



Progress Report NIGI Uganda 2019

Nutrition and Income Generation Intervention, West Nile, Uganda

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Progress Report¹

Reporting Period	1 November 2018 to 31 December 2019	Reporting Institution	Wageningen Centre for Development Innovation
Reporting Manager	Katherine Pittore	Date	31 March 2020

1 Key Project Data

Project Title	Nutrition and Income Generation Intervention (NIGI)					
Duration of Project	Current Phase	2 years	Project Launch	1 Nov 2018	Closing date	31 Dec 2020
Budget	Budget for reporting period	880,851	Overall Budget	€1,581,316	Overall contribution by	

2 Executive Summary

a. Main Results or progress towards achieving results, lessons learned and conclusions

Main results from 2019: In 2019 the NIGI project established two field offices and brought on a team of 11 field-based staff plus 6 nutrition trainees and community resources persons. One learning plot (target 1) and 100 demonstration gardens were established in the host and refugee settlements (target 85). In the settlement, these demonstration plots offered support to 409 (target 250) refugees who went on to establish their own home gardens, and 1,721 farmers in the host community (target 1500) benefited from training on improved agronomic practices for commercial vegetable production. A total of 54 nutrition sensitisations sessions, reaching 1834 farmers in the settlement and host community were carried out (target 1500), additionally 252 malnourished individuals were linked to the project for support in learning about farming. The West Nile Local Seed Business Association (WENISLOSBA) was supported to provide training and capacity development to 43 local seed businesses in West Nile, seven of whom also supplied seed to the target communities.

In 2019 several key lessons were captured that shaped the project strategy. These include adjusting the design of the home garden to increase the number of vegetables available, introducing strategies such as staggered planting to increase the year-round availability of vegetables, and bringing in nutrition trainees to increase capacity for nutrition education sessions.

Conclusion: 2019 was the first year of the project, and all partners have been impressed with what has been possible in the settlement context, which was a new area of operation for both partners. Almost all targets set for the project have been met or exceeded. Interest from stakeholders such as OPM to have the project expand in the settlement, and support from other NGOs to replicate the work, and the number of involved farmers who receive only technical support but are still interested in being involved in the project shows significant interest in the project and continuing the work in 2020.

b. Main Steering implications for the next reporting period

In 2020 the project will focus on:

- Ensuring visibility of the project within and outside its areas of operations, including development and implementation of a full media engagement plan.
- Developing a plan to support farmers to be able to deal with potential shocks more effectively;
- Enhancing sustainability of project results by focusing on quality instead of quantity, particularly in terms of LSB support (specific focus and greater attention on how to support the association to support the LSBs rather than supporting the LSBs directly);
- Working with the West Nile Local Seed Business Association (WENILOSEBA) to develop business plan for organizational continuity at the end of the project;
- Increasing institutional strengthening efforts through stakeholder engagement especially through training and capacity building initiative including the ToT trajectory led by WUR Plant Research;
- Building on practical lessons learnt and focus on continual adjustment and modification of the project (for example, introduction of staggered planting, bringing in QDS to the home garden demonstrations, hiring additional nutrition staff for increased coverage of nutrition messaging).
- Using the logframe to improve monitoring of project activities to sufficiently track outcomes;
- Consolidation and documentation of work carried out under the project, documentation of qualitative stories about project achievements.

¹ The template is meant as a default option. It may be used by implementing partners and adjusted according to specific needs.

Suggests that progress reports by implementing partners do not exceed a maximum of 15 pages in font size 10 or 11. The reports should be written in English

- Collection of quantitative on project impacts through the endline survey.

3 Introduction

a. Description of project and intervention strategy

The Nutrition and Income Generation Intervention (NIGI) is implemented by Wageningen University and Research and East West Seed Knowledge Transfer (EWS-KT). From Wageningen University and Research three units support the project: Wageningen Centre of Development Innovation (WCIDI) provides management, technical input, strategic guidance to the project, and leads the monitoring and evaluation work, Wageningen Plant Research (WPR) provides technical advice in terms of agronomic practices (research and training), and Wageningen University Uganda (WUU) leads the project implementation.

The overall goal of the project is to increase consumption of vegetables, fruits, legumes, tubers and bio-fortified crops among targeted communities in Omugo. This will be accomplished through four pathways: (1) increased production and consumption of vegetables, fruits and biofortified crops (such as iron rich beans) from home gardens in the settlement areas, (2) improved production of vegetables combined with business services leading to increased income and employment of commercial farmers in Omugo host communities, (3) support to local seed businesses to be able to supply quality seed and support the development of a vibrant and market-based seed system and (4) documenting best practices and lessons learned to in order to develop innovative 'product packages' and approaches to promote effective solutions for improved access and consumption of nutritious crops in protracted refugee situations.

b. Review of follow-up measures taken since last reporting period

Not relevant in this reporting period

c. Relevant context changes and their potential impact²

Inherent in working in a refugee settlement is a degree of uncertainty about what will happen. Major challenges that we have faced this year have related to **disease outbreaks**, including an Ebola outbreak near the border in early 2019 (which, luckily did not spread into the settlements we are working in), and most recently Covid-19, which has started to significantly impact travel opportunities for staff working on the project, and may lead to challenges in implementing the project in the coming months (March 2019 onwards). This seems to currently be the key challenge that may impact the implementation of the project, include regulations put in place by the government of Uganda limiting gathering, making activities such as farmer field days and trainings not possible. It is likely that Covid-19 may significantly impact the overall plans for project implementation (this will be discussed in separate communication).

Political instability remains a challenge in South Sudan, including worries about potential violence before the signing of the peace agreements that have led to a steady stream of refugees continuing to enter the settlement areas in Northern Uganda. Additionally, new instability in DRC has been reported. However, while there remains a steady stream of refugees, the overall number has slowed considerably, leading to **reduced funding for humanitarian actors**. This has led to a number of partners closing their projects, as well as a critical funding gap for UNHCR, who are no longer able to provide all necessary services in the settlements. UNHCR is now asking partners with their own funding to support the running of the services in the settlement.

While the project has been able to establish strong relationships with the Office of the Prime Minister (OPM), there is always a possibility that the Office may prevent access to the settlement. A formal Memorandum of Understanding OPM was signed at the start of this year and covers the remaining project period.

The general **uncertainty** in and around a refugee settlement raises a number of questions in terms of durable solutions, including around how this uncertainty influences people's decisions about longer term investments in agricultural productivity. It also presents several challenges in terms of people's access to agro-business providing inputs such as seeds, fertilisers etc., as often people do not have the capital or other resources to establish viable businesses in settlement areas and cannot access credit because of the high risk associated with refugee contexts.

4 Results and Outcome

The first 5 months of the project (November 2018 to February 2019) were spent on getting the necessary structures (offices, vehicles, systems) and human resources in place. The timing of the grant decision, which corresponded with the Christmas holiday in Uganda, meant that it was challenging to start recruitment of staff until the start of 2019. The inception meeting was held the last week in February 2019, which is when staff were in position.

a. Comparison between planned and achieved results³

² Sectorial, economic, political and social context with a view of risks and opportunities

³ Outcomes and outputs, based on agreed logframe

The first 9 months of the project focused on the inception phase and clarifying several key issues related to project implementation (such as defining specifically the implementation area, designing the monitoring strategy, etc.). As this was the first time that either partner had worked in the refugee settlement area, a number of activities had to be adjusted, iteratively, based on the realities on the ground. This period's focus was on training of staff, setting up of a learning site and exploring what would be possible in the settlement context. Some specific activities to contextualize and ground the project activities included involvement of two KTOs from the Philippines with more experience in home garden approaches and developing a design for the settlement home gardens which included more types of vegetables and also brought in indigenous vegetable crops produced by the LSBs such as iron rich beans. Overall, all partners were surprised at what was possible in the settlement, with high levels of interest in the vegetable gardening. EWS-KT, who had not operated in the settlement context, were happy to see that their usual model of activities, adjusted and contextualized, worked. In the second half of 2019 (July to December) the project really settled down into activities, increasing the number of farmers supported (adding new demo farms), expanding nutrition activities with the addition of nutrition trainees, and taking over the support for West Nile Local Seed Business Association (WENILOSBA) from ISSD in July.

Annex 1 presents the full list of indicators with targets and achievement for 2019. The key results from the activities conducted in 2019 are presented hereunder per key block of results areas.

- b. Description of results (Outcomes and outputs) or progress towards achieving results, including indicators measured against baseline and target values (if available)⁴

Pathway 1: Household Nutrition

Overall summary of pathway 1: All activities related to the demonstration plots in these sections cover only work carried out in the settlement areas. Two KTOs support farmers in Omugo settlement (village 2, 3 and 4). In the settlement the KTOs support a total of 40 lead farms, all of whom are connected to approximately 10 other farmers, all of whom receive inputs from the project, supporting a total of 409 small (5m x 5m) home gardens. The project started with support to 25 key farmers in season one, and in season 2 continued to support the initial 25 and added another 15, bring the total to 40. To better target malnourished individuals, we collaborate with Save the Children, which runs a programme for malnourished individuals. The project provides support for after these individuals are discharged. This support is only in the settlement. The nutrition promotion activities under this pathway focus on the settlement but also cover farmers in the host community.

outcome 1.1: Strengthened farming capacity among targeted households in the settlements

Under this outcome, a number of outputs were achieved in 2019. A report with recommended agronomic practices was developed (output 1.1.1); 40 lead farmers in the settlement were supported to set up home gardens (target 25); 409 refugee farmers (target 250) were supported to set-up their own home gardens, including key farmers, those farmers around them (output 1.1.2 and 1.1.3). Achievements were higher than targets because we were not sure what would be possible in the settlement in the first year; however, success in the first season allowed more farmers to be added in the second season.

In June 2019, WPR, together with the EWS-KT team developed a design for home gardens (output 1.1.2). In this design the following parameters were considered: vegetable crops suitable for the market, climate and soil type, water availability, crop rotation, fertilizer need and nutritional value for consumption purposes. After the design was drafted, the gardens were implemented in the settlement with garden owners. Signboards and posters with information about how to grow various vegetables, including how to prepare and consume them as well as their various health benefits (output 1.1.4) were developed and displayed near the various demonstration plots. Eight farmer field days were organised in the settlement attracting 321 farmers (195 female: 126 male) (no target set) (output 1.1.5). Farmer field days were only organised in season 1, as in season 2 staggered planting was practiced enabling a longer period in which farmers have access to vegetable, however this meant that there was not a specific period in which it was logical to organise a farmer field day.

(outcome) 1.2: Increased knowledge of nutrition and nutritious crops among refugees and host communities

In order to provide additional support to malnourished individuals, the project collaborated with Save the Children, which runs a medical centre for severely malnourished women and children. After patients are discharged, they are linked to these gardens with full time support from trained community resource persons and Nutrition trainees; who are community based. In 2019, 252 graduates from Save the Children malnutrition feeding program (no target set) were linked to home gardens to acquire skills in home gardening and receive nutrition trainings as well as be supported to set up own home gardens (settlement only). Scaling this up to the host community is happening in 2020 since health centres have also requested support.

⁴ The description should reflect quantitative and qualitative achievements. The significance and relevance of the achievement should also be explained.

Particular attention should be given to the reporting on standard indicators. In case additional outcomes have been achieved, they should be indicated.

A needs assessment was carried out to identify what training materials already exist and where new training materials need to be developed (output 1.3.1). This assessment found specific gaps relating to materials to promote nutrition and healthy for the general population rather than only those which focus on pregnant and lactating women. Based on this assessment, nutrition sensitization sessions were organised in both the settlement and host communities. In the settlement 36 nutrition sensitisations on the importance of nutrition and health benefits of consuming nutrient dense vegetables/crops including cooking demonstrations on vegetable handling and preparations to minimize nutrient loss were conducted. A total of 1834 farmer (target 1500) (settlement: 381 male, 698 female; host: 550 male, 205 female) were sensitized.

100 banners (no target set) on nutrition health benefits of vegetables grown by farmers were designed. These were displayed on demo plots for key farmers in the host and settlement. Key farmers reported increase in sales of vegetables to customers within the settlement and host community since more people became aware of the benefits of consuming vegetables to their overall health.

Outcome 1.3: Increased capacity to promote consumption of nutritious foods by NGOs and extension officers

A total of 4 community resource persons and 3 nutrition trainees were recruited, trained and equipped to carry out nutrition education in the communities in relation to the vegetables that are grown in the different types of gardens (output 1.3.2).

Actors from a number of organisations including Save the children, Danish Church Aid, CEFORD, UNHCR, World Vision, Medical Teams International, Welthungerhilfe, AVSI, and the local government (health centre officers, subcounty and district agricultural officers, community development officers; local council chair persons, veterinary officers, OPM) and religious leaders have taken part in the nutrition activities carried out during farmer field days. During these sessions at least 30 officers from NGOs and local government have been sensitized respectively in 2019 (target 10).

Also, during joint monitoring of livelihood activities in Omugo settlement spearheaded by OPM and UNHCR, NGOs such as CEFORD, ZOA, Danish Church Aid, AFI, GIZ, World Vision were sensitized on the nutrition component of the project as well as the importance of nutritious vegetables. As a result of this sensitization sessions, some of these livelihood implementing partners have also gone ahead to actively organise training sessions with farmers and, as a result, there's replication of NIGI household nutrition model by implementing partners like DCA, World Vision and CEFORD in villages (in Omugo settlement) where we are not operating.

2. Commercial Vegetable Production:

Overall Summary of Pathway 2: the activities carried out in Pathway 2 focus on commercial vegetable production, including work directly with the farmers (in the host community) to produce vegetables for commercial purposes as well trainings and capacity development (Training of trainers) for those who support farmers in their roles. Three KTOs support the host community, supporting 61 lead farmers with seed and other inputs (100% first season, 50% second season) to grow one vegetable crop (tomato, onion, peppers, eggplant, watermelon, or cabbage) on a 25m X 25m plot. The farmers themselves choose which crop they will grow. A package of trainings is also organised on the plots owned by the lead farmers, where 25-30 neighbours also learn about vegetable production. Wageningen Plant Research also develops and leads a package of four, one-week trainings designed to support KTOs, agricultural extension agents, teachers at agricultural training institutes and others to be able to support sustainable vegetable production.

(outcome) 2.1: Increased knowledge of key farmers to promote best fit agricultural practices in their communities

A total of 61 key farmers in the host community (target 60) were identified, trained, and supported with agricultural inputs to set up demonstration plots (output 2.3.5). These plots contain a number of translated sign boards (output 2.1.3) which describe to other farmers how to grow the vegetables that they see in the demonstration plot. A package of trainings is also organised at each demonstration plot which cover a range of topics including seedling production, water and soil conservation as well as crop nutrition and fertilization (output 2.1.1. and 2.1.2).

(outcome) 2.2: Increased knowledge of extension staff to promote best fit agricultural practice

In 2019 a total of 5 East West Seed Knowledge Transfer Officers as well as the nutrition and horticulture officer (NIGI) complete the training to become certified vegetable growers (target 5) (certification offered by WUR-PR). An initial scoping mission was carried out by WUR-PR to identify training needs and design appropriate training modules (output 2.2.1).

In 2019 two baseline studies were carried out to observe and discuss current vegetable production practices in Omugo settlement (Rhino settlement extension) and by the farmers in the host community bordering the settlement by WUR PR (output 2.3.1). There was a target for 10 baseline studies. Some of these studies were moves (for example, soil fertility analysis is being undertaken in Q1 of 2020), as well as other studies which will be carried out based on identified needs.

The first baseline study was carried out in March 2019 based on visits to several host community farms as well as AbiZardi and local agro-shop dealers. This study found that the soils in the area are poor in terms of nutrients and organic matter (depleted) and to obtain better vegetable production, soil fertility management need to be implemented. Next to that, irrigation and water availability is a limiting factor especially in the dry season. Other limitations are the availability of high quality seeds, high grade fertilizers and pesticides to control the pests and

diseases. (The other study was carried out specifically focusing on the settlement vegetable production, this is discussed in outcome 1.1). Furthermore, the studies showed that both farmers as well as knowledge providers have limited knowledge about modern technologies how to grow vegetables.

WUR PR also organised a series of initial trainings for the EWS-KT team. Topics during these trainings were soil fertility and how to deal with this and how to control pests and diseases using IPM principles (also to minimize environmental damage caused by vegetable production).

In November 2019 WUR PR travelled to Arua to develop a training programme for 2020 with EWS-KT. For this training, staff members from private extension, public extension, agro input suppliers, schools and NGO's dealing with vegetable farming will be invited to attend (output 2.2.2). During the training information on how to maintain soil fertility, how to control pests and diseases and how to irrigate vegetable crops will be presented and discussed, based on the needs identified by the KTOs after two seasons of work. The training will take place in January, March, June and November 2020 (the first two trainings have been completed in the first quarter of 2020 but are not officially within this reporting period); 27 individuals participated in the first two trainings, target 25).

(outcome) 2.3: Increased knowledge of farmers to farm commercially

In 2019 1 learning plot (output 2.3.4) was established next to the Omugo sub-county district office (target 1). This learning plot serves as both a promotion for the project and vegetable growing (a visual way for interested farmers to learn about the project) and a place with EWS KTOs are able to learn and practice new farming skills. Additionally, EWS-KTs organise a package of trainings throughout the growing season. These trainings are organised at the lead farmer's demos. A total of 1781 (target 1500) farmers have participated in these trainings. Trainings also promote the production and consumptions of green vegetables throughout the dry season.

3. Quality Declared Seed (QDS)

Outcome 3ab.1: Increased capacity of local seed businesses (LSB) in quality seed production

There are 43 functional Local Seed Business (LSB) groups in the West Nile region (11 districts) comprising a minimum of 25 farmers per group; that were supported by the NIGI from July 2019. NIGI specifically seeks to support increased access to quality seed in the settlement areas by linking the LSBs to the targeted community in Omugo, both host and settlement (outcome 3ab.1). In 2019 a total of 10 LSBs supplied seed to the target communities (target 8); supplying 8 varieties of 6 nutritious crops including iron rich beans, orange flesh sweet potatoes and ground nuts (target of 5 crops with 10 varieties) Oversight of LSB work is by the production department of the district structures. Monitoring of the LSB work is carried out by the district officials under supervision and in collaboration with the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) that has the mandates to guide and regulate all seed activities. In season 2019A 17 LSBs were inspected for the first time, and 2 for a second time and in season B 26 LSBs were inspected for a first time and one for a second (target 30 to be inspected twice; 15 once). These LSBs are supported to carryout necessary quality assurance to ensure that the seeds produced are certified (output 3.1.1).

Constant training of the group members is done by the Local Seed Business Trainer (LSB-T) in all relevant aspects of running the business. These trainings include leadership and governance, financial literacy, proposal development, record keeping, seed production planning, cost benefit analysis (CBA) seed production, post-harvest handling, seed demand forecasting, and marketing and others. In 2019 43 LSB trainers were trained to provide on-going capacity support (target 30) (output 3.1.2).

LSBs were also supported to access foundation seeds; with 23 LSBs connected to NARO in the first growing season of 2019. Purchasing a total 12,152 Kg of foundation seed, and 6 LSBs purchasing 718 Kg of foundation seed in the second season of 2019 (target 25 LSBs accessing 3125Kg foundation seed) (output 3.1.3).

Marketing of quality seed, including sensitization of key individuals such as DAOs on quality seed is also a key focus of the project. LSBs have been trained on how to effectively market their seed directly to communities and 26 DAOs have been trained to support the uptake of quality seed (target 11 DAOs) (output 3.1.4).

Ensuring that gender issues are considered by the LSBs is a key priority for the project, including ensuring equal contributions and participation by women and men in LSB activities, including leadership. In 2019 29 LSBs (target 35) were trained in using the GALS methodology and 29 gender champions were identified and trained (Output 3.1.5).

A specific priority for the NIGI project is ensuring that the LSBs are linked to the refugee and host communities that are being prioritized in the project. WENILOSEBA has been supported to improve their ability to coordinate the supply seed going to the refugee and host community (output 3.1.6). The association has been able to support the bulking of seed for 21 LSBs (target 15) and facilitate linkages between the target communities and the 8 LSBs (target 5).

(outcome) 3ab.2: West Nile LSB Association better able to coordinate LSB input procurement as well as market linkages to emerging demands in refugees/host communities

NIGI took over support for the West Nile Local Seed Business Association (WENILOSEBA) from ISSD in July of 2019. The role of the association is to provide day-to-day support to the LSBs allowing NIGI seed staff to focus on co-ordination activities. One of the major goals for the NIGI project is to support WENILOSEBA to become a sustainable business. In 2019 the projected help WENILOSEBA to identify strengths as well as areas of potential further organisational development using the 5 capacities approached. This approach is used to understand how well organizations run and if they will be able to continue in the medium to long term. A workshop was organized

to train WENILOSBA and some of the LSBs to identify areas of organizational strength as well as areas for potential improvement, which will be used again at the end of the project. WENILOSBA relied on membership fees for some of their operational costs. In 2019 38 LSBs in West Nile (target 30) paid membership fees to the association. Additionally, WENILOSEBA has been supported with trainings on business plan development and proposal writing (output 3.2.2) to build capacity to generate other revenue when the project ends.

The WENILOSEBA staff and QDS officer are charged with the responsibility to collect statistical information on all LSB activities. This is done through a phone application database (Kenga) and the staff are trained on its usage (output 3.2.2). This has made data collection easy, and it is possible to keep track of all LSB related activities once entered in the app which automatically submits the data to the M&E team for further data management.

Linkages with private seed companies and other seed buys have been fostered, including 2 meetings with GADCO (organization that partners with sesame seed producers) and 5 meetings with NGOs interested in procuring seed for distribution in the settlement from local producers (output 3.2.4).

(outcome) 3c.1: Increased awareness of QS (Certified and QDS) among seed users

In the year 2019 a range of activities (output 3.3.1) were carried out to promote QDS including seven (7) QDS demos, which were established in Omugo sub-county both in the refugee settlement and host communities and eight (8) at the LSB level to showcase the values of quality seeds to the communities, as a strategy to improve on crop yields. Trade shows (2), seed fairs (13), weekly markets (7) and other public gatherings (2) were also organized to promote quality seed.

2. Systems Innovation

Outcome 4.1 Increased access to products, product packages and tools to support capacity development of farmers in vegetable production

Both local and EW seed promoted – new approach to EWS KT While EWS-KT has significant experience in working on commercial vegetable production, working with home gardens, which include a range of vegetables for household consumption, is a new activity for them. In 2019, with support from EWS KTOs from the Philippines, as well as the nutrition and horticulture officer and Wageningen Plant Research, a design for home gardens has been introduced, which includes non-EWS KT vegetables (like spider plants and kale) as well as iron rich beans produced by the LSBs. Currently soil analysis is being carried out to consider how these garden designs are depleting the nutrients in the soil, and what types of soil fertility measures can be used to mitigate against these challenges. In 2020 efforts will be made to document this work to share with other stakeholders. We have also seen some refugees venturing into more commercially oriented vegetable farming, and we are interested in how we can support more of this type of activity.

Better linking of health/ nutrition support projects to livelihoods capacity development Settlements in West Nile Region have some of the highest rates of Global Acute malnutrition in Uganda. One of the challenges identified by the project is that there is often a lack of linkages between projects which support individuals recovering from undernutrition to those that support them with livelihoods activities to increase access to food and incomes. The specific effort does seem to be appreciated and is perhaps something which can be replicated in other projects.

Outcome 4.2 Increased knowledge about how to best support seed system development in protracted refugee contexts

Increased access to (locally produced) seeds

Access to all agricultural inputs are a key challenge in the settlement area, with lack of financial resources combined with uncertainty leading to very few actors being willing to set-up agro-input services, including seed. Additionally, while many actors are distributing (free) seeds (including FAO and other NGOs), many would like to be able to source this seed locally but are unsure of how to do so. In 2019 we explored a number of potential ways to address this challenge including supporting the set-up of a QDS outlet in Omugo and exploring potential future collaborations with FAO to supply seed for distribution. These will be explored in 2020 but a few key challenges were identified. If no one is currently supplying agro-inputs into the settlement, it is possible that there is no existing market there. The project would rather support an individual who has already decided to try to set-up an agro-input shop, if a market opportunity has been identified already. Additionally, while supplying seed to FAO would be very interesting longer term, the quantities they demand maybe beyond the (current) capacity of the LSBs.

Improved understanding of the relation between food and nutrition security and access to food through rations, production and local markets in protracted refugee situations (joint funded with KB work)

We have also leveraged a small amount of additional funding from Wageningen University and Research to explore how the influx of refugees is impacting the food system of Arua, to map potential future scenarios and to work with stakeholders to consider what scenario they think is preferable, and to support actions to move them in the direction of that scenario.

c. Unintended positive and negative effects of the intervention

One unintended positive effect of the intervention that we have seen is the interest by some of the refugees in getting involved in commercial vegetable production using land which they have obtained from the host community (often the host will allow refugees to use land that is not in use in exchange for clearing the land). This has allowed for some small scale commercial vegetable production in the settlements. One challenge which

is often seen with projects that promote increased vegetable production is a lack of market for the crops. However, there seems to be a huge demand for vegetables in Northern Uganda, especially to supply neighbouring countries (South Sudan and DRC). In the settlement, we have heard stories about the intervention and how farmers are using seeds that they have received from other NGOs to plant home gardens using the new techniques introduced by the project. We have also heard from project staff that the sessions on nutrition and the value of consuming nutritious crops have led to increased desire to purchase vegetables. We hope to see evidence of this carried out in a survey. In the settlement, especially, there is real demand for vegetables and other foods to supplement rations and people quickly taking up gardening. However, plant research colleagues have cautioned that while the intervention is working well now, because of the virgin soil, efforts need to be made to ensure that we are investing in soil fertility and pest management, otherwise the productivity of the soil will decrease substantially in the coming years.

- d. Progress of the implementation of cross cutting themes, gender, youth and climate, based on the monitoring results

Pathway 1: Some components of the NIGI work have a strong focus on gender, and specifically supporting women and female farmers. In particular, activities around vegetable consumption, and showing how to prepare vegetables, are targeted at female farmers. Support given to malnutrition graduates from the Save the Children Programme also specifically supports women (as the graduates are largely young children and their caregivers). This support will be expanded in 2020, as additional capacity (the nutrition trainees) will allow more support to be given to the malnutrition graduates and also to expand this support to the host community.

Pathway 2: Key farmers are selected by EWS using a set of criteria, including choosing individuals who are respected and known in the community. As a result of the criteria that they use in selecting key farmers, the majority are male but the KTOs try to train the entire household, and report that households where both husband and wife work together have the most productive plots. Many of the lead farmers are also young and efforts have been made to showcase their work (for example, development of videos about young key farmers) are shared on social media platforms and can serve as inspiration for other young farmers.

Pathway 3: Gender training was carried out for 29 LSBs in West Nile Region in 2019 and the remaining LSBs will be trained on gender in 2020.

- e. Overall project visibility

Visibility of the project is critical, especially in the settlement areas. We have worked on improved visibility of the project throughout 2019 including through developing a stand-alone NIGI brand and ensuring that this branding is visible during all of our activities. An effort to ensure that the demo plots are more visible led to an increase in signs near the demos with key information on how to best grow vegetables.

In terms of external visibility, we have had a number of pieces on the local and national news, showcasing the project and key achievements. There has been a write-up about the project in Wageningen World Magazine and an article about the embassy visit to the project was the most viewed page on WCDI's website this year. We have also developed a communication strategy and a number of other communications products to showcase the project, such as a leaflet. The communications officer at WUU regularly shares updates about the project through social media channels such as twitter. We have also had strong interest in engagement from other actors such as FAO (both around surveys as well as seed access) and NGOs (World Vision), which have been impressed with our approach and the professional quality of the home gardens supported by the project.

- f. Other

We have tried to use the interest and excitement generated by the NIGI project, and interest in working in refugee settlements more broadly, to try to build up a portfolio of projects in the area, to increase synergies and collaborations. This includes using Arua as a case study for the *kennis basis* work of Wageningen Research as well as developing an Orange Knowledge Programme (OKP) focusing on improved linkages between agricultural education and the job market in the West Nile area and focusing, in part, on educational institutes that train refugees.

5 Sustainability⁵

- a. Measures identified to enhance project sustainability

A key focus of the project is capacity development, including of government, NGO, and staff from other higher education institutes. NIGI is focusing on providing high quality training to those who have the opportunity to train others on farming practices, as a key way of ensuring sustainability of the project. We have also been supporting capacity development of staff from Muni University, ADRAA and IABC, all local education institutes partners in an OKP project, to ensure that those who train future generations of farmers are capacitated in best practices. Farmers, both refugee and host, will learn valuable agronomic skills that will remain with them long after the end of the project. Additionally, we seek to engage as many interested farmers as possible, not limiting ourselves to

⁵ As evaluations of supported projects have repeatedly shown sustainability as a weak point, implementing partners are kindly requested to share their reflection on sustainability in the progress report

“beneficiaries” or individuals who meet a certain set of criteria, but rather enabling participation of all interested individuals to come to training and learn more about how to produce, prepare and consume vegetables. Nutrition messaging also seeks to move beyond the usual targets of pregnant and lactating women and engage others about the importance of eating vegetables.

One of the unique elements of the NIGI project is its focuses private sector led solutions. East West Seed has already been working to expand operations in Uganda and hopes to be able to move forward with their commercial work after the conclusion of the project. Additionally, the focus on supporting access to agro-inputs and market linkages, will support the development of a more effective agricultural sector. Strong markets (with links to both South Sudan and DRC as well as the local market) mean that supported farmers have been able to easily find markets for their crops, increasing the likelihood of project sustainability.

The project’s collaboration with the Integrated Seed Sector Development Project (ISSD), which seeks to develop a vibrant and market-oriented seed sector in Uganda, as well as East West Seed, will ensure that the farmers will also be able to access high quality seed. The project specifically seeks to prevent beneficiary dependence by focusing on developing capacities and effective support systems and slowly scaling back the support offered by the project (providing 100% of inputs and technical support the first year, but only 50% the second year for host communities) while strengthening input supply systems and expertise, with a focus on enabling farmers to build sustainable and profitable businesses. Experience in transitioning from full support in season 1 to partial support in season 2 shows that this is working as almost all farmers continued engagement despite no longer receiving full inputs from the project. Additionally, in the host community a large number of farmers participate in the training sessions (1,721) despite having no requirement to do so, and receiving nothing except the knowledge and training, indicating that there is interest in vegetable farming and a desire to learn more.

The NIGI Project approach emphasizes working through local structures and supports and promotes local leadership. We are based in the Abi ZARDI offices as well as the Office of the Prime Minister to ensure strong collaboration with local structures and institutes. Activities were implemented with support from the already existing structures and local leadership structures including the Refugee Welfare Councillors, Local councillors, health workers from health centres within project areas of operations, and sub-county agricultural extension workers. Involvement of the district production departments as well as the existence of the West Nile Local Seed Business association (WENILOSEBA) are all strategies in place to ensure continuity of project activities after the project phases out.

b. Description of exit strategy (if applicable)

This is the second (and final year) of the project, thus the focus will need to be on institutionalization of the approach, setting up structures to ensure project sustainability. In terms of work in the settlement, project closure involves meetings with key stakeholders and sharing of project achievements, results, success stories and lessons learnt with relevant partners and the local government. Activities will continue for two more growing seasons, but the farmers who were supported for the first season will no longer receive support, allowing the project to see how farmers do with no support, while still being able to address the (occasional) technical question. Because the focus has been very much on capacity building and seed systems strengthening, when the project ends, we hope to leave the following in place:

- Increased capacity of refugee farmers (in the settlement) and commercial farmers in the host community to grow vegetables for both own and commercial purposes.
- A more competitive vegetable sector.
- Improved access to support systems necessary for accessing agricultural inputs; especially seed.
- A strengthened West Nile Local Seed Business Association, with increased capacity to run a financially viable business, who will support 43 local seed businesses in West Nile with a business strategy.
- Training modules integrating cutting-edge expertise on horticulture in arid conditions with the expertise of East West Seed, contextualized for local conditions.
- 27 Trained staff from local educational institutes, government, and NGOs with the knowledge and skills to better support farmers to grow vegetables.
- Innovative product packages which seek to provide solutions to increase food security in protracted refugee contexts.

c. Status of exit strategy implementation (if applicable)

While we have not yet started to implement the exit strategy as we still have a full year of project implementation left (half of the overall project time). However, as the exit strategy is implemented it will be with full involvement of the district, sub-county, association and local community leaders. Support to WENILOSBA in 2020 will focus on supporting the association to be better able to coordinate LSB activities with limited direct support from the WUR staff.

d. Other

We are spending some time reflecting on two key questions in relation to project sustainability:

1. In the settlement area, we have continued to provide a full package of support (in terms of both inputs like seeds as well as ongoing technical support) where as in the host community, farmers receive only half their inputs in the second season. However, since we focus on encouraging own consumption in the settlement, farmers do not necessarily make a profit that they can re-invest. How can we support sustainability in a context where people have very limited money and little ability to earn and where the focus is on consumption rather than profit?

2. WENILOSBA needs to become a self-sustaining organisation over the next year. How can we support them with development of their business case, moving beyond only writing grants and applying for other types of donor funding?

6 Risks

- e. Please elaborate a short description of the following potential or already materializing risks, a risk analysis and suggestion for mitigation measures:

The following section contains the risks that were mentioned in the project proposal, the suggested mitigation strategy, and any observations or changes around the risk in 2019.

Risks and Assumptions	Mitigation Strategy presented in proposal	Observations in 2019
Pathway 1: Household Nutrition		
Biophysical and socio-cultural situation in refugee settlement areas is different, limiting utilisation of ISSD/partner good practice.	NIGI to select refugee settlement areas with potential for horticulture/fruits/legumes/tubers and (in particular cases) staple crop production to maximise best-fit practice and expertise.	An effort was made in identifying implementation areas that were near water sources and appropriate for vegetable cultivation in close collaboration with UNHCR water team. Some of the land originally suggested by OPM was turned down as it was not appropriate for the project.
Experience and expertise of ISSD and partners in other parts of Uganda and in West Nile can be employed in refugee hosting areas.	NIGI to pro-actively seek partnerships with organisations involved in good practice and seek to try to validate good practice as designed by NIGI.	NIGI has been able to link well to new partners working in the area. Since the project works with different partners to ISSD, significant effort was made in 2019 to introduce the project. The strong reputation of ISSD has supported this relationship building.
NIGI can be successfully implemented in an environment where refugees' land for horticultural production is of poor to medium quality and where recurrent drought affect production on sandy soils. Shocks, like droughts, and trend of increased rainfall variability (in particular western part of intervention area) may negatively impact on uptake of improved horticultural practice.	Design horticulture interventions requiring minimum water use to produce variety of crops during dry season.	2019 had a good rainfall, with the rainy season continuing longer than usual, which also led to good harvests. In general, those in the settlement are interested in learning about vegetable production. Because the soil in the settlement, while rocky, is virgin soil, it has been very productive in the first few seasons. Moving forward we need to make sure we are adequately investing in soil fertility measures to make sure that we are not depleting the soil.
	Demonstrate soil moisture retaining strategies, simple water storage facilities, and efficient use of (limited amounts of) water as integrated product options.	
	Integrate anti-erosion measures to retain topsoil and avoid physical soil erosion at times of heavy rain.	
Households are interested in uptake of improved horticultural practice for home consumption and sale/barter of small quantities of surplus production.	NIGI will develop micro-packaging of seeds and vegetables to reduce upfront investment by households.	Households in the settlements are very interested in opportunities to earn income, and we have seen a number of households who can access some host land setting up small scale commercial vegetable production and selling the produce from bikes and small kiosks in near their home.
Fear of recurrent shocks (in particular drought) causing loss of crops and input investment (seed and fertiliser) make households wary of adopting best practice.	NIGI will develop and demonstrate a portfolio of cost-effective and practical interventions that reduce crop failure risk. NIGI to include interventions beyond vegetable production to introduce more drought resistant tubers.	In the design of the home gardens, an effort was made to expand the design beyond only standard vegetables, including, for example, iron rich beans and a number of local green leafy vegetables. There has been real interest in the indigenous vegetables and we have been experimenting with new ones in the learning plot.

Households, in particular FHHs, are interested in uptake of improved horticultural practice in support of improved nutritional outcomes. Households have time, interest and are motivated to produce nutrition dense vegetables/legumes/tubers for improved nutrition.	In working with partners ensure that target groups are aware of importance of improved nutritional practice (production, preparation and consumption) of nutrition dense vegetables/legumes/tubers) through partners' awareness raising and educational programmes. NIGI will look at particular needs of FHHs and conditions to meet to allow FHHs to engage in horticultural activities.	We have found that, in general, people are very interested in the nutritional aspects of vegetables and the importance of vegetable consumption for overall health.
Dependency syndrome and aspiration failure undermine interest in adoption of good practice and willingness to pay for inputs. Households which have received free emergency seed are interested and motivated to adopt good practice and willing and able to pay for inputs (seed).	Engage beneficiary households that have moral authority to encourage others to adopt good practice and demonstrate that use of high quality inputs pays off. Develop learning sites that demonstrate cost efficiency of vegetable/fruit/legume/tuber production.	In the settlement, people have time and interest to engage in home gardening and women do not seem to face specific challenges. In the host community, we have found the most successful demos are those where husband and wife both participate. However, in the host community people have more demands on their time so it can be more difficult to engage people for longer time periods.
Quality Seed		
National, Zonal and refugee settlement area are interested in market-based seed system security in refugee hosting areas.	Stakeholder re-orientation and awareness raising through field visits, evidence-based discussions and stakeholder fora, about importance of establishing sustainable seed system security at Zonal level and in refugee settlement areas.	One challenge that we have seen in 2020 is that the government services are really there to serve the host community whereas development partners support the refugees in the settlements.
	ISSD has conducted a Seed Systems Security Assessment in West Nile Zone and will communicate key findings and insights for a resilient seed system.	There is strong demand for quality seed from a range of actors, including institutional actors and buyers. However, many of the local seed businesses struggle to be able to meet this demand (for example, FAO would like to procure seeds locally, but the quantities are much too high for LSBs to meet the demand).
	Demonstrate through field visits and reports that local seed systems are resilient in protracted displacement crises and times of drought and that diversity conservation to promote nutrition can be maintained.	Ongoing work throughout project lifespan.
Farmers tend to depend on free distribution of (emergency) seed, instead of buying quality seed in cash or on credit.	Orient stakeholders that engage in free seed distributions to support (or focus on) establishing sustainable seed systems security in the Zone / refugee settlement area.	In the settlement areas, farmers still rely largely on seeds that are distributed. We have found that this is not at odds with supporting increased procurement from LSBs as many of the NGOs procuring large orders are buying from the LSBs.
The market will be able to absorb the quality seed that is produced through the different seed production and marketing systems.	The programme will duplicate the ongoing ISSD Quality Seed Uptake promotion initiatives (e.g. media and seed fairs) that will increase awareness and willingness to pay for the seed by refugees and hosts.	We are engaging similar strategies to stimulate seed procurement and are seeking (through action research) to understand if these strategies are successful in a settlement context.
Stakeholders think that seed production is difficult in the Zone / refugee settlement areas because of lack of capacity and/or recurrent drought/increased rainfall variability.	Stakeholders are aware that it is possible to produce locally demanded indigenous and improved vegetable seeds/legumes/tubers/staple crop – in the Zone / refugee settlement areas through LSBs.	This was adjusted slightly from the originally submitted plan for the project. It was decided, based on a number of reasons, that it did not make sense to try to develop new LSBs or to produce vegetable seeds. The project continues to support the LSBs already developed by ISSD.

The existing 45 LSBs in the zone will be deliberately supported and upgraded by the program to enhance their existing capacities to meet the emerging seed demands. Produce seed through LSBs where soil moisture is reliable (in areas having appropriate soil water conservation and/or having small irrigation schemes during dry season).

The focus of the seed work is on supporting the existing 45 (now 43 as two are no longer functioning) that were previously established, as well as supporting the WENILOSEBA to provide coordinated support.

Increased capacity to produce or access high quality seed (vegetables/fruits/legumes/tubers) and inputs benefits those still in areas of origin in South Sudan. Intervention and its positive contributions to improved nutrition through market-based systems remains limited to West Nile.	NIGI will look into opportunities for trade of high quality inputs – vegetable seeds - into South Sudan contributing to improved nutrition and food security.	While we have learned that there are significant trading opportunities with South Sudan for horticulture products, seed is very challenging because of laws regulating cross-border seed trade, which require seed to be certified to very high standards for international trade.
A seed business approach is effective in the Zone / refugee settlement areas.	Quality Declared Seed produced by LSBs is meant for sale within farming communities in Uganda only by regulation. Create local seed demand through demonstration of improved varieties, participatory variety selection and seed fairs and mass media. Facilitate linkages with micro finance institutions for provision of credit.	This remains true, any cross-border trade in seed that happens currently is informal. Changing This type of regulation is beyond the scope of this project. The project is seeking to use a number of demand creation strategies to stimulate demand for improved seed varieties including seed fairs and mass media. Capacity building of LSBs will focus on strengthening their overall structures and governance systems to support them in accessing finance.
Lack of knowledge on women's seed demand and women's decision making are the primary barriers to increasing women's access and use of quality seed of new, improved, and /or farmer preferred varieties.	Conduct a seed security system assessment with a focus on women's seed demand. Conduct an assessment on decision making relative to seed decisions in seed systems.	It was decided that it did not make sense to carry out another seed systems assessment, given that ISSD has already carried out a nationwide seed system assessment.
National and Zonal partners (including PMO, UNHCR, GoU and INGOs) are interested to collaborate with NIGI on formal and informal seed systems. Partners are only willing to collaborate in emergency seed systems.	Sensitizing stakeholders, practitioners, civil servants, and policy-makers through field visits, evidence-based discussions and round tables on informal and formal seed systems. Sharing successes with all those concerned and creating flexibility to address compatible interests and bring others on board.	We have found high willingness of humanitarian stakeholders to engage. How to transition between the humanitarian actors (support the settlement) and other actors (supporting the host community) remains a key challenge.
	Engage only partners already involved in existing livelihood support programs as opposed to relief interventions.	Working in the settlement, it is impossible to work only with partners who are only working on existing livelihood interventions and not relief interventions. In discussion with partners, it also seems that the government does not feel it is their role to run projects for the settlement areas.
Commercial Vegetable Production		
Crop and varietal diversity may not be increased as a result of the programme.	Track the extent to which programme participants maintain or expand their crop diversity.	This is an area where project efforts have really shifted since the start of the project. In the original design of the home gardens, only 3-4 crops, largely imported varieties of East West Seed crops were planted. However, we tried to add more local indigenous vegetables as well as biofortified crops, especially to home gardens.
Improved crop and varietal diversity leads to better nutrition outcomes.	Adjust programme strategies to promote crop and varietal diversity and consumption including the use of PVS trials that include indigenous and improved varieties.	The link between on-farm agro-biodiversity and dietary diversity has been seen continuously in the literature. Diets supplied by WFP contain no fresh vegetables, this must all be supplemented in the diet. Anecdotal evidence from farmers, especially in the settlement, is that there is very high demand for vegetables and that they are consumed as soon as the leaves come out.
More integrated value chains have no causal effect on access and use for quality seed of new, improved and/ or farmer preferred varieties	Promotion of integrated seed system security management through organising informal seed groups, LSBs and operation of formal seed system in West Nile and refugee settlement areas therein. Ensure that refugees join existing LSBs or (optional) that newly set-up LSBs include both hosts and refugees.	The overall support to LSBs is now carried by WENILOSEBA, the overall umbrella association support all LSBs in West Nile. No new LSBs were set-up, focus only on existing LSBs. Activities with seed in refugee areas focus on stimulating demand.

	LSBs through their West Nile association will be linked directly to refugee/host community farmers as well as to all refugee livelihood support partners.	Support for the association was taken over by the NIGI project in June 2019.
Increased local production results in increased local purchase and consumption of nutrition dense foods. Market does not demand for nutrition dense foods because of weak purchasing power or interest to consume nutrition rich foods.	Perform regular market assessments to track trend for demand for nutrition dense foods and estimate volumes sold and its monetary value. Engage with OPM, UNHCR, WFP and NGOs to see how introduction of cash-based transfers can contribute to increased spending on nutrition dense foods.	Regular market assessments are carried out by WFP to monitor prices of essential food items. From the commercial vegetable production side, Arua's strategic location enables easy access to markets in both South Sudan and DRC. We are engaging with WFP, FAO and UNHCR both in terms of the implications of cash transfers and (increased) spending on nutrient dense foods. Studies carried out by WFP find that cash transfers were associated with increased spending on nutrient dense foods like vegetables and fruits.
The government extension directorate is willing and open minded to adopt innovative product packages, use innovative extension messages and implement scaling strategies.	Extension system is too rigid and top-down with many new staff employed, limiting the space for bottom-up innovations in extension and scaling.	Some of those that NIGI is training are lecturers and others who train those who go on to work in agriculture. In choosing those who participate in trainings, we have prioritized training those who have roles where they are also expected to train others.
	Close collaboration of dedicated advisors from the gov't extension system in NIGI's activities at planning and implementation of demo and learning sites to allow for extension activities and scaling.	
	Extension messages and methods will be co-developed and tested with the extension directorate.	
	Central and local government staff will be engaged in the finalisation of innovative product packages and manuals to ensure buy-in from the gov't extension system.	One key challenge in developing an approach that can be used by government actors is that the EWS approach is inherently very labour intensive. Each of the KTOs must visit each farmer that they support at least 2 times per week.
	East West Foundation and Wageningen Plant Research will play an important role in engaging with government extension directorate to encourage innovations and do-able extension and scaling.	Trainings designed and delivered by WUR PR supported participation by extension staff to ensure sustainability.
Applied research and extension partners are open to jointly plan, implement research and set-up and maintain demo and learning sites.	Close collaboration with dedicated advisors from the applied research (NARO, MAAIF extension system, District local government, OPM and NGO actors.	While we have worked closely with NARO, OPM and other actors, for example for office space or land for demos, it has ultimately been the responsibility of the project to support the learning plots and demos, as other actors are too busy. Additionally, the project sought to set-up demos in communal spaces such as health centres but there were challenges around ownership and commitment.
	East West Foundation will develop its own capacity to set-up and maintain demo and learning sites and is commitment to do so longer-term (beyond time frame of the NIGI project).	So far there has been significant commitment by EWS, and the company has expanded significantly in Uganda in 2019 with desire to stay in the area (recognizing that developing a commercially viable vegetable sector takes more than 2 years).
Government staff is too busy/ lacks logistics to actively engage in NIGI.	Programme will have a budget provision for allowable logistical facilitation costs for participating gov't extension staff.	The project has been able to facilitate the participation of 20 government and other staff (for example, from local agricultural colleges) to support their participation in the ToT.
Effective collaboration with the Extension Directorate is possible.	Recent appointment of new extension staff may lead to sub-optimal performance.	In addition to only working with extension directorate, we have also engaged those who work at local educational institutes in training trajectories
	Key extension staff professionals will be invited to participate in ToT for field based horticultural practice.	There has been significant interest and demand in the ToT trajectory.
	Appropriate training materials and extension materials will be jointly developed and made available to the extension directorate and extension staff.	This will be a focus in 2020.

7 Institutional / Organisational Development and Human Resources

- a. General comments on relevant institutional /organisational and HR Issues (including diversity management)

Restructure of ISSD into Wageningen University and Research Uganda When NIGI started, at the end of 2018, it was not clear how ISSD, which at that time existed with funding to support one project, would be able effectively integrate support for another project (NIGI) within the existing structures. Additionally, the chief of party for ISSD left in April, which, although challenging timing in terms of the start the project, provided an opportunity to re-organise the Uganda office in a way which would enable better support for the NIGI project, including the appointment of a chief of operations to provide support for project implementation. However, this transition meant that there was more support required from the Netherlands based staff, which mean a greater travel and involvement, which will reduce in 2020.

Appointment of new staff including community resource personal. During the inception phase of the project it became clear that additional staff would be necessary in order to mobilise the community and provide translation services, especially in the settlement area. The project decided to appoint 3 community resource persons initially to support implementing of farming activities. Additionally, after a few months of implementation, we realised that additional support would be needed for the nutrition activities, so an additional 3 nutrition trainees were recruited to help run nutrition education sessions. The additional human resource capacity should enable more work to be carried out.

- b. Changes, Challenges and mitigation measures that affected the management of the project

Change of Uganda based project manager the initial project co-ordinator was not able to perform his expected duties. This led to a restructure of the project in order to recruit a new project manager which resulted in a slight delay in the implementation of a range of activities.

- c. Other

N/A

8 Finance

Presented in a separate document

9 Lessons learned

- a. Key lessons and emerging best practices

No lack of markets We have seen other projects which focus on increasing production of vegetables struggle to find markets for their products, but there seem to be a significant market for vegetable, both locally and for South Sudan and DRC. Expanding work in this region could also increase the access to nutritious foods for those in these countries.

Links between humanitarian actors and longer-term development, leading to durable solutions, could be improved. Coordination of humanitarian actors in the settlement by OPM and UNHCR seems very organized in terms of ensuring that there is no duplication of work and that refugees in all areas receive support. However, the coordination or translation of this support to government systems and strengthening these to support refugees in the longer terms seems lacking. Additionally, almost all actors are from the UN or NGOs and there are few private sector or other types of actors who could also support in developing more durable and sustainable solutions, when funding for the initial humanitarian response reduces.

There is interest in commercial vegetable production. We have seen that there is interest and demand for professional support for vegetable production, which was something that we assumed at the start of the project. This demand is seen in by the fact that all key farmers continue in a second season, despite only receiving 50% of their inputs, more than 1700 people were interested in attending training sessions, despite receiving no incentive to do so, and the demand from other actors to expand support to

- The leadership of the district local government like the district agricultural workers in the implementation of activities is a very good assurance of ownership and sustainability strategy for the project.
- Use of music dance and drama (like during seed fairs) has worked effectively both as an information dissemination method as well as mobilization method.

- b. Difficulties, challenges and mitigation measures

Overwhelming calls from different stakeholders for expansion of project activities. The high levels of demand for project support is a key challenge faced by all projects working in the settlement, because of the high level of needs expressed by the project participants. As a result, we have provided more material support (seed, forked hoes, watering cans) to farmers in the settlement than initially expected.

Human resources capacity for nutrition was a challenge, but this has been addressed by hiring 3 nutrition trainees. Additionally, EWS added another KTO to increase capacity.

In general, working in the settlement area is physically challenging, due to the hot weather, lengthy travel by motorbike, and lack of reliable facilities (electricity, internet, phone reception). These can also hamper communication.

c. Issues for policy dialogue

Institutionalize capacity development the project has focuses on developing capacity including developing a number of modules that are targeted for specific conditions in the region. We have been focusing on training lectures at local training organizations, but this training package and direct support to farmers could be further institutionalised.

How to stimulate market and private sector led solutions in a humanitarian context there are few private sector actors currently working in the settlement areas in North Western Uganda. However, despite limitations in terms of water and land, many refugees are interested in commercial opportunities and farming, especially vegetable farming which produces relatively incomes on small amounts of land is attractive. How can we support commercial production for both host and refugee farmers, while also focusing on improved diets and increased vegetable consumption?

Seed- stimulate awareness of QDS seeds and value of purchasing them quality inputs, especially seed, are critical for high yields. Increasing demand for QDS seeds will support both the farmers, with higher yields, and the LSBs, with an increased market for the product, thereby increasing their sustainability.

10 Conclusions for Steering and next Steps (with schedule)

Key priorities for 2020
Household nutrition: focus will be on training additional human resources, expanding work with the malnutrition graduated to the host community, documentation of training approach.
Commercial vegetable production: exploring option to expand (where possible) in the settlement, ToT on best agricultural practices; explore sustainability when project stops supporting farmers
Quality Seed: exploring various approaches to ensure sustainability of the association or alternative ways to support the LSB after the project; focus on marketing and stimulating seed purchase.
Systems innovation: focus on documentation of stories of change and best practices, dissemination of those stories; gather evidence to support initial success stories from project.

Next Steps	Date
Carry out survey to document projects impact	Planned for April 2020, postponed due to COVID Q1 of 2020
Training of nutrition trainees	Jan/ March/ June and Nov 2020
ToT on Vegetable Production	

Annex 1: NIGI 2019 Log frame (Targets vs Actuals)

Project Strategy	Key performance Indicators	2019 Planned	2019 Achieved	Comments
GOAL: Increased consumption of vegetables, fruits, legumes, tubers and bio-fortified crops among targeted communities in Omugo	number of undernourished people reached	No target set	252	Settlement only, will expand to host in 2020
	self-reported changes in nutrition dense food consumption			Survey to be carried out in 2020

Project Strategy	Key performance Indicators	2019 Planned	2019 Achieved	Comments
	average Household Dietary Diversity Score (HDDS)			Survey to be carried out in 2020
Strategic objective (impact) 1: Improved production of vegetable /fruit /legume /tuber production among targeted households and Omugo	Number of households producing crops at home (establish successful home gardens)	250 (25 lead farmers x 10 linked farmers)	313	Change to programming means that all refugees get seed
intermediate result (outcome) 1.1: Strengthened farming capacity among targeted households	Number of households receiving seedlings	250	313	
	Number of households that participated in training at demo plots	500 (25 lead farmers plus 10 supports over 2 seasons)	Trained 379 (209 Females and 170 Males) farmers	
	% of HH that rate themselves knowledgeable and skilled in farming	No target set		
	Number of households that report increased farming capacity	No target set		
Output 1.1.1 Report with recommendations on agronomics	Report on baseline studies to identify agro-ecological conditions and recommendations	1	1	
Output 1.1.2 demonstration and learning sites for home gardens in settlement area by EWS	Locations for home gardens identified	25	40	
	Number of demonstration and learning sites for home gardens in settlement area	25	40	
	Number of lead farmers among the settlement communities Identified	25	40	
	Nutrition sensitive home garden designed for settlement	1 garden design	1	
Output 1.1.3 Interested refugee and host community members trained to promote best fit agricultural practices for home gardens	Training developed and carried out on home gardening	No target set	1 training module	
	Number of refugee and host community members trained to promote best fit agricultural practices for home gardens.	300	379 (refugee)	
	Recruited and trained extension agents from (Omugo sub country, IP s near Omugo settlement, etc.) on best fit agricultural practices for extension agents.	20	0	Target is 25 over two years of the project, all training of extension agent activities shifts to 2020
	Number of graduates linked for providing ongoing livelihoods support	No target set	252	
Output 1.1.4 Extension materials (signboards, posters, radio)	Number of extension materials			-development of extension materials
	Nutrition messages		100	-development of new messages to meet identified gaps
	Posters		200	
	Radio			
Output 1.1.5 Farmer Field Days	Number of farmer field days organised	2	8	

Project Strategy	Key performance Indicators	2019 Planned	2019 Achieved	Comments
intermediate result (outcome) 1.2: Increased knowledge of nutrition and nutritious crops among refugees and host communities	Number of households receiving BCC messages	No target set		-community and household level SBCC activities (dramas, food demonstrations)
	Number of households that participated in nutrition training	No target set	484	
	Number of households that report increased knowledge of nutrition			
	Number of women from malnutrition programme (save the children) - participated in nutrition training	No target set	252	
Output 1.2.1 Demonstrations in community	Number of demonstrations of new recipes or preparation of new vegetables or promotion of nutritious indigenous vegetables (cooking demonstrations) including for EWS Key and satellite farmers	No target set	54 demonstrations	
	Number of participants in demonstration by sex	1500	total: 1834 (931 male: 903 female)	
Output 1.2.2 Mass media campaign	inventory of ongoing campaigns and materials, identify which are appropriate and can be used by the project, identify any key gaps	1	1	
	Number of media campaign activities to promote increased consumption of vegetables (use of radio) in both refugee language and host language	No target set	100 banners	
Output 1.2.3 Farmer field days including promotion of nutrition	Number of field days promoting utilization of nutritious crops	No target set	8 in settlement 321 (126 Male: 195 Female) 18 in Host 755 (550M: 205F)	
	Types of nutritious crops promoted		6 types (Tubers, fruits, vegetables, cereals, bio-fortified, hybrids)	Vitamin A rich vegetables (pumpkin, carrots) fruits (pawpaw), biofortified crops (tubers- orange fleshed sweet potato, iron rich beans), dark green leafy vegetables, including wild forms + locally available (Vitamin A rich leaves such as amaranth, cowpea, okra, jute mellow, kale), Iron rich vegetables (beetroot, red & green cabbage) Vitamin C rich fruits and vegetables (watermelon, cabbage) other fruits and vegetables (tomato, onions) Protein rich legumes to target graduates (groundnuts, green grams, beans),
intermediate result (outcome) 1.3: Increased capacity to promote consumption of nutritious foods by NGOs and extension officers	reported capacity among extension officers			Participatory videos; Evaluation nutrition training Reports

Project Strategy	Key performance Indicators	2019 Planned	2019 Achieved	Comments
	reported capacity among NGOs			Evaluation nutrition training NGOs
	number of participants in nutrition training (WUR)		4 CRPs, 3 NTs	
Output 1.3.1 Training materials	Needs assessment (including situation analysis) carried out, including identification of existing materials related to promoting dietary diversity		1	
	Training materials to support others to train on nutrition and vegetable consumption (ToT materials)		1 banners /posters	
Output 1.3.2 staff of implementing agencies trained to carry out behaviour change communication to promote increased consumption nutrient dense crop	Number if staff trained on Behaviour change communication to encourage increased consumption of fresh fruits and vegetables and bio-fortified crops	10	30	
Output 1.3.3 staff of implementing agencies supported to carry out behaviour change communication to promote increased consumption nutrient dense crop	Number of trained extension officers linked to demonstration plots, farmer field days and individual farmers for capacity development	10	30	
	Number of trained extension officers coached in their participation in planned activities	10	10	
Strategic objective (impact) 2a: Increased production and marketing of crops by targeted farmers in Omugo host communities	Produce sold per season - see definition app EWS KT – average volume per farmer per crop (crop dependant, crop is chosen by the farmer)		Tomatoes 1,222kg Watermelon 1,250kg Onions 414kg Cabbages 1,105kg Egg plants 1,122kg	
	Total number of hectares of farmland reached (extrapolation based on interviewed farmers)	250m2 x 61	1.525	Extrapolated assuming 250m2 plots and 61 key farmers
Strategic objective (impact) 2b: Increased income and employment among commercial farmers of target crops in Omugo host communities	Total income from crop sales per annum (average key farmers)		2164894.8 UGX	Average all crops
	Annual profit from crop sales (average key farmers)		1727848.8 UGX	Average all crops
	No of labourers in crop production			
intermediate result (outcome) 2.1: Increased knowledge of key farmers to promote best fit agricultural practices in their communities	number of key farmers with demo plots	60 (30 per season)	61	-key farmers identified -key farmers trained
	number of key farmers with nurseries	60 (30 per season)	61	-key farmers trained in setting up nurseries -farmers supported with inputs to set-up nurseries
	number of key farmers with improved knowledge	60 (30 per season)	61	-5 ongoing training sessions -ad-hoc trainings as necessary
	% of farmers that rate themselves knowledgeable and skilled in farming	60 (30 per season)		-

Project Strategy	Key performance Indicators	2019 Planned	2019 Achieved	Comments
Output 2.1.1 Training / information material developed	training / information needs identified	No target set		
	Number of training manuals / information packages developed	No target set		
Output 2.1.2 interested community members capacitated to promote best fit agricultural practices	Number of key farmers and other interested community members engaged in EWS training	1500 (30 lead farmers, connected to 25 others x 2 seasons)	1781	
Output 2.1.3 Signboards developed that promote suitable agronomic practices within the community	Number of signboards created to promote identified agronomic practices within the community	No target set		
intermediate result (outcome) 2.2: Increased knowledge of extension staff to promote best fit agricultural practice	% farmers satisfied with extension services delivered to them	No target set		
	Number of KTOs certified vegetable trainers in the target area	5	6	
Output 2.2.1 Training material developed	Report on training needs	1	1	
	Number of modules for ToT designed by WUR Plant Research	No target set		
Output 2.2.2 Staff of research and governmental/non-governmental/private extension staff capacitated to promote best fit agricultural practices	Number of key individuals to participate in trainings and setting up of veg brigades identified	20	0	Full packaged of trainings shifted to 2020 (two completed in Q1 of 2020)
	Number of staff trained	20	0	
intermediate result (outcome) 2.3: Increased knowledge of farmers to farm commercially	% and number of key farmers who have adopted at least one promoted technology		98.7%	
	% of targeted farmers that are not solely dependent on gifts for investments in their farm		53% of key farmers contributed 50% of inputs season 2 96 % of all targeted farmers (1721 out of 1782) receive no inputs from the project	
Output 2.3.1 Baseline study and reporting	Baseline studies carried out to inform the development of recommendations for crops, crop guides, training materials	10	3	
	NIGI Project Seasonal reflection	1	1	Meeting held in September
Output 2.3.2 Local support for training secured	Inception meetings at different levels (Local leaders, Community and OPM)			
	Community mobilisers recruited	3	3	
	Number of KTOs trained in the app data management	5	6	
Output 2.3.3 Training material developed	Training manuals developed			
	Translated crop guide and training banners in 3 main languages i.e. Lugbara, Arabic and Bari		3 languages translation	
Output 2.3.4 Learning plots (1) established	Identification, preparation and management of the learning site	1	1	One learning plot next to Omugo district office

Project Strategy	Key performance Indicators	2019 Planned	2019 Achieved	Comments
	Commercial variety demonstration gardens in host community	1	1	
Output 2.3.5 Farmers from host communities trained in commercial production of vegetables /fruits/legumes /tubers and bio-fortified crops in rainy and dry season (250-500sqm gardens).	Number of participants identified	60	61	-key farmers identified twice per year -full set of training given in year one
	Number of key farmers mobilised and selected	60	61	
	Number of key farmers receiving Distribution of inputs to key farmers	60	61	-100% of inputs given in first season of support, 50% in second season
	Radio Programmes			
Strategic objective (impact) 3a: Increased access to quality seeds by local seed businesses	number of nutrition rich crops and varieties for which quality seed is available	6 crops, 8 varieties	5 crops, 10 varieties	Beans (2 varieties), Soybean (2 varieties), Sweet potatoes (3 varieties), Green gram (1 variety), ground nuts (2 varieties)
	number of QDS outlets	1	0	Postponed to 2020
Strategic objective (impact) 3b: Increased income of LSBs from producing and marketing of quality seed crops in Omugo refugee and host communities	reported income changes among LSB			
intermediate result (outcome) 3ab.1: Increased capacity of local seed businesses (LSB) in quality seed production	Number of local seed businesses providing targeted refugees and host communities with quality seed	8	10	Andevuku (sweet potato (naspots 8, 12, 13), narobean1, green gram (Narogram 1), G.nuts (serenut 14R)), Nyio Ajia (Nabe 17), Agiermach (Narobean 1), Amatura (Cassava (Nase 19, Narocase 1), KASI (Cassava (Narocase 1), beans (Narobean 1) Farson and Macora (Sesame (sesame 2)), ACTS (cassava (nase 19, narocase 1), soybeans (Maksoy 3N), Beans (Narobean 1), Erussi (Beans (Narobean 1)), Poroporo (Cassava (narocase 1))
	% LSBs that have their crop seed QA tested (for LSB s with seed bulk over 500kg in a season)		20% (2019A) 24% (2019B)	9 LSBs in 2019A 11 LSBs in 2019B
	% LSB that fail QA CROP tests (for LSBs with seed bulk over 500kg in a season)		2019A- 0% 2019B-11%	2019A- 1/9 LSB sample failed the test and that is 11% failure (that was for groundnuts by Andevuku LSB in Adjumani District)
	% LSB that have been inspected twice per season by inspection DAO		For 2019A- 67% For 2019B- 50%	
	Average (%) utilisation of fertiliser per LSB		0% -2019A	

Project Strategy	Key performance Indicators	2019 Planned	2019 Achieved	Comments
Output 3.1.1 Complete seed certification process supported	joint external field inspection by DAO, MAAIF	15 LSBs inspected once per season; 30 inspected twice	2019A- 17 LSBs received 1st field inspection 2019B- 26 LSBs received 1st field inspection 2019A- 02 LSBs received 2nd field inspection 2019B- 01 LSB received 2nd field inspection	
	seed sampling and testing by NSCS	15 Samples per season	09 LSBs for 2019A 11 for 2019B	
	acquisition of QDS labels	10 LSBs; 400 labels	990 labels	
Output 3.1.2 LSBs trained on good practices (based on needs)	Conduct trainings on seed quality assurance	30 LSBs trained	43LSB-Ts trained	LSB-T approach was applied in training. The LSB-Ts got further support from Agriculture extension officers trained on seed quality assurance
	Workshop organized to train LSBs on crop specific fertilizer blend	15 LSBs trained	0	-moved to 2020
	Training organized on QDS production planning, bulking and sales; and coaching on bylaws at LSB level		0	-moved to 2020 Q1
Output 3.1.3 LSBs accessing foundation seed	Number of LSBs supported to pre-book foundations seeds per season	30 LSBs supported	43 LSBs supported	
	Support LSBs to access foundation seeds	25 LSBs accessing 3125 kg foundation seed	2019A-23 LSB connected to NARO and 12,152.5 Kg of foundation seed bought 2019B-06 LSBs bought Foundation seed from NARO 781Kg	-Other groups established linkages earlier and contacted breeders directly Irish Potatoes and Cassava converted to Kgs of Foundation seed
Output 3.1.4 LSBs supported in marketing	Organize workshop for LSB's marketing committees	1 workshop	1 workshop	
	Seed demand forecasting training	1 workshop	1 workshop	-Done at Group level by WENILOSEBA Agribusiness officer
	Train district agricultural officers on quality seed uptake and QDS	11 DOAs trained	26 Agricultural officers	26 Agricultural Extension Officers trained with the 11 DAOs
Output 3.1.5 Professionally organized trainings of LSB conducted	Train LSB in gender using the GALS methodology	35 LSBs trained	29 LSBs trained	-train remaining LSBS on GALS (29 already trained in 2019) -The rest were trained under ISSD earlier
	Train LSB gender champions	35 Gender champions trained	29 champions trained	-supported remaining LSBs to develop gender champions
	Coach LSBs on leadership and governance	45 LSBs coached	32 LSB coached in 2019	-the rest to be coached in 2020 -All 43 LSB-Ts trained

Project Strategy	Key performance Indicators	2019 Planned	2019 Achieved	Comments
Output 3.1.6 LSBs supported to supply QDS to the refugee and host community	Support LSBs to open sales outlet for QDS within and around refugee and host communities	1 Sales outlets created	0	Moved to 2020
	Coordinate the supply of seed by the LSBs through the Association to refugee and host communities	5 LSBs supplying seed	08 LSBs	-support WENILOSEBA to be able to support the LSBs effectively These LSBs are doing this on their own without Association support yet.
	Support LSB Association to coordinate bulking at LSB level	15 LSBs bulking 80% of QDS produced	21 LSBs 2019A- 12 LSBs 2019B- 9 LSBs	For both 2019A and B combined: 21 LSBs
intermediate result (outcome) 3ab.2: West Nile LSB Association better able to coordinate LSB input procurement as well as market linkages to emerging demands in refugees/host communities	satisfaction with services delivered to LSB		No complaint so far registered	
	% of local seed businesses (LSBs) that have paid members to the West Nile LSB Association.	30	38	38/45 LSBs have paid membership to the association
	level of organisational capacity			-Training carried out by WCDI -5c model (to be facilitated by ISSD)
	\$ income per member – annually		3/5 average using 5Cs	
	diversity income sources – annually (season)	1	1	
Output 3.2.1 LSB Data/records streamlined and disseminated to relevant stakeholders	Data base (planting return, LSB membership, production data sales, CBA)		43 LSBs compiled planting returns and submitted	
	planting returns of the LSBs compiled and submitted			
Output 3.2.2 Trained NIGI and Association Staff	No of staff that participate in the TOT	1	1	QDS officer participated in ToT in Mbale
	Staff trained on facilitation skills	5	5	QDS officer, project coordinator, nutrition officer and 2 WENILOSEBA staff
	Staff exchange visits to old zones	1	1	QDS officer visited Northern Zone in 2019 for orientation
	staff trained on specific knowledge gaps, including gender issues	2	2	
	review meetings organised focusing on QDS activities in the zone	1	3	-organize two meetings with association staff and board
	experience sharing at least twice a year for association and all LSBs	2	1	-three meeting organized: LSBTs, LSBC/Ps, Joined)
Output 3.2.3 Business plan developed	association board members on leadership and management trained/supported	9 Board members trained	9	-training organized for association board members on leadership
	association board members trained on proposal writing and business plan development	9 Board members trained	9	-training on proposal writing organized
	exchange visit of association staffs and board	1 Visit organized	1	Twining visit (within the zone) used

Project Strategy	Key performance Indicators	2019 Planned	2019 Achieved	Comments
Output 3.2.4 Linkages with private seed companies established	Bilateral meeting between association and BDS providers	2 meetings	2 sets of meetings	2 meetings with GADCO that partners with Sesame seed producers and 05 meetings held with NGOs that buy seed to give to farmers in West Nile SADECO meting
	meetings targeting and association and Refugees/host communities		2 meetings	1 meeting organized with large institutional buyers to stimulate demand at Abi ZARDI 1 Community led seed fair meeting at Omugo
	Annual General Meeting	1 Meeting organized	1	One AGM
	multi stakeholder meeting once a year	1 Meeting organized	1	Organised 1 multi stakeholder meeting
	bilateral meeting with key stake holders	5 Meetings organized	5 meetings	Conducted with key development partners (LWF, ACF, Seed Effect, Rights to Play and DRC)
	business meeting with seed companies per season (Identify their interest and make business deals)	2 Meetings; 2 companies supplying seed	0	Moved to 2020
Strategic objective (impact) 3c: Increased uptake of quality seed by farmers and households in settlement and host communities	reported utilisation of quality seed by farmers in refugee and host communities			This was not captured (would need a survey)
intermediate result (outcome) 3c.1: Increased awareness of QS (Certified and QDS) among seed users	Satisfaction with QS availability among farmers by sex	1500	0	This was not captured (would need a survey)
	willingness to buy seeds by sex	1300 (800 male, 300 female)	17	This was not captured (would need a survey) Seed fair and weekly village market feedback forms
	number of people reached through awareness activities by sex		Estimate numbers for Roadshows For 2019A- 2,050 people For 2019B- 2,220 people	
Output 3.3.1 Various promotional events	Exhibitions organised (trade shows)	2 Exhibitions	2	1 was the annual source of the Nile Agric show at Jinja, two LSBs participated, 1 harvest money expo at nambole
	Public gatherings in which QDS are sold	2 Gatherings	2	1 at Zombo headquarters in which Association represented by Chairperson1 And 1 organized in Arua by FAO where four LSBs sold seed
	Organoleptic events in host communities for new varieties and nutritional QDS varieties	2 Events; 4 crops	0	Not done
	Seed fairs organised	7 Fairs	13 in 2019	
	Weekly village markets organised	20 Markets	7 markets (2019A) 12 Markets (2019B)	
	Extension messages for radio talk shows about LSBs and quality seed (translated into local language)	4 Radio talk shows	2 Radio talk shows	

Project Strategy	Key performance Indicators	2019 Planned	2019 Achieved	Comments
	Radio stations for running the advert	1 Radio stations	1 radio station	
	Routine running of radio adverts about availability and varieties of seed present with the LSBs	50 Adverts	856 adverts	
	LSB association organize field days (on farm)	1 Field day	0 field day	Not organized
	Participants in field days	25 participants		Not organized
	Promotion materials on quality seed use benefits developed; leaflets in local languages and Arabic, caps, t-shirts	5000 Copies	76,724 copies	
	Learning demos at LSB level	10 Demos	15 demos 8 Demos at LSB level and 7 QDS demo plots at Omugo settlement and Hosts community	
	Yield verification trials	9 Trials	6 trials	Rice, soybean and ground nuts, each of the three crops planted at two locations
	One-acre strategy trials	15 Trials; 3 crops	0	
	Meetings with community leaders and stakeholders to create awareness on the NIGI project and its seed related activities in the settlement area	25 Meetings	40 meetings with stakeholders	-11 meetings with Production department for 11 districts in West Nile -11 meetings with CAOs (Chief Administrative Officers) office in 11 Districts in West Nile -06 meetings with communities (3 in settlement and 3 in hosts) -02 meeting churches, 1 meeting Omugo technical school, 1 meeting Omugo primary school and 7 meeting people who host the demos. 01 meeting with Kabala market committee in Omugo
Output 3.3.2 Workshops with key stakeholders on seed policy and QDS regulation	Workshops on seed policy and QDS regulation held	1	1	Workshop for DAOs, AOs, NARO, LSB representatives, Association staff.
	Number of participants	50	48	DAOs= 11 AOs= 32 NARO= 01 WENILOSEBA=03 LSB Rep= 01
	Stakeholder categories	10	5	Priority was given to those involved in QDS production (for DAOs, AOs, NARO, LSB representatives, Association staff.)
Strategic objective (impact) 4: Developed innovative 'product packages' and approaches to promote effective solutions for improved access and consumption of nutritious crops in protracted refugee situations	documentation of best practices as well action research; Stakeholder meetings held during which insights and tools are shared			

Project Strategy	Key performance Indicators	2019 Planned	2019 Achieved	Comments
Outcome 4.1 Increased access to products, product packages and tools to support capacity development of farmers in vegetable production	Number of manuals developed, and number disseminated to farmers			
Output 4.1.1 Manuals developed	Number of manuals and other training developed, and number disseminated to NGOs, government, and other UN organisations who support farmers			-documentation of EWS-KT Process -documentation of vegetable garden design and outputs
Output 4.1.2 Stories collected and recorded				-Development of process to collect MSC stories documentation of stories MSC stories -synthesis
Outcome 4.2 Increased knowledge about how to best support seed system development in protracted refugee contexts	Number of best practices documented through action research			
Output 4.2.1 Contributions to international forums	Contributions of findings to national and international (e.g. ISSD Africa community of practice) forums			-action research to understand if the same methods to promote QDS work in protracted refugee contexts
Improved understanding of the relation between food and nutrition security and access to food through rations, production and local markets in protracted refugee situations (joint funded with KB work)				

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