordinated the re-designing and development of project signposts** for the new office premise in Lira city on plot 14/16, Otim Tom road, African quarters, Adyel division. This gives visibility to government of Uganda and European Union.

Development of a calendar and 2 posters with sexual reproductive health (SRH) information. These were approved by OPM for C&V compliance and are shared with adolescents through the mobile application

**DINU communication technical working group (TWG) meetings:** The BRENU communication expert has always represented the team in these quarterly meetings i.e. on 31<sup>st</sup>, March, 2021, 18<sup>th</sup> June 2021 and on 24<sup>th</sup> September 2021.

**Managed the design, development and dissemination of success stories:** Contributed a story to DINU supplement article in celebration of International women’s day celebration”. The BRENU story titled ‘Women leaders beating COVID – 19 odds and cultivating community change’ featured one of the women leaders Ms Grace Akullo and was published in the New vision newspapers dated 9<sup>th</sup> March 2021. A link to the full article <https://cgspace.cgiar.org/handle/10568/113036>

**Managed the design, development and dissemination of a project newsletter** titled “Empowering community development promoters” <https://cgspace.cgiar.org/handle/10568/112984>

**Development and operationalization of the information management system and web portal for the action:** This was established on “teams”

**BRENU quarter 1 and 2, 2021 pictorial report:** The action submitted a quarter 1 & 2, 2021 pictorial report to the donor on 23 July 2021. This followed a request from the donor who recognized the value that the pictures shared in the quarter 2, 2021 technical report brings to the programme visibility. Link to the full report. [https://cgiar-my.sharepoint.com/:b:/g/personal/m\\_awori\\_cgiar\\_org/EW\\_CCBeb1nFBhqkwervR9GwB6Oliq6unLZErtkZ45ttCRA?e=VL9AAX](https://cgiar-my.sharepoint.com/:b:/g/personal/m_awori_cgiar_org/EW_CCBeb1nFBhqkwervR9GwB6Oliq6unLZErtkZ45ttCRA?e=VL9AAX)

*The European Commission may wish to publicise the results of actions. Do you have any objection to this report being published on the EuropeAid website? If so, please state your objections here.*

## 11 Signature of the report

Name of the contact person for the action: **Perez Muchunguzi**

Signature: .....

Location: **BRENU field office, Lira district**

Date report due: .....

Date report sent: .....

## 12 Annexes

### A. Updated and refined Logical Framework

*The Logical framework (log-frame) matrix should evolve during the Action lifetime: baseline and target values will be provided, new lines can be added for listing new activities as well as new columns for intermediary targets (**milestones**) when it is relevant and values will be regularly updated in the column foreseen for reporting purpose (see "Current value"). The term "results" refers to the outputs, outcome(s) and impact of the Action.*

### B. Updated Work Plan of the Action and Annual Work plan for the next reporting period

*Please provide an updated work plan for the entire Action as well as a more detailed annual work plan for the next reporting period. This work plan should be easily linked with the forecast budget for the subsequent reporting period.*

### C. Financial Report and Forecast Budget for subsequent report period

*In accordance with the General Conditions, please provide in annex a financial report on the expenditures incurred during the reporting period in relation with the agreed budget.*

*Provide as well a forecast budget for the subsequent reporting period or for the remaining period (if shorter).*

*If changes occurred in relation to the sources of funding, please provide an updated table with the various contributions.*

*A template is provided and should be used for grant agreements. For delegation agreements , the organization can use this template or another preferred template.*