

Assessment of Climate Smart Agriculture Extension Model *Final Report*



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10 February 2021

Executive Summary

The Northern Uganda Resilience Initiative (NURI) is a five-year project (2018 – 2022) funded by the Government of Denmark to the tune of DKK 310 million and falls under the UPSIDE thematic area of the Country Programme whose objective is *sustainable and inclusive economic growth*.

The outcome of NURI is *enhanced resilience and equitable economic development in supported areas of Northern Uganda, including for refugees and refugee-hosting communities*. This is being pursued through supporting activities in climate-smart agriculture, rural infrastructure, and water resources management. Activities in support of agriculture is centred on improving farmers' knowledge on climate-smart production methods, as well as their understanding of and ability to engage with markets and services, and adoption of Village Savings and Loans Association (VSLA).

In November 2020, NURI CF commissioned the assessment of the Climate Smart Agriculture extension model under Output 1 of the Programme to inform the upcoming Mid Term Review. Specifically, the assessment is to determine the relevance, effectiveness and efficiency of the NURI CSA extension methodology, and recommend improvements for better execution and results during the second half of the programme.

The assessment team applied a mixed method approach entailing document review, focus group discussions, key informant interviews and observation. The focus group discussions covered 47 groups consisting of 39 nationals, four mixed, and four refugee women. A total of 784 beneficiaries attended the meetings of which 583 (74 percent) were women and 201 (26 percent) were men. The key informant interviews covered 38 individuals from implementing partners, RAU Coordinators, NURI CF team, and representatives of organizations implementing other extension models including District Local Governments.

Main findings:

NURI Extension Model

NURI Extension Model focuses on imparting knowledge and skills on CSA through training, demonstrations and financial inclusion through introduction of Village Savings and Loans Association. Covering 13 districts and five refugee settlements, the programme is implemented through three Implementing Partners and four Resilience Agricultural Units (RAUs). The extension model is appropriately configured in terms of staffing, competences, structure and relationships to deliver the desired outcome.

By end of 2020, the programme had reached 3,827 groups with an estimated membership of 114,000 households representing 95 percent of programme life target of 120,000. These are inclusive in terms of covering nationals (77 percent) and refugees (23 percent) and with respect to gender (65 percent women and 35 percent men) and demographics (28 percent youth).

The target groups confirmed that the model is meeting their needs. However, they are concerned that the model is not sufficiently flexible to allow them to change their choice of strategic crop when it is no longer commercially viable and cannot earn them income.

Contrast with other models

NURI's extension model focuses on imparting knowledge, skills and information as the priority intervention with limited provision of inputs and largely for learning purposes. In contrast, the other extension models make sizable contributions towards inputs for use by individual farmers. Second, while NURI recruits professional staff from universities and tertiary institutions as frontline staff

except Community Based Trainers for VSLA, the majority of other organizations identify and deploy trainers from within the community. Thirdly, other organizations use a graduation approach while NURI maintains the same intervention for each category of beneficiaries.

Relevance

NURI CSA model is proving to be relevance. The CSA training and adoption VSLA are helping the target groups to tackle climate impacts more decisively and proving to be key pillars of building a resilient farming systems and livelihoods. However, the contributions of SRHR and GBV remain negligible due to lack of effective implementation. The adoption of CSA practices and technologies which involves purchasing improved inputs and paying for hired labour or other services are indications of economic relevance. Furthermore, the beneficiaries' willingness to change long standing and norms for new improved practices and technologies is an indication of social relevance. Finally, by all categories of beneficiaries including nationals, mixed and refugee women embracing CSA approach, is testimony of that the model is methodologically relevance.

Efficiency

NURI is being implemented in a cost-effective manner as evidenced by reasonable unit costs incurred per beneficiary, acceptable ratio of overheads to programme cost and timelines of delivery and quality of service.

Effectiveness

There is strong indication that NURI is moving towards realising its outcome. CSA practices and technologies are being adopted, production and productivity are increasing, savings are being mobilized and invested in farming and other IGAs, capacity of groups have been strengthened, incomes are growing, and households and groups are developing clear vision of their future and working towards achieving them. Within the refugee communities, food and nutrition security is improving appreciably. All these results are starting to enhance the quality of life of the beneficiaries that include nationals and refugees.

Conclusions:

The main conclusions that emerge from the assessment are as set out below.

- i. NURI extension model is showing solid signs of relevance in technical, economic, social and methodological aspects as defined by the programme. However, interventions under SRHR and GBV trainings have so far had very limited traction.
- ii. Farmers' knowledge of CSA practices has improved. Target beneficiaries know and are able to articulate the various practices on which they were trained.
- iii. Adoption of CSA practices and technologies is occurring not only for the supported enterprises but is being applied to other crops.
- iv. Marketing is not effectively integrated in the model and is more noticeable at the end of the production cycle even though farmers are supposed to prepare their marketing plans in tandem with the production plans at the beginning of the season.
- v. Farmers groups have been strengthened through democratic election of leaders, development of constitutions/by-laws to guide group functioning, establishment of structures and development of a vision to provide direction. Moreover, where VSLA has been adopted, group cohesion has been strengthened.

- vi. The food security strategy for refugee women is working. The refugee women receiving NURI are not only food secure but earning from the surplus production from their gardens and starting petty businesses which has enhanced their capacity to absorb various shocks.
- vii. There is evidence of improved wellbeing and resilience for the target group members and their households as demonstrated by increased incomes from strategic crops, VSLA activities, and other IGAs. As a result, households participating in the programme are reporting increasing capacity to educate their children, improve their residential housing, acquire productive assets, and expand their income generating sources.
- viii. The programme is being implemented in a cost-effective manner as evidenced by reasonable unit cost per beneficiary, acceptable ratio of overheads to programme cost and timelines and quality of service.

Recommendations

To further improve results during the remaining period of programme implementation, it is recommended as follows:

- i. **Promote multiple cropping across all regions:** The annual output for a farmer can be substantially increased if the farmer plants the crop several times a year through applying CSA practices. NURI should explore the scaling up of multiple cropping through planting in non-traditional seasons as discovered by the farmers in Agago District and planting several times, which soybeans farmers in Nebbi District have successfully done.
- ii. **Refocus target beneficiaries to appreciate other factors of profitability besides price:** The majority of groups consider only high prices as the key to profitability of strategic crops. Little consideration is given to productivity as a major factor which can offset any price declines. The programme should assist farmers to appreciate this holistic understanding and to enable them take appropriate actions to improve yields.
- iii. **Permit flexibility to change strategic enterprises:** The current practice does not allow for changing enterprise during the period of the support. Given that some enterprises cease to be viable after initial selection, NURI should permit the target beneficiaries to change their enterprises.
- iv. **Improve delivery of SRHR and GBV interventions:** Measures should be taken to improve the availability and delivery of SRHR and GBV training. The ongoing review and discussions spearheaded by CF needs to come up with a solution that ensures the implementer (CARE) has a reasonable field presence or the activity be brought under the ambit of NURI structure, similar to VSLA.
- v. **Promote animal traction:** One of the practices that leads to increased productivity from CSA is early land preparation and planting. The use of animal traction is critical in ensuring early and timely operations. The programme should consider how to promote animal traction in light of the overwhelmingly demand expressed by beneficiaries particularly in Acholi and South West Nile regions.
- vi. **Expand the range of crops for refugee women:** While it is true that the range of crops available to refugee women is already considerable, based on request of the beneficiaries, the programme could consider adding nutritious local foods such as finger millet.

- vii. **Improve the drying of vegetables to avoid destroying nutrients:** Refugee women are producing more vegetables than they can consume and market in fresh form. The programme should consider introducing best practice in preserving vegetables through drying instead of the current practice of drying in direct sunshine which destroys the nutrients.

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ACRONYMNS

AEO	Agriculture Extension Officer
AES	Agriculture Extension Supervisor
AFARD	Agency for Accelerated Regional Development
CBT	Community-Based Trainers
CEFORD	Community Empowerment for Rural Development
CF	Coordination Function
COVID	Corona Virus Disease
CSA	Climate Smart Agriculture
DFA	District Farmers Association
DLGs	District Local Governments
FFS	Farmer Field School
GAP	Good Agricultural Practices
GBV	Gender-Based Violence
GOU	Government of Uganda
IGAs	Income Generating Activities
IPs	Implementing Partners
LLG	Lower Local Government
MC	Market Coordinator
NURI	Northern Uganda Resilience Initiative
OLUM	Optimised Land Use Model
PHH	Post-harvest Handling
PICOT	Partners in Community Transformation
PMP	Production and Marketing Plan
RAU	Resilience Agricultural Unit
RDNUC	Recovery and Development in Northern Uganda Component (of U-Growth II)
SRHR	Sexual Reproductive Health and Rights
VO	VSLA Officer
VS	VSLA Supervisor
VSLA	Village Savings and Loan Associations

1. Background and Introduction

1.1 Overview of NURI

NURI is a five-year project (2018 – 2022) funded by the Government of Denmark to the tune of DKK 310 million. It is one of three Development Engagements under the UPSIDE thematic area of the Danish Country Programme whose objective is *sustainable and inclusive economic growth*.

The outcome of NURI is *enhanced resilience and equitable economic development in supported areas of Northern Uganda, including for refugees and refugee-hosting communities*. To realize this outcome, NURI is supporting activities in climate-smart agriculture, rural infrastructure, and water resources management. Activities in support of agriculture is centred on improving farmers' knowledge on climate-smart production methods, as well as their understanding of and ability to engage with markets and services and adoption of Village Savings and Loan Association (VSLA).

1.2 Assessment Objectives and Methodology

The purpose of this assignment is to assess the extension methodology used in Output 1 of NURI - Climate Smart Agriculture (CSA). Specifically, the assignment is to gauge the relevance, effectiveness and efficiency of the NURI CSA extension methodology, and recommend improvements for better execution and results during the second half of the programme.

In undertaking the assessment, the consulting team¹ applied a mixed methods approach by gathering information from various sources and triangulating to arrive at findings, conclusions and recommendations. The methods used included document review and focus group discussions with a total of 784 beneficiaries of which 583 (74 percent) were women and 201 (26 percent) were men (Annex D). The participants were drawn from 47 groups comprising 39 nationals, four mixed, and four refugee women. Another method was key informant interviews with implementing partners, RAU Coordinators, NURI CF team, and representatives of organizations implementing other extension models including District Local Governments. Finally, the team also used observations to gather information particularly on adoption of CSA practices by the target groups.

1.3 Report Structure

Following this introduction, section 2 describes the NURI CSA Extension Model, section 3 presents the extension approaches of other organizations. In section 4, the target groups' uptake of NURI's interventions in terms of knowledge and adoptions is described. The assessment against the criteria of relevance, efficiency and effectiveness are addressed in sections 5, 6 and 7 respectively. Finally, section 8 summarizes the conclusions and proposed recommendations for consideration during the remaining period of the programme. The annexes contain the full terms of reference, a detailed table for knowledge and adoption of CSA practices, a success story, lists of groups and persons met as well as the lists of documents reviewed.

¹ The Assessment was undertaken by a two-persons team comprising Milton Chwa Ogeda (Team Leader) and Agnes Atyang (Consultant)

2. NURI Extension Model

2.1 Design

The NURI extension model was designed to provide knowledge on climate-smart production methods, as well on marketing and financial literacy to supported smallholder Ugandan and refugee farmers which would lead to in increased agricultural output of small-scale farmers.

At the national level is the NURI Coordination Function (CF), a decentralized unit of the Royal Danish Embassy, which manages the programme. The CF is headed by the Programme Management Adviser and supported by three NURI Regional Coordinators and other key staff (Table 1). The CF provides support to programme implementation including oversight of Implementing Partners (IPs).

The IPs are either local partners or the Resilience Agricultural Units (RAUs) and are responsible for the implementation of CSA activities in the districts and refugee settlements (Table 2).

At the district level, the District Council and the District Executive Committee provide oversight. They supervise NURI activities while the relevant sector specialists provide supervision and technical backstopping. The NURI Focal Point Officer at the district is appointed by the Chief Administrative Officer.

The NURI implementation team at the district is headed by the CSA Coordinator or NURI Coordinator and supported by a Marketing Coordinator, Village Savings and Loan Association (VSLA) Supervisor and Agriculture Extension Supervisors (AES’).

Table 1: NURI CF Staffing

CF Staff positions	Location
1) Programme Management Adviser	Kampala
2) National Programme Coordinator/ Regional Coordinator, South West-Nile	Arua
3) Financial Management Adviser	Kampala
4) Monitoring & Evaluation Coordinator	Kampala
5) Finance Officer	Kampala
6) Finance/ Administrative Assistant	Kampala
7) Human Resources Coordinator	Kampala
8) VSLA Coordinator	Arua
9) Regional Coordinator, North West-Nile	Moyo
10) Regional Coordinator, Acholi	Kitgum

Table 2: NURI Implementing Partners

Region	District	Refugee Settlement	Implementing Partner/Unit
South West Nile	Nebbi Pakwach Zombo		AFARD
	Arua Madi-Okollo Terego	Rhino Camp Imvepi	Arua DFA
North West Nile	Adjumani	Maaji Mungula	RAU Adjumani
	Koboko		PICOT
	Moyo Obongi	Palorinya	RAU Moyo/Obongi
Acholi	Agago		RAU Agago
	Kitgum Lamwo	Palabek	RAU Kitgum/Lamwo

2.2 Configuration of the Model

2.2.1 Staffing configuration

There is one CSA Coordinator attached to each IP and is responsible for the overall implementation of CSA activities. Correspondingly, there is one NURI Coordinator attached to each RAU (Table 3).

Table 3: Staffing configuration for CSA

Implementing Partner/Unit	District/ Refugee Settlement	CSA/NURI Coordinator	No. of farmer groups	No. of Existing AEOs	No. of Existing AES'	Min. no. of AEOs required	Min. no. of AES' required
AFARD	Nebbi Pakwach Zombo	1	615	41	5	41	3
Arua DFA	Arua Rhino Camp Imvepi	1	834	57	7	60	4
RAU Adjumani	Adjumani Maaji Mungula	1	540	40	4	40	3
PICOT	Koboko	1	195	13	1	13	1
RAU Moyo/Obongi	Moyo Palorinya	1	533	40	4	40	3
RAU Agago	Agago	1	375	20	3	25	2
RAU Kitgum/Lamwo	Kitgum Lamwo Palabek	1	740	45	7	51	4

CSA knowledge is provided by the Agriculture Extension Officers (AEOs) who engage directly with smallholder farmers through farmer groups in national and refugee communities. An AEO in the refugee settlements is responsible for up to 12 farmer groups while those engaged with nationals work with not more than 15 farmer groups. A farmer group comprises of 25-30 members. Each AES in the refugee settlement supervises 8 – 12 AEOs and those working with nationals supervise 10 – 15 AEOs. The AEOs are field-based and those working with nationals are attached to sub-counties while those working with refugees are attached to refugee settlements.

This staffing configuration means that each AEO is working with 450 households which is within the FAO standard for extension worker to household ratio of 1:500. In addition, the current staffing levels indicate that the IPs and RAUs have adequate staff to deliver on CSA outcomes (Table 3).

The VSLA is implemented by the VSLA Supervisor (VS), VSLA Officer (VO) and Community-Based Trainers (CBT). There are 1 – 2 VOs in each IP or RAU. IPs or RAUs that have more than one VO have a VS. At the community level are the CBTs who train the VSLA groups. A CBT is responsible for 10 – 15 VSLA groups. They are supervised by VOs and each is responsible for 7 – 10 CBTs. This configuration indicates that all the IPs and RAUs had the adequate VSLA staff to deliver the desired outcome (Tbl4).

There is one Marketing Coordinator (MC) positioned with each IP and RAU with the responsibility of supporting collective marketing through establishing linkages with larger buyers, producers, local traders and provide relevant market information. The contact person for group marketing activities is the AEOs, supported by the AES' who facilitate group contact with the MC. So far, only IPs and RAUs with old farmer groups, who are now producing for the market, have a MC. During field assessment, discussions were ongoing to phase out the position of MC and assign the responsibility to AEOs.

Table 4: Staffing configuration for VSLA and Market Coordination

Implementing Partner/Unit	District/Refugee Settlement	No. of VSLA groups	No. of existing VO's	No. of existing VS	Minimum no. of required Vos	Minimum no. of required VS	No. of Market Coordinators
AFARD	Nebbi Pakwach Zombo	241	2	1	2	1	1
Arua DFA	Arua Rhino Camp Imvepi	175	2	1	2	1	1
RAU Adjumani	Adjumani Maaji Mungula	77	1	0	1	0	0
PICOT	Koboko	0	0	0	0	0	0
RAU Moyo/ Obongi	Moyo Palorinya	90	1	0	1	0	0
RAU Agago	Agago	169	1	0	1	0	1
RAU Kitgum/Lamwo	Kitgum Lamwo Palabek	283	2	1	2	1	1

2.2.2 Staff competences

Nearly 90 percent of the AES' are Degree holders and about 10 percent have only Diplomas. The majority of the AEOs (86 percent) are Diploma holders while a few (14 percent) have degrees. All the VSLA Supervisors and 80 percent of the VSLA Officers are Degree holders. Half of the Market Coordinators have at least a Degree.

Table 5: NURI Staff Qualification 2019/2020

Position	Highest level of education			
	No. with Diploma	No. with Degree	No. with Masters Degree	PhD
NURI coordinator/PM/ED	0%	73%	18%	9%
Agric. Extension Supervisors	11%	82%	7%	0%
Agric. Extension Officers	86%	14%	0%	0%
VSLA Supervisors	0%	100%	0%	0%
VSLA Officers	20%	80%	0%	0%
Marketing Coordinators	50%	25%	25%	0%

In addition, NURI staff are trained prior to and during programme implementation by highly qualified resource persons to ensure that they are competent to implement the programme. The trainings provided are indicated in Table 6.

FAO recommends that extension agents should have technical knowledge and necessary personal skills such as leadership to effectively work with farmers². The qualifications and trainings given to NURI staff indicate that they are competent to deliver the desired CSA outcome.

² FAO. 2019. *Agricultural Extension Manual*, by Khalid, S.M.N. & Sherzad, S. (eds). Apia

Table 6: Trainings provided in 2019/2020

Category of staff	Training provided
1) Coordinators, CSA Coordinators, AEOs and AES'	CSA Training, induction training
2) Coordinators, CSA Coordinators, AEOs, AES', MCs	Production and marketing
3) VOs and VS'	VSLA Methodology
4) Coordinators, CSA Coordinators, AEOs, AES' and MCs	Monitoring and Evaluation
5) Selected AES' and Coordinators	Leadership
6) Coordinators, CSA Coordinators, AEOs, AES' and MCs	Measurement and unit conversion
7) Coordinators, CSA Coordinators, AEOs, AES', MCs	Post-harvest Handling (PHH)
8) Selected AES'	Resilience Design
9) Coordinators, CSA Coordinators, AEOs, AES' and MCs	Sexual Reproductive Health and Rights (SRHR)

2.2.3 Relationships

The CSA team has good working relationships and closely collaborates with the District Local Governments (DLGs) and Lower Local Governments (LLGs) in the districts where they operate. This is evident in the involvement of DLGs and LLGs in implementation of NURI activities such as assessment and selection of farmer groups, recruitment of unit staff, selection of strategic crops and field monitoring. NURI also collaborates with development partners and key relevant development programmes operating in the region such as WFP, UNHCR, Operation Wealth Creation, PRELNOR, NUSAF3, EU-DINU DYNAMIC by GOAL, World Vision, ADRA, AVSI and Lutheran World Federation, among others.

Overall, the NURI extension model is appropriately configured in terms of staffing, competences, structure and relationships to deliver the desired CSA outcome.

2.3 Implementation of the Model

The approach to NURI engagement with smallholder farmers is through groups. These are groups of 25-30 farmers. They are screened prior to training using a set of criteria to ensure correct targeting. For instance, the criteria for national groups (old and new) include having a leadership structure that is inclusive of women, record keeping and registration with local authorities, among others. Refugee groups are formed by NURI and the criteria are willingness for individuals to work in groups and receiving minimal or no support from other development partners. NURI is engaged with four categories of farmer groups: old nationals (former Recovery and Development in Northern Uganda Component of U-Growth II [RDNUC] groups), new nationals (formed under NURI), mixed refugee/ host, and women refugees.

There are total of 2,945 national and 882 refugee groups

Table 7: NURI Farmer Groups by category

Target group	Arua	Koboko	Nebbi	Zombo	Pakwach	Adjumani	Moyo	Kitgum	Lamwo	Agago	Total
Old Nationals	200	N/A	80	80	50	N/A	N/A	110	100	135	755
New Nationals	330	195	150	150	105	300	300	210	210	240	2,190
Mixed groups	165	0	0	0	0	120	113	0	86	0	484
Women Refugees	139	0	0	0	0	120	120	0	19	0	398
Total	834	195	230	230	155	540	533	320	415	375	3,827

Source: NURI

(Table 7). Applying the maximum group membership of 30, the estimated number of households reached by end of 2020 was 114,000 representing 95 percent of the project life target of 120,000.

All the groups NURI is engaged with are registered with the local authorities where the groups are located; the sub-county for the national groups and Camp Commandant for refugee groups. The groups also have constitutions to guide their operations and have leadership structures that include women. National and mixed groups have both men and women.

CSA training is aimed at building the capacity of farmers to increase crop production through use of improved practices and technologies thus building their resilience to climate change related shocks. NURI training is focused on climate-smart agronomic practices in the field, post-harvest handling and marketing of selected strategic crops with the expectation that the knowledge gained is transferable to other crops that farmers grow.

The strategic crops for the districts are selected and assessed through a consultative and participatory process involving technical teams from the sub-counties and districts, key stakeholders implementing similar commodities, key input and produce buyers, and farmer groups.

Old national groups do not select new strategic crops but continue with those selected under the previous RDNUC programme and only receive some extension service based on their need. Emphasis is put on some CSA elements like collective marketing, value addition and post-harvest handling of the crop enterprises they were engaged in. However, groups that were dissatisfied with their earlier choice of strategic crops were allowed to change.

Table 8: Strategic crops for nationals

Districts	Selected Crops
Adjumani	Maize, soybean, sesame
Agago	Sesame, soybeans, sunflower
Arua & Madi-Okolo	Beans, cassava, sesame, soybeans
Kitgum	Sesame, soybeans, sunflower
Koboko	Beans, groundnuts, cassava, maize
Lamwo	Cassava, sesame, sunflower
Moyo	Cassava, groundnuts, maize, soybean, sunflower
Nebbi	Beans, potatoes, onions, soybeans
Obongi	Cassava, maize, sesame
Pakwach	Cassava, rice, sesame
Zombo	Beans, Irish potatoes, onions

New national farmer groups select one crop of their choice to focus on for their training and the duration of the NURI support from a list of strategic crops relevant for their district (Table 8). This choice is informed by profitability analysis and guided by the AEO.

The crop mix available for refugee women farmer groups to select from is that which can be grown in homestead gardens to improve food and nutrition security. Each member chooses one food crop, three vegetables and three fruit trees, depending on household production. The crop mix includes: sweet potatoes and cassava for food crops; kale (*sukumawiki*), okra, onions, tomatoes, eggplants, among others as vegetables; and papaya, citrus, mango and passion fruits.

The mixed refugee/host farmer groups select two crops, typically a 'food and sauce' combination (e.g. maize and groundnuts) from a list of field crops which includes groundnuts, pigeon peas, beans, cassava, maize, sesame and sweet potatoes. The choice of crops is determined by access to land for production and crops can be grown for food and income.

The CSA training is delivered by an AEO through structured training sessions at the group's meeting point and in their demonstration garden

Box 1: CSA training sessions

1. *Setting the ground/farmer institutional development*
2. *Climate, climate change and its impact on Agriculture and food security*
3. *Climate smart agriculture technologies/practices available*
4. *Introduction to specific crop enterprises for the group*
5. *Seeds, seed bed preparation, planting, intercropping and weeding*
6. *Major field pests and diseases of the given crops and their control*
7. *Soil fertility and water management*
8. *Post-harvest Handling*
9. *Business skills*
10. *Marketing*

for hands-on learning, particularly for crop specific sessions (Box 1). The duration of the training is a season or one year. Sessions 1, 2, 3, 9 and 10 are the same across all the farmer groups while sessions 4 – 8 are crop specific and are conducted based on the selected crop. In 2019 and 2020, a total of 3,132 farmer groups were trained in CSA (Table 9).

Table 9: Farmer Groups trained in CSA in 2019-2020

Group Category	Nebbi	Pakwach	Zombo	Arua	Adjumani	Koboko	Moyo	Agago	Kitgum	Lamwo	Total
New national	150	105	150	330	300	195	300	240	210	210	2,190
Mixed groups	0	0	0	165	120	0	113	0	0	108	506
Women refugees	0	0	0	139	120	0	120	0	0	57	436
Total	150	105	150	634	540	195	533	240	210	375	3,132

AEOs use one-acre (4,000m²) demonstration gardens to deliver the CSA trainings during the first year of engagement with NURI. These are established for national and mixed groups and not refugees due to limited access to land. Instead, a smaller plot is established within a refugee beneficiary's homestead and used as a learning site to demonstrate some CSA practices. This is a small fraction of the 900m² plot allocated to a refugee to use for construction of houses, shelters, among others.

Farmer Open Days are organised annually by the IPs and RAUs in all the sub-counties where NURI operates. All farmer groups participate and key stakeholders from the DLG and LLG together with NURI staff attend. This is an opportunity for farmer groups to show-case their learning and achievements, and to learn from each other.

The national farmers begin to transfer knowledge gained from trainings to their own gardens in the first year of receiving NURI support. In the second year, demonstration activities are concurrent with farmer adoption in own fields. During the third year, demonstration gardens are no longer used for training and instead, the AEOs conduct individual farm visits to give support at household level during this period.

Another method NURI uses for outreach to beneficiaries is weekly one-hour Radio Talk Shows. This is for all three NURI outputs who share the airtime based on agreed schedule. For CSA Extension Model, the regular panellists include the AEO, AES, MC and NURI/CSA Coordinator who discuss the appropriate CSA practices for strategic crops (depending on the stage of the crop), marketing and VSLA. A farmer also participates in the talks shows to discuss their experience i.e., success and challenges faced and how these were addressed. Occasionally, the DLG participates to support NURI in mobilisation of farmers and encourage both NURI and farmers. Also some progressive farmers from within the NURI groups are invited to the radio talk show to share their experiences.

2.4 Target groups assessment of the extension model

NURI's extension priorities and approaches are working through recognised farmer groups, capacity building rather than input supply, and positioning AEOs close to the farmers for easy access and timely response to farmers' needs.

Focusing on building the capacity of farmers in better farming methods through practical and participatory training methods have enabled farmers to appreciate that improving their farming methods can help them to increase crop production even in the face of climate change. This has motivated farmers to implement some of the practices and technologies learned during the trainings

using their available inputs and some are already adopted. However, access to some inputs remains a challenge. The model NURI used to provide inputs, particularly improved seeds, is inadequate. The seeds from the demonstration gardens are insufficient to meet the high demand from the group members, particularly in areas where there is limited access to certified input dealers.

The need of national farmers is to improve their farming so as to earn income from it to enable them to meet their basic needs, invest in other income generating activities to diversify income sources, and improve their wellbeing. The engagements with NURI are beginning to yield some positive results as some farmers are applying the knowledge gained and are beginning to register some improvement in their farming, yield and income. The main need of refugees is to supplement their food rations and improve the food security of their households. These farmers have been able to increase their food production, enabling them to supplement the food rations and diversify their diet for food and nutrition security even as the food rations in the refugee settlements are reducing (See section 4).

Overall, the model is meeting the needs of the farmers. However, the model is not sufficiently flexible to allow national farmers to change their choice of strategic crop when it is no longer commercially viable and cannot earn them income.

2.5 Assessment of NURI extension model

2.5.1 What is working

- Group approach using groups recognised by the local authorities to reach many farming households.
- Using demonstration gardens as learning and seed multiplication sites to enable group members to access improved seeds for their own gardens.
- Focus on the strategic crops to transfer knowledge and skills on CSA. There is evidence that the application of the gained knowledge is in a wide range of crops beyond the strategic crops.
- Practical and holistic training of farmers through the crop cycle, from planning, planting, post-harvest handling (PHH) to marketing.
- Integrating GAP with CSA in the agricultural training given to farmers
- AEOs are field based and thereby easily accessible to the groups which has built good working relationships.
- Capacity building of extension staff in CSA practices and technologies prior to and during programme implementation using resource persons from National Agriculture Research Organisation (NARO), Makerere University and CF.
- The extension worker to household ratio is adequate and within the recommended standard
- Strong collaboration with the DLGs and LLGs, who are responsible for local development activities including rural livelihoods, in areas where NURI is operational.
- Making VSLA an integral part of CSA extension model as a source of credit for investment in agriculture, diversifying income sources, collective marketing and accumulating savings and assets that would buffer farmers against shocks.
- Applying best practices in the approach to VSLA such as allowing members to mobilise resources amongst themselves as seed capital, training members on cash management and group dynamics, and mentoring of members for up to 12 months as it takes 9 – 12 months for VSLA groups to become independent and sustainable during which they require continuous support, back-stopping and encouragement³.
- CSA team is resourceful and flexible. For instance, when faced with COVID-19 restrictions, it opted to train farmers in smaller groups, use group leaders as a trainer of trainees', and increase focus

³ IGAD (u.d.): *Resilience Good Practice-Building resilience through VSLA and access to credit*. Intergovernmental Authority on Development (IGAD), Djibouti.

on radio as a channel for extension messages. For staff training, the team decided to use smaller gatherings and hand-picked trainers, mainly from NARO.

- Radio talk shows are enabling NURI to reach their beneficiaries and beyond, non-participating farmers within and outside the target districts, and providing much needed agricultural advice. This is evident from the fact that 6 – 12 farmers call in to the talk show weekly requesting for information on appropriate pesticides to use on their crops, how to manage various crops in the field apart from the strategic crops for the district, weather, market for their produce, appropriate crop varieties to grow, access to inputs, and how to participate in NURI, among others.

2.5.2 What is not working:

- SRHR is meant to be complimentary but is poorly integrated in the CSA extension model
- Market coordination is poorly integrated in the model and is more noticeable at the end of the production cycle even though farmers are supposed to prepare their marketing plans in tandem with the production plans at the beginning of the season.
- Expecting groups to stick to the strategic crops selected for the two seasons/years of training even though it is no longer viable.
- Access to improved inputs is a challenge
- AEOs have insufficient pictorial guides, factsheets and booklets for training farmers, particularly for groundnuts, soybean and cassava.
- Farmer groups should be availed with pictorial factsheets/guides in their local language.

3. Extension Approaches of Other Organizations

Within NURI programme area, there are several organizations that are similarly involved in delivering extension services. This section describes key features of these extension models with a view to identifying differences and some aspects that NURI can consider adapting to improve its approach during the remaining half of its life.

3.1 Government Extension Model

The Government of Uganda (GOU) extension model is based on the 2016 National Agricultural Extension Policy and Strategy and subsequent documents such as Guidelines and Standards; and Code of Conduct for agricultural extension workers. The policy provides for pluralistic delivery of extension services comprising government and non-state actors. The GOU delivery structure comprises frontline workers deployed at sub-counties to provide technical expertise in crops and livestock. Depending on the potential and importance of fisheries and entomology in the sub-counties, fisheries or entomology staff are also deployed. However, in most districts, the entomology staff is stationed at district level. Technical backstopping, supervision and monitoring of the front-line extension workers is provided by the District Production Department headed by the District Production Officer under whom are four sub-sector heads – District Veterinary Officer, District Agricultural Officer, District Fisheries Officer and District Entomology Officer. Under each sub-sector head, the structure provides for a senior officer and an officer. But in most cases, these positions are not filled due to resource constraints. Overall oversight and supervision are the responsibility of the Ministry of Agriculture Animal Industry and Fisheries through the Directorate of Agricultural Extension Services (DAES). The GOU extension model targets all categories of farmers – smallholders, market oriented and commercial. It focuses on national priority commodities chosen by the district on the basis of suitability with the agro-ecological zones as well as other enterprises identified at local level. Farmers are reached through groups and as individuals or households. The individual outreach involves selecting two progressive or model farmers who receive substantial government support in the form of training, visits and inputs including primary processing equipment through Operation Wealth Creation. These farms serve as training and learning centres and in some cases, these farmers are out growers for nuclear farms. The content of

the extension message delivered to the target groups is derived from manuals (e.g., maize, and beans) which MAAIF has been developing in the recent past with support from Development Partners' Projects. Financial resources for implementing the extension model is from the consolidated fund through the extension grant which is disbursed to DLGs and shared between the Districts and Sub-counties in the ratio of 30% to 70% respectively. The grant covers both the wage and non-wage expenditures. The non-wage component funds allowances, repairs of motorcycles, instructional materials and basic inputs for demonstrations. Logistical support in terms of vehicles and motorcycles are inadequate. In Moyo, for example, there is only one motorcycle per sub-county and yet there are a minimum of two staff members in each of the six sub-counties. The district has a deficit of seven motorcycles which they are expecting NURI to provide. The GOU extension model has a wide scope – targets all farmers, and potentially all commodities – but have a limited budget and very few staff members to support the farmers. As an example, in Moyo, the ratio of extension worker to families is estimated to be 1:1450. No comprehensive assessment of the GOU extension model has been done but anecdotal information gathered during this assignment suggests there is limited and inconsistent coverage of the target group and follow up of beneficiaries is minimal leading negligible impact.

3.2 Project for Restoration of Livelihoods in Northern Uganda

The Project for Restoration of Livelihoods in Northern Uganda (PRELNOR) is an IFAD funded undertaking whose development objective is *increased sustainable production, productivity and climate resilience of small holder farmers with increased and profitable access to domestic and export markets*. Two of the three project components are focused on extension delivery. Component 1 – rural livelihoods targets households and groups; while component 2 – works with economic-oriented groups that have identified business opportunities and profitability as their priority focus.

Beneficiaries under component 1 are selected through participatory rural appraisal (PRA) and planning processes which identifies the most vulnerable households through the wealth ranking tool. The process also determines existing groups that are institutionally weak. The PRA and planning processes also seek to unearth environmental concerns for community level action. Once the vulnerable households and groups are identified, they are taken through a mentoring process to strengthen their capacity in production to ensure food security and ultimately to graduate them to economically oriented groups. The mentoring process entails facilitating the vulnerable households and groups to develop a vision destination and supporting them to take actions that propel them towards realization of the vision. Specific interventions include availing seed and other inputs along with extension training to ensure that the households are not only food secure but also earning some cash income. Further training is also provided on HIV/AIDs, gender and nutrition. At the end of the mentoring period, vulnerable households are given a cash voucher of UGX 470,000 to procure inputs in line with what they visualized at the start of the process. At this point the vulnerable households are encouraged to join farmer groups. The mentoring of vulnerable groups follows a similar process. They are trained in the enterprises selected with the aim of improving their food security and increasing household incomes. After the training they receive grants to procure inputs. At the end of the groups mentoring process the vulnerable groups are expected to graduate to economic-oriented groups. With regards to extension methodology, PRELNOR uses results demonstrations, farmer to farmer exchange visits, and farmer field (FFS) and business schools with a CSA focused curriculum. For the economic oriented groups under component 2, the interventions build on the training on CSA and sustainable production received earlier and adds on post-harvest handling, market linkages and value addition. Various inputs and equipment including tarpaulins, mechanization, primary processing equipment are provided to give the groups a good start. The community Natural Resource Management concerns identified during the PRA process are translated into Community Based Natural Resource Management (CBNRM) plans which are implemented through separate community groups formed for the purpose. CBNRM groups receive a grant of US \$6,000 to implement activities

that include tree planting/agro-forestry, bee keeping and promotion of energy saving cooking technologies.

Implementation follows the government structure at district and sub-county levels. Below the sub-county the project hires community-based facilitators who are deployed at parish level.

PRELNOR extension model has three target groups based on poverty ranking and capacity assessment of the groups. These are: vulnerable households, vulnerable groups and economic – oriented groups. The interventions for each group are tailored to their respective needs. The difference with NURI is that they have a generous contribution towards inputs. The delivery approach and content of curriculum are very similar to that of NURI. The farmer to farmer exchange serves the same purpose as NURI's annual open days where farmers learn from each other through competitions.

3.3 CARITAS

CARITAS extension model targets the active poor to ensure they are food secure and generating income through sustainable farming. The production and marketing plan have a three-tier system: i) production for food; ii) production for income (these are again split into two: a) for quick sale in the local market to secure income for domestic needs and b), for bulking and the proceeds are used for long term investments); and iii) production for seeds. The farmers are reached through groups that comprise 25 – 30 persons. Each group identifies one person who is trained for two months at an institution located in Arua and graduate with a certificate in basic agriculture. Upon completing the training, they are deployed as community-based animators (CBA) or facilitators. CBAs train farmers and follow up individual farmers in their fields. CBA is supervised by agricultural extension officer who is based at CARITAS office. Each AEO works with 760 households or 25 groups who are trained using FFS approach. Enterprise selection is based on the preference of the group and the varieties are limited to local or indigenous. Plant nutrition and protection is restricted to organic inputs. Great emphasis is also placed on agro-forestry and soil and water management. Training is conducted using manuals and IEC materials developed by the project. They also have agricultural demonstration days where each group showcases what they have achieved and how they have achieved it so that they learn from each other. Other learning methods include exchange visits from groups within the same geographical areas. The difference with NURI is that the last mile delivery is carried out by farmers identified from within the community and trained to support fellow farmers. The other difference is that the main focus is food crops and local varieties.

3.4 CEFORD

Community Empowerment for Rural Development (CEFORD) is an NGO operating throughout the West Nile region with headquarters in Arua City. Its mission is to provide capacity development services that build the resilience of disadvantaged women, men youth and children and their groups/organizations to realize their rights and improve their wellbeing. A key priority area of the organization is improving the target groups' food and nutrition security. To this end, in Nebbi District, CEFORD is implementing a project known as *Rights to Food Program* funded by Oxfam through PELUM. The project targets vulnerable women, men, youth and the elderly in Erussi Sub-county. The beneficiaries are reached through groups which are formed as part of the implementation process. To-date, 23 have been established each averaging 30 member giving a total of 690 members. Once the groups are formed, they are engaged through a participatory process to determine their areas of interest. The process culminates in the selection of the enterprise to be supported. The assistance from the project comes in the form of seed, training in sustainable agricultural production and formation of VSLA. The content of the extension training is strictly organic and sustainable agricultural production practices. The use of artificial inputs such as pesticides and inorganic fertilizer is strongly

discouraged. Instead, the beneficiaries are taught on how to prepare their own organic pesticides and fertilizers. In addition to training, farmer-to-farmer extension is also used as a method of extension delivery. The facilitators under the farmer-to-farmer approach are the early adopters who are trained and designated as community change agents (CCA). They are provided with bicycles to ease their movement as they train other farmers. The beneficiary groups are engaged intensively for two years after which they are expected to have matured and released to continue on their own. CEFORD believes the project has had a positive effect on the beneficiaries as they have applied the knowledge and skills acquired on sustainable agricultural production and adopted VSLA for mobilizing resources for investment in agriculture and other IGA as well as meeting pressing household needs.

3.5 Welthunger Hilfe

Extension is provided at three levels tailored to specific target groups: i) Optimised Land Use Model (OLUM); ii) Farmer Field School and iii) Commercial Farmers.

i) OLUM – is predominately used in refugee settlements where land holdings are small so that its use is maximized. Farmers are organized into groups of up to 30 households. So far there are 71 groups. One member of OLUM is trained in Good Agricultural Practices. Their gardens serve as a learning centre where other members acquire knowledge and skills to replicate in their own fields. The trained model farmers support other farmers in their groups. At this level, production is mainly for food security and vegetables are key crops cultivated.

ii) FFS approach is used for nationals which make up 85% of the beneficiaries. The approach is also through groups comprising 30 households. To-date 28 groups or 840 households have been reached. Each FFS group has a facilitator supervised by FFS supervisor. The group establishes a study plot where they are trained on GAPs of a selected crop that the group chooses. They are taken through the full crop growth cycle from planting to harvest. The FFS groups produce for food security and the surplus is marketed. Individually, the group members select a commercial crop and a food security crop.

iii) Commercial farmers – this category produces for the market but are also reached through groups. These are predominantly farmers graduating from FFS who have been trained and can now produce on their own. The extension services they receive focus on post-harvest handling and marketing like market information, market linkages and bulking. This category also purchases produce from FFS groups for bulking.

Besides training in GAPs, the beneficiaries are provided with inputs for each season i.e., twice a year. The organization organizes a seed fair each season where inputs dealers and farmers interact. The OLUM and FFS members are issued with e-vouchers. The OLUM farmers are given UGX 67,000 in their e-vouchers which they use for purchase of at least three vegetables in addition to orange flesh sweet potatoes and iron-rich beans which are mandatory for food and nutrition security. The FFS farmers have about UGX 168,000 per year on their e-vouchers for input purchases. Each farmer purchases seed from each of the three categories; vegetables, food security and commercial. Commercial farmers are not provided with inputs but are free to come to the fair to purchase inputs of their choice.

Animal traction is supported for the FFS category of farmers through provision of four oxen, two ploughs and the necessary training. Each FFS member is given a she goat as well as an income generating activity or to support food security.

The project is implemented through a structure that has the project manager, deputy and a series of officers. At field level, training and other support are provided by a combination of community facilitators and full-time project staff.

WH uses a graduation system. They evaluate members of each groups and when they meet the criteria, they move from OLUM to FFS and from FFS to Commercial. VSLA is integrated with farming so that savers can use the money to purchase the additional inputs and start IGA. All FFS groups have VSLA but only 15 of the OLUM groups have VSLA, the rest are still being assessed. There are few instructional aids except the FFS facilitators who use the standard FAO FFS manual.

In the assessment of WH, the groups have adopted GAPs. FFS groups have significantly increased their production of vegetable and are now major suppliers of vegetables to Arua market. Because of the increased output there is a glut in the market leading to a drop in prices. Production of commercial crops have also significantly increased and currently FFS have huge quantities of groundnuts which the project is helping them to find market. According to the project the biggest measure of success is the production of marketable crops such as sesame, groundnuts and cassava.

3.6 Summary of differences between NURI and other models

The key differences between NURI and other extension models are:

- i) NURI's priority is training in CSA practices and technologies and building the capacity of farmer groups as well as promoting financial literacy for groups that qualify leading to formation of VSLAs. NURI's contribution to inputs is limited and primarily for establishing demonstrations and learning. On the contrary, other extension models make a sizable contribution to inputs for use by individual beneficiaries in their gardens.
- ii) All the models discussed above identifies, trains and deploys community level extension workers to deliver last mile training and services. On the other hand, NURI hires fresh graduates who are taken through a TOT to orient them on CSA and farmer institutional development. It is only for VSLA training that NURI recruits community-based trainers – a similar approach used for animal traction interventions under the predecessor programmes – DAR, RALNUC and RDNUC.
- iii) Two out of the five extension models apply a graduation approach while NURI's targeting is done once at the beginning and the beneficiaries are supported within their respective categories up to the end.

4. Beneficiaries Uptake of Interventions

4.1 Improved knowledge on CSA

NURI defines climate change as long-term variation in weather elements such as temperature, wind and rainfall patterns. This is now well understood by the farmers. Table 10 shows that the majority of the farmer groups (77 percent) relate climate change with change in rainfall patterns in terms of timing, onset, duration, amounts of rainfall and increased frequency of dry spells and droughts, among others. Nearly 20 percent of the farmers understand that environmental degradation such as cutting down trees, deforestation and bush burning contribute to and worsen climate change. This appreciation made them willing to learn how to improve their farming methods to protect their agricultural livelihoods from the adverse impact of climate change.

Table 10: Appreciation of Climate Change

Climate Change characteristic	# of groups mentioning	% of groups mentioning
Change in rainfall patterns (timing, onset, duration, amounts, dry spells, droughts)	36	77%
High temperatures	2	4%
Worsened by environment degradation (deforestation, cutting down trees, bush burning, etc.)	8	17%
Increased pests and diseases	2	4%

NURI defines CSA as an approach that requires site-specific assessments to identify suitable agricultural production technologies and practices aimed at improving food security, helping communities adapt to climate change and contributing to climate change mitigation by adopting appropriate practices. NURI promoted various CSA practices and technologies including bunds, strip and contour cultivation, crop residue mulching, composting, cover cropping, use of improved and high yielding crop varieties, crop rotation, intercropping and agroforestry, among others.

The extent to which farmers groups' knowledge on CSA has improved was assessed by tallying the number of groups mentioning the practices and technologies promoted (Table 11).

The majority of farmer groups mentioned proper land preparation (72 percent), timely harvesting and good post-harvest handling (PHH) practices (70 percent), timely and proper weed management (69 percent) and management of soil erosion (68 percent). This indicates improvement in farmers' knowledge of CSA.

Table 11: Knowledge and adoption of CSA practices and technologies

CSA Practice and technologies	% of groups mentioning	
	Knowledge of CSA practices	Adoption of CSA practices
1) Planning and budgeting (visioning)	17%	9%
2) Proper land preparation	72%	59%
3) Selection of appropriate enterprises and use of improved seeds/planting materials	40%	30%
4) Early planting and planting method	76%	67%
5) Proper weed management	69%	64%
6) Soil moisture management, nutrient enhancement, intercropping and crop rotation, tree planting or retention of trees in the field	46%	35%
7) Soil erosion management	68%	57%
8) Disease and pest control	64%	45%
9) Timely harvesting and PHH practices	70%	45%
10) Collective marketing and prudent use of proceeds	35%	23%
11) Provide for food security crops including kitchen gardening	26%	13%
12) Reduce Gender Based Violence (GBV)	17%	11%

4.2 Adoption of Practices and technologies

All farmer groups are already adopting some CSA practices and technologies (Table 11). For instance, traditionally farmers used to prepare the fields late, typically 1 – 2 weeks before planting. This was done by clearing bushes and burning all the plant residues, then ploughing 1 – 2 times. Now, 59 percent of the groups have adopted timely and proper land preparation methods. This includes: clearing the bush, not burning the plant residues but leaving them on the ground in the fields to rot then incorporating into the soil during ploughing; and ploughing twice, at least two weeks apart, to obtain an appropriate seed bed.

The majority of the groups (67 percent) have adopted early planting at the onset of the rain season and proper planting methods such as row planting, using recommended spacing and seed rate, and light covering of holes to avoid compaction of soils which constrains germination. This is the most adopted practice so far because of the quick and early benefits that the farmers have realized. These include:

- Use of less seed or planting materials, thereby saving money. For instance, farmers of Amureva Group in Arua District previously broadcast beans and would use two basins of seeds (about 40Kg) in an area that required only 30kg of seeds for row planting.
- Row planting makes weeding easier, thus enabling men to participate. Traditionally, weeding of broadcast or randomly planted crops e.g. beans, sesame, soybean, sorghum, groundnuts and cassava was left to women because men deemed it tedious. However, by participating in the weeding of the demonstration gardens with the women, men have realised that when crops are planted in rows they are easy to weed and they can share the workload with the women. Farmers mentioned that this has had the added benefit of improving domestic relations.
- Acreage under cultivation of some crops has increased because of reduced burden of weeding as it is now easier to mobilise the entire household to weed. For instance, some farmers of Alio Group in Arua District have increased acreage under beans from 0.25 – 0.5 acres to 0.75 – 1 acre and soybean from 0.25 acres to 0.5 acres. However, an overwhelming number of groups, particularly in Agago, Arua and Lamwo, mentioned that significant expansion of acreage under cultivation is limited by unavailability of animal traction. NURI needs to address this.

Nearly 65 percent of the groups have adopted proper weed management practices. Previously, farmers waited until the weeds were many in the field or the cassava was knee-high before weeding. Now, they follow recommended practice of weeding two weeks after germination followed by the second weeding two weeks later. Thereafter, any emerging weeds are removed by roguing. Farmers also now avoid walking in the fields when crops are flowering to avoid damaging the flowers.

Box 2: Impact of Adoption of NURI CSA on Refugee Women

Before NURI, we had a challenge of finding vegetables and enough food to feed our families. We were sometimes forced to beg other women in or outside the camp for vegetables. This created a lot of friction and conflict, particularly when you became a frequent borrower or unwittingly became a witness to domestic violence. We also spent a lot of time looking for vegetables even travelling as far as Obongi District. Now that we grow our own vegetables, we can feed our families, have more time for to look after our children, and even sell some for income to take care of other necessities. We even sun dry some to ensure that we have supplies in the dry season when fresh vegetables are scarce. Also, we used to borrow money from shop keepers to purchase food. These lenders would retain our ration cards until the debt was paid. Many of us no longer borrow money for food and the few who still do, borrow far much less. We feed better, work more together, relations have improved and we really feel empowered.

Oriendeni Women Refugee Group, Maaji Refugee Settlement, Adjumani District.

Adoption of good PHH practices is resulting in improved quality of produce. For instance, members of Dikiriber Group in Nebbi District used to dry the rice in the sun all day over several days resulting in over-drying and breakage during hulling. They have now adopted the practice of drying in the sun for three hours every 2-3 days.

The main objective of refugee women farmers is to supplement their food rations and improve the food security of their households. By adopting the CSA practices, they have increased their food production and can now supplement the food rations, diversify their diet for food and nutrition security even as the food rations in the refugee settlements are reducing. Additionally, some of the women are now earning income from sale of vegetables to meet other basic needs. They are also borrowing from their VSLA to invest in other IGAs.

Food rations in refugee settlements have reduced from about UGX 31,000/person/month before the COVID-19 pandemic to UGX 22,000 in December 2020. Further reductions expected in January/February 2021. The NURI engagement has buffered the refugees against this shock (see Box 2).

4.3 Use of Inputs

Old farmer groups are not given production inputs because they benefitted from previous programmes. They are instead supported with inputs and equipment for PHH, value addition and marketing such as tarpaulins, produce stores, grinding mills, cassava chippers. This is cost shared with the farmer groups at 50 percent.

National farmer groups are provided with inputs for demonstration gardens only. These include improved seeds and pesticides and are supplied in the first and second years of support. Thereafter, group members are expected to share the harvest from these gardens to use for seed in their own gardens. However, the demand for the seeds is much higher than the harvest.

Members of refugee groups (mixed and women) are given inputs for each season for the two years. This approach is relevant because it ensures that refugees, who are already vulnerable to food insecurity and have very limited income, do not spend their meagre resources to purchase agriculture inputs.

In addition, refugee women are taught how to extract seeds from the vegetables to enable them to continue accessing seeds even after NURI engagement ends.

This approach is to ensure that farmers can readily access improved seeds without creating dependency on free or subsidized inputs.

Whereas farmers have observed the importance of planting improved seeds, particularly in terms of yields compared to their traditional varieties, and are motivated to use them to use, access remains a major limitation to their adoption.

4.4 Village Savings and Loans Association

VSLA is an integral part of the CSA and is designed to provide access to financial services to the groups for investment in increased production of selected crops, and knowledge on money management at group and household level.

Table 12: VSLA Savings

District/ Settlement	2019			Cumulative 2020		
	Savings (UGX)	No. of groups	% of groups in VSLA	Savings (UGX)	No. of groups	% of groups in VSLA
Nebbi	2,259,000	30	19%	142,804,000	73	32%
Pakwach	2,999,000	45	41%	187,338,500	73	47%
Zombo	6,189,000	72	46%	251,433,500	95	41%
Arua	14,091,400	43	12%	181,601,400	114	22%
Agago	20,842,000	69	18%	232,715,600	169	45%
Kitgum	24,359,000	51	24%	216,936,000	118	37%
Lamwo	27,263,300	59	28%	272,398,100	148	48%
Total	98,002,700	369	23%	1,485,227,100	790	27%
Refugees						
Rhino Camp	3,930,000	24	20%	36,592,000	61	28%
Maaji+Mungula				55,463,700	77	32%
Palorinya				127,942,200	90	39%
Palabek	1,586,700	17	38%	15,208,300	17	16%
Total	5,516,700	41	25%	235,206,200	245	29%
Grand total	103,519,400	410	24%	1,720,433,300	1,035	28%

Source: SAVIX Data base

Through VSLAs, groups are able to pool resources and accumulate their savings. In 2019, 23 percent of the national farmer groups participated in VSLA and mobilised UGX 98 million. By 2020, 27 percent of the groups had VSLAs and had accumulated nearly UGX 1.5 billion in savings (Table 12). Refugee groups with VSLA also rose from 24 percent in 2019 to 28 percent in 2020 with savings increasing from UGX 5.5 million to UGX 235 million. By 2020, 28 percent of NURI farmer groups had VSLA.

The savings are lent to members at a modest rate of 10 percent to use for various purposes, including agriculture to increase and sustain production. In 2019, national farmers used 20 percent of their VSLA loans for agricultural purposes. By 2020, they were investing nearly 50 percent of their loans in agriculture (Table 13). Meanwhile, refugees invested only 21 percent of their loans in agriculture in 2020. Overall, NURI farmer groups spent 47 percent of their loans on investment in agriculture.

Table 13: VSLA loans 2019-2020

District/ Settlement	2019			Cumulative 2020		
	Loans (UGX)	Used for Agric (UGX)	% of loan used for agric	Loans 2020 (UGX)	Agric 2020 (UGX)	% of loan used for agric
Nebbi	1,812,423	1,033,400	57%	244,147,277	175,219,900	72%
Pakwach	3,628,000	1,208,000	33%	390,199,200	216,964,800	56%
Zombo	5,704,300	1,645,504	29%	240,000,400	174,365,196	73%
Arua	12,886,000	2,123,000	16%	330,874,600	100,308,500	30%
Agago	10,601,000	2,249,000	21%	265,350,700	151,636,448	57%
Kitgum	21,188,506	1,791,000	8%	278,540,794	57,671,600	21%
Lamwo	7,867,015	4,883,000	27%	282,948,485	116,333,114	41%
Total	73,687,244	14,932,904	20%	2,032,061,456	992,499,558	49%
Refugees						
Rhino Camp	1,754,000	652,000	37%	40,571,400	10,203,000	25%
Maaji+Mungula				55,918,000	14,498,000	26%
Palorinya				34,730,000	4,045,000	12%
Palabek	294,000	0	0%	8,153,000	400,000	5%
Total	2,048,000	652,000	32%	139,372,400	29,146,000	21%
Grand total	75,735,244	15,584,904	21%	2,171,433,856	1,021,645,558	47%

Source: SAVIX Data base

Farmers realised other benefits from their VSLA loans. The loans were used to start or expand petty trade and other income generating activities and thereby diversify income sources, purchase livestock, and increase access to basic social services (Table 14). These are essential in enhancing the resilience of households and communities. The VSLA has also enhanced group cohesion and in so doing is building members' social networks which they can draw on in the event of shocks or stress.

Table 14: Group benefits of VSLA

Benefits received from participating in VSLA	# of groups mentioning	% of groups mentioning
Re-investment in farming/production activities including renting land, tree planting	18	60%
Education and vocational training of children	19	63%
Covering medical expenses	12	40%
Starting or expanding petty trade and purchasing IGA equipment e.g. grinding mill, sewing machine, etc.	20	67%
Purchase of food	1	3%
Purchasing household items including clothing, beddings, furniture and transport	7	23%
Purchase of livestock and poultry for rearing or animal traction	20	67%
Upgrading residential housing/building store	10	33%
Formalizing marriages (dowry)	2	7%
Easy source of credit	1	3%
Create a culture of savings and disciplined spending	3	10%

The accumulated savings, interest earned from the loans and fines are distributed to the members once a year at the end of the saving cycle in proportion to their savings. Unlike other savings schemes where the distributed money is used solely for end of year celebrations, especially Christmas and new year, members of the NURI supported groups distribute their money much later – January or February – and use it for the purpose they had defined at the beginning of the savings cycle.

4.5 Engagement with markets and services

NURI has engaged with various commodity buyers such as Mukwano, Ngetta Tropical holdings, UOSPA, Mt. Meru, Nile Agro, among others in order to link farmers to potential buyers and create market opportunities for their bulked produce. Anecdotal evidence shows that some farmer groups are bulking and collectively marketing their produce. For instance, 23 percent of the old national farmer groups mentioned that they had adopted collective marketing in order to get higher prices and earn more from their produce (Table 11). In Agago and Kitgum districts, farmers collectively sold 51 percent of their

Table 15: Collective marketing of strategic crops in Agago and Kitgum

Strategic crop	Production (Kg)	Bulked and sold (Kg)	% bulked and sold
Sesame	407,773	206,173	51%
Soybean	258,438	201,118	78%
Sunflower	651,289	535,035	82%

Source: SAVIX Data base

sesame, 78 percent of soybean and 82 percent of sunflower (Table 15). Even then, the lack of storage remains a hindrance to collective marketing. This was raised by several groups in South West Nile and Acholi regions like Amaecora in Arua district. Similarly, the inadequate integration of market coordination in the extension model, and the lack thereof in some districts like Adjumani, is a further limitation to increasing collective marketing.

NURI has made effort to link farmers with input dealers to access genuine inputs. However, agro-input dealers in Agago and Lamwo districts and some parts of West-Nile are undeveloped and unresponsive and farmer access to inputs remains a major challenge in these areas.

NURI focus was to link farmer groups with financial services. However, due to establishment of VSLAs this need has diminished as groups now utilise their VSLA instead. There is, therefore, very little linkage with external financial services. VSLAs have, facilitated access to affordable credit and financial inclusion to a segment of the population that is typically disenfranchised by formal financial institutions.

5. Relevance of NURI Extension Model

To be considered relevant, a programme's goals, objectives, activities and approaches must be agreeable and address the needs of the target group and key stakeholders. The TOR's identified four areas of relevance for assessment. These include technical, economic, social, and methodological. We discuss each of them in turn.

5.1 Technical Relevance

Technical relevance assesses the extent to which the model has been '*fit for purpose*', in terms of promoting climate-smart agriculture or resilient farming systems. As designed, NURI CSA contained more than climate-smart agronomic practices. It embodied livelihood practices of households and community level activities such as financial literacy and building up savings for lending and

investments, as well as empowering the target group to demand health and sexual rights so that more labour days can be spent on productive activities and climate smart activities at the household level. As well, the model included improving access to family planning services and changing community attitudes to gender-based violence, engaging in community activities as farmers groups or marketing groups.

Evidence from the assessment shows that CSA practices and VSLA have indeed helped the target households to better handle shocks such as food and nutrition insecurity and lack of cash income which have been addressed through increased production of food amongst refugee and mixed groups and strategic crops for the national groups. Earnings from sales of strategic crops and funds from VSLA either as loans or amounts shared at the end of each cycle have enabled the target group to cope with various shocks e.g., food shortages where some households have used savings to buy food, cover medical bills and pay school fees when other sources of income were not forthcoming. However, there is limited evidence that SRHR and GBV interventions have contributed to promoting a resilient farming system. This is attributed to the inadequate outreach from these activities.

5.2 Economic Relevance

In the context of this assessment, economic relevance means the ability of the farmers to afford the practices and technologies promoted. First, it is important to appreciate that some CSA practices and technologies promoted require money to apply e.g., accessing improved seeds. NURI's strategy to address this need is through providing initial inputs for the demonstration plots which serve as the practical learning tool and subsequently as a source of planting materials (seeds) for the individual members during the next season for seeds that can be replanted e.g., beans, sesame, cassava and sweet potatoes vines. For seeds that cannot be replanted e.g., hybrid sunflower seeds, the group members sell the harvest and use the proceeds to procure original seeds which they share among themselves or share the money and each member buys individually. Once the support for the demonstration plots has ended after two seasons, and with it the source of free seeds, the key question that arises is: can the beneficiaries continue to buy the seeds on their own? Moreover, seeds are not the only technology or practices that require money. Other practices promoted under CSA like land opening, planting, weeding, disease and pest control, harvesting and post-harvest handling also cost money. Regarding this question, the assessment team found that the beneficiaries falls in three categories: i) those who can afford, ii) those who can partly afford, and iii) those unable to afford. An example of those who can afford is best provided by *Orib – Cing* group from Agago district (see success story in Annex C) where all members were able to buy improved sunflower seed at a cost of UGX 60,000 per kg. As reported in the success story, the group purchased 88 Kgs of improved seed valued at UGX 5.2 million. Another example in this category is also from Agago, where during the third quarter of 2020⁴, 34 groups bought 305 Kg of improved sunflower seeds worth UGX 14.4 million. The key driver for the target group to invest in practices and technologies is if it makes economic sense. The key incentives here are: increased yields and production arising from adoption of CSA practices, ready market available and premium prices are received as a result of collective marketing. When these factors are in place it becomes worthwhile to invest in practices and technologies promoted under NURI CSA extension model.

Additional reason that influences farmer's ability to afford the practices and technologies is access to finance through VSLA. Sixty-seven percent of the groups interviewed said they used their share of the savings for buying livestock and the majority of purchases were oxen for animal traction. Animal traction is critical in enabling farmers adopt the CSA practices of early land preparation and early planting. This is further evidence that some farmers are able to afford the practices and technologies promoted. On partial affordability, several groups especially old groups mentioned the cost-sharing

⁴ RAU Agago – 3rd Quarter Progress Report 2020 final, 6th October 2020

arrangement for purchase of tarpaulins. Finally, several groups admitted their inability to adopt the practices and technologies because they cannot afford them. The extent to which the three categories are represented amongst the groups and members should be determined through a monitoring survey.

5.3 Social Relevance

The majority of NURI beneficiaries have been farming as a way of life and their practices are entrenched in their culture. In assessing social relevance, the team looked at the willingness of the target group to adopt practices and technologies promoted in the context of their norms, beliefs and practices. Findings from the group interviews revealed that where the benefits of adopting a practice is compelling, the target groups do not hesitate to adopt the new practices and technologies despite their longstanding norms and practices and beliefs. A notable example is row cropping. Across the entire programme area from South West Nile, North West Nile to Acholi regions broadcasting has been the predominant method of planting or sowing seeds. However as shown in Annex B, 87 percent of the groups interviewed mentioned adopting row planting. This has brought numerous benefits. First, and most significantly, it has led to sharing of the burden for weeding between men and women. Customarily, the broadcasted crops are weeded exclusively by women. Since row cropping enables the use of hand tools like hoes, men have started participating. Another advantage of row planting is significant savings on the quantities of seeds used. For sesame, the savings is estimated to be at least 30 percent. Another example of farmers willing to adopt CSA practices in spite of entrenched cultural norms is provided by the farmers adopting the growing of crops during the second season in Agago district. This happened almost inadvertently. In Agago the first raining season which runs from March to June has been the sole growing season every year. There were minimal farming activities in the second half of the year because of the belief that rains were unreliable and inadequate. As a result, food would run out early in the new year and the population would experience severe food shortages. NURI's support to the groups has been largely during the second season. The beneficiaries reluctantly agreed to set up their demonstration plots during the second season and it turned out to be better than the first season. Consequently, the beneficiaries have started utilizing the second season in addition to the first thus realizing a higher output per year. Thirdly, and on the downside, the assessment team encountered a situation where some segments of the refugee communities struggled to adopt crop farming - the main package of support NURI provides. Their challenge is that as predominantly livestock keepers they are unfamiliar with crop farming. Whenever they receive seeds these would not be planted. In this case, this segment of the target group has been reluctant to adopt the practices and technologies promoted due to traditional norms, beliefs and practices. For such beneficiaries, the programme should do more to facilitate their adoption or consider enterprises that match their needs. Overall, farmers adopt the practices and technologies when they see clear and demonstrated benefits. But where it requires a widespread shift uptake may be impeded.

5.4 Methodological Relevance

In assessing methodological relevance and delivery mechanism, the team looked at how well the target farmers in their various categories; refugees and nationals, women and men, youth and adults received or responded to the approach. In extension delivery, methods refer to the means through which information, knowledge, technologies and skills are transferred to the target groups. NURI's main method is rigorous training reinforced by demonstrations to provide a hands-on experience. Farmer to farmer learning through open days convened once a year is also part of the methodology. All the 47 groups interviewed regardless of category were delighted with the training and demonstrations approach. They fully concurred with the topics covered, the duration of the sessions and the time of the day when the trainings were held. This is because they were consulted in the identification of the trainings needs as well as planning the timing of the trainings and duration. They testified that the demonstrations helped them see first-hand the benefits of the practices and

technologies being promoted and therefore made it easier for them to adopt in their individual gardens. For example, they saw how mulching and digging trenches allowed moisture to remain longer in the soil thus supporting crop growth even when rains disappear for a while.

5.5 Additional Evidence of Relevance

Besides the four aspects of relevance discussed above NURI's, has been intentional in driving learning, innovations and adaptations. Ongoing learning is a key indicator of programme relevance. Four examples follow below.

- a) Changing the resource persons for training extension workers (TOT). The first TOT for extension workers was outsourced to a major consultancy firm. Following assessment of the training, NURI judged the training to have been ineffective. The programme has since changed the approach and is now engaging individuals from NARO institutes and Ugandan universities. This has proven to be more effective. Relatedly, beginning early 2021, the programme will embark on refresher training sessions which will provide opportunities for more learning and adapting.
- b) Merging the visioning/planning tool for production (PMP) and VSLA – *“saving for a purpose”* into one. After realizing that production and savings complement each other i.e., proceeds from production can be put into savings and savings from VSLA can be invested in farming, NURI is in the process of merging the PMP and *“saving for a purpose”* into one. Evidence from the assessment validate this decision, 60 percent of the groups interviewed mentioned borrowing or using the funds shared at the end of the saving cycle for agriculture purposes (Table 11).
- c) Embedding marketing in the role of the AEOs. The original design assigned marketing role to the marketing coordinator stationed at the IP or Unit level which is far from the groups. The coordinators have been active only towards the tail end of the production process and yet effective market access starts before production commences. NURI is in the process of phasing out the marketing coordinator's position and instead tasking the AES and AEO to take it up. The assessment team strongly believes this is the correct way to handle this role going forward.
- d) Delivery of SRHR has so far been ineffective. NURI management has recognized this and is exploring various ways to address this gap. Options include bring the SRHR under the oversight of the CF through recruiting the necessary resource persons similar to the VSLA intervention. The other option is to explore with UNFPA and CARE the possibility of increasing the IP's field presence by posting more staff who work closely with AEOs as a link to the groups.

6. Programme Efficiency

Efficiency criterion measures how cost effective the programme is in providing services to the beneficiaries. Performance is judged in terms of good value for the money spent in both quantitative and qualitative terms.

In assessing the efficiency of NURI, four indicators have been used:

- Cost per beneficiary served
- Output per staff
- Overhead to total program cost
- Timeliness of service delivery

6.1 Cost per beneficiary

The cost per client served is a very important efficiency indicator. In 2019, NURI spent approximately UGX 98,000 per beneficiary based on overall cost of the output. To determine if the cost is reasonable, the team compared this with the cost incurred by other organizations on similar interventions. CARITAS' unit cost in 2019 was UGX 400,000. However, the study team was not able to obtain comparative costs from PRELNOR, CEFORD and Welthunger Hilfe. Considering previous GoU and Danida programmes, the unit costs were UGX 137,000 for NAADS, UGX 50,000 for Farmers Organizations and UGX 367,000 for DATICs both under Agriculture Sector Programme Support (ASPS). Based on the information presented above, NURI's per capita cost of reaching a household is at the lower end compared to other organizations indicating relatively efficient delivery.

6.2 Output per staff

Output per staff in this context means the number of beneficiaries reach by each staff. In 2019, there were a total of 167 of all categories reaching out to 52,000 households. This works out to 316 households per staff. During 2020 the staff deployed on CSA extension went up to 295 and reached out to 73,000 households giving a ratio of 249 households per staff. Taking the frontline extension workers (AEOs) only, the ratio is 1 AEO to 450 households (i.e., 15 groups each with 30 households). This comes close to the FAO standard for extension worker to household ratio of 1:500. For NURI staff, this is not just a ratio but contact actually takes place. According to some beneficiary groups, the AEOs visit/train them as planned and sometimes as frequently as every 2 – 3 weeks.

6.3 Overhead to total programme cost

For most development programmes, the rule of thumb for the proportion of overheads to total programme cost should not exceed 25%. During 2019, NURI spent approximately UGX 10.7 billion on output 1 (CSA). Out of this, about UGX 2.5 billion was spent on coordination or overheads, which represents 23 percent of the total programme cost. In 2020, a total of UGX 28.4 billion was spend on CSA of which UGX 5.1 billion covered coordination or overhead costs, representing 18 percent of total programme cost. Based on this indicator and figures, the assessment team considers NURI's implementation to be efficient and cost effective.

6.4 Timeliness of service delivery

The 47 groups interviewed during field assessment provided a very positive view of the AEOs' quality of service and timeliness of delivery. No group reported cases of AEOs failing to report for training except when circumstances were unfavourable e.g., during heavy storms. And in such cases apologies were communicated. The only instances where late delivery of service surfaced was in regard to delivery of seeds for demonstrations and tarpaulins. Concerns were also voiced about the quality of some tarpaulins.

7. Programme Effectiveness

Effectiveness measures if and to what extent objectives and results have been achieved by comparing planned and realised outcomes or results. In the context of NURI, the team probed the degree to which the programme is moving toward *enhanced resilience and equitable economic development in supported areas of Northern Uganda, including for refugees and refugee-hosting communities*.

In assessing effectiveness, the team considered the two CSA-related intermediate outcome indicators linked to the achievement of the development objective. These are:

- i. Increase in average annual agricultural cash income of participating HHs (segregated by age, gender of HH head and refugee status)
- ii. Reduction in number of participating HHs reporting periods of food insecurity (segregated by age, gender of HH head and refugee status)

According to the M&E Manual, the tracking of these indicators is through monitoring surveys. However, this survey has not been carried out yet. In the absence of this, the assessment team opted to use the following proxy indicators:

- Increase in aggregate annual group cash income from strategic commodities by district.
- Incidences of food shortages as reported by groups.

7.1 Cash Income

Table 16: Percentage increase in aggregate annual agricultural cash income from strategic crops

District	2019				
	Baseline UGX (m)	Target UGX (m)	Actual UGX (m)	Actual as % of Baseline	Actual as % of Target
Arua	317	744	576	182%	77%
Madi-Okollo	70	444	383	547%	85%
Adjumani					
Agago		530	451	-	85%
Kitgum	Na	988	514	-	52%
Lamwo		4,205	657		16%

In 2019, the groups in Arua and Madi-Okollo registered substantial increases in aggregate income from strategic crops in comparison to baseline situation in 2018 (Table 16). However, none of the districts realized the income target set in the PMPs. Madi-okollo and Agago districts were the closest, attaining 85 percent of the target income. For some districts such as Lamwo, the setting of target appears to be a challenge. Overall, the majority of beneficiaries met during field assessment said their incomes had increased since they joined NURI and adopted CSA practices and participated in VSLA activities.

7.2 Food security

As per the 2018 baseline survey, the percentage of households in Moyo, Obongi and Adjumani taking 2 and 3 meals per day were 43 percent and 52 percent, respectively. As stated above, the follow-up data from the monitoring survey is not yet available. However, anecdotal information gathered during the field assessment point to an improved food security situation for those who were struggling, notably the refugee communities. During the team’s interaction with the 47 groups, only one person from one group cited experiencing food shortages. Even in this case the person resolved it by borrowing from VSLA funds to address the problem. This in itself shows that the Programme has built capacity to address vulnerability. For the refugee communities, the group members reported major improvements in food security both in terms of availability and quality. Perhaps this statement from a member of Sun Rise ⁵refugee women’s group in Rhino Settlement provides evidence of a changing situation “NURI has changed our lives. We now eat as much as we want moreover with groundnut paste and tomatoes. The children are happy and even if nothing comes from UNHCR, we are okay”.

⁵ The cover picture of this report is for members of Sun Rise Group after discussions with the assessment team.

7.3 Quality-of-life changes

As discussed above, the beneficiaries of NURI are beginning to see their incomes grow. And with the growth in incomes, the quality of life seems to be getting better. Again, the best source of information for assessing if and to what extent this has happened is the monitoring survey which, as stated earlier, has not yet been carried out. However, during field assessment, the beneficiaries were asked to state the changes occurring in their lives as a result of joining NURI (Table 17).

Table 17: Responses from groups on quality-of-life changes

Benefits accruing from participating in NURI	% of groups mentioning
1. Able to cover the cost of education and training of children	54%
2. Paid medical expenses	8%
3. Started or expanded IG Business	33%
4. Purchased household items including clothing, furniture and transport (bicycle, motorcycle)	29%
5. Buying productive assets (livestock, land, equipment, etc.)	79%
6. Upgraded/build permanent residential house	29%
7. Built up savings for times of need	25%
8. Surplus food in the house	13%

As shown in the table, the quality of life of the beneficiaries is beginning to be positively impacted. One refugee woman had this to say *“I have been selling excess Sukumawiki and from the money received I bought a bed and a soft mattress, now my ribs are not painful as before”*. Not only are basic needs being met, but households are investing in productive assets which will ensure their household income increase even more thus enhancing their ability to address short term emergencies and long-term needs.

7.4 Impact of Visioning

NURI, through PMP and VSLA, group and community mapping has facilitated the target groups to develop a vision for their households, groups and communities. During interaction with the beneficiary groups, the assessment team found this to be a powerful tool that is motivating, focusing and guiding the beneficiaries to take action in moving from the current situation to a better and more resilient future. Two examples are provided in Box 3 for head of a household and a group to illustrate the impact of this approach.

Box 3: Impact of visioning at individual and group levels

Individual:

A member of Fur Ber Group said *“I was the poorest among all the members of the group. After the train on visioning, I planned to send my children to school, build a semi-permanent house, buy additional land and some livestock’. Through hard work, I have started achieving my vision. My child has completed a diploma in accounts, I have roofed my house with iron sheets and now clean water comes from my roof, I have bought additional land and goats and I am also doing other businesses besides farming. My future is bright, and I will achieve the rest of my plans.”*

Group:

Fur Ber is an old national group. It has defined a clear vision of where they want to be in future, and this is drawn on a large sack chart. The vision journey provides for the construction of a store to enable them store and market their potatoes seeds better. The group has embarked on the construction of the store and received 50% grant funds based on the scope initially agreed with NURI. But because the plan is to significantly expand their potatoes seed production, the group has doubled the size of the store. The group will fund the additional space 100% from own resources. They have also registered as a cooperative society.

Fur Ber Group

7.5 Social dividends

One important facet of resilience is having strong institutions community level whether family, formal and informal groups and networks, cultural, faith-based or government. Such structures usually spring into action to assist when there are shocks and needs that overwhelm the community. NURI's design had this as an underlying consideration. Interventions to ensue this were provided for in farmer group development, formation of mixed groups that includes nationals and refugees, establishment of VSLA, strengthening capacity of IPs, RAUs and LGs at district and sub-county levels. At the mid-way point of the programme, what is in place? NURI's is working with 3,132 groups that have been trained in group dynamics. Out of these 1,035 VSLA groups have been supported and 437 mixed group are in place. At household level there is evidence that joint planning through the PMP tool and VSLA *"saving for a purpose"* brings spouses closer and reduces domestic conflict and violence. A member of a group in Agago testified as follows: *"when I returned home with the VSLA money after the cycle (keto lawal), I sat with my husband and agreed on what to do with the money and I can tell you there is love and peace in my home"*.

7.6 Replication of NURI model

If a programme is effective, other organisations will replicate its approach or leverage it to propel them towards their own objectives. The assessment team picked up some cases of replication. In Nebbi, a staff of the District Production Department narrated several positive features and results of the NURI CSA extension model. The same official said, *"NURI is one of the best performing projects compared to others"*. As a result, the department has incorporated some of the NURI approaches in their own system. The European Union-funded Development Initiatives for Northern Uganda (DINU) has adapted significant aspects of NURI's approach into their component known as Action for Livelihoods Enhancement in Northern Uganda (ALENO). The replicated aspects include CSA training topics that have been repackaged from 10 to 6, as well as the entire VSLA training, marketing structure and farmers institutional development. Within NURI implementation area, DINU is being implemented in Pakwach, Nebbi, Zombo and Agago. Furthermore, because of the strengthened capacity of the NURI groups, Operation Wealth Creation (OWC) has leveraged some of them as entry points for its inputs and value addition programme.

Although the programme is only halfway through its lifespan and some interventions are yet to be fully implemented, emerging evidence indicates that NURI is moving towards realising its outcome of *enhanced resilience and equitable economic development in supported areas of Northern Uganda, including for refugees and refugee-hosting communities*. Households and groups are developing clear vision of their future and working towards achieving them, CSA practices and technologies are being adopted, production and productivity are increasing, savings are being mobilized and invested in farming and other IGAs, capacity of groups are been strengthened and incomes are growing. And for the refugee communities, food and nutrition security is improving appreciably. All these results are starting to enhance the quality of life of most beneficiaries.

8. Conclusions and Recommendations

8.1 Conclusions

- i. NURI extension model is showing solid signs of relevance in technical, economic, social and methodological aspects as defined by the programme. However, the inadequate delivery of SRHR and GBV trainings has so far deprived the target beneficiaries of the benefits that would have accrued from these interventions. As well, the challenge some groups are facing in accessing markets for strategic crops is dampening their enthusiasm.

- ii. Farmers' knowledge of CSA practices has certainly improved. All the 47 groups interviewed mentioned the practices they were trained on spanning all the 10 sessions or topics covered. However, the frequency varied. The most frequently mentioned practices were about land opening, planting, weeding, soil and water management and post-harvest handling.
- iii. Marketing is not effectively integrated in the model and is more noticeable at the end of the production cycle even though farmers are supposed to prepare their marketing plans in tandem with the production plans at the beginning of the season.
- iv. Based on feedback from the 47 groups met during the assessment, adoption of CSA practices and technologies is occurring. As shown earlier in Table 11, high levels of adoption stated by over 50 percent of the groups included proper land preparation, early planting and recommended planting methods, proper weed management and soil erosion management.
- v. Also important to note is that the CSA practices learnt are being applied to other crops. However, the extent of adoption can only be established through a rigorously designed and implemented adoption study, which has been carried out, but the report is still under preparation.
- vi. The focus on a few strategic crops as a means of imparting knowledge and skills on CSA has been effective. To ensure resilience, the small-scale framers need to scale up the practices to other crops. Further, evidence from South West Nile suggests that promotion of simple interventions such as kitchen gardening alongside the strategic crops goes along way in promoting resilience.
- vii. Farmers groups are being strengthened. Following the training provided to the 3,132 groups under the programme on farmer institutional development coupled with ongoing mentoring by AEOs, the groups are functioning well with elected leaders, constitutions to guide their operations and inclusive leadership with majority females occupying positions given their higher membership in the groups. Because of this, some groups are graduating into cooperatives. Most importantly, group cohesion has been enhanced through formation of VSLA where currently 1,035 groups are involved. These are key pillars of household, group and community resilience.
- viii. The food security strategy for refugee women is working. The refugee women receiving NURI support that were wholly depended on rations from WFP are now not only food secure but also earning from the surplus production from their gardens. Some have also invested the proceeds in petty business which has enhanced their capacity to absorb various shocks.
- ix. There is evidence of improved wellbeing and resilience for the target group members and their households. Through the increased incomes from strategic crops, VSLA activities, and other IGAs, the households participating in the programme are reporting increasing capacity to educate their children, improve their residential housing, acquire productive assets, and expand their income generating sources.
- x. Measures of efficiency show the programme is being implemented in a cost-effective manner. The cost per beneficiary is not disproportionate compared to similar interventions, the ratio of overheads to programme cost is within the standard for development programmes and the timelines and quality of service are applauded by the beneficiaries.

8.2 Recommendations

- i. **On encouraging multiple cropping across all regions:** The annual output for a farmer can be substantially increased if the farmer plants the crop several times a year. In Agago, the farmers accidentally (because NURI provided the inputs for demonstration plot during the second season) discovered the second season can, after all, be utilized for production and yields as much or even better than the first season. As a result, farmers are now obtaining higher output during the year than before. Additionally, the problem of food shortages that was rampant during the first half of the new year because of limited cultivation during the second season is reported to be diminishing. In Nebbi, following the adoption of CSA practices which enables them to manage soil moisture better, the team found a group that is now growing soybeans three times a year instead of two. Given that CSA is aimed at adapting to unfavourable weather variability and climatic impacts, farmers should be encouraged to change their mindset and begin to experiment with planting in all seasons regardless of the traditional practice.
- ii. **On improving the profitability of strategic crops:** Some groups are having challenges with the profitability of their strategic crops due to a glut in production leading to depressed prices. The majority of groups consider only higher prices as the solution. While action should be taken to look for buyers offering better prices and storage for a while to allow prices to improve, the groups should also look at improving productivity. This is the second variable in calculating revenues. If productivity increases, a farmer can still get profit even if prices remain low. The planned reconfiguration of marketing function to be delivered through the AEOs should promote this holistic approach right from the time of developing or updating the PMP.
- iii. **On flexibility to change strategic enterprises:** After the initial selection, some groups discover that their enterprises were no longer viable. If it is established that the selected crop has limited chance of being profitable even after all possible action such as increasing productivity, improved marketing, etc. have been taken, the group should be allowed to change their enterprises on condition they carry the burden for any training that may be required for the new enterprises.
- iv. **On improving delivery of SRHR and GBV interventions:** our findings indicate the SRHR and GBV trainings are not reaching the beneficiaries. The ongoing review should come up with a solution that ensures the implementer (CARE) has a reasonable field presence or the activity be brought under the ambit of NURI structure similar to VSLA.
- v. **On promoting animal traction:** One of the practices that leads to increased productivity from CSA is early land preparation and planting. These operations do not only require substantial labour input but also needs to be done in a timely manner. Animal traction comes handy to assist with this. This need has been overwhelmingly expressed across the programme area particularly Acholi and South West Nile. The team came across an initiative in Agago district where the programme was linking the group to an organization known as TALANTA that is financing animal traction through loan schemes. We recommend that NURI should study this model with a view to supporting the groups to access some form of animal traction. It is currently a missing piece for enhancing the results of CSA.
- vi. **On expanding the range of crops for refugee women:** While it is true that the range of crops available to refugee women is already considerable, the request to add nutritious local foods came up during the field assessment. In particular, there was a request and recommendation

to include finger millet in the package for women refugee groups. They consider this to be important for children's nutrition in the form of porridge.

- vii. **On improving the drying of vegetables to avoid destroying nutrients:** Refugee women are producing more vegetables than they can consume and market in fresh form. To ensure the excess does not go to waste, they are currently drying them directly in the sun which leads to destruction of nutrients. Best practice in preserving vegetables through drying involves drying in the shade. AEOs involved with this target groups should guide them on the best way to do it.

Annexes

Annex A. Terms of Reference

Assessment of Northern Uganda Resilience Initiative (NURI) Climate Smart Agriculture (CSA) Extension Model

The Consultant must perform the Services in accordance with the Client's requirements.

The Consultant must also perform the Services in accordance with the Consultant's description stated in Appendix 3C.

Background and context

NURI (Northern Uganda Resilience Initiative) is one of eight development engagements under the Denmark-Uganda Country Programme 2018–2022. The Country Programme aims to contribute to poverty reduction through inclusive and sustainable economic growth, promoting democracy, good governance and human rights and support Uganda's stabilising role in the region.

The Country Program is divided into two Thematic Objectives; UPSIDE (Uganda Programme for Sustainable and Inclusive Development of the Economy) and UPGRADE (Uganda Programme for Governance, Rights, Accountability and Democracy).

NURI is one of three Development Engagements under UPSIDE and contributes to the objective of sustainable and inclusive economic growth. The Danish contribution to NURI for the period 2018-2022 is DKK 310 million with one output area (Water Resources Management) starting in 2018, and two output areas (Climate Smart Agriculture and agriculture related Rural Infrastructure) starting in 2019.

The objective of NURI at outcome level is enhanced resilience and equitable economic development in supported areas of Northern Uganda, including for refugees and refugee-hosting communities. NURI pursues this objective by supporting activities in climate smart agriculture, rural infrastructure, and water resources management. Activities in support of agriculture focus on improving farmers' knowledge on climate-smart production methods, as well as their understanding of and ability to engage with markets and services. Support to rural infrastructure and water resource management are in those areas that contribute to agriculture sector outcomes, particularly access to markets and improving water resource management within the landscape. In order to support Uganda's progressive refugee policy and the Comprehensive Refugee Response Framework (CRRF), refugees and their host communities are be among the beneficiaries in those NURI districts hosting refugee settlements.

Geographically the programme covers 12 districts and 7 refugee settlements in the West Nile and Acholi Sub Regions of Northern Uganda. Initially the coverage was 9 districts and 6 settlements, however in July 2019, the districts of Madi-Okollo and Obongi were gazetted and operationalised and in March 2020 a Memorandum of Understanding was signed with Koboko District Local Government for the inclusion of Koboko district. The districts are now Agago, Kitgum and Lamwo in Acholi sub region and Arua, Madi-Okollo, Pakwach, Nebbi, Zombo, Koboko, Moyo, Obongi and Adjumani in West Nile sub region. NURI works with a number of refugee settlements within these districts. The selected settlements are Rhino Camp and Imvepi Refugee Settlement (added in 2020) in Madi-Okollo District, Palorinya Refugee Settlement in Moyo District, Maaji and Mongola settlements in Adjumani District and Palabek Refugee Settlement in Lamwo District.

Purpose

The purpose of this assignment is to assess the extension methodology used in Output 1 of NURI; Climate Smart Agriculture (CSA)

Objective

The specific objective of this assignment is to prepare a Report, assessing the relevance, effectiveness and efficiency of the NURI CSA extension methodology, and recommending adaptations and improvements to the methodology used.

Scope of work**Desk-based**

- a) Review of NURI documents, including training manuals, training materials and reports, also making use of reports from the database.
- b) Review of documentation on and evaluation of other extension approaches.

Field-based

- a) Northern Uganda: Field assessment of extension approach, visits to Implementing Units (partners and RAUs), field visits to farmer groups including mixed and refugee women groups
- b) The consultant will visit a minimum of 6 districts of the 13 covered by the programme, including at least 2 in each of the 3 NURI 'regions' of South West-Nile, North West-Nile and Acholi.
- c) Kampala: Interviews with key stakeholders (NURI Coordination Function (CF), Royal Danish Embassy (RDE))

Deliverables (outputs)

- a) An inception report of maximum 5 pages detailing the consultant's approach to performing the assessment, delivered to NURI CF.
- b) A draft report presented to NURI CF for discussion and input (On-line presentation e.g. Zoom or other in-line meeting platform)
- c) A final report of maximum 20 pages excluding annexes, which on the basis of specific recommendations can guide and inform the NURI programme going into the second half of the programme, and answering the questions outlined in the methodology section. Appendix 2 Terms of Reference

Timing

The assignment will last for 26 days from the date the contract has been entered into or signed.

Methodology

The extension methodology has developed over the many years that Danida has supported agricultural extension in Northern Uganda, building on experience and differs considerably from the methods used by Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and various NGOs and private sector actors working in the same communities. The Consultant should address the following while giving suggestions for improvement where necessary:

- a) Describe the extension model (methodology/approach) for national, refugee women and mixed refugee/national farmer groups
- b) Assess the extent to which the extension model is sufficiently flexible for farmer group needs
- c) Assess the extent to which the extension model is appropriate for addressing the needs of the target groups in relation to the project objective

d) Assess the technical relevance / “goodness of fit” of the model, in terms of promoting climate smart agriculture/resilient farming systems.

e) Assess the economic relevance of the model in terms of farmers’ ability to afford the practices and technologies promoted.

f) Assess the social relevance of the model in terms of farmers’ willingness to accept / adopt the practices and technologies promoted, given their social norms, beliefs and practices.

g) Assess the methodological relevance and delivery mechanism of the model, in terms of how well it is received by the target farmers; refugees and nationals, women and men, youth and adult.

h) Assess the use of inputs in the model in terms of relevance, motivation of farmers and avoidance of dependency on free or subsidized inputs, differentiating between refugees and nationals.

i) Assess the extent and ways the NURI’s extension model methodology varies from other extension programmes and projects in Northern Uganda

j) Assess the extent to which NURI’s extension priorities and approaches are appropriate from the perspective of the farmers

k) Assess the relative cost-effectiveness of the NURI extension methodology, including overhead costs, and a comparison with alternatives.

l) Assess the extent to which the model has facilitated market access and marketing methods

m) Assess whether the NURI extension model is appropriately configured (in terms of staffing, competences, structure and relationships) to deliver the desired outcome

The consultant should among others, meet with DLG agricultural extension officers to be able to describe and assess the model used by NURI where interaction and inclusion of the DLG extension officer take place. This would be an important element also in describing how the NURI differs from other extension programmes and project in Northern Uganda Appendix 2 Terms of Reference

Qualifications and Competence of Staff

The consultant should have at least a relevant master’s degree in political science, economics, development studies, agricultural studies, or similar and at least 15 years’ experience with development programmes, including in developing countries.

Particularly extensive experience with assessment of agricultural programmes, with particular focus on extension will be a distinct advantage as will be experience with climate smart agriculture.

Strong skills in writing concisely and clearly, and ability to logically structure written reports will be absolutely necessary and knowledge of the dynamics of Northern Uganda will be an advantage.

Estimated budget and level of effort

The estimated maximum budget for the Consultancy is DKK 210,000 comprising of fees and all reimbursable expenses. The consultant will be responsible for arranging and coordinating all meetings, with support from NURI CF. The consultant will report to NURI CF, which will be responsible for the coordination of the assignment.

Management

The consultant will work closely with NURI CF in Kampala and in the programme areas in Northern Uganda, as well as with the various implementation units of Output 1 of the NURI programme. The consultant will be guided by the Terms of Reference (ToRs) and by the discussion with NURI CF on the inception report. Once the draft report is presented and discussed with NURI CF and the Danish Embassy, the consultant will make necessary and relevant changes and submit a final report.

Security

The assignment does not require particular security measures as the tasks are not carried out in an area or environment of high security risks

Background documents

- a) NURI Programme Document
- b) NURI CSA training manuals and guides
- c) NURI Reports
- d) National Adaptation Plan for the Agriculture Sector
- e) Uganda Climate Smart Agriculture Country Programme 2015 -2025

Annex B: Knowledge and Adoption of CSA Practices by groups interviewed

	CSA Practices	% of Groups Interviewed knowledge of practices	% of Groups Interviewed adopted practices
1	Planning and budgeting (visioning).	17%	9%
2	Land preparation (Timing - early)	57%	43%
3	Land preparation (method – bush clearing, no burning of residues, incorporating residues, ploughing twice, appropriate seed bed, planting in ridges - potatoes and onions)	87%	74%
4	Improved seeds (drought resistant/tolerant, genuine source, possible buyer of produce, etc.)	60%	45%
5	Select enterprises that match AEZ, soils, site, maturity period and market prospects	21%	15%
6	Early planting	64%	47%
7	Planting method (row, spacing, seed rate, light covering to avoid compaction)	87%	87%
8	Early weeding and frequency	74%	70%
9	Weeding method (earthing up, thinning, roguing, etc.)	64%	57%
10	Soil moisture management – mulching, water traps, dig trenches/ridges to trap water, dig trenches when field flooded, cover crops, irrigation (water pans)	83%	66%
11	Soil erosion management (field orientation, contour grass bunds, etc).	68%	57%
12	Disease and pest control (scouting, rouging, chemical control, etc.)	64%	45%
13	Timely harvesting (signs of maturity)	64%	36%
14	PHH practices – shelling, threshing & drying on tarpaulins, duration of drying (moisture content), storage in bags, storage on raised grounds, pest management during storage,	77%	53%
15	Collective marketing (market search, bulking, storage to wait for good prices, etc)	45%	21%
16	Prudent use of proceeds from sales of produce based on PMP	26%	11%
17	Practice tree planting/don't cut all trees in the field to create better environment for rain formation	43%	36%
18	Practice intercropping and rotation for diversification and soil health and water conservation	36%	23%
19	Provide for food security crops including kitchen gardening	26%	13%
20	Gender Based Violence	17%	11%
21	Soil nutrient enhancement	21%	15%

Annex C: Success Story of Orib-Cing Farmer Group Kot Omor Sub-County, Agago District

Challenges

Prior to joining NURI in February 2019, the 26-member strong Orib-Cing farmer group comprising 15 women and 11 men lived in poverty characterized by inadequate food, poor nutrition and minimal cash incomes to meet households needs. This was compounded by lack of individual and household vision on what they see for themselves, families and community as well as limited knowledge, skills and information on how to improve their farming – the main source of livelihood. Their earlier attempts to mobilize savings and improve their agriculture production and productivity did not yield much due to inadequate guidance and organization.

Interventions

Upon being admitted to NURI, Orib-Cing received support on developing a vision through the PMP tool, training on CSA practices, setting up demonstrations for hands-on learning, collective marketing of their produce and strengthening their savings and loaning scheme through training and provision of VSLA kits. These interventions have started to create some real results for the group members.

Results

Perhaps this statement from a female member encapsulates the emerging results from the NURI interventions: *“NURI’s coming has brought real change in our lives, children and households”*. What changes have the members realized? At group level they have acquired considerable knowledge and skills on sunflower production which they have adopted and are turning around their farming. For instance, in 2020, they collectively purchased 88 Kgs of sunflower seeds at a cost of UGX 60,000 per kilogram and a total cost of UGX 5,280,000. These were planted in individual fields and marketed collectively realizing sales proceeds in excess of UGX 21 million. By marketing collectively, they got a better unit price of UGX 1,300 per kilo compared to UGX 1,100 or UGX 1,125 if they sold individually. Several members reported notable increases in production and productivity as a result of adopting improved seed and CSA practices. One member who planted improved seed and applied CSA practices reported harvesting 36 bags compared to 26 bags previously obtained using ordinary seed and traditional practices such as broadcasting. This represented a 38 percent increased output over traditional practice. With regard to VSLA, the results have also been impressive. In 2019, the group mobilized UGX 18 million which they loaned to the members during the year and at end of the cycle shared out. A 71-year-old female member expressed the benefit of the VSLA and belonging to a group in these words: *“I am too old and no longer have strength to dig, but through the money I got from sharing the savings and loans borrowed, I have been able to continue growing sunflower. From what I earned, I have been able to build a house with iron sheet roof. I can’t quit VSLA, I can’t quit the group”*. Another group member equally elated about VSLA said: *“Before joining the group my home was weak, my children were out of school. But when I started saving, I was able to borrow to address pressing problems. With a half of the money, I paid school fees and the other I invested in produce trading business from which I generated profits which enabled me to pay back the entire loan”*.

Assessment

Orib – Cing performance has been remarkable. They excelled in all areas that NURI promoted under its CSA agricultural extension model including acquiring knowledge on improved CSA practices, adoption of practices and technologies, collective marketing, financial inclusion, and prudent use of proceeds from sales of produce based on the PMP tool. In short, Orib-cing has proved NURI CSA extension model works provided the right environment of group commitment, availability of markets for the enterprise selected and VSLA is integrated with farming.

Annex D: List of Groups and Persons Met

D.1 List of Group Met

Region/District/Settlement	Name of Group	No of members in attendance		
		Women	Men	Total
South West Nile				
1. Arua	Opiya Self Help	8	5	13
	Amaccora	11	14	25
	Alesi VSLA	6	4	10
	Amandanyazu	7	5	12
	Amureva B	18	1	19
	Mungulen Farmers & Savings	11	4	15
	Alio Farmers	9	4	13
	Payani Savings & Credit Association	4	2	6
		74	39	113
2. Nebbi	Waketemo Waol	10	0	10
	Fur Ber	4	12	16
	Wangoic Women	3	5	8
	Dikiri Lonyo	12	6	18
	Cancido Landu	11	6	17
	Mungutimo FAL	9	4	13
	Dikiriber	8	5	13
	Peko Ponja	3	4	7
		60	42	102
3. Rhino Camp Settlement	Alafi (Mixed)	11	9	20
	Sun Rise (Women)	9	0	9
	Agulu P Unity (Women)	17	0	17
	Unity Farmers (Mixed)	7	5	13
		44	14	58
North West Nile				
4. Adjumani	Divine Mercy	13	2	15
	Happy A	18	2	20
	Amara-alu	8	4	12
	Chandire	5	1	6
	Aluda	28	2	30
		72	11	83
5. Moyo	Vuozo	3	2	5
	Alelini Leconi	9	7	16
	Amoriku Farmers	24	5	29
	Anitaku VSLA	17	10	27
	Amama	7	6	13
	Ayiko Women	18	0	18
	Unity Cooperation	13	2	15
		91	32	123
6. Maaji Settlement	Isoku-Inyaku (Mixed)	9	5	14

	Oriendeni (Women)	25	0	25
Acholi				
7. Agago	Pite Yela	18	4	22
	Bed Ki Gen	15	3	19
	Orib Cing	9	4	13
	Dii Cwinyi	18	5	23
	Amaro Rwot	23	3	26
		127	26	153
8. Lamwo	Ribe Ber	13	7	20
	Atek Ki Lwak - Agoro	11	5	16
	Aloko Rom FFS	19	5	24
	Atek Ki Rwot – Palabek Kal	9	4	13
	Wacung Kacel	10	7	17
	Padwat Women	19	0	19
		81	28	109
9. Palabek Settlement	Kuc Ki Gen (Mixed)	9	9	18
	Gum Ber (Women)	25	0	25
		34	9	43
		583	201	784

D.2 List of Persons Met

Organization	Name of Person Met	Designation
Nebbi DLG	Levi Nyakuni	District Production Officer
AFARD	Robert Bakyalire	Programmes Manager
	Dan Evans - U	NURI CSA Coordinator
	Winifred Mintino	Agric. Extension Supervisor - Pakwach
	Kpeton Novis	Agric. Extension Supervisor - Nebbi
	Wandi James	Agric. Extension Supervisor Nebbi
	Paul Ogamthogwa	Marketing Coordinator
CEFORD	Amula	Agric. Extension Officer
CARITAS Nebbi	Masendi Alfred	Program Manager
Arua DFA	Alex Acidri	Arua DFA Coordinator
	David Edaku	NURI CSA Coordinator
	Hilary Andama	Agric. Extension Supervisor
	Stella Bakoko	Agric. Extension Supervisor – Rhino Camp
Welthunger Hilfe	Robert Drabua	Deputy Program Manager
	Rogers Acile	FFS Officer
NURI RAU - Agago	Charles Ochang	NURI CSA Coordinator
	Mercy Akao	Agric. Extension Supervisor
PRELNOR	Owiny Michael Jackson	Focal Point Person – Agago District
Agago DLG	Okello – Okidi Sam	Ag. District Production Officer
NURI RAU - Lamwo	Jerry Nyeko	NURI CSA Coordinator
	Bernard	Ag. Extension Supervisor Palabek Settlement

Moyo DLG	Dr. Dratele Christopher	District Production Officer
RAU Moyo/Obongi	Achi Osmondo Bilbao	Agric. Extension Officer
	Vita Amuki	Agric. Extension Officer
	Aletiru Gloria	Agric. Extension Supervisor
	Idia Jonathan	VSLA Officer
	Richard Ogwang	Agric. Extension Supervisor
	Wilfred Adebasiuku	Agric. Extension Officer
	Stella Kulia	Coordinator
CEFORD	Mawa Alatawa	Area Coordinator, Moyo, Adjumani and Obongi
RAU Adjumani	Obukunyang Patrick	Coordinator
	Mamasia Beatrice	Agric. Extension Officer
	Andevu Barzil Siris	Agric. Extension Supervisor
	Jade Saidi	Agric. Extension Officer
Adjumani DLG	Dr. Godfrey Mamawi	District Production Officer
Maaji Refugee Settlement	Amaruma Vincent	Asst. Settlement Commandant
NURI CF	Rilla Kirk Norslund	Programme Management Advisor
	Joseph Ebinu	Programme Coordinator
	Joyce Alaroker	M&E Coordinator

Annex E. List of Documents Reviewed

1. NURI Programme Document
2. NURI Programme Document – Addendum
3. NURI Development Engagement Document
4. NURI Inception Report
5. NURI CSA Training Manual\
6. NURI Collective Marketing Manual
7. NURI M&E Manual
8. NURI VSLA Manual
9. NURI CSA Training Manual Refugee Women
10. NURI Progress Report Jan – June 2029
11. NURI Annual Report 2019
12. NURI Progress Report Jan – June 2020
13. Toolkit for refugee group formation and selection\
14. Toolkit for selection of National Farmers Groups
15. National Adaptation Plan for the Agriculture Sector
- 15 Uganda Climate Smart Agriculture Country Programme 2015 -2025
16. Baseline Survey Report for Adjumani, Moyo and Obongi Districts
17. Baseline Survey Report for South West Nile and Acholi Sub-regions
18. PMP Data Report for 2019 new national farmer groups – ARUDFA
19. Kitgum District Quarter 3 2020 Progress Report
20. Lamwo District Quarter 3 2020 Progress Report
21. Quarter 1 2020 Progress Report Arua and Madi – Okollo Districts, ARUDFA
22. Quarter 1 2020 Progress Report Nebbi District, ARARD
23. Quarter 1 2020 Progress Report Pakwach District, ARARD
24. Quarter 1 2020 Progress Report Zombo District, ARARD
25. Quarter 1 2020 Progress Report Agago District, RAU
26. Quarter 3 2020 Progress Report Agago District, RAU
27. PMP Training Report, September 2020
28. Training Report on Backyard Gardening, Soil and Water conservation and utilisation of wate water, November 2020