



## PART B. FULL APPLICATION FORM<sup>1</sup>

### 1 GENERAL INFORMATION

Reference of the call	EuropeAid/164469/Indirect Management/ACT/UG
Title of the call	Development Initiative for Northern Uganda
Name of the lead applicant	International Institute of Tropical Agriculture (IITA)
Number of the proposal <sup>2</sup>	66
Title of the action	Building Resilience to Enhance Food and Nutrition Security, Incomes and Health in Northern Uganda,
Location of the action	Lango ( Amolatar, Apac , Kwania, Dokolo , Otuke) Teso ( Amuria, Kapelebyong)
Duration of the action	
Number and title of the lot	<input type="checkbox"/> <b>Lot 1</b> - Improving livelihoods through increased production of diversified food, enhanced market opportunities and better maternal and child nutrition

<sup>1</sup> The full application is composed of this full application form, the budget (Annex B) and the logical framework (Annex C).

<sup>2</sup> When the Contracting Authority has evaluated the concept note it informs the lead applicant of the outcome and allocates a proposal number.

## 2 THE ACTION

### 2.1. Description of the action

#### Description 1.1.1

The proposed title of the action is *Building Resilience to Enhance Food and Nutrition Security, Incomes and Health in Northern Uganda*, with the major objective of improving livelihoods through increased production of diversified food, enhanced market opportunities and better maternal and child nutrition.

Uganda is predominantly an agricultural country where the sector accounts for 70% of employment, provides 50% of all exports and 25% of GDP (The World Bank, 2018). Northern Uganda (NU) is a potential breadbasket of Uganda and its neighbouring countries. It accounts for 53% of the arable land in Uganda with land holdings at 3.6 ha/household; three times larger than the national average. The region receives enough rainfall for two crop production cycles per year in the central and western parts. However, in some cases especially due to climate change, dry spells do occur and can reduce production considerably across NU greatly affecting household food security, nutrition and income. Early sales due to household cash constraints contribute to household level food shortages before the new harvest is in. Limited food availability due to production challenges and limited food access due to low income and high food prices, as well as food utilisation characterised by poor food preparation, insufficient food choices, inadequate knowledge regarding nutrition and poor feeding practices for infants and young children and poor hygiene exacerbates the food and nutrition insecurity situation in these sub-regions. One in every four households in Lango and Teso consume four or less of the seven recommended food groups in a week, indicating low diet diversity among households, with potential under-nutrition (UBOS, 2017). The prevalence of stunting, underweight, wasting and anaemia in children under 5 years is at 22.3%, 7.5%, 5% and 61% for Lango and 14.3%, 4%, 2.2% and 58.9% for Teso (UDHS, 2016).

According to the 2017 National Housing survey, only 2.1% and 3.5% of all households in Teso and Lango sub regions have hand washing facilities which is below the national average of 16% (DHS, 2016). Generally, adolescents experience many sexual and reproductive health challenges that pose serious threat in these regions. Lango and Teso subregions have the highest proportion of adolescents who begun childbearing at 17 years. The median age at first sexual intercourse is 16.6 and 16.8 respectively, which puts them at high risk of unintended pregnancy, abortion, sexually transmitted infections including HIV, sexual violence, morbidity and mortality (UDHS, 2016). All these factors contribute to perpetrate the inter-generational vicious cycle of malnutrition (stunted adolescents, malnourished women of reproductive age, intrauterine growth retardation, malnourished children back to stunted adolescents) resulting to growth failure both physically and intellectually.

While there is improvement in the last ten years, the levels of poverty and number of poor people are higher in NU compared to the rest of the country. Other constraints articulated in the DINU scoping study by Bakema and Asmelash (2017) include land conflict, drought and climate change effect, crop pests and diseases, declining soil fertility and limited access to quality inputs. Women and youth dominate value chains that are limited to household consumption and local markets and are under-represented in the nodes of distribution, marketing and sales (IFC, 2016).

**Main and specific objectives and expected beneficiaries:** The proposed action titled "*Building Resilience to Enhance Food and Nutrition Security, Incomes and Health in Northern Uganda*", seeks to enhance food and nutrition security, increase household incomes and improve maternal and child nutrition and health in NU by promoting diversified food (and animal) production of resilient varieties; commercialising agriculture; improving post-harvest handling, food preparation and consumption practices; and encouraging family planning for improved and sustainable livelihoods. The major commodities with an emphasis towards commercialization include: Cassava, Rice and soybean. Other enterprises mainly aimed for food and nutrition security, dietary diversity and small-scale income generation include green leafy vegetables, orange fleshed sweet potatoes (OFSP) for Vitamin A, fruits, poultry, high-iron beans, yellow maize and groundnuts. Specific objectives are to increase food security, improve maternal and child nutrition and enhance household incomes through support of diversified food production and commercial agriculture, as well as improved household resilience to climate change and women and youth empowerment. The proposed action targets two sub regions in NU namely, Lango and Teso. In Lango the action will focus on five districts i.e.

Dokolo, Amolatar, Apac, Otuke and Kwania, while in Teso the target districts are two i.e. Amuria and Kapelebyong, making a total of 7 target districts. The action will target 51,250 households in Acholi and Lango regions respectively. In all activities, in recognition of women's role and potential to influence household nutrition and food security and the nature of the age pyramid in the region, high youth unemployment and reproductive health challenges.

The main objective of the proposed action is therefore, to contribute towards reduction of poverty and under-nutrition and strengthen the foundation for sustainable and inclusive socio-economic development in NU. The proposed action will also contribute to SDG 1 (end poverty in all its forms everywhere) and SDG 2 End hunger, achieve food security, improve nutrition and promote sustainable agriculture). The theory of change and the results pathway are premised on the hypothesis that smallholder farmer food security, nutrition and health improvement is driven by positive change in incomes driven by (i) increased adoption and production and diversified foods; (ii) increased access to markets for agricultural products and (iii) improved nutrition and health of the general population.

The consortium is led by the International Institute for Tropical Agriculture (IITA) and consisting of five co-applicants namely: i) Volunteer Effort Development Concerns (VEDCO); ii) Bioversity International; iii) Ernest Cook Ultra Sound Research and Education Institute (ECUREI); iv) Kilimo Trust and Rikolto International.

#### **1.1.1.1 Relevance to the objectives/sectors/priority issues and specific considerations of the call**

The call aims to consolidate stability in Northern Uganda, eradicate poverty and under-nutrition and strengthen the foundations for sustainable and inclusive socio-economic development. The proposed action will therefore facilitate the production of a diversified basket of crop and animal commodities among target households consisting of highly-nutritious foods (groundnuts, soya bean, green leafy vegetables, vitamin A rich tubers, fruits and poultry) and food security and income crops (QPM maize, rice and cassava) to address the challenges of household food insecurity, low dietary diversity, undernutrition and resilience to climate shocks and poverty. The selection of smallholder farmer households will prioritize female-headed households and youth out of school (15-35 years) alongside male-headed households to ensure social and economic inclusion. Special emphasis will be placed on enhancing participation and decision-making of women and youth along the nodes of the diverse value chains. The dissemination of diverse varieties of high-yielding, disease-resistant, nutrient dense and early maturing varieties; training on good agriculture practices; training on appropriate post-harvest handling and food preparation techniques, training on appropriate consumption patterns, training on saving and lending methodologies; training on allocation of income to support food and nutrition; establishment of functional inputs and output markets; and linkage of smallholder farmers with agro-processors, market operators and agricultural credit and insurance providers is expected to contribute to increased productivity and incomes; reduced agricultural losses; improved value chain efficiency; increased retention and bioavailability of nutrients during post-harvest handling and food preparation; enhanced consumption of diversified diets and strengthened economic empowerment of women and youth. The action shall also reduce health-related risks for women and children by ensuring that awareness is heightened on the importance of appropriate and timely health seeking behaviour and related dire consequences of negative outcomes of poor maternal and child nutrition and health practices. The action will further contribute to addressing the high fertility and population growth rates through sensitization to reduce teenage pregnancies and family planning, which is expected to improve educational and economic opportunities for adolescent girls, women and households at large. Additionally, improved maternal and young child feeding practices will reduce malnutrition-related morbidity and associated government expenditure and enhance childhood potential to full education and development.

*Relevance to the needs and constraints of the target sub-regions/districts and/or relevant sectors.*

*Pre-project situation:* The incidence of poverty in NU is one of the highest in the country at 32.5%, which is far above the national average of 21.4%. Eastern Uganda ranks higher in poverty averaging around 35.7% (UBOS 2018). Out of the 1.4 million households in NU, 1.2 million are engaged in the primary production of food/cash crops and livestock. Approximately half of the population in NU (50.5% male and 49.5% female) resides in agricultural households, of which 76.5% are headed by males and 23.5% are headed by females (UBOS, 2012). Agriculture is the largest primary employer to most households, engaging 78.7% and 74.7% of the population above 15 years in Lango and Teso respectively. Evidence shows that mean dietary energy consumption (DEC) of persons residing in Lango and Teso sub-regions is inadequate (1,312kcal and

1,371kcal respectively), which is much lower than the national average of 1,464kcal/person/day (UBOS, 2017). Twenty-nine (29) percent) of the households in Lango and 35% of the households in Teso have unacceptable food consumption, comprising mainly of staples (cereals and root tubers) (UBOS, 2017). The main problems in the NU region are low production of both crops and livestock leading to low incomes and poverty, under-exploited market potential, reduced choices with regards to dietary diversity, high teenage pregnancy, youth unemployment, high levels of malnutrition and poor sanitation.

Soybean, Maize, Rice, Poultry, Groundnuts and Cassava are emerging crops in the NU which farmers are actively engaged in. These value chains have huge potential for commercial production, with high in-country and external demand due to growing regional markets and the livestock industry. Although improved, high yielding, pest resistant varieties have been released, this high potential is grossly underexploited, particularly among smallholder farmers, who only realize about 30% of the potential yields due to low productivity of land, degradation of natural resources, including scarcity of water, fluctuating prices, poor soil management practices, climate change, poor post-harvest handling practices, rudimentary implements (53% of the farmers use hand hoe for cultivation), limited labour availability (93% of the farmers rely solely on family labour), limited extension support, farmers' lack of agronomic knowledge and incidence of pests, weeds, vermin and diseases.

Women farmers and youth have very little decision-making power with regard to access to agricultural knowledge and inputs. Production is also limited by lack of capital and access to credit. Despite the importance of crop diversity in promoting sustainable diet, production and access to quality seeds of nutrient dense foods remains low especially among poor rural farmers. Interaction with district leadership in the 7 target districts confirmed inadequate access to improved Agro inputs, prolonged and unreliable rainfall pattern, emergency of new pests and diseases, misuse and incorrect application of Agro chemicals, high cost of improved seeds, high cost of production, low level of mechanization, lack of improved animal and fish breeds and poor farmer access to extension services as the major production challenges.

Other factors affecting the emerging value chains are (i) Weak and dormant cooperative structures and lack of crop fund by the cooperatives to purchase produce from the farmers; ii) Poor and underutilized storage and aggregation facilities as a result of limited collective marketing; iii) Limited linkages to markets – this lead to extortion of producers; iv) Limited value addition to products ; v) Price fluctuations and producers spread thin which limits market volumes; vi) Poor road infrastructure (community roads) to connect to markets and storage facilities; vii) Limited access to timely market information especially on price, where the markets are and what the markets require; viii) Limited access to finance and technologies - limiting farmers and private sector investment in value addition; ix) Poor quality of produce due to poor postharvest handling practices occasioned by use of rudimentary tools for post-harvest handling and X) Lack of knowledge about market requirements and standards.

*Plans undertaken at national, regional and local levels relevant to the action and how they relate to the action.* The proposed project contributes towards realizing the country's vision on transforming the agriculture sector from subsistence to commercial farming and enhance nutrition status especially micronutrient status of children and women of reproductive age as highlighted in Vision 2040. The project is aligned to the priorities of the ASSP 2015/16-2019/2020 and the first objective of NDP II. The project is also aligned to various government programs and projects including PRELNOR, UMFSNP, ACDP and the current NUSAF 3. The cassava work is in line with the GIZ – PRUDEV program that is operating in northern Uganda and seeks to use a facilitative approach to markets.

*Synergies with other development initiatives.* The proposed action contributes towards realizing the country's vision of transforming the agriculture sector from subsistence farming to commercial farming and enhancing the nutrition status especially micronutrient status of children and women of reproductive age as highlighted in vision 2040. Priority 3 of the ASSP 2015/16-2019/20 is about 'improving access to agricultural markets and value addition' and among the priority commodities is cassava, rice and oil seeds (which include soybean). The plan projects a production of 680,000MT, 3.5 million MT and 2.03 million MT production of rice, cassava and oilseeds respectively, by 2020. In addition, the proposed project complements the ongoing work under the Agriculture Cluster Development Project (ACDP), and the Farm Income Enhancement and Forest Conservation Programme – Project 2 (FIEFOC-2). For example, under FIEFOC, the project will support farmers in the Tochi watershed (Amuria and Apac) to access national and regional market thus contribute to reduction of importation of rice from Asia.

Uganda Development Cooperation plans to establish a starch factory in the region while Divine organic foods, expressed concerns about inadequate volumes of OFSP chips to sustain production. Implementation teams will liaise with ongoing projects, like NUSAF III, FIEFOC, and others to understand the nature and scope of their interventions and establish areas of collaboration to leverage on the on-going efforts. In strengthening market linkages and value addition the project will build on the work done by SASAKAWA Global and DCOs and identify gaps related to post-harvest handling, quality enhancement and value addition and agro-processing. It will complement efforts by DPOs, Mukwano Industries and Ngetta Tropical and others to ensure efficient utilization of the established collection centers for bulking of maize, soybeans and other oilseeds. The project will collaborate with NUSAFIII, Mercy Corps, FINAPS, YLP, UWEP and Microfinance Support Centers to revitalize and make commercial use of the existing storage structures in the target districts. This will strengthen cooperatives and farmer business organizations to access finance.

**1.1.1.2 Target groups and final beneficiaries: (their needs and constraints, and how the action will address these needs)**

The main target group for this action is vulnerable farming households in Lango region (Amalator, Apac, Kwania, Dokolo and Otuke districts) and Teso region (Amuria, Kapelebyong districts). There are 204,792 households in the seven target districts with a total population of 1,074,100. The project will specifically target **51,250 households** throughout the three years of the action lifetime in the two regions. The number of target households is based on 25% of the population in the selected districts. The number of target households per district will also be based on 25% of the population of the respective district (Table 1). The production and nutrition components will target the vulnerable farming households whose vulnerability characteristics include female-headed, land insecure households, low income, food insecure, and/or small holder households with children under five. Their needs include improved production of crop and animal enterprises through use of quality improved germplasm, good agronomic practices and improved post-harvest handling, to minimize crop losses after harvest. The action will address malnutrition through both a preventive angle and a curative angle. As a preventive measure emphasis will be in awareness creation across the value chain and enhancing access to diversified nutritious food options. From the curative angle there will be active tracing for malnourished cases at household level and referring them for therapeutic care and nutritional counselling.

Communities will be trained and supported to adopt good infant and young child feeding practices and access to micronutrient supplements. To avert the high pregnancy rate among adolescents, peer educators will be trained to disseminate sexual and reproductive health information and family planning commodities like condoms and oral contraceptives. The action will develop a mobile phone application with an online option through which 'consultation chats' with a midwife offering adolescent friendly services will be held. Other interventions to be implemented at household level will include Water Hygiene and Sanitation (WASH) and supporting households to set up latrines and hand washing facilities. The marketing component will target producer groups and primary aggregators of rice, cassava and soybean.

Table 1. Household, population and human resource targeted for the proposed action

Regions/ Districts	No. of HH	% Proportion of total population	Target 25% of HHs for this project	Number of Community Livelihood communities	Number of Community Development Promoters	Total beneficiaries based on average HH size
<b>Lango</b>						
Amalator	27,983	14	7,000	280	28	36,400
Apac & Kwania	71,655	34	17,500	700	70	89,250
Dokolo	34,882	17	8,750	350	35	45,500
Otuke	21,955	11	5,500	220	22	27,500
<b>Teso</b>						
Amuria & Kapelebyong	48,317	24	12,500	500	50	70,000
<b>Total</b>	<b>204,792</b>	<b>100</b>	<b>51,250</b>	<b>2,050</b>	<b>205</b>	<b>268,650</b>

HH: Households; Total Pop. In Catchment districts-1,074,100 based on the average size of the household

Community/household facilitators will be equipped with skills on nutrition across the value chain and will in turn support the target beneficiary households. These are community members identified through participatory process to engage the households.

*Design of the action.* A Community Facilitation Group Model (Fig. 1) is proposed as the implementing strategy. Twenty-five (25) neighbourhood households in the selected project implementing sub counties will cluster to form a Community Livelihood Group (CLG). From the 51,250 targeted households, 2050 CLGs will be formed with an objective of improving their livelihoods through the proposed interventions. (Fig.1). Each Community Livelihood Group (25 households) will select a representative to be called a Community Development Facilitator (CDF). The project will therefore have 2050 CDFs. The CDFs will mobilize their households for trainings and will participate in all basic project trainings.

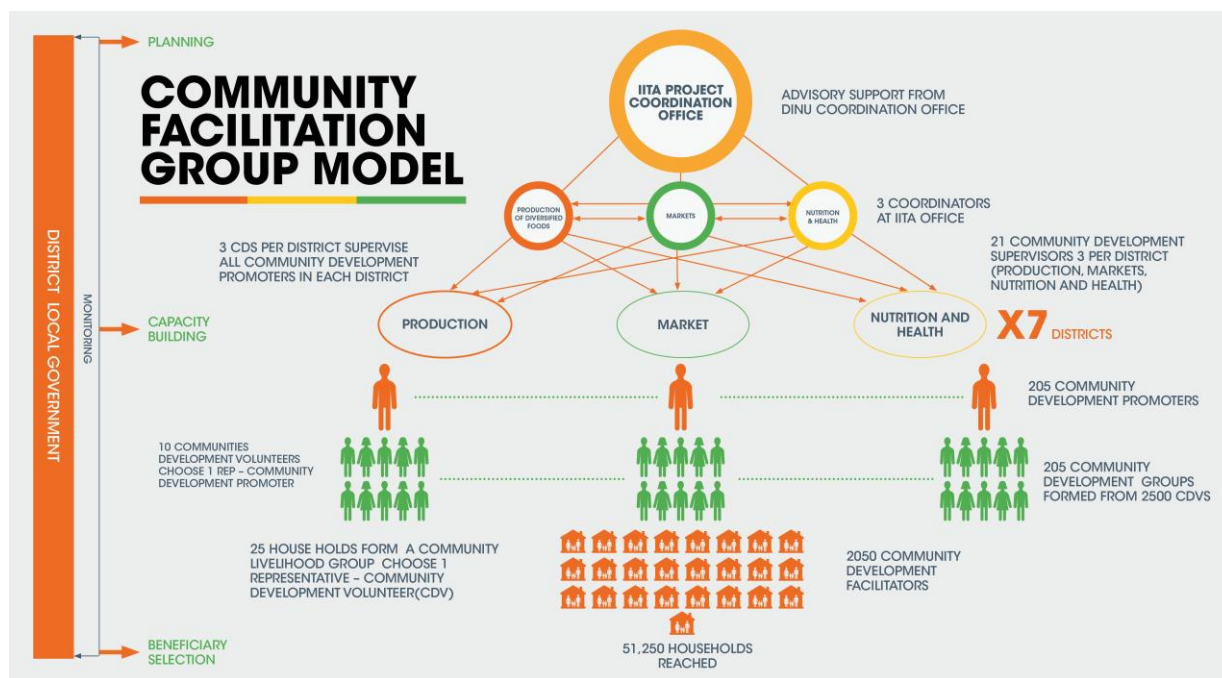


Figure 1. Proposed Community Facilitation Group Model for engagement with the households in the communities

Based on participatorily identified channels of communication and awareness creation directed by a comprehensive social and behaviour change communication strategy that allows continued learning and peer to peer sharing, the CDFs will have job aids to facilitate them throughout the project implementation process.

*Description of the key stakeholder groups.* Key stakeholder groups include the District Local Government (specifically, the District Production Office (crop, animal and fisheries), the Chief Administrative Office, District Commercial Office, District Health Office, Private sector actors, Civil society organisations, Research organisations, the Political leadership and Farmer groups. Other stakeholders include produce aggregators, agro-dealers, traders, processors and providers of business development services, agricultural insurance and financial institutions. The beneficiary households will be engaged throughout the process and their opinion also being heard as this will enhance ownership and sustainability.

Consortium members participated in stakeholder consultations in all the seven intervention districts. During the consultation meetings the consortium presented the concept note including key commodities, social economic challenges, proposed interventions and the approved budget by the Technical Negotiation Committee. Based on the presentations and questions and answer session for clarifications, the stakeholders redefined the key challenges, what the ongoing interventions in the districts are and main gaps that need attention. The district stakeholders came up with key district challenges in the three result areas of production of diversified foods, enhanced markets and nutrition and maternal and child health. Also, they identified key / prioritized commodities for food security, increasing nutrition, and income generation as shown in Table 2. Major existing partners in each district were also mentioned as indicated in the table.

### 1.1.1.3 Intervention logic underpinning the action

The theory of change and results pathway of the proposed action is premised on the hypothesis that smallholder farmer food security, nutrition and health improvement will derive from positive changes in income and expenditure, driven by (i) increased adoption and production of high quality diversified foods; (ii) increased access to markets for agricultural products and (iii) better nutrition, sanitation, reproductive health, and health-seeking practices. The proposed action will operate on the logic that the achievement of production and adoption of diversified foods and diets will be preceded by aggressive promotion of commodities of commercial and nutritive value in the region. The action will facilitate inclusive and functional inputs and output markets for smallholder farmers; establish market linkages between smallholder farmers, agro-processors and market operators to promote local and cross border trade especially for rice, cassava and soya bean and related products (including special contractual arrangements for women and youth groups) and pilot digital commodity sourcing and payment solutions for smallholder farmers and traders. The action will also support the increased use of effective family planning methods, reduced teenage pregnancy and increased access to improved sanitation and clean water among communities to avert health care costs and time spent on care responsibilities, especially for women.

**Major expected outputs include** (i) At least two new nutrient-dense crops of sweet potato, iron-zinc beans and quality protein maize respectively; (ii) At least 60% of the targeted households accessing diverse nutritious food commodities and utilizing them; (iii) At least 60% of the households acquire and utilize good agronomic production, post-harvest handling, food preparation and consumption practices; (v) At least 70% of women 15-49yrs and children 6-23months meet their minimum dietary diversity scores (vi) Increased proportion of mothers ( at least 60%) at reproductive stage attending antenatal care, delivering at health centres and receiving the comprehensive package including, immunization, deworming and health/nutrition education and micronutrient supplementation, (vii) At least 700 teenagers utilizing sexual and reproductive health services and (viii) At least improved toilet facilities and hygiene in schools.

**Major expected outcomes include** : (i) Increased households' food, nutrition and income security, (ii) Sustainable market systems and value chain efficiency, (iii) Changes in attitude on the use of improved WASH facilities, (iv) Improved reproductive health among women and youth; (v) Improved nutrition status among children under five years; and (v) Women and youth economic empowerment.

Table 2. Major commodities prioritized by during consultations and major actors in Lango and Teso sub-regions

Sub region	District	Key commercial commodities	Food and nutrition commodities	Key partners for production and farming HH	Key partners for Markets	Key partners for Nutrition and Health
Lango	Apac	Maize, Cassava, Soybean	Orange-fleshed sweet potato*, iron rich beans, leafy vegetables,	Sasakawa Global 2000, MAAIF, Operation Wealth Creation	Sasakawa Global 2000	UNICEF, RHITES Lango
	Kwania	Soybean, Maize, Poultry	protein maize, Groundnuts*	Sasakawa Global 2000		RHITES Lango, Aculawic Child development Centre, UNICEF

	Amolatar	Maize, Simsim, Dairy				
	Dokolo	Rice, Cassava, Soybean	Orange- fleshed sweet potato Shea nut (Otuke), Maize Beans, Groundnuts, Banana Leafy vegetables, Poultry	VODP2, NUSAF 3, FAFAD	Sasakawa Global 2000	RHITES
	Otuke					
<b>Teso</b>	Amuria	Cassava, Soybean, Rice, Poultry, Apiary	Orange- fleshed sweet potato, iron rich beans, leafy vegetables, protein maize, Groundnuts*	OPM, DECODI	ESAFI, SOCADID O,	UNICEF, RHITES East
	Kapeleby- ong					

\*Commodities identified for both food and nutrition security as well as income generation

Source: Consultation meetings held in Northern Uganda in October 2019 by the consortium members with the representatives from all seven districts

**Expected impact:** Judicious implementation of the proposed action improve livelihoods due to enhanced food, nutrition and income security, leading to healthy communities as poverty and under- nutrition is eradicated. Ultimately, stability in northern Uganda is restored as a result of there being a strong foundation for sustainable and inclusive socio-economic development.

**The major assumptions** for the success of the proposed project are that: (i) District partner institutions provide an enabling environment, resources and incentives for farmer and farmer groups and service providers; (ii) Beneficiaries are motivated to learn and utilize new skills and knowledge; (iii) Adequate social, economic and political stability will be maintained; (iv) Local Governments and their partners will remain committed to regularly review and effectively implement policies that provide incentives for smallholders' investments in agriculture, with positive impacts on food and nutrition security and health for all and; (v) There will be low turnover of personnel in the consortium and partner institutions.

**Potential risks** that could be associated with this action include: (i) Disruption from biophysical and environmental catastrophes, shocks and uncertainties; (ii) Political instability in the region especially South Sudan, disrupting production and markets; (iii) Influx of refugees from neighbouring countries disrupting the social-economic set up; (iv) Market volatility of agricultural commodities affecting trade; (v) Higher rates of gender based violence resulting from increased economic independence of women and disruption of the social fabrics due to some men opting for extra wives as a result of increased income.

**1.1.1.4 How the proposed action intends to connect with other components of the DINU and other initiatives:** The proposed action is under the Food Security, Nutrition and Livelihoods component of the DINU. The other components are Infrastructures (transport, logistics, water, energy) and Good Governance. The components will be implemented by various actors, partners and stakeholders at regional and district levels in Northern Uganda. The proposed action will link with the infrastructure component through the markets and hubs (collection centres) which are being developed. The action will collaborate with the lot 2 awardees specifically with Konrad-Adenauer-Stiftung (KAS) that will be operating in Amuria and with DIAKONIA-Sweden that will be operating in Lira and Amolatar. While the action will not be implemented in Lira, it is seen as playing a central meeting place where connections for markets and synergies will be enhanced. The good governance interventions in the districts together with livelihood improvement will have a multiplier effect on the target population of Teso and Lango. Other initiatives being supported by the EU



include the DFID/Trademark East Africa (TMEA) and the United Nations Capital Development Fund (UNCDF) in Markets; the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) – in energy and livelihood; and United Nations Children’s Fund (UNICEF) - in Health. The consortium will closely follow up on these initiatives to build on the ongoing interventions and learn and share lessons for the effective implementation of the proposed action. The action will collaborate with NUSAF 3 in the implementing districts, learning on their successful interventions especially on credit and loan schemes. The action will work hand in hand with the NUSAF 3 extension officers and local government to take forward what has already been successful. In Apac and Kwania, the action will work with the Agriculture Cluster Development Project that is promoting access to quality inputs in the districts. The Action will work with the GIZ PRUDEV project in Lango. It will also work closely with the GIZ sponsored Promotion of Climate Smart Agriculture (ProCSA) project that promotes gender responsive climate smart agricultural practices including how they are applied and sustained among smallholder farming communities.

#### **1.1.1.5 Design of the action**

The proposed action will be delivered through three Results Areas which are interrelated and contributing to the overall goal of the action. The result areas and corresponding activities (work packages) to be undertaken to produce results are summarized below including details on how the activities will be carried out and the role of each partner.

#### **Result 1.1: Increased production of diversified food**

Major activities/ work packages to be implemented by IITA and VEDCO to accomplish this results area are summarised below. Details of sub-activities are indicated in the log frame.

##### **Activity 1.1.1 Facilitation of the adoption and production of diverse food crops and animal products:**

The major activity will be to develop and promote the local seed systems for adoption of clean improved varieties linked to high value output markets and nutrition. The action will invest in a sustainable seed system and large-scale dissemination of the superior, disease- tolerant and resistant crop varieties to smallholder farmers at the right time, in the right quantities, and at a price they can afford hence increasing their yields to meet the market demand. Further, the action will recruit and train individual farmers in various districts to establish local seed businesses to produce Quality Declared Seed (QDS). The proposed action will also pilot the use of rural primary school children as modes to fast-track the access of improved nutritious varieties of Vitamin A-rich sweetpotato (OFSP, high-iron and zinc beans and quality protein maize, vegetables and fruits among their communities especially women. For instance, for OFSP and beans, each household which receives vines or seeds, will be required after one cropping season or within six months to have shared the part of the planting materials with other two households through the innovative approach known as "**give double the quantity received**". Further, the action will recruit and train individual farmers in various districts to establish local seed businesses to produce Quality Declared Seed (QDS). The seed producer groups will be linked to Research institutions and certified private sector companies for supply of foundation seed for production of QDS.

##### **Activity 1.1.2 Training and promotion of farming communities in good agricultural practices (GAP):**

VEDCO in collaboration with IITA, will work in close collaboration with the extensionists and community group facilitators to equip farmers with knowledge on the identification of diseases and pests as well as their control measures. Leveraging on work done by PRELNOR, large-scale on-farm demonstration plots will be established in target intervention areas to show the yield benefits of genetic improvement and improved agronomic practices such as integrated crop management. The first training will be provided to 205 Community Development Promoters (TOTs). For cassava, farmers will learn the use of the six steps to Cassava Weed Management tool & Best Planting Practices, a tool developed by IITA and currently used in Nigeria. This activity will be aligned with the GIZ-led initiative of PRUDEV that seeks to integrate cassava smallholder farmers into processors’ supply chains. Building on work by PRELNOR, small mechanization machines will be promoted to address challenges of drudgery and time, poverty among women and adolescent girls. Also, intelligent software, such as NURU (*Swahili for Light*) that accurately recognize diseased and damaged crops will be introduced in NU as disease management tools, especially in cassava. The App., which is available in Plant village and at Google’s play store in Swahili as well as English, can also be used by seed inspectors from the Agricultural authority. Awareness on the effects of aflatoxin and its management and control measures will be enhanced. Farmer Field days (FFD’s) will be organized to disseminate GAPs to surrounding communities, emphasizing the inclusion of women and youth farmers. The established demonstration plots will serve as innovative learning centers in the villages. At least one field day

per year in each of the participating districts will be conducted at one of the demonstration plots where the entire community will be invited to participate and learn.

### **Activity 1.1.3 Training of farmer groups and other small market operators along the value chain in community saving and credit schemes (VEDCO).**

This includes the promotion of input supplies and access to credit and lending schemes for small holder farmers and medium scale value chain actors. The primary target population for the action is small and medium holder farmers organized in groups. The action will build on existing VSLA's from PRELNOR and other projects. In places where VSLAs do not exist, farmers will be organized and facilitated in group formation and dynamics. The VSLA's will be trained on saving and lending methodologies including cash management and proper use of borrowing as per intended purpose. The groups will establish leadership and management, ensuring operations comply with credit and saving groups, social funds policies and national rules and regulations. Women-only, youth and mixed groups (with at least 30% female representation) will be facilitated through the Gender Action Learning System to identify gender-based constraints affecting value chain efficiency and performance, leading to the development of strategies and actions to improve equality in access to services and resources, opportunities and decision-making ability. The project will work with agro-dealers and other private sector actors to ensure farmers have access to quality inputs. This activity will be aligned with the GIZ-led initiative of PRUDEV that seeks to integrate cassava smallholder farmers into processors' supply chains. The action will build on community-based savings and credit Cooperatives from the Government of Uganda's IFAD funded Project for Financial Inclusion in Rural Areas (2013-2021), and other projects in the regions. The capacity of 205 CDP will be built in VSLAs. 2050 VSLA's will be trained by the CDP on saving and lending methodologies including cash management and proper use of borrowing as per intended purpose.

### **Result 1.2: Increased market accessibility**

Major activities under the market access component will be implemented by Kilimo Trust and Rikolto International.

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

This action will establish business linkages between smallholder farmers, agro-processors and market operators by supporting aggregators, bulk traders and processors to strengthen their capacities for long term local sourcing from smallholder farmers at agreed terms. Special arrangements will be made to strengthen the capacities of female actors along the different nodes of the value chains. District and regional Trade Networking Platforms (TNPs) comprising targeted value chain actors will be organised, where partners will discuss and negotiate business deals. In order to promote cross border business linkages and trade, learning visits will be organised among value chain actors in NU and other regions, and the neighbouring countries of Kenya, South Sudan and DRC to adapt and replicate structured trading business models and spur vibrant trade in food commodities by NU smallholder farmers. Consistent with Uganda's National Grain Trade Policy of 2015, the proposed project will seek to transform the grain subsector by promoting trade in finished or semi-finished products that meet both local and EAC grain standards. This will be achieved through upgrading of storage processes and facilities; promotion of post-harvest handling technologies and demonstration on the use of efficient processing equipment and technologies, while supporting aggregators and processors to put in place quality management systems. The action will also ensure that smallholder farmers and other value chain actors increase their access and usage of business, insurance and financial support services, 3WQensuring the inclusion of women and youth. This will be achieved through mobilisation of value chain actors to aggregate demand for financial, insurance and business management support from service providers, while establishing linkages between producer organizations, aggregators, processors and other VC actors to scale-up the uptake of viable financial and insurance products. Sub-activities include strengthening business linkages and value addition; increased use of Digital solutions for information dissemination and payment system; strengthening cooperatives and farmer business organizations (FBOs) and access to finance and agricultural insurance.

#### **Activity 1.2.2: Assess and identify market opportunities and product niches along the stages of the value chain and facilitate market exchanges and contractual agreements**

The action will consolidate the market access tools, knowledge products and analytics that are already in place. For commercially targeted value chains of cassava, rice and soybean and others, the action will update existing commodity and market assessment reports and analytics developed. This will include providing decision support for entry (women and youth), market opportunities, cost-benefit analysis, financing, and value addition required. The outcomes of these analytics shall be summarized into simple but functional decision support tools (information packages) for the different categories of market actors. This will

include summarized versions on the various commodity requirements, tax and regulations, and standards and protocols of doing cross border trade in the EAC, and DRC. The project will promote the signing of trade agreements between producer organizations and buyers by training suppliers and buyers to design, negotiate and manage MoUs, commitments and contracts in addition to supporting them to implement plans for delivery of committed volumes in the right quantities, quality and time. To increase the use of structured output markets identified, the project will establish output market partnerships/business consortia that promote the adoption of viable business models by undertaking business- to- business (B2B) meetings for business engagements while mobilizing smallholder farmers to aggregate commodities in identified collection centres in target districts. The project will promote efficient commodity sourcing and payment system by piloting and scaling up digital solutions that will improve the management information systems for producer organizations, traders and processors while linking producer MIS to agro-dealers, buyers, processors and payment platforms. Sub-activities will include- updating and development of commodity and market assessment reports; facilitation of trade agreements between producers, renovation and establishment of the aggregation/bulking centers and capacity building on storage and warehouse management.

### **Result Area 1.3: Nutrition and public health interventions**

This component will be implemented by Bioversity International (nutrition) and ECUREI (maternal, child health, reproductive health and WASH).

**Activity 1.3.1: Developing and promoting community-based nutrition initiatives including micronutrient supplementation and deworming, promotion of maternal and young child feeding practices, hygiene and sanitation and childcare.** This activity will be implemented by Bioversity International. In collaboration with hospitals and health centres, diagnostic survey, regular data collection and end-line surveys will be conducted. This exercise will involve the community members so that they appreciate their health challenges and consequently embrace the project. Following the community baseline assessment, households will form clusters and identify nutrition and childcare, WASH and adolescent health representatives. Members of WASH clubs will train households to make and maintain local hand washing points. The project will also support households to construct improved pit latrines. To increase knowledge on nutrition for children in schools, we will have school demonstration gardens and school cooking demonstrations. Activities for the nutrition specific result area will be offered at the household level and reported through the existing health care delivery structures. In this approach, 10 to 15 households will form a household cluster. Each household cluster will identify a representative for the three implementation areas explicitly; nutrition and childcare, WASH and adolescent health. These representatives namely; a care group volunteer, WASH club member and peer health educator will report to the village health Team (VHT) members who will in turn report to Health Centre II, III, IV, district hospital and finally the district health office. To prevent childhood and maternal malnutrition, nutrition counselling and education, group food preparation sessions for women, micronutrient supplementation and deworming will be delivered through the Integrated Care Group model approach reporting through the existing health care delivery structures. The community will elect 5-10 care groups volunteer and each group will be composed of 10-15 household heads. Supervision of the care group activities will be through the trained village health teams who will report to the community nurse located at the health facility and finally the nurse will report to the district health teams. Sub-activities under this work package include: i) Conduct Capacity Building on nutrition for 2050 extension service providers. These will be representing 51,250 smallholder households receive a targeted, nutrition-sensitive package of formal training, informal technical assistance and mentoring services directed at improving local knowledge about appropriate diversification of farming systems for a nutritious food basket, postharvest handling and food preparation practices that enhance nutrient retention and bioavailability, appropriate consumption patterns and financial literacy to support income utilisation for food and nutrition. This will be implemented through a comprehensive social and behaviour change communication strategy that cuts across the whole value chain and include a nutrition module and comes with a toolkit that includes, training modules, field job aids, seasonal calendars etc. ii) Develop, test and launch a nutrient rich product in collaboration with the small-medium food processors e.g. DIVINE FOODS. Through close collaboration with Divine Organic Foods Ltd, Bioversity international will provide technical community nutrition support to ensure the product developed is viable for the target community in terms of cost, taste, appearance and convenience in preparation and storage, in addition to ensuring it substantially contributes to the micronutrient needs for children 6-59months; iii) Develop, test and launch A Nutrient rich product. Through close collaboration with Divine Organic Foods Ltd, Bioversity international will provide technical community nutrition support to ensure the product developed by Divine Organic Foods Ltd is viable for the target community in terms of cost, taste, appearance and convenience in preparation and storage, in addition to ensuring it substantially contributes to the micronutrient needs for children 6-59months. iv) Establishment of

nutritious kitchen as demonstrations to help target households establish a functional and sustainable nutritious kitchen gardens with at least one green leafy vegetable and one vitamin A rich fruit. Also, biannual assessments will be done through community livelihoods agents to measure progress towards access to diverse diets on-farm and off-farm at targeted households. All the events will have a linkage to consumption by showing how the produced enterprises can feed into the dietary diversity, the participating farmers can even compete in competitions of coming up with recipe and issues of creativity and applicability are tested and we have winners.

**Activity 1.3.2: Promotion of the increased use of effective family planning methods:** This will be implemented by ECUREI. An adolescent sexual and reproductive health peer educator responsible for each household cluster will be trained. The trained peer educators will offer information and adolescent peer counselling on contraception, safe motherhood, Sexually Transmitted Infection and menstrual hygiene, HIV/AIDS prevention, counselling, effective referral and linkage. Referrals for other medical and social services will also be made. The peer educators will be trained to distribute contraceptive commodities to adolescents and youth. A specifically designed mobile phone application will be used to demonstrate to their peers how different family planning commodities work. Adolescents in the community will have access to the peer educator's phone number so that they can contact her/him for family planning commodities and SRH information. The peer educator will work directly with the nearest health facility and will refer all adolescents requiring family planning methods that need a skilled dispenser to the nearest adolescent friendly clinic. These activities will increase the use of effective family planning methods with the aim of decreasing the number of teenage pregnancies and increasing child spacing, which address both nutrition and population growth. Sub activities under this work package include: i) conducting home visits to monitor uptake of micronutrient supplements, de-worming and identify malnourished children and pregnant women; ii) providing awareness support to households for increased practice of using local hand washing points and pit latrines – a reward system on competitive basis will be established as the Reward Outstanding Community Livelihood Groups (CDGs). Sub activity (iii) will involve the development of an android application with adolescent reproductive health information. This will be analysed to determine acceptability, usability, cost effectiveness and demand for Sexual and Reproductive Services. Using the application, adolescent peers will be able to provide counselling on contraception, safe motherhood, Sexually Transmitted Infection and menstrual hygiene, HIV/AIDS prevention and effectively refer for other health services. Last sub-activity (iv) will be distribution of family planning commodities coupled with awareness on safe reproductive health. The project will support health facilities in the project catchment area to establish adolescent friendly clinics within existing physical infrastructure. A health worker will receive training on provision of adolescent friendly services in order to provide technical supervision support to the adolescent peers. This will enhance the provision of adolescent friendly services past the project life span.

### **Proposed publications**

The proposed action will have several publications to not only share the results to the wider community, but also as a tracking mechanism to follow up on project achievements. The major publications will be:

- **Quarterly and annual progress reports:** These reports, which will include technical and financial aspects of the action will be submitted to the DINU Project Management Unit in the OPM by 10<sup>th</sup> of the next month at the end of a quarter, with the first quarter being January to March 2020. These reports will inform the Government and the EU on progress made and any challenges met and how they were addressed or the required support to address them.
- **Proceedings of key meetings and conferences:** Consortium members participating in relevant meetings and conferences will prepare presentations to share with the wider development partners on achievements of the action. Proceedings of steering committee meetings falls under this category of publications. Such opportunities also offer participants to learn from complementary projects and get feedback on what the action is doing.
- **Policy briefs:** The action will issue policy briefs to share any breakthrough as well as lessons arising from interaction with the different stakeholders in the course of implementing the action.
- **Journal articles:** The action will generate journal publishable articles aimed at a wider sharing of achievements of the project beyond the national borders.

- **Monitoring and Evaluation reports:** There will be joint monitoring of the action and appropriate reports generated. An end of the action evaluation will be commissioned whose report will be made available to DINU and other key stakeholders.

**The main studies conducted in view of defining the scope of the action:** In defining the scope of the proposed action use was made of several studies that were conducted in northern Uganda. The main ones include: (i) The DINU Scoping Study whose objective was to create a body of evidence to support the development of a well-justified geographical coverage, highlighting various possible scenarios where specific districts and value chains (VC) of focus are clearly identified. The report released in 2017 informed the proposed action with respect to the priority areas of focus and in line with the constraints and needs of the target districts. (ii) The study by IITA in Oyam (Lango region), (Charlotte Schilt, 2019) on understanding the role of soybean (*Glycine max* (L.) Merrill) cultivation by smallholder farmers in northern Uganda, aimed at understanding the role of soybean (a nitrogen fixing leguminous crop) in smallholder farm households. (iii) Kilimo Trust is implementing the REACTS-II project (2018-2021) in Lango region (Apac, Kole, Lira, Odeke, Oyam and Dokolo districts) and have established the Lira Maize Consortium (LMC), whose lead firm is TOTCO grains and seeds. LMC is engaging 6,395 farmers from 13 Cooperatives and so far, traded over 600MT of produce (maize and beans). KT conducted training needs assessment in Trochi catchment (KT, 2018) for Rice, Apiary and Aquaculture value chains to enable preparation of knowledge products for improving efficiency of the post-harvest and value addition in the studied value chains. Experience and lessons so far learnt from these engagements was used in defining the scope of the proposed action. (iv) The work by VEDCO on Enhancing citizens engagement for sustainable diets in northern Uganda has also contributed to shaping the proposed action. One of the objectives of this work is “to enhance access to more sustainable, diverse, healthy, and acceptable foods by vulnerable women and men”.

### 1.1.2 Implementation approach

**Methods for implementation and rationale for such methodology:** The consortium partners will work with the existing Local Government structures in the target districts. Joint work plans will be developed to spell out the roles and responsibilities of both parties. Routine monitoring of DINU activities at the district level will be carried out by the District Production office using the District Coordination Teams (DCTs) established by the target districts. A group approach will be used to ease implementation and outreach to the farming communities. Group level trainings in group dynamics will be conducted with support of the consortium members, to strengthen their social cohesion, conflict resolution and bargaining power. The action will facilitate the building / strengthening of market systems that develop long term business relationships among value chain actors using the Kilimo Trust’s Consortium Approach to Value Chain Development (KT-CA2VCD).

Community facilitators will be trained on the GALS methodology and facilitated to guide household members (men, women and youth) in self-diagnosis of their status with regard to access to and control of assets; participation and practices; beliefs, perceptions and aspirations; and wellbeing with regards to nutrition and the household social and gender dynamics influencing food and nutrition security. Based on the households’ baseline situation and existing opportunities, they will be guided in setting goals and development of action plans towards better outcomes for the entire household at the different stages of the value chain from production to consumption. Health facilities will serve as model centers for nutrition education and demonstrations. Following appropriate farm design and production techniques, demonstration gardens producing a diverse nutritious food basket will be set up. A structure to enable learning sessions at the health centers will be put in place and community members, including those attending outpatient both ante-natal-post-natal and child health clinics will be encouraged to participate.

For efficiency in implementing the action, the consortium will rent an office in Lango sub region where majority of the targeted districts are located. Relevant office equipment including working tables, chairs, cabinets etc. will be acquired by the project. Other items include stationery, camera, computers and accessories and combined printers, photo copier and scanner and accessories.

**How the proposed action fits into the larger DINU and other programmes:** The proposed action is part of a larger programme on the Development initiative for northern Uganda. The action will seek synergies with and make use of the other DINU components including the actions carried out by UNRA on infrastructure such as construction of regional hubs that will be working as bulking and market centres in Gull and Moroto. This action will also collaborate with the other consortia that are part of the call. In Lango, the action will collaborate closely on issues of methodologies, technologies and technology transfer since we will be

working in neighbouring districts. Our team will also collaborate with CARE International-Denmark and NARO-Uganda, two potential awardees who are expected to work in the neighbouring districts. The action will also collaborate with KAS and DIAKONIA who are potential awardees under Lot 2 to benefit from and promote good governance and accountability within the action districts.

**Mainstreaming with cross cutting issues:** The proposed action will ensure that the human rights of disadvantaged groups including vulnerable single parents households (mainly female headed), the disabled members of the communities, the landless, HIV/AIDS infected individuals, widows, etc. are taken care of during project implementation. The action will collect information on the presence of these groups in the communities and ensure that they are well represented in the farmer groups. Farmers will be made aware of the rights of children including those with disabilities, to eliminate the possibility of using them in strenuous project activities. This will especially be important in rice growing areas where children miss school to work as bird chasers. Working with the lower local governments, the action will check for presence (or otherwise) of relevant bylaws and if not in place, the action will support them to develop one where such challenges exist. By improving family nutrition, children and teenagers will have access to adequate nutritious meals and therefore achieve optimal growth and development milestones. Such children are more likely to concentrate and excel in school. Additionally, increasing access to sexual and reproductive health information will reduce school drop-out as a result of unwanted teenage pregnancy and early marriage. This action will increase access to quality education and school completion rates. Unmarried girls who produce children at home are normally mistreated and stigmatized. They are usually left stranded fearing the severe punishment from their parents, yet their boyfriends are not ready to look after them. They are stressed and anxious throughout the pregnancy and this is worsened by the challenges of teenage motherhood. Early sexual initiation also increases the risk of HIV acquisition. Improving access to information, life skills and essential family planning supplies will reduce HIV acquisition risk and reduce adolescent mental and substance abuse disorders. Health and economic importance of aflatoxin and control measures will be developed to create public awareness and strengthen engagements to consumers, policy & decision makers, private sector and the local communities, about the extent of the Aflatoxin problem and possible solutions.

**Organizational structure and the team proposed for the implementation of the action:** The proposed action will link up with the EU-DINU Project Management Unit (PMU) which will play a vital role in providing guidance and advising the project implementation team which will be led by IITA. The implementing team will consist of key stakeholders from relevant professional backgrounds including Project Management, Agricultural markets, Nutritional and Community Health and Production, Post-harvest and Value addition. The Lead Applicant (IITA) will play an overall coordination role and responsibilities ensuring all partners plan and execute their roles accordingly. IITA will provide the Project Management role which include all administrative, financial and technical management of the project. The organizational structure with details on the implementing team is shown in Figure 2.

**The role and participation of the various actors and stakeholders:** Apart from its role as overall project coordinator, IITA in collaboration with VEDCO and Extension will be responsible for the productivity (crops and animals) and value addition components of the project. This will also include capacity building in Good Agronomic Practices (GAP) and gender mainstreaming. IITA will also be responsible for the advocacy and communication for the dissemination of project's results and visibility. Monitoring and evaluation of project activities will also be the responsibility of IITA. ECUREI and Bioversity International, will be responsible for the Nutrition and Community health components of the project given their competence and field experience in this area. Kilimo Trust and Rikolto International will be responsible for all activities of the market access component including facilitating the building / strengthening of market systems, scouting for market opportunities and establishing long term business relationships among value chain actors using the Kilimo Trust's Consortium Approach to Value Chain Development (KT-CA2VCD).

The respective local governments will ensure favourable working environment, participate in the selection of beneficiaries, capacity building, planning and in monitoring and evaluation. Local partners will have roles depending on their area of focus. Devine Organic Foods will participate in the setting up of the seed systems for markets and development, testing and launching of nutritious products for nutrition security and markets; RHITES on maternal and child health, family planning and WASH; Health centres will provide information on sexual and reproductive health and act as venues for community dialogues; Ngetta holdings on

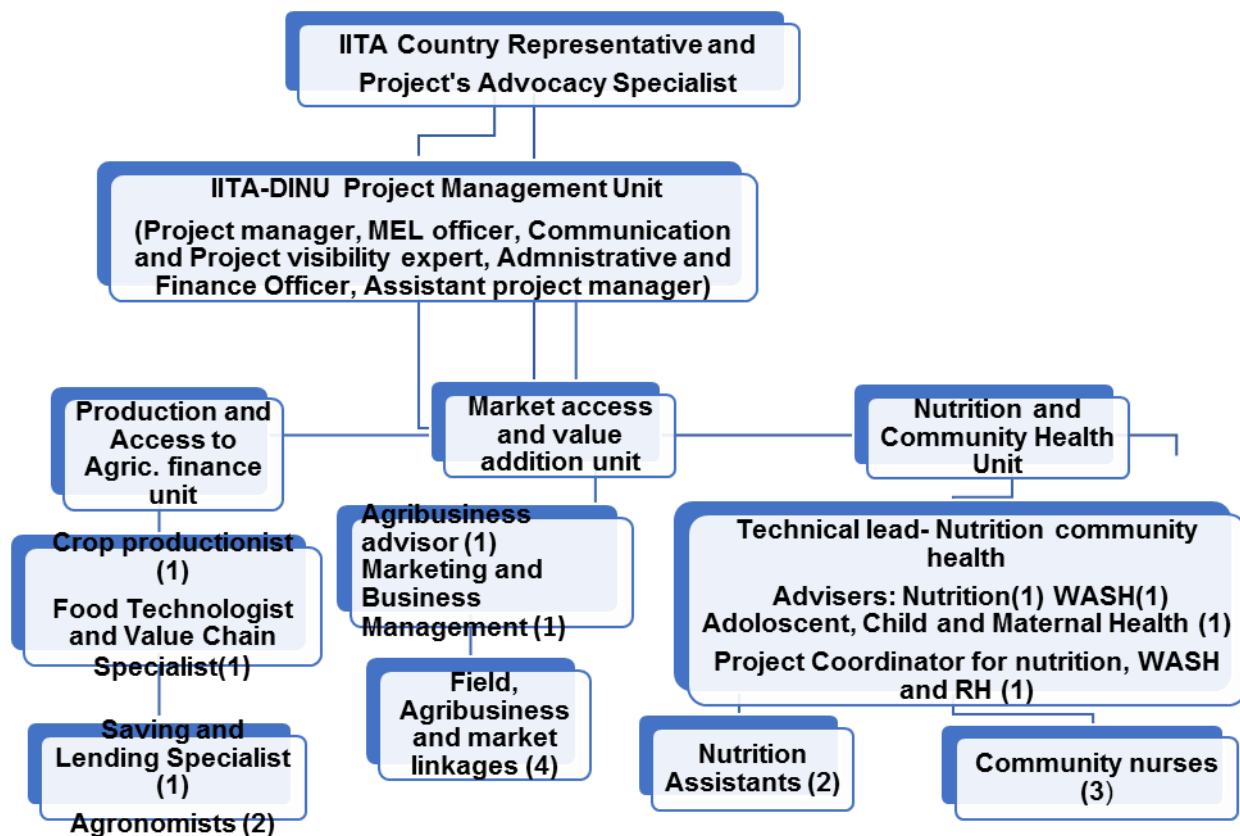


Figure 2. The organizational structure of the proposed project

processing; TOTCO as buyers of farmers produce; Equator seeds in provision of inputs to farmers and Micro-finance institutions for credit. Selected primary schools will be used as neutral venues for fast-tracking the dissemination of new biofortified varieties of orange-fleshed sweet potato, high-iron beans and quality-protein maize. VIAMO, a private sector organization with expertise in developing mobile phone-based communication packages, will be contracted to ensure that target farmers have timely and accurate information across the whole value chains. Farmers will take a leading role in participating in the various aspects of the project including training and managing demonstration plots.

**Monitoring of the project:** The project will follow a carefully designed implementation plan. This plan will be simplified on a project calendar to ensure synchronization of all project activities. CDPs will hold monthly monitoring meetings to assess project implementation and document achievements. They will further conduct at least one support supervision visit monthly to each CLG to ensure project implementation is according to plan and training content is correctly disseminated. Monitoring, Evaluation and Learning (ME&L) inception workshop will be organized for technical/administrative staff of partner organizations in the first month to ensure a shared vision and a confirmation of roles and responsibilities, along with an understanding of strategies and processes, including accountability. Targets and milestones will be defined and agreed on output/outcome with stakeholders before implementation of approved activities.

The ME&L staff will be active in monitoring and assessing the indicators throughout the research-to-impact pathway by engaging with all key stakeholders including farmers. Project monitoring points will be developed, enabling measurement of progress based on reviewing all impact, outcome and output indicators, targets and milestones. Targets will be disaggregated at different levels as needed to enable monitoring at all project levels with gender and nutrition aspects included. Follow up monitoring will be conducted through a series of surveys and periodic interviews with key actors and beneficiaries involved in the project implementation. Monitoring will be used for gathering, analysing and reporting data internal to the project and for understanding how inputs are converted to outputs. A solid indicator monitoring framework

will be established to ensure project activities are on track to meet the target outcomes, as well as to ensure timely and accurate reporting on project progress.

**Planned internal/external evaluation processes:** To ensure that the implementation of the action is on course, a once per year internal evaluation will be conducted jointly with the members of the OPM Project Implementation Unit and representatives from the Ministry of Finance, local government and consortium members, once per year. The evaluation will follow the standard GOU Evaluation Protocol. An end of the project evaluation will be conducted by a commissioned external consultant using laid down Terms of Reference as will be agreed between the OPM and EU and supported by the Local Government.

Evaluation will be used for assessing how outputs are translated into impacts in relation to objectives. Evaluation will be both internal, to learn what is going on, and external, to assess impacts for accountability and learning. Both intended and unintended outcomes will be evaluated. The first six months of the project will be dedicated to setting up a functional and strong M&E system along with all partners, capturing input-output production data after the initiation of the project. All interventions will be critically evaluated for widespread adoption lessons. An end of project survey will be conducted by repeating the impact survey and re-interviewing the same households to measure changes in outcomes of interest.

### **Planned activities in order to ensure the visibility of the action**

**Communication and awareness:** To ensure visibility of the action, a thorough communication process will be implemented, clearly highlighting the government of Uganda and EU. This include erecting sign posts at strategic positions including the district headquarters and other areas, depicting the details of the action (funding agency, level of funding, duration of the action (start and end date), target of the action (districts and number of beneficiaries) and implementing consortium and partners. Logos of EU and the OPM will be conspicuously shown in the signposts. An inception workshop will be held at the beginning of the action which will be given wider coverage on local and national media outlets. Members of the public and target farmers will visit demonstration plots where they will see and exchange views on the project. On such occasions, the media (local radio) will be invited to cover the event and broadcast it. Further, various interviews will be arranged with farmers, group leaders, target district policy and decision makers to give them the opportunity to tell the story behind the action and observed results. Policy and decision makers from the OPM office accompanied with the media, will be invited to visit project sites and interact with the beneficiaries to get up-to-date information on progress made and benefits accrued. Visibility of the action will also be enhanced through participation in relevant workshops and conferences where results will be shared with a wider audience within and outside the target area including outside the country. To reach the development and scientific communities, articles will be developed from the results of the proposed action and submitted to relevant reputable journals.

**Advocacy for institutionalization, catalyzing policy action and project visibility.** The advocacy activities and events to be undertaken will include conducting scoping study to determine the policy landscape, funding opportunities and key players at national, state, regional and local governments levels. Sensitization workshops supported by advocacy forums and development of collaborative strategies will be held to, influence policy, and mobilize resources. Diverse awareness materials will be developed and disseminated to target policy /decision makers at national, and state-levels respectively.

Training and mentoring workshops of the champions and project implementers will be organized. Knowledge on decision maker network analysis and engagement models will be imparted. The implementing team who would have received mentoring and worked closely with the IITA Advocacy and Resource Mobilization Unit in collaboration with the local partners, will run the national stakeholder meetings and workshops, to both identify opportunities for mainstreaming key aspects such as aflatoxin management and control. The advocacy effort will be supplemented by public awareness which will enable information dissemination through promotion events at the district and national agricultural shows where possible.

Major activities will be to conduct situational analysis and stakeholder consultation to assess the policy landscape, funding opportunities and key stakeholders at national and local governments levels- policy makers, development partners, business organizations and individual farmers. Others include: i) introduction of the project and project technologies to the decision makers, development partners, business organizations, individual farmers at state/regional governments; ii) conducting workshops to include topics on decision makers network, development partners analysis and engagement goals and agreement on policy change targets; iii) development of communication and advocacy materials in collaboration with the



implementation team; iv) training identified champions/ advocates in communicating and influencing the key decision makers at all levels of governments, development partners, private farmers, individuals to scale up existing and project results; v) promote the project's technologies and raise the profile of DINU in various fora at state, national and regional and sub-regional meetings, policy fora and seminars. Also, the action will include the development and dissemination of assembled success stories (awareness materials and clips on successful DINU technologies) at the districts/ regional and national forums.

**Monitoring of the project:** The project will follow a carefully designed implementation plan. This plan will be simplified on a project calendar to ensure synchronization of all project activities. CDPs will hold monthly monitoring meetings to assess project implementation and document achievements. They will further conduct at least one support supervision visit monthly to each CLG to ensure project implementation is according to plan and training content is correctly disseminated. Monitoring, Evaluation and Learning (ME&L) inception workshop will be organized for technical/administrative staff of partner organizations in the first month to ensure a shared vision and a confirmation of roles and responsibilities, along with an understanding of strategies and processes, including accountability. Targets and milestones will be defined and agreed on output/outcome with stakeholders before implementation of approved activities.

The ME&L staff will be active in monitoring and assessing the indicators throughout the research-to-impact pathway by engaging with all key stakeholders including farmers. Project monitoring points will be developed, enabling measurement of progress based on reviewing all impact, outcome and output indicators, targets and milestones. Targets will be disaggregated at different levels as needed to enable monitoring at all project levels with gender and nutrition aspects included. Follow up monitoring will be conducted through a series of surveys and periodic interviews with key actors and beneficiaries involved in the project implementation. Monitoring will be used for gathering, analysing and reporting data internal to the project and for understanding how inputs are converted to outputs. A solid indicator monitoring framework will be established to ensure project activities are on track to meet the target outcomes, as well as to ensure timely and accurate reporting on project progress.

**Planned internal/external evaluation processes:**

The first six months of the project will be dedicated to setting up a functional and strong M&E system along with all partners, capturing input-output production data after the initiation of the project. To ensure that the implementation of the action is on course, a once per year internal review will be conducted jointly with the members of the OPM Project Implementation Unit and representatives from the Ministry of Finance, local government and consortium members, once per year. The evaluation will follow the standard GOU Evaluation Protocol. An end of the project evaluation will be conducted by a commissioned external consultant using laid down Terms of Reference as will be agreed between the OPM and EU. An end of project survey will be conducted by repeating the impact survey and re-interviewing the same households to measure changes in outcomes of interest.

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Activities		Timeline - year 1 - 2020												Timeline year 2 & 3				Implementing body
		Half- year 1						Half- year 2						3	4	5	6	
Main activities	Sub Activities	1	2	3	4	5	6	7	8	9	10	11	12	1-6	7-12	1-6	7-12	
<b>Result 1.1: Increased production of diversified food</b>																		
Start Up/Preparation Activities	Recruitment of staff																	IITA/VEDCO
	Identification, selection and orientation of Community Livelihood Promoters (CLPs)																	VEDCO/IITA
	Community project inception meetings																	VEDCO
	Identification of rural primary school to fast-track the access of improved nutritious varieties of OFSP, high-zinc beans, vegetables and fruits																	VEDCO/ IITA
	Identification and selection of farmer groups to engage in seed production using the local seed business model																	IITA/VEDCO
	Identification, profiling and selection of households and formation of Community Livelihood groups																	IITA/VEDCO
	Selection of Community Livelihood Facilitators																	IITA/VEDCO
<b>Activity 1.1.1:</b> Develop and promote local seed systems for adoption of clean improved varieties linked to high value output markets and nutrition.	1. Procurement and dissemination of superior, disease- tolerant and resistant crop varieties to smallholder farmers																	IITA/VEDCO
	2. Dissemination of planting materials to secondary beneficiaries through " <b>give double the quantity received</b> ". Approach																	IITA/VEDCO
	3. Training seed producer groups in internal mobilization of resources for procurement of foundation seed, seed production and marketing																	IITA/VEDCO
	4. Establishment of seed demonstration																	IITA/VEDCO
	5. Organize training and exposure visits for seed producer groups																	IITA/VEDCO
	6. Link seed producer groups to Research institutions for supply of foundation seed for production of QDS.																	VEDCO
	7. Introduce and train seed inspectors on the use of disease management Intelligent software (NURU ( <i>Swahili for Light</i> ))																	IITA
	8. Seed inspection																	IITA/VEDCO
<b>Activity: 1.1.2:</b>	1. Training 205 Community Development Promoters in GAP																	IITA
	2. Training Community Livelihood Groups (CLG) in GAP																	IITA
	3. Establish on-farm demonstration plots for selected diversified crops																	IITA/VEDCO/Biodiversity/Local government







#### 1.1.4 Sustainability of the action

**Expected impact of the action on its target group/beneficiaries:** The expected impact of the action includes a reduction in the yield gap by 30% due to improved agronomic practices, improved household incomes and nutritional security. At the end of the project, beneficiaries will be able to make informed decisions regarding family planning and nutrition. Adolescents will be empowered with accurate sexual and reproductive health information and should be able to delay sex, negotiate for safe sex and decide to use family planning. The proposed intervention will yield a participatory and self-diagnosis strategy that enables the beneficiaries to assess their own situation through a process guided by community livelihoods facilitator. Because the process will be driven by the beneficiaries it will build their confidence and motivate them to adopt practices that promote access to and consumption of a diverse and nutritious food basket. The engagement of the district partners in the action is expected to enhance mainstreaming of best bet practices and products emerging from this action into permanent structures of the government such as extension service within the Ministries of Health and Agriculture. The close collaboration with private sector partners will also ensure that any products emerging from the action are available in the markets.

**Detailed risk analysis and contingency plan:** Risks associated with the introduction of technologies include planting materials being left to dry 'under the tree' i.e. they are not used. We will mitigate this through demand driven supply of materials. There is a risk of rejection and/or de-campaigning of distribution of family planning commodities by adolescent peers due to social cultural beliefs. We will mitigate this risk by sensitizing cultural leaders about the high teenage pregnancy risk and associated complications. Cultural leaders will then encourage communities to uptake the interventions. Social cultural beliefs and values may affect the adoption of the nutrition interventions. The project will incorporate respected leaders who will help to alleviate the fear associated with these interventions. In some areas, increased incomes due to project interventions might encourage male actors to acquire an extra wife which might affect support to the action by women. Such behaviour will be mitigated by exposing the communities on how best the expected extra income can be invested responsibly.

**Sustainability of the action after completion:** At inception of the action, district entry meetings will be held to create public awareness and co-ownership. Cultural leaders will be sensitized to gain their support for the project, to enable the consortium address any myths and misconception that may hinder uptake of the project interventions. The action will utilize youth groups and peer educators to sensitize the wider communities through customized messaging in drama (skits and songs) in schools, places of worship and markets to raise awareness on the action. To ensure smooth handing over of the action to local actors we envisage six months follow up activities at the end of the action to be funded by the target districts. This will minimize the impact of an abrupt exit and ensure local level project actors are still actively engaging with the farmers. Detailed financial, institutional, policy and environmental sustainability factors are explained below.

**Financial sustainability:** Increased incomes among value chain actors and their capacity to use value chain finances will assure financial sustainability of action. Access to financial services through VSLAs and linkage to formal financial services and prudent utilization of credit will improve the beneficiaries' access to loans for enterprise start-up as well as buying of farm inputs. Area Co-operative Enterprises (ACE), Farmer Based Organizations (FBO) and trader/ processor support will take on a market facilitation support model by reducing balance of donor support as they increase their own investment from increased trading capacity from linkages and more market access options. This will be seen through increased lending from financial institutions, better sales from aggregation and revenue, improving growth. Increased incomes from the value chain finances will ensure health care purchasing power, hence increased interest in the project which is an important aspect of sustainability.

**Institutional sustainability:** Right from inception of the action, the DLG and respective sub-county officers will be co-opted to support the implementation on strengthening the governance, leadership and internal management of ACEs and FBOs to ensure continued guidance and growth. Capacity building of group leaders, producer marketing committees, government stakeholders and other value chain actors will enable them to continue to provide their services to the beneficiaries after the project ends. VSLAs with CLP support, have a strong rate of survival and have a high likelihood of continuing beyond the action. The proposed action will invest in advocacy and awareness creation among key policy and decision makers, to attract their support. This will ensure inclusion of key aspects of the action into their investment plans and, hence ensuring sustainability.

**Policy level sustainability:** Working with OPM, the key lessons derived from the proposed action will be integrated into national development plans and strategies. In addition, producer organizations supported by the action will be registered in regional and national commodity platforms so that they can contribute to policy and advocacy debates that affect the sectors. Annual reviews from this programme will make recommendations on suggested findings that can feed into local and national governments policy review ensuring sustainability of the action beyond project lifetime.

**Environmental sustainability:** Training of farmers on good agronomic practices will cover integrated soil fertility management with options for minimum tillage to keep soil carbon under minimal disturbance. This will contribute to minimizing the negative effects of climate change. The rice processors will be supported to access and use technologies to convert rice husks to generate energy hence reduce the environmental impact of the waste. Capacity building of CLG, CDP, CDF will ensure trainings and production are focused on environmentally sound, and environmentally resilient practices.

**Dissemination plan:** The project results will be disseminated at district stakeholder workshops biannually, during farmer field days and through articles published as policy briefs and in peer-reviewed journals. Local radio stations will be engaged in the dissemination. Sharing of project results will have the potential to attract other districts to replicate the action. We will work with relevant partners and service providers to create awareness on the available technologies. This will include taking part in events such as Agricultural Shows and relevant conferences. Also, linkages will be enhanced with other implementing agencies in several sub-regions for purposes of sharing experiences and knowledge exchange.

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