IFAD
Investing in rural people

Uganda

National Oilseeds Project

Project Design Report

Main report and annexes

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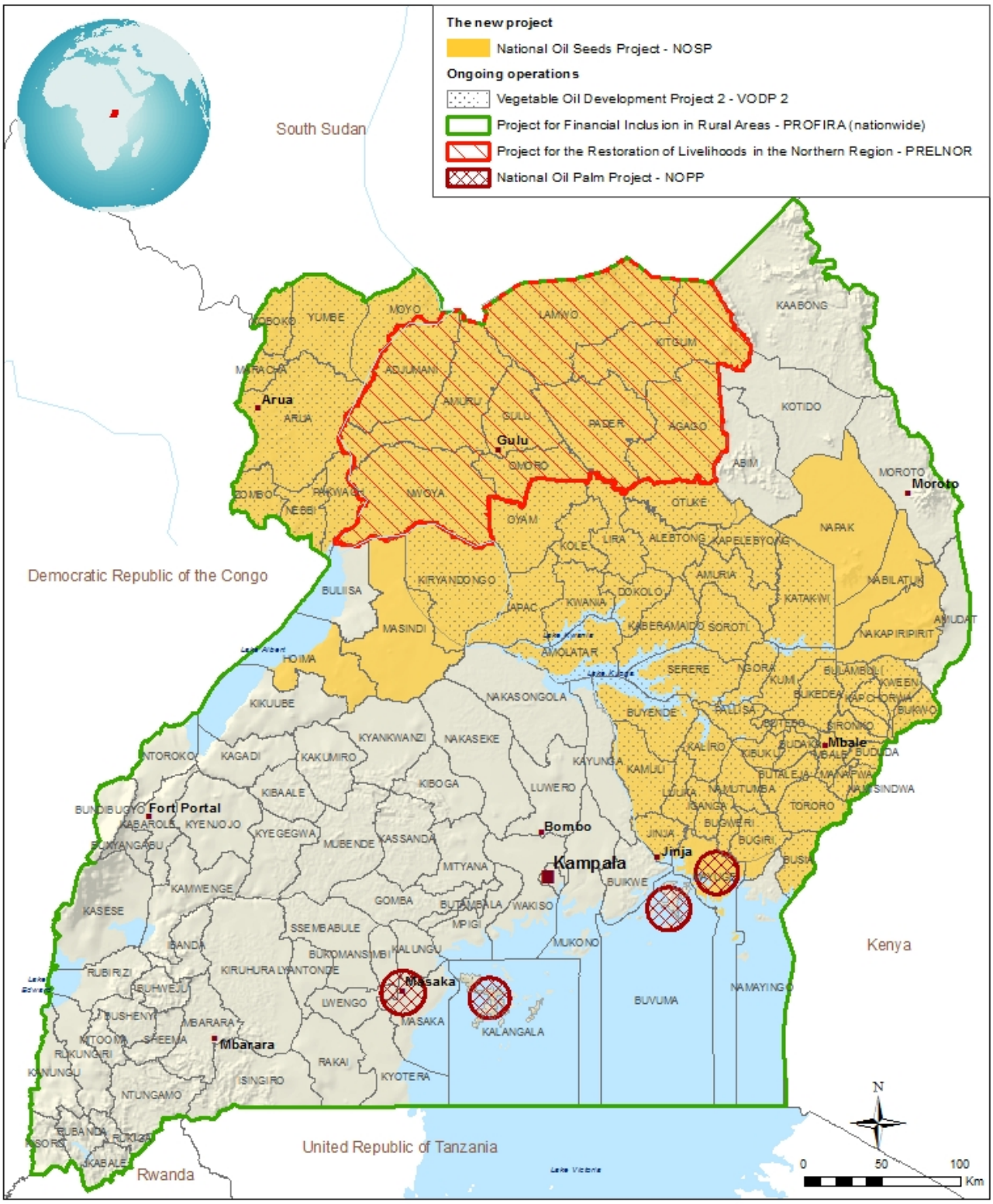
Map of the Project Area



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Map compiled by IFAD | 07-08-2019

Abbreviations and Acronyms

AfDB	African Development Bank
AIC	Agriculture Insurance Consortium
AIDS	Acquired Immune Deficiency Syndrome
ASSP	Agriculture Sector Strategic Plan
AWPB	Annual Work Plan and Budget
B2B	Business-to-Business
BDS	Business Development Services
BDSP	Business Development Service Provider
BoU	Bank of Uganda
CAIIP	Community Agric. Infrastructure Improvement Programme
CAR	Community Access Road
CC	Climate Change
COSOP	Country Strategic Opportunities Programme
CSA	Climate Smart Agriculture
DDP	District Development Plans
DfID	Department for International Development
DLG	District Local Government
DTPC	District Technical Planning Committee
EDPRS	Economic Development and Poverty Reduction Strategy
EFA	Economic and Financial Analysis
EIRR	Economic Internal Rate of Return
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
EU	European Union
FAO	Food and Agriculture Organization
FFS	Farmer Field School
FHH	Female-Headed Households
FIRR	Financial Internal Rate of Return
FS	Feasibility Study
GALS	Gender Action Learning System
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GIS	Geographic Information System
GoU	Government of Uganda
HH	Household
HLFO	Higher Level Farmers' Organisation
IFAD	International Fund for Agricultural Development
IFMIS	Integrated Financial Management Information Systems

IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
IRF	Integrated Risk Framework
ISSD	Integrated Seed Sector Development Programme
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MoLG	Ministry of Local Government
MoWT	Ministry of Works and Transport
M&E	Monitoring and Evaluation
MFI	Microfinance Institution
MFPED	Ministry of Finance, Planning and Economic Development
MoU	Memorandum of Understanding
MSP	Multi-Stakeholder Platform
MT	Metric Ton
MTR	Mid Term Review
NaCCRI	National Crop Resources Research Institute
NAP	National Agricultural Policy
NARO	National Agricultural Research Organisation
NaSARRI	National Semi-Arid Resources Research Institute
NGO	Non-Governmental Organisation
NOPP	National Oil Palm Project
NOSP	National Oilseeds Project
NRM	Natural Resources Management
NSCS	National Seed Certification Service
OFID	OPEC Fund for International Development
ORMS	Operational Results Management System
O&M	Operation and Maintenance
p.a.	Per Annum
PICT	Project Implementation Coordination Team
PCU	Project Management Unit
FPA	Farm Production Advisor
PRELNOR	Project for the Restoration of Livelihoods in Northern Region
PROFIRA	Project for Financial Inclusion in Rural Areas
PPP	Purchasing Power Parity
PDR	Project Design Report
PSC	Project Steering Committee
4P	Public Private Producers Partnership
QDS	Quality Declared Seed
SDG	Sustainable Development Goal
SECAP	Social, Environmental and Climate Assessment Procedures
SOE	Statement of Expenditure
SME	Small and Medium Enterprise

TOC	Theory of Change
ToT	Training of Trainers
UAIS	Uganda Agricultural Insurance Scheme
UN	United Nations
UNEP	United Nations Environment Programme
UGX	Uganda Shilling
USD	United States Dollar
VC	Value Chain
VODP	Vegetable Oil Development Project
VODP2	Vegetable Oil Development Project Phase 2
VSLA	Village Savings and Loans Association
WB	World Bank

Executive Summary

Economic and social context. Since 1990, Uganda has pursued a policy of a fully liberalised and market driven economy with the private sector taking the driving seat to achieve economic growth and social development. This has facilitated the country's development which has been characterised by a high growth rate (6.1% in 2018[1]) and a significant decline in poverty. Despite the improved growth performance, Uganda remains a low-income country, with 2018 GDP per capita at USD 604, and poverty remains a serious development challenge. Uganda has one of the highest birth rates in Sub-Saharan Africa and one of the fastest population growth rates in the world (3.3 percent p.a.). Poverty is still predominantly rural, with 23 percent[2] of the rural population falling into the lowest wealth quintile, compared with nine percent in urban areas. The poorest districts are in the dryer areas in the northern and eastern parts of the country.

Agricultural Sector. The agricultural sector remains the backbone of the Ugandan economy. Agriculture accounts for 70 percent of employment, overwhelmingly on smallholder farms; occupies over half of all land area; and provides 50 percent of all exports and 25% of GDP. It is considered a leading sector for future economic growth and inclusion in the current National Development Plan. About three quarters of agricultural households derive their livelihoods from largely subsistence-oriented, low input, rain-fed agriculture, with land holdings averaging less than 1.5 hectares (ha).

Role of Oilseeds[3] Sector. Within the agricultural sector, the oilseeds industry ranks high on the government agenda, especially because of its poverty reduction potential in the poorest Northern and North-Eastern Regions of the country[4]. In the Agricultural Sector Strategic Plan (ASSP) it is one of the four Strategic Commodities, which is expected to lead the transformation of the smallholders from, subsistence, to commercial farming. The ASSP sets ambitious targets for the growth of the oilseeds sector to provide an increasing share of local vegetable oil consumption, develop into a major export crop and support the animal cake industry[5] and subsequently the establishment of a viable animal feed industry in Uganda.

Lessons learned. Two IFAD oilseeds-related interventions, VODP and VODP2[6] provide a range of lessons learned in this sector. The key lessons learnt include –need for consistent and transparent engagement between stakeholders along the value chain; a structured brokering environment between smallholders and private sector; need to improve the bargaining position of smallholders; the need to ensure and enhance effective service delivery (extension, inputs, financing etc.) through private-sector; and necessity of all-weather market linkage roads in key oilseeds production areas – all needed for increased commercialisation and market-orientation of smallholders in the value chain.

Project rationale. NOSP scales up prior IFAD investments to the oilseeds sector through systematic and sustainable private sector led approaches and investments. NOSP approaches and investments will commercialize the oilseeds sector by capacitating and empowering the smallholders to bring power parity to the sector. This will result in Uganda lowering the trade deficit through increased export of both raw and processed oilseeds and the by-products[7]; improving foreign exchange and most important, improving the wealth and welfare of smallholders in the northern regions of Uganda.

Mainstreaming strategy. NOSP contributes to the following IFAD11 mainstreaming priorities through these strategies and approaches – (i) climate – identification of locally appropriate Climate Smart Agriculture (CSA) practices and their application to increase oilseeds production and productivity; (ii) gender – specific beneficiary investment criteria ensure that 60% women are empowered and achieve gender equality at the household and group levels; (iii) nutrition - nutrition training will be integrated into capacity building activities with producer and marketing groups, including the Gender Action Learning Systems (GALS) to promote diversification of smallholder farmers through enhanced knowledge and availability of nutritious foods to high-risk households; (iv) youth – investments ensuring at least 40% of the beneficiaries are the next generation of producers through productive work opportunities within NOSP.

Goal and development objective. The project goal of the proposed NOSP is *"inclusive rural transformation through sustainable development of the oilseeds sector"*. The Programme Development Objective is to *"to accelerate commercialisation in key oilseeds value chains and thereby improve the livelihoods and resilience of the smallholders engaged in oilseed production and marketing.*

Project area. Six area-based hubs - West Nile, Gulu, Lira, Eastern Uganda, Mid-Western Uganda and Karamoja (a satellite hub served from the Eastern hub until mid-term review), were selected based on agro-ecological, social, demographic and economic criteria. Four of these hubs are existing VODP2 hubs[8]. Districts have been selected based on existing: (i) concentration of smallholders growing oilseeds; (ii) conducive private sector led pull factors; (iii) market-ready oilseeds groups to lead the clustering approach; and (iv) contiguous districts. Approximately 53 districts have been identified.

Target group. The key NOSP groups are subsistence smallholder farmers - women (60%), men and youth (40%) - growing oilseeds. NOSP's private sector led approach, to ensure commercialisation, will also target oilseeds sector stakeholders.

Components. – NOSP has two mutually interdependent components: (a) Component 1: Support to Oilseed Value Chain Development and (b) Component 2: Support to Market Linkage Infrastructure Serving Oilseed Sector.

Component 1: Support to Oilseed Value Chain Development. The objective is to cluster 120,000 smallholder farmer households by accelerating the growth of competitive clusters and value chains for oilseeds and pro-actively developing opportunities for private sector investments in oilseeds and related by-products. This is achieved through two sub-components: (a) Sub-Component 1.1: Cluster Development – through an inclusive cluster development approach in each of the hubs and (b) Sub-Component 1.2: Support Market Development – covering the supply of essential financial and technical and input services.

Component 2: Support to Market Linkage Infrastructure Serving Oilseed Sector. The objective of this component is to improve local level public transportation infrastructure to facilitate the commercialisation of the oilseed sector.

Implementation arrangements. NOSP will be implemented, at national level, by MAAIF and MoLG. A Project Coordination Unit (PCU) and Project Implementation Coordination Team (PICT) established at MAAIF and MoLG respectively, will manage implementation.

Project costs and financing. The total costs for the project, including duties, taxes and contingencies, are estimated at USD 160.68 million (UGX 655,694 million) over the seven year period are financed by – (i) IFAD: USD 99.56 million (61.9%); (ii) OPEC Fund for International Development (OFID): USD 30 million (18.7%); (iii) Heifer International: USD 6.2 million (3.8%); GoU: USD 14.3 million (9%); Beneficiaries and Private Sector: USD 10.7 million (6.6%); and Kuhene Foundation: USD 13,000 (0.1%).

Financial and economic analysis

The overall NOSP project economic net present value (ENPV) is USD 60 million at a 10 percent discount rate. The economic internal rate of return (EIRR) is 17.9 per cent. The benefit cost ratio (BCR) of 1.744 indicates a return of approximately 1.744 dollars for every dollar invested. Results indicate that the project is a worthwhile investment.

Risks. A number of risks have been identified and mitigation measures proposed. Risks include: (i) weak farmers organisations unable to respond to commercialisation; (ii) unavailability of timely financing to smallholders; (iii) weak financial management at district level; (iv) adverse social and environmental impacts from commercialisation of oilseeds; and (v) weak capacities to develop community access roads could lead to implementation delays. A robust M&E system will monitor risks and ensure implementation of timely mitigation measures.

Social, Environmental and Climate Assessment procedures (SECAP) The social, and environmental category of NOSP is B. The climate risk classification is moderate. The risk mitigation and management measures will adhere to GoU procedures, by all financiers for NOSP.

Financial Management. NOSP's financial management systems will be harmonized with the GoU country systems and be used for budgeting, recording and accounting of all financial transactions. The project will run on the Integrated Financial Management System (IFMIS) of the GoU and annual audits will be conducted by the Office of the Auditor General.

Procurement. Procurement will follow the GoU rules as determined by the Public Procurement and Disposal of Public Assets Authority (PPDA) where these are aligned to and consistent with the IFAD Procurement Guidelines. To ensure efficient implementation, including procurement, for the rural infrastructure, a procurement specialist will be based in the PICT at the MoLG, he/she will be responsible for coordination with the PCU.

Sustainability. As the entire project is private sector led, the phasing out of the services will commence in Year 4, with services being paid for by the beneficiaries. Sustainability is ensured at three different levels:

- **Smallholder level.** Oilseed production systems viable in local agro-ecological zones and adapted to climatic conditions. Additionally, smallholders will be strengthened to become business women and men who can pay for the services and technical skills needed.
- **Group/Cooperative level.** Investments will require co-financing and ownership by groups/cooperatives that will also have to demonstrate, before investments, the business case and sustainability of the same. This is achieved as NOSP will ensure producer groups and cooperatives that are fully independent, financially robust and self-managing within four years of project engagement.
- **Value chain level.** The core of the value chain and cluster development approach is a rolling process of action-oriented brokering, dialogue and investment facilitation among the key actors in each cluster/hub to catalyse investments and remove bottlenecks to increase trading and profits, and to make the most of practical opportunities for growth. Post-project, the MSPs are expected to continue operating systematically according to a rolling joint cluster action plans and these could be replicated for any product.

Scaling up. The oilseeds subsector is critical in the agro industrialization agenda of the GoU. 70% of the extract of oilseeds results in seed cake. It is expected that at the completion of NOSP, the oilseeds subsector will be self-supporting. During NOSP, the GoU will commence development of the animal cake, feed and livestock sectors. The processes used within NOSP, of cluster development of the farmers, power parity building in stakeholder platforms, private sector led services and inputs, will, in a subsequent GoU investments, be replicated to the livestock industry.

1. Context

A. National context and rationale for IFAD involvement

a. National Context

1. **Economic and Social Context.** Since 1990, Uganda has pursued a policy of a fully liberalised economy and market environment with the **private sector taking the driving seat to achieve economic growth and social development**. This has facilitated the country's development which has been characterised by a high growth rate and a significant decline in poverty. Growth increased from 6.3 percent in the 1990s to an annual average of seven percent in the 2000s, giving Uganda one of the highest sustained growth rates in Sub-Saharan Africa (SSA) over this period. The economy grew by 6.1 percent in FY17/18, with a strong services sector and a rebound in agriculture from the previous year's drought[9]. Investor surveys show that

business conditions and sentiment are strong, while credit to the private sector has improved, helped by an accommodative monetary policy stance. Despite the improved growth performance, Uganda remains a low-income country, with 2018 GDP per capita at USD 604, and poverty remains a serious development challenge. Uganda's Human Development Index is 0.516, indicating low human development and placing it in 162nd position out of 189 countries[10]

2. Uganda has one of the highest birth rates in Sub-Saharan Africa and one of the **fastest population growth rates** in the world (3.3 percent p.a.). The total population of the country has grown from 12.5 million in the early 1980s to around 45.3 million at the end of 2018 and is projected to reach 102 million by 2050[11] In 2016/17, around 21.4 percent of the total population (eight million people) was considered poor. Poverty is still predominantly rural, with 23 percent of the rural population falling into the lowest wealth quintile, compared with nine percent in urban areas. The **poorest districts are in the dryer areas in the northern and eastern parts** of the country.

3. Uganda's **public debt has been rapidly increasing** in the past two decades, with the current debt-to-GDP ratio at around 40 percent[12], still below the risk threshold of 50 percent. Even at this level, the debt serving/repayment allocation is very high and constrains government expenditure in many priority sectors. Substantial oil reserves were discovered in the Lake Albert Rift Basin in 2006 and commercial oil production is expected to start in the early 2020s. The future challenge will be to use oil revenue to reduce poverty and rural-urban inequalities and ensure sustainable and inclusive growth for a rapidly increasing population.

4. **Agriculture and Rural Development context.** The **agricultural sector remains the backbone of the Ugandan economy**. Agriculture accounts for 70 percent of employment, overwhelmingly on smallholder farms; occupies over half of all land area; and provides 50 percent of all exports and 25 percent of GDP. It is considered a **leading sector for future economic growth and economic inclusion** in the current National Development Plan. Agricultural production is regionally distinct, with some regions being predominantly cropland and others engaging in mixed farming activities.

5. About three quarters of agricultural households derive their livelihoods from largely subsistence-oriented, low input rain-fed agriculture, with landholdings averaging less than 1.5 hectares (ha). According to the Uganda Bureau of Statistics Statistical Abstract[13], the area planted under cereals and root crops, pulses and oil crops increased between 2007 and 2017 by less than one percent and there has been a reduction in crop production for most crops (e.g. plantains 27 percent, millet 18 percent, maize 12 percent, sorghum 11 percent and beans 25 percent). **Use of improved farming practices and fertilizers in Uganda remains the lowest in the East and Southern African region**, with less than 10 percent of smallholders using fertilizer on an annual basis. Average household landholding has declined from 1.7 ha to 1.2 ha per household from 2006 to 2016[14] Clearly, if agriculture is to remain and grow as the engine of economic growth, policies and actions are urgently required to intensify and commercialise smallholder agriculture through market-led value chain investments, increasing market integration and value-addition.

6. Within the agricultural sector, the **oilseeds industry ranks high on the government agenda due to its poverty reduction potential**. In the highest potential areas for oilseeds production in the north and north-eastern Uganda, where 20 years of conflict led to a crippling effect on agriculture, it is a strategic crop for the Government in the post-conflict economic reconstruction and in the transformation of subsistence agriculture to market-oriented farming.

7. **Oilseeds Sector: Role and Key Policies.** The National Agricultural Policy (NAP) and the Agricultural Sector Strategic Plan (ASSP) guide agricultural development in Uganda. The mission of the ASSP is "Transforming the sector from subsistence farming to commercial farming". The ASSP focuses on 12 Priority Commodities and four Strategic Commodities which are to lead this transformation process. **One of the Strategic Commodities is oilseeds.** In addition to the importance of domestic oilseeds production to the local vegetable oil industry, the by-products[15] from oilseed processing are important to the development of the animal cake/feed industries and the whole livestock sector.

8. The ASSP sets ambitious targets for the growth of the oilseeds sector. From 758,500 tons in 2014, oilseed production is planned to grow to 2,027,800 tons by 2020. During the same period, the value of exports of oilseeds is projected to grow from USD 102 million to USD 281 million. The next ASSP, now under a planning phase, is expected to include similar ambitious growth targets for oilseeds production and exports. So far, the progress towards the ASSP targets has been slower than projected. In 2017, the total oilseeds production in the country was 917,000 metric tons, or about 45% of the 2020 target. It is also to be noted that consumption of vegetable oil in Uganda is around 334,000 tons while the local production covers only some 28 percent of the country's requirements. A study conducted in 2018[16] assessed that the sector faces particular development challenges in the following key areas (a) the need for different interventions for annual and perennial oilseed crops; (b) the engagement of both smallholders and estates in the sector (with their very different production characteristics); (c) processing in both traditional mills and modern refineries (with their very different technologies); and (d) importing and blending different refined and crude oils. Furthermore, to develop the oilseeds sector and to reach the development targets, the current ASSP calls for interventions to (a) increase the production and productivity of oilseeds through appropriate input use, mechanisation and effective extension; (b) build and strengthen farmers' organisations to sustainably provide services to their members, particularly in collective marketing; (c) improve the availability of credit to the sector; (d) reduce post-harvest losses; (e) organise the marketing of quality seeds for planting; and (f) strengthen the oilseed sector platforms to coordinate the sectoral policies and practices.

b. Special aspects relating to IFAD's corporate mainstreaming priorities

9. **Climate Change.** There are many climate factors affecting how the oilseeds sector will develop. These are: the average temperature during the two rainy seasons in Uganda (March–June and June–September) warming more than 0.8 °C over the last 35 years; the impacts of decreasing rainfall and periodic droughts; increased frequency of hot days and decreased

frequency of cold days; floods and droughts being frequent weather hazards; and climate projection (IPCC, AR5 - RCP 8.5) scenarios indicating the possibility of an increase in average temperature in the order of +2.5 °C in the next 50 years and shorter rains. To combat this NOSP mainstreams climate change adaptation in its investments through a range of interventions: (i) farmer support and information to develop flexible adaptation and contingency plans; (ii) technologies to promote integrated soil fertility management, agro-forestry, crop diversification, conservation agriculture (crop rotation, mulching, green cover crops and low- or no-till), intercropping legumes with other crops, water management practices and adaptable planting times; (iii) crop insurance, climate information and early warning systems; (iv) climate smart agriculture practices; (v) expanding value addition; (vi) post-harvest handling and storage; and (vii) expanding water use efficiencies.

10. Fallow periods for land regeneration are decreasing as the landholdings become limited in many rural locations. At the same time the widespread use of fuel wood and need for timber is leading to degradation of soil cover, thus impacting on soil fertility and retention of moisture. Although the soils are generally fertile, there are already signs of moderate to severe erosion and in some areas, soil compaction could prove a challenge to water infiltration. The anticipated expansion in oilseeds production and entailed opening of new land could result in accelerated depletion of soil fertility and land degradation. Degradation is already notable in some wetlands, which are used for off-season production. NOSP combats these environmental challenges to smallholders by: (i) enhancing use of various practices to maintain soil fertility such as mulching, crop rotation, cover crop, use of organic manure and timely planting; (ii) training on soil and water conservation measures; (iii) promotion of agroforestry; (iv) capacity building on appropriate agro-chemicals use and integrated pest management.

11. **Gender**. Women play a predominant role in agriculture (planting, weeding, harvesting, post-harvest processing, storage and food preparation), while men focus on land clearing and marketing of high value crops. Food crops are typically controlled by women while men tend to have greater control over cash crops. Investments in value chains for non-traditional exports, like oilseeds, have important gender implications given women's more limited involvement in cash crop farming. While women are increasingly involved in the cash crop production, they lack control over income and benefits from it, given men's control over marketing activities. Other constraints to women benefiting from oilseed production relate to their lack of ownership of land, greater risk aversion, lack of access to inputs (like seed) and labour burden[17] NOSP empowers women through: (i) Gender Action Learning System (GALS) with integrated nutrition; (ii) introduction of new labour-saving technologies and services; (iii) incentivises and builds capacity to increase women's active participation in and leadership of farmer organizations and service provision (agronomists, machine operators etc.) thereby increasing women's leadership roles in the community. NOSP will use the Pro-WEAI methodology **60% of the beneficiaries in NOSP will be women.**

12. The agriculture sector is likely to dominate the employment opportunities for rural youth for the foreseeable future, making the welfare of youth closely tied to trends in agricultural development. The low levels of rural transformation require investments that focus on building the capacities of rural youth through infrastructure development and education as well as increasing the productivity and connectivity of youth in agriculture. Commercialisation is expected to increase the rural opportunity structure for youth to participate in and benefit from agricultural transformation. NOSP mainstreams youth through opportunities and engagement in the process of commercialisation such as – (i) harnessing youth farmer groups have been formed at schools as part of GoU guidelines, to uptake practical demonstrations and field work; (ii) engagement of educated youth as economic mobilizers in the community; and (iii) providing incentives for youth participation in the training as providers of auxiliary services.

13. The average dietary energy requirement for Uganda is 2,091 calories per person per day. Most sub-regions in the northern part of the country face significant food energy gaps with staple food consumption making up a higher than optimal share of the diet, and nutrient rich foods are greatly under-consumed. The Uganda Nutrition Action Plan 2011 sets a target of 75% of calories coming from foods other than staples. Notably, the share of calories from nuts and pulses is very low. The inadequacy of diets of children from six months to two years in Uganda is a major challenge. In 2016, an alarmingly low 15% of children received both sufficient diversity and meal frequency to yield a minimum acceptable diet (UBOS & ICF, 2018). This rate falls even lower to 2.5% of children under two years receiving a minimum acceptable diet in Acholi, where also the stunting rate is very high. Finally, wasting is higher than the national average in all NOSP targeted sub-regions except for Teso. NOSP mainstreams nutrition interventions through – (i) provision of equipment and training to support greater aflatoxin control and awareness; (ii) enhanced access to nutrition knowledge and healthy food culture through nutrition trainings and other awareness raising activities through active partnerships with existing programmes to address challenges such as high levels of stunting, wasting and micro-nutrient deficiencies.

c. Rationale for IFAD involvement

14. a) IFAD's strategy in Uganda over the past 20 years has been characterised by thematic consistence, with a focus on supporting the Government's achievement of its key ASSP target to move rural populations from subsistence farming to market-oriented agriculture, through private-sector led models.

15. b) NOSP is fully aligned with the current COSOP, directly contributing to its three strategic objectives by sustainably increasing - (i) The production, productivity and climate resilience of smallholder agriculture; (ii) The integration of smallholders into the markets; and (iii) The access to and use of financial services by the rural population. IFAD involvement is further strongly justified through the poverty targeting within NOSP. The selected hubs cover the poorest regions of Uganda. As per the 2017 data from the National Statistics Bureau, the average incidence of poverty[18] in the northern region of the country covering the NOSP areas is 33%, which is considerably higher than the national average of 21.4%[19]. The NOSP target area covers the driest and poorest districts of Uganda, many of which are just recovering from a long period of instability, and oilseeds is a "natural" target sector when aiming to improve the livelihoods of low-income smallholders in these drier and less fertile area of the country. Amongst other development partners supporting the GoU, IFAD has a comparative advantage in working with poorer and more remote areas of the country.

16. c) Prior investments by IFAD (VODP1 & VODP2) have contributed towards investments in the oilseed sector through

development of inclusive value chain approaches. VODP developed a hub-based planning and implementation model, which was scaled-up to three new hubs in VODP2. As VODP/VODP2 focussed predominantly on oil palm, these projects have not yet achieved smallholder commercialisation of oilseeds, hence the GoU request for a pure oilseeds project to further scale-up this hub-based approach. The investment is oilseeds is further supported by the potential future investments, the GoU is actively pursuing, in the animal feeds and livestock sectors.

17. d) Income and investment pathways for smallholders are challenged with several issues e.g., unpredictable climatic events; poor road infrastructure; limited post-harvest facilities; lack of access to inputs; insufficient and/or inadequate agriculture extension; lack of sufficient bulking or mechanisms establishing the collective advantages; and lack of sufficient knowledge of the market forces. IFAD experience of strengthening and building the capacity of smallholders, supporting farmer groups and developing the productive and business skills of men and women, and in linking farmers to sustainable and profitable markets is highly valued by the GoU.

18. e) The GoU's request, to IFAD and OFID, for further development and full commercialisation of the oilseeds sector leading to - (i) increased production and productivity of oilseeds and the by-products (especially oil cake) through appropriate input use, mechanisation and effective private-sector led extension; (ii) build and strengthen smallholders in becoming parity players in the sector; (iii) improve the accessibility of credit to the sector; (iv) ensure that road networks directly support the sector by increasing ease of access to and from communities; and (v) organise the availability and increase access to fertilizers and other quality inputs.

19. f) NOSP will invest in approaches to reduce these challenges faced by smallholders and meet the GoU's priorities and targets for the sector. IFAD's investment in NOSP is rationalized below:

20. g) Income and Investment Pathways for smallholders: Oilseeds are predominantly market demand driven and grown by smallholders in the drier and poorer Districts of Uganda. Among the benefits of using farmer groups to commercialize are – (i) farmers are able to directly engage with big millers as they have higher volumes to sell; (ii) minimize millers' and transporters' transaction costs related to accessing the crops and negotiation of contracts benefiting from economies of scale; and (iii) opportunities for the development of the livestock and livestock feed sectors.

21. h) Level the playing field for smallholders and millers: Millers need higher consolidated volumes from farmers to achieve operational efficiencies (longer production runs[20]) and improve their processing flow management; and to reduce negotiation and monitoring costs associated with sourcing oilseed grains from farmer groups and cooperatives instead of scattered individual farmers.

22. i) Availability of appropriate technical services, technology, inputs and services: Multi-Stakeholder Platforms allow the needs of the stakeholders in the sector to be met by the most appropriate solutions based on a private sector approach.

23. j) Access to rural finance: IFAD-supported PROFIRA (and prior projects) have built a strong VSLA and SACCO networks, which can be harnessed better, through product development, including insurance products, to support smallholder access to finance.

24. k) Results based delivery mechanisms: Contracts to service providers and project contracted staff will be based on outcomes and milestones as opposed to activities thereby focusing on results that have the highest impact on the smallholders' performance.

25. l) Road networks for access to/from market: Development of community access roads will allow smallholders to access better prices, information, markets and reduce the cost of getting to and from these markets.

B. Lessons learned

26. IFAD's prior interventions in Uganda and other countries provide a wealth of lessons for NOSP:

27. a) VODP reports and sectoral assessments confirm substantial inclusive and systematic growth potential for commercial smallholder-based supply chains in soy, sunflower and sesame, driven by export and domestic market opportunities, including in the animal feeds industry. In contrast, the groundnuts industry is almost exclusively domestically focused and opportunities are smaller and proportionate to domestic growth.

28. b) An interim evaluation of VODP[21] and the PCR validation[22] revealed that while the poverty impact on all impact domains were substantial, inclusion of the following would have had additional benefits to the project beneficiaries – (i) more applied research on soil fertility and new varieties; (ii) encouragement of private sector seed suppliers; (iii) sustained and deepened extension efforts; (iv) support for mechanization and value addition activities, as well as post-harvest handling and group marketing; and (v) a stronger focus on promoting direct commercial relations between farmers and private sector actors.

29. c) Privately-owned processing facilities, while varying in size and capacity, are rapidly expanding their capacities in key oilseed crops, and increasing their co-operation with well organised farmers' organisations to ensure supplies of raw material.

30. d) Private sector-led mobilisation, extension services and capacity building of farmers and their organisations proved to be more effective and efficient than interventions led by local government structures and public extension services.[23] Privately-owned processing facilities; aggregators; and cooperatives are already providing extension services to farmers, which are financed by the groups and/or the provider of the services.

31. e) While procurement and contracting of service providers has been efficient in IFAD projects, the following weaknesses were observed – (i) payments were made in tranches, based on submissions of specific reports not specific outcomes; (ii) monitoring and evaluation of groups did not follow agreed guidelines; (iii) results are not actively monitored by the PMU/PCU. NOSP will

mitigate the weaknesses by ensuring that contracts are explicit in the requirements for monitoring and evaluation and payments to the service providers will be outcome based with measurable and monitored indicators.

32. f) The oilseeds sub-sector stakeholder platforms, which were abandoned under VODP2 after the exit of an implementing partner, can successfully be implemented when ultimately run by the private sector[24].These can be revitalised in oilseeds sector in Uganda and will provide a planning approach that allows value chain actors to build trust, define gaps and constraints in specific value chains, identify investment areas to improve value chain effectiveness and develop implementation arrangements amongst stakeholders.

33. g) Despite earlier interventions, the availability and timeliness of quality inputs, especially planting seeds, for smallholders for key crops such as soya and sunflower remain a serious impediment to production and require further attention.

34. h) The operations of the IFAD-supported PROFIRA has improved the access of smallholders to financial services, including the increased availability of small production loans from Village Savings and Loans Associations (VSLAs) for inputs and small investment loans from formal financial institutions.

35. i) Opening new areas for effective and sustainable oilseeds production requires further investments in rural infrastructure, especially roads. Work carried out by IFAD-supported PRELNOR and projects such as Community Agricultural Infrastructure Improvement Programme (CAIIP I – III) on rural roads has resulted in lessons that demonstrate that when rural roads projects are professionally designed, implemented and supervised, they result in significant increased returns to smallholder farmers who are better connected to markets.

36. j) Experience from the two MoLG implemented CAIIP projects have shown that where the district engineers have sufficient supervision and support, they can carry out the construction supervision of CARs effectively and efficiently.

37. k) Planning and monitoring in relation to value for money: To minimise the risk of ineligible expenditures, specifically of training emphasis is placed on outcome/results based contracts with an emphasis on the necessity and reasonableness of the expenses.

38. l) Internal control: Improve the system of internal controls, in financial management and procurement through a covenant in the financial agreement. Harness the report by the Auditor General, as the reports are elaborate and cover areas inclusive value for money and compliance.

2. Project Description

C. Project objectives, geographic area of intervention and target groups

39. **Project objectives.** The project goal of the proposed NOSP is *"inclusive rural transformation through sustainable development of the oilseeds sector"*. The Programme Development Objective is to *"to accelerate commercialisation in key oilseeds value chains and thereby improve the livelihoods and resilience of the smallholders engaged in oilseed production and marketing"*.

40. **Geographic area of intervention.** NOSP is mplementated accross six area-based hubs in the agro-ecological areas that are optimal for oilseeds production. Four hubs (West Nile, Gulu, Lira and Eastern Uganda) were developed during implementation of VODP2. Two new hubs will be established to scale-up VODP2 approaches and successes – the Mid-Western Uganda hub and the Karamoja hub. Initial Karamoja hub activities will be supported by the Eastern Hub until the NOSP mid-term review, when a decision will be if it will be converted to a full hub or not. Within the selected hubs, the project target area covers 53 districts.

41. The hub selection was based on oilseeds production potential as influenced by agro-ecological, social, demographic and economic criteria including, existence of emerging processing facilities, entrepreneurial potential among the target groups and the poverty level of the population.

42. **Target groups and targeting strategy**[25] NOSP will work directly with 120,000 smallholder households (HHs) in the six hubs (four existing VODP2 hubs). The project's primary beneficiary group is smallholder farmers (women, men and youth) growing oilseeds. NOSP will also actively partner with processors, input suppliers, service providers, agents, traders, transporters, financiers, and scientific and academic research institutions.

43. The key criteria for selection of beneficiaries under oilseeds are those poor households that faced constraints in their efforts to commercialize their oilseeds value chain activities. An inclusive targeting approach will be adopted to ensure that the process of commercialization did not threaten the tenuous livelihoods of the rural poor and that the women, the youth and other disadvantaged groups had equal opportunities to share in the benefits. The project will provide differentiated support to two distinct sub-groups of smallholder oilseeds growers, based on their degree of commercialization.

Target groups	Constraints	Project Support/Activities

Smallholder farmers growing oilseeds	● poor group organisation and self- governance ● poor management in produce collection and bulking ● limited land to grow oilseeds ● low yield and quality ● lack of modern/labour saving equipment and technologies ● inadequate input supply, particularly quality seeds ● lack of access to credit ● lack of assets for collateral ● lack of policy-related information ● poor farm management, production and post-harvesting skills ● lack of business development skills ● lack of access to market channels ● price fluctuations ● production and harvest affected by climate change and environment risks	● 120,000 smallholder farmer HHs will be targeted for oilseeds supply chain development ● the percentage of participating poor smallholder farmers living under the poverty line will be at least proportional to the district poverty rate in each district ● formation of farmer groups ● clustering of producer groups ● establishment of linkages to traders, processors, buyers, FIs through facilitation of multi-stakeholder platforms ● capacity-building trainings ● investment facilitation for private and public goods investments ● business skills training focusing on farming-as-a-business skills ● financial literacy training ● availability of avenues with input supply, especially quality seeds ● crop insurance schemes will be in place with selected FIs. Approximately 30% of the farmers are expected to benefit from crop insurance. ● training on nutritious diet and innovative uses of oilseeds in the diet ● select farmer groups will be supported to become local seed businesses/LSBs ● LSBs will be trained in seed production quality management systems ● availability of farm mechanization and auxiliary farm service providers ● development of a national curriculum for agricultural service provision that focuses on good agricultural practices including agronomic practices for production, post-harvest handling etc.
New entrant and more remote oilseeds smallholders	· **key characteristics:** Cash crops (cassava, maize, groundnuts), cultivate 0.6 - 2 acres, able to hire oxen and farm labour; · production – limited by lack of access to finance; mechanization; extension and quality inputs · post harvest handling and issues with aflatoxins · lack of transport and lack of roads as access to market infrastructure	· promotion of high-quality OPV seed · promotion of climate smart agricultural practices · promotion of mechanization and use of legume seed inoculants ● clustering for improved market access, bulking and off-take services

Semi-commercial and commercial smallholders in oilseeds concentration areas (no more than 20% of the beneficiaries)	· **key characteristics:** Cash income from employment, pensions, remittances, crops (cassava, maize, groundnuts), cultivate more than 2 acres, own own 1-2 cows, 2-3 goats, several chicken; hire labour, own a bicycle · need for technical production and marketing knowledge; ● limited by access to finance and mechanization	· promotion of high-quality OPV seed, with move to purchase of hybrid seed · clustering for improved market access, bulking and off-take services · explore potential of running the mechanisation services · can be part of farmer group but will receive no funds directly from NOSP

44. Targeting of the 120,000 HH focuses on the following main criteria:

45. a) Located in the more remote districts with high poverty incidences but within the hubs;

46. b) Willing and able to engage in meaningful income generating enterprises;

47. c) Lacking extension on the critical aspects of production from enterprise selection, agronomics, harvesting and post-harvest handling, market information and market information;

48. d) Largely entry level growers with interest in the oilseed crops:

49. Measures to avoid elite capture – household selection will focus on households with average or below average farm sizes[26], those that are female/youth -headed and those that are not commercially linked to the oilseeds market. More selection criteria and details are given in the targeting section of the PIM.

50. Furthermore, improvements to community access roads serving selected areas with NOSP-clustered oilseed producer groups will improve the livelihoods of some 356,000 rural households in the six NOSP hubs.

51. The project's targeting strategy will ensure the inclusion of poor and marginalized HHs who meets the project selection criteria which is further defined in the PIM. Women and youth (people aged 18-35) will be specially targeted. Considering the pivotal role that women play in farming and household economy, 60% of the project beneficiaries are expected to be women who will be targeted both as individual farmers and members of the HHs. At least 30% of the HHs is expected to be Female-headed households (FHHs). Similarly, in the light of the GoU's and IFAD's vision and strategy to support youth and their employment in the agriculture value chains, youth will be a core target group of NOSP comprising at least 40% of the beneficiaries in value chain development. In addition, the rural unemployed in the area will benefit from employment opportunities on farm and in oilseed processing units in the supported value chains. Selection of farmer groups for NOSP support will be finalised during the participatory mapping and clustering process at project start-up, which will further define sub-county and parish coverage within the targeted districts.

D. Components/outcomes and activities

NOSP Components and activities[27] The activities of the proposed NOSP are organised in two mutually interdependent components:

- Component 1: Support to Oilseed Value Chain Development
- Component 2: Support to Market Linkage Infrastructure Serving Oilseed Sector.

52. **Component 1: Support to Oilseed Value Chain Development**

53. The objective of Component 1 is to facilitate the private sector led growth of competitive, inclusive value chains for priority oilseeds and their associated support markets. NOSP will accelerate the growth of competitive clusters and value chains for oilseeds and pro-actively develop opportunities for further private sector investments in oilseed-related by-products, especially to establish a competitive animal feed industry in Uganda. To be truly sustainable, the commodities and production practices must be well-suited to local agro-climatic condition, both now and in the future as the climate changes (see Figure 1). The clusters for NOSP support will be selected based on the criteria outlined in the PIM. A critical part of the selection process is the detailed analysis of each of the proposed commodities and associated small-scale production systems to establish that there are viable and affordable investment pathways that are accessible to the target group.

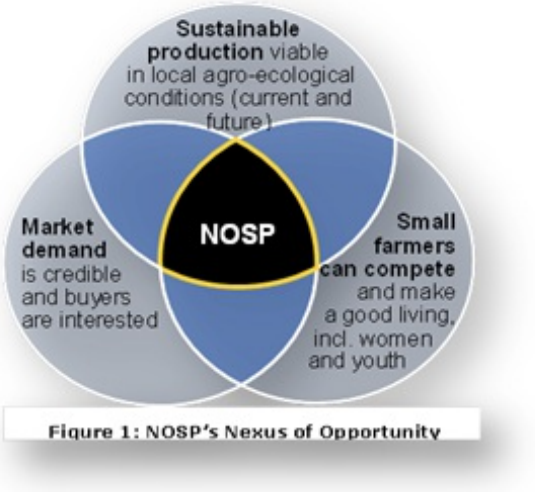


Figure 1: NOSP's Nexus of Opportunity

54. In addition, NOSP will support a small number of 'demonstration' clusters in downstream supply chains that add value to the primary supply chain, especially related to soy, such as animal feed and smallholder commercial livestock. Performance of these demonstration clusters will be reviewed at MTR to assess if they are an effective mechanism for further contributing to the development objectives or can be scaled up in a subsequent investment.

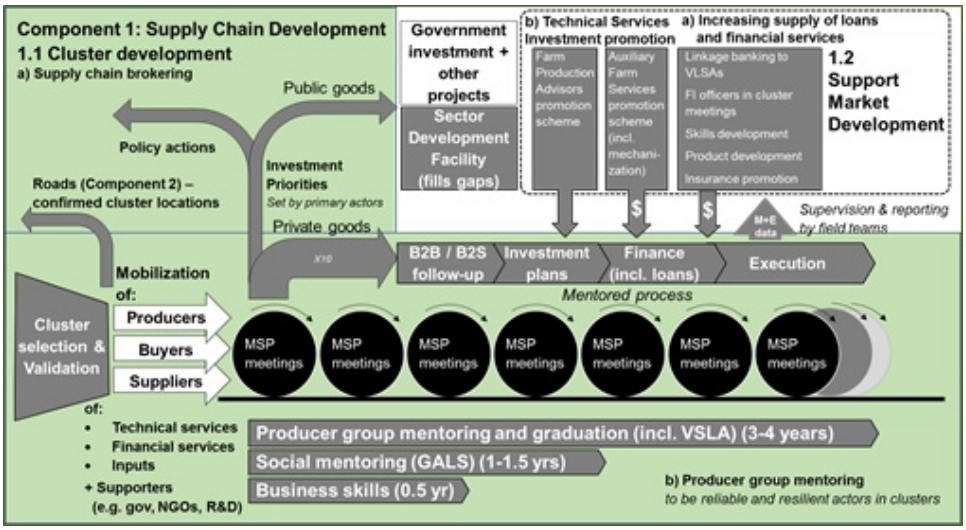
55. Component 1 is presented as two sub-components:

- Sub-Component 1.1: Cluster Development – covering the primary supply chains through an inclusive cluster development approach in each of the hubs
- Sub-Component 1.2: Support Market Development – covering the supply of essential financial and technical services and inputs.

56. **Sub-Component 1.1: Cluster Development**

57. The NOSP activities under Sub-component 1.1 fall into two categories: (a) supply chain brokering and investment facilitation and (b) producer group mentoring.

58. **a) Supply Chain Brokering and Investment Facilitation**



59. **Cluster selection and verification.** For each supported commodity, the potential for cluster development will be reconfirmed through a series of validations, including the suitability of the crop in the area taking into account future climate projections, followed by an opportunity verification workshop held for each commodity and cluster, represented to main stakeholders (producers, buyers/millers, suppliers) for validation and confirmation of credible opportunities and commitments.

60. **Multi-stakeholder platforms.** The core of the value chain and cluster development approach is a rolling process of action-oriented brokering, dialogue and investment facilitation among the key actors in each cluster/hub to catalyse investments and

remove bottlenecks to increase trading and profits, and to make the most of practical opportunities for growth. To achieve this, NOSP will organise multi-stakeholder platforms (MSP) for oilseed supply chains at two levels: cluster and hub. The MSPs will facilitate (i) the primary actors to jointly identify practical opportunities and bottlenecks for developing their cluster and corresponding priorities for individual or joint actions, (ii) trust among the different players, (iii) greater common understanding of the opportunities and challenges among critical suppliers, such as research and financial institutions; (iv) a mechanism for local coordination of various investment initiatives to be harnessed; and (v) the conduit for enhancement of an enabling policy environment, derived and driven by the stakeholders.This wil include enhancement of the policy agenda for women's empowernment and towards youth socioeconomic empowerment, specifically in agriculture.

61. These are expected to result in developing and negotiating practical trading plans between producers and buyers/businesses. MSPs will be held regularly (at least twice per year) at the cluster and hub level, initially facilitated by the NOSP team but later jointly by the producers and businesses themselves. MSPs will operate systematically according to a rolling joint “cluster action plan”, produced for each cluster as an output of the meetings. Subprojects identified by the MSPs will be subject to environmental and social screening, in order to ensure that any risks are avoided or mitigated. Screening criteria, guidelines for risk identification and generic mitigation for anticipated subproject activities are provided in the ESMF and incorporated in the PIM. In addition, these subprojects will have to undertake ESIAs in line with NEMA’s requirements and NEMA certificates of approval received, prior to implementation.

62. **Investment Facilitation.** Driven by the investment priorities set through the MSP process, two types of investments are likely to be needed. Firstly, private goods investments (such as on-farm technology and auxiliary services), primarily financed with private resources by an individual, producer group or enterprise (e.g. buyer or supplier). Secondly, public goods investments (for example, action research, trials, policy enhancements), financed through a combination of public and private resources, where the majority of benefits are captured by a broad network of primary actors and it is not feasible for the investments to be financed as purely private enterprises. Each type of these investments will be facilitated in the targeted clusters by NOSP as required.

63. For the NOSP-supported six MSPs operating at the hub level in the main oilseed production regions, a key target is to pro-actively facilitate private sector investments in value addition operations for oilseed cakes. It is expected that as a result of NOSP activities, the volumes and quality of oilseed procured by the processors from smallholders will rapidly increase. This will create a basis for the establishment of viable large-scale processing facilities for animal feeds. NOSP-supported hub-level MSPs will be used as platforms to inform agro-enterprises of improved business opportunities in this sub-sector as the volume of available seed cake grows. For the interested firms, NOSP will provide projections of future oilseed production levels and offer targeted support for feasibility studies aiming at the establishment of animal feed plants.

64. **(b) Producer Group Mentoring**

65. **Group formation and mobilisation.** The objective is that all producer groups in NOSP clusters should graduate to being fully independent, financially robust and self-managing within four years of project engagement. Further, a majority of group members and their households would have the skills and confidence to grow their farm enterprise, manage climate risks and face fewer social barriers to their development. Mobilisation of individuals and households into the clusters and engaging them into NOSP activities will be led by a team of market-oriented Economic Mobilizers (EM) in each hub with support from the hub Supply Chain teams. For more mature groups, approximately 2-3 years of mentoring under NOSP are envisaged to suffice while they increasingly commercialise in their activities.

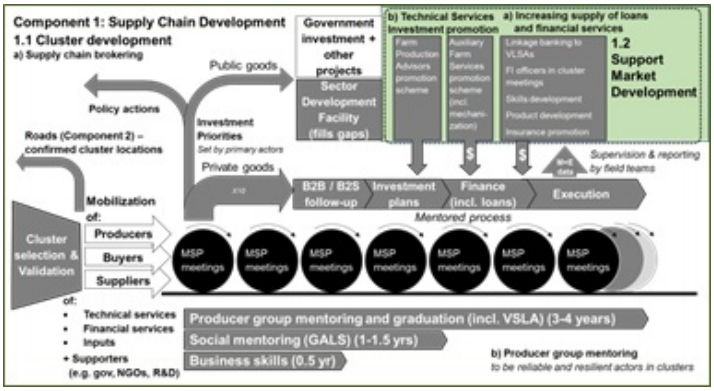
66. **Business skills training.** Business skills for farmers are vital if they are to succeed in the supported clusters. Being better able to assess the likely costs and benefits of investing in their farming enterprise will equip rural households to make more informed choices in their small farm investments. It is especially important that young women and men, who will be prioritised for these activities, gain these business skills. Business skills training, focused on farming as a business, will be provided to all interested individuals in a cluster through a peer-to-peer process. Business Skills Mentors (BSMs), residents of the communities they work in, will be nominated by each group from among their peers and will then be trained by NOSP to provide business skills training in their local community. They will be paid by the programme for delivering training sessions and are expected to gain high levels of skill and confidence, contributing increasingly to supporting the preparation of farm investment plans and helping with collective negotiations between their group and traders/buyers.

67. **Social Mentoring.** Social mentoring will be offered to the households of all supported producer groups to address risks and barriers and ensure that households are able to maximize their socio-economic progress. Mentoring activities will be delivered at community level and in groups. In addition, approximately 40% of high-risk households will benefit from social mentoring at household level to address specific gender equality issues such as household decision-making and control over productive resources. Social mentoring activities will adopt the Gender Action Learning System (GALS). The impacts of climate change, opportunities for youth as well as nutrition are important issues among target communities and especially for young women and men. The group-based social mentoring processes and individual mentoring of high-risk households using household methodologies will seek to address these issues.

68. **Sub-Component 1.2: Support Market Development**

69. Service market development forms a vital part of the supply chains development process. Vibrant support markets, including commercial supply of inputs and services, are essential for sustaining competitive clusters and also for enabling other clusters to emerge to copy the initial successes. Within profitable clusters and supply chains, the costs of such services and inputs should be an affordable standard business cost for producers and businesses and should not require external subsidy. NOSP will therefore focus on facilitating investments that develop, in a broadly harmonised manner, the demand and supply of these market-based services and inputs in the clusters. The objective of Sub-component 1.2 is that there are active and vibrant market-based providers for these critical services in all project-supported clusters. The approach to achieve this will be to promote both supply and demand for these services in tandem. NOSP will initially focus on two critical types of services

markets: (a) financial services and (b) technical services.



70. **(a) Financial Services**

71. NOSP investments in rural financial services aim at increasing the investments by financial institutions (FI) in the oilseed value chains. They will largely focus on improving the access of smallholder farmers to financial services. The project's strategy of de-risking smallholder production and building resilience including climate change in farming households will improve farmers' negotiation position with FIs. At the same time business and financial literacy training and crop insurance will facilitate greater flow of financial services to the producers. NOSP's rural finance interventions will: (a) strengthen 4,600 VSLAs in the development of products for agricultural production finance, in addition to their present consumption smoothening products. Based on production plans and gaps in credit supply, VSLAs will be linked to financial institutions. The results of the work carried out by IFAD-supported PROFIRA programme in the development of VSLAs will be fully utilised, the PROFIRA-established VSLAs will be further developed to finance oilseeds-related operations and the NOSP support to VSLAs will be focused on clusters that were not covered by PROFIRA operations; (b) provide technical assistance to around 75 SACCOs/other cooperatives for agricultural lending and product development, using VSLAs as linkages to farmers; and (c) provide technical support at the national level to assist at least four regulated financial institutions to develop innovative products for the NOSP target group, including investment finance with medium-term loans. Furthermore, the project will train the frontline staff of lending institutions in innovative agriculture lending practices. Tri-partite partnerships between the Agricultural Credit Facility in the Bank of Uganda, financing institutions and the project will be forged to ensure affordable credit for smallholder farmers and SMEs working in the oilseeds value chains.

72. Agricultural insurance for oilseed smallholder producers will be piloted and scaled-up by NOSP in close partnership with the Uganda Agricultural Insurance Scheme (UAIS), managed by the Agriculture Insurance Consortium (AIC), with technical support from the INSURED programme[28] NOSP will support: (i) agricultural insurance literacy training to VSLA members, (ii) agricultural insurance training for branch staff and credit officers of financial institutions, (iii) training of branch staff in insurance companies and insurance agents to service NOSP target groups especially with timely claim settlement and (iv) provision of limited technical assistance for product development/adjustment. The insurance will contribute to managing climate change risks.

73. At the end of the project, about 60% of VSLAs are expected to be credit-linked with SACCOs and other FIs. The estimated volume of credit disbursements is UGX 10 billion of crop loans in each season, and UGX 7 billion for equipment financing. Approximately 30% of the farmers are expected to benefit from crop insurance.

74. **(b) Technical Services**

75. **Farm Production Advisor Scheme.** Given the absence of a public extension service the programme will launch a private service Farm Production Advisors (FPA) promotion scheme.

76. **Development of national curriculum.** NOSP will support the enhancement/development of a national curriculum for agricultural service provision that focuses on good agricultural practices, specifically for oilseeds, and farming as a business. The curriculum will include disease/pest management, agronomic practices for production including climate smart agriculture options, post-harvest handling, testing moisture content using simple methods, marketing, business skills, bookkeeping, financial literacy and group dynamics. Simple technical guides/videos on good agronomic practices will be produced and translated into local language.

77. Though a competitive call for proposals individuals, producer groups or other primary actors in the supply chain (e.g. input suppliers, agents, millers etc.) will outline their need for a FPA to support their business. The FPA scheme will identify and train 200 Farm Production Advisors on technical and business aspects over two full production seasons, including one week per month residential training, supported by on-the-job coaching. NOSP will fund on a reducing subsidy the costs of the FPA for the first two years only, after that the person should be able to be self-sustaining. Each FPA will be expected to:

- Provide essential production and business advice to farmers grouped in the clusters to enable farmers to adopt the improved production practices necessary for smallholder commercialisation of their oilseed crops.
- Establish demonstration plots displaying best practice production systems and techniques, as well as use of small-scale mechanization and equipment.
- Provide brokering services for input and output markets.

78. To support the FPAs NOSP will conduct suitability mapping for the target oilseed crops to assess their suitable for their local agro-ecological conditions and to quantify the expected future impacts of climate change. Crop suitability mapping will be undertaken and informed by spatially explicit monitoring and modelling of land health and agronomic suitability as well multi-dimensional trade-off analysis to identify locally appropriate Climate Smart Agriculture (CSA) practices. Land health surveys will be used to establish baseline conditions of soil constraints (including soil fertility assessments), as well as land use and cover, assessment of farming practices etc. On-station trials, on-farm trials, demonstrations and field days will all be used to develop profitable and climate resilient oilseed production practices.

79. A lead technical service provider will be competitively procured and be responsible for the overall leadership and performance of the FPA scheme. They will design and set-up all aspects of the scheme, including design of the ToT training and training materials to be used with farm clients. The lead service provider will also be responsible for supervising and quality assurance of the performance of the scheme implementers in the field.

80. **Auxiliary Farm Services Promotion Scheme.** As with FPA services NOSP will launch an Auxiliary Farm Services Promotion Scheme to stimulate investment in local service provision for availability of powered tillage, spraying, planting, harvesting and threshing services.

81. The scheme will offer partial investment incentives to cover some of the risk for the early adopters and then reduce these incentives over three years to return to market-based financing. The project will offer partial investment incentives to absorb some of the risk for the early adopters and then gradually reduce these incentives in subsequent rounds to return to market-based financing. In the initial rounds of the scheme, loan financing of at least 30% from a partner bank will be mandatory. The prospective Auxiliary Farm Service Providers must contribute at least 30% from own resources. The rest will be from the project contribution and credit from financial institutions. The scheme offers investment incentives ranging from 25-40% in round one (PY 2-3), 15-25% in round two (PY 4-5) and 10% in round three (PY 6-7). For early adopters, the highest level of matching grant will be 50% of the cost of the procured equipment, with the grant share reducing to 20% as the market develops.

82. NOSP also provides a full training package to the providers of these services, to ensure appropriate use and maintenance of the procured equipment. Commercial auxiliary farm service providers may be dedicated businesses or embedded in the industry as service units of other industry players, such as producer groups or input suppliers. Once established they are expected to run on a fully commercial basis without any ongoing public subsidy.

83. A lead technical service provider will be competitively procured and be responsible for the overall leadership and performance of the scheme. They will design and set-up all aspects of the scheme, including design of the graduated equipment packages and associated business models as well as ToT training materials and operations and maintenance guides to be used by the auxiliary service providers. The lead service provider will also be responsible for supervising and quality assurance of the performance of the scheme implementers. They will also develop and manage the relations with key machinery suppliers as well as focal points in the partner banks that are interested to provide partial loan financing to the auxiliary service providers. The lead technical service provider will work closely with the senior rural finance staff in the PCU in developing the financing models and establishing the necessary relationships with partner banks.

84. **Quality Declared Seed Production Scheme.** Farmer group seed production and delivery activities will be linked to the on-going local seed business (LSB) programme operated through the ZARDIs. The LSB programme has been working successfully with farmer groups for the last 10 years. NOSP will build on this scheme and avoid duplication of efforts between different programmes. The objective of this scheme is to stimulate local seed businesses to supply Quality Declared Seed (QDS) of soy, sunflower, sesame and groundnut. Firstly, NOSP will develop the capacity of farmer groups to become local seed businesses (LSBs) through training in seed production quality management systems and by providing a subsidy to cover certification and input and equipment costs for the first two seasons. One farmer group will be selected from each cluster based on the demonstration of their capacity to grow and store the crop.

85. To support seed certification and to supplement the work of the National Seed Certification Service (NSCS) NOSP, in partnership with the GoU Integrated Seed Sector Development (ISSD) programme, will develop a network of NSCS-accredited private seed inspectors and labs. This will address the capacity gaps within the department and at the same time introduce a private sector-based inspection function to the sector, as allowed by the Seed and Plant Regulation Act of 2017.

86. The sustainability and resilience of local seed systems is directly linked to timely supply of quality foundation seed and access to new varieties that suit smallholder farming systems. NOSP will therefore, with a focused approach, promote research projects on the development of new oilseed varieties and crop husbandry practices by partnering with NARO, ZARDIS and relevant universities. Scholarships will be awarded to Ugandan postgraduate students, to support the capacity of existing oilseed research programmes at these institutions.

87. **Component 1 Implementation Arrangements**

88. The activities of Component 1 will be implemented jointly by the NOSP supply chain staff and experts, the NOSP co-financier and service provider - Heifer International covering Component 1 operations in two hubs, contracted private service providers and the key stakeholders in the oilseed industry. Detailed implementation arrangements, including the relevant TOR, are described in the PIM attached to the PDR.

89. **Component 2: Support to Market Linkage Infrastructure Serving Oilseed Sector**

90. The objective of this component is to improve local level public transportation infrastructure to facilitate the commercialisation of the oilseed sector. The implementation of activities under this component will encourage private sector investments in the sector, promote the production and marketing of good quality oilseeds and reduce the time and cost of transport to the markets. The component will reduce transaction costs and increase farmers' income through improved community access road (CAR)

networks. The successful implementation of Component 2 is a key prerequisite for the reaching of the productivity, production, and household income growth targets of Component 1.

91. The component implementation will be led by the MoLG and their district and sub-county local governments, in complete cooperation with MAAIF.

92. **Selection of community access roads**. The identification of roads for NOSP support will be done through a consultative and participatory process at the district/sub-county and multi-stakeholder platform levels. The identification will be initiated by a mapping of priority oilseed production areas (current and potential) and the status of CARs in these areas. Community access road improvement efforts will rehabilitate and open new roads serving priority oilseed production areas. The criteria for selection of the CARs for NOSP financing are described in the PIM. Given that NOSP is a Category B project with regards to environmental and social risks, the ESMF includes environmental and social screening criteria to ensure that, among others, lengths of roads being prioritised adhere to the 10 km and below threshold, they do not cause physical and economic displacement, or impact on environmentally sensitive areas. Detailed screening criteria related to the environment and social aspects will be provided in the ESMF and incorporated into the PIM.

93. Districts will prepare a map of the selected sub-counties growing oilseeds and compile a list of priority roads including a survey of existing roads, for potential NOSP support, assisted by the MSPs and oilseed farmers. Further prioritisation of CARs will be done across the districts. The PCU will submit a list of the priority roads to the Project Implementation Coordination Team (PICT) in the MoLG to begin the feasibility studies. The final list of roads to be developed will be selected after feasibility studies. In the district local governments with the selected CARs to be improved, MoLG and MAAIF will sign a MoU that outlines the roles and responsibilities for each party (see a model in the PIM).

94. **Community awareness and social mobilization.** When the roads to be improved are identified, the district and sub-county local governments will hold community meetings in the villages that the road will pass through to make the citizens aware of the upcoming project, make them fully aware of possible negative and positive impacts of the road and get acceptance of the road applying the principals of free, prior and informed consent. The project will facilitate the establishment of area level road committees to facilitate interaction with the communities during road design and construction activities. The committee will assist in community consultation process, monitoring construction activities and their impacts, advising on mitigation measures including participatory implementation of the environment and social management plans and organising road maintenance groups. The committee will also assist in mobilizing labour during construction. The road committee will participate in the site meetings and endorse the payment certificates, to express satisfaction with the way the contractor worked with the community.

95. **Feasibility studies and detailed designs of CARs**. Feasibility studies and detailed designs will be done by contracted consulting companies. The consultants will be selected through a competitive procurement process by the PCU. Work packages will be organised for efficiency and cost effectiveness in procurement. Socio-economic baseline studies will be undertaken in the road zones of influence (2 km each side of the road). The baseline survey will identify areas opened for agriculture, types and quantities of crops being grown, estimate usage of the exiting road/track by type of vehicles, and estimate time and cost to get produce to the market. This data will be used to estimate the cost effectiveness of the selected option of road construction. The cost of feasibility studies and engineering designs is estimated at US$1,000/km.

96. **Specification of CARs.** Existing CARs upgraded or new ones built will be constructed with standards consistent with climate change resilient norms. An estimated 2,495 km of CARs will be constructed or rehabilitated, including all the required ancillary structures as per the requirements of the District Class III roads standard of the Ministry of Works and Transport (MoWT). Concerning climate resilience, projections based on Global Climate Models indicate potential 10-20% increase in run-off for the whole country, hence the use of District Class III road specifications for the CARs is a way to ensure that the roads are climate proofed. In addition, the road design shall use hydrological models that include the future climate scenarios to confirm the adequacy of hydraulic structures to extreme climate events, commensurate with the expected life of the road. In addition to integrating emerging climate parameters and projections into road design, the project will work to incorporate road water harvesting in all roads as feasible, where the opportunities are available and do not lead to excessive increase in construction costs.

97. **Environmental and Social Impact Assessments (ESIAs).** ESIAs will be carried out for all roads that are selected as feasible, in accordance with national laws and regulations. ESIAs are required for construction of new roads, rehabilitation of roads involving new alignments, in cases where relocation of people will be required and rehabilitation or construction of a road that passes through sensitive areas. A Project Brief (or limited environmental analysis) is required for opening up of community access and feeder roads, construction of drainage channels, upgrading of community access and feeder roads to bitumen standards, temporary roads less than 10km in length for access to infrastructure facilities, small bridge construction, swamp road improvement (culvert installation), construction of agro-processing facilities, and establishment of farming demonstration sites.[29] Candidate CARs will be identified by the communities in collaboration with the LC1 chairman. They will then be screened based on criteria developed in the ESMF in order to ensure that environmental and social risks are avoided or mitigated. Thus Project Briefs (equivalent to environmental and social management plans – ESMPs - per IFAD SECAP requirements) will be undertaken as part of the feasibility studies. The Project Briefs/ESMPs will have to be approved by NEMA prior to the implementation. The cost of preparing Project Briefs/ESMPs is estimated to be US$600/km.

98. **Implementation of Environmental and Social Management Plans (ESMPs).** The ESMPs will be developed during the impact assessments or analysis. The plans will be developed in a participatory manner and implemented following the same principle. The implementation of the ESMPs will be monitored by the road management committee. The resources for the ESMP implementation will be included in the project budget. A provision of US$269,000 has been made for the implementation of mitigation measures.

99. **Construction of roads.** Road construction will be carried out by competitively recruited private contractors to District Class III road specifications. The procurement processes will be managed by the Local Governments with support and supervision by

the PICT in MoLG. During construction, the contractor will prepare progress reports and organize regular site meetings. Work packages will be organised to attract competition from contractors and provide good value for money. The cost of road construction is estimated at US$20,000/km[30]. The cost will include all drainage ancillary works and other ESMP mitigation measures that will be required for each road.

100. The employment of workers will follow national construction industry standards, and ILO Core Conventios, paying attention to conditions for workers, such as provision of safety clothes, adequate resting breaks, adequate clean water supply and toilet facilities. The contractor will be encouraged to recruit both skilled and unskilled labour from the local communities as much as is practical. Attention will be paid to identify work that can be done by women and facilitate their employment in a way convenient for them.

101. **Construction supervision.** The District and Sub-County Local Government engineers will be responsible for the supervision of construction works. The PICT engineers will provide quality assurance during the construction by making periodic site inspections, attending site meetings and reviewing proposed construction methodologies, test results, progress reports and payment certificates. The PICT can reject a payment certificate that it considers inadequate. The road construction supervision can be contracted to consultant companies, where the capacity of district engineers is limited. As a part of M&E activities, the construction supervision reporting will be digitalised. The digital platform will also work as a collaborative platform among the project staff to help in sharing experiences and solutions in real time across the project. The cost of supervising consulting services has been budgeted at US$1,000/km.

102. **Commissioning and handover.** At the completion of construction, each road will be commissioned and handed over to the district authorities by the contractors. The road committee will also sign the handover certificate to indicate that they participated in the construction and are satisfied with the way the contractor conducted work.

103. **Road maintenance**: Road maintenance will be the responsibility of the district LG and the sub-county LG. These two local government entities were recently provided with road maintenance equipment from the Road Fund. The local governments receive annual financial allocations for road maintenance, but it is too low to cover all roads. The choice of using District Class III road specifications was also informed by the need to have roads that will last for longer periods with minimum maintenance. The tripartite agreement will include an undertaking by each district that adequate resources will be made available for the maintenance of the roads. It is also preferred that that priority CARs selected are potential candidates for upgrading to district roads, so that they can benefit from allocation of funding from the road fund.

104. **Implementation arrangements.** The lead implementing agency for Component 2 is MoLG. The ministry will set up a PICT to manage the day to day activities of the project. MAAIF and MoLG will identify the first batch of roads that will be designed in-house by MoLG engineers to facilitate early start of activities, as practiced under the CAAIP project. The PICT will be responsible for all the procurement under Component 2, including the procurement to be carried out at district level. NOSP will provide senior level support to the procurement operations of Component 2 both at the PCU level (through the Procurement and Contracts Manager) and at the PICT/MoLG (through the Procurement Specialist posted at the PICT).Comprehensive implementation guidelines for Component 2, including timelines for the planned activities, are in the PIM.

E. Theory of Change

105. The NOSP theory of change is based on the premise that a market-driven approach is needed to help smallholder oilseeds producers to reach a higher level of commercialisation and a better bargaining position in their oilseeds operations, and thereby to increase their incomes and improve their livelihoods, food security and nutrition. NOSP will provide targeted support to smallholders and other stakeholders in the oilseeds sector to increase productivity and production, build sustainable livelihoods and create stronger linkages with national and export markets (see the diagram for the NOSP Theory of Change in Annex 2). This will directly contribute to GoU's national priorities to commercialise the oilseeds sector and its related value chains, to reduce economic disparity and to promote food security and nutrition.

106. Smallholder farmers in the NOSP target areas have demonstrated their willingness to produce marketable surpluses of oilseeds for local and regional markets. The increasing demand for oilseeds and the higher returns from production have led to increased areas being planted with these crops over the last five years. However, supply chains remain under-developed, farmers' organisations weak and the prices for farmers' produce are largely dictated by the off-takers. At the same time smallholder farmers have to deal with increased threats from a changing climate and degradation of their natural resource base.

107. Under NOSP, IFAD and its partners will build on their collective experience of strengthening and building the capacity of smallholders, supporting farmer groups and developing the productive and business skills of men and women, and in linking farmers to sustainable and profitable markets. By working to improve productivity, capacity and market development, NOSP will contribute to poverty reduction and economic development in the project areas. The project offers an opportunity to develop an approach that can be scaled-up by the GoU for achieving its strategic vision for agriculture growth and development. This is operationalised in NOSP operations by: (i) facilitating a process where stakeholders (farmer groups, private agribusinesses, private commercial service providers, public sector) can develop a common vision, build trust among themselves and identify concrete business proposals in response to clear market opportunities; (ii) developing the capacity of local service providers to provide timely and quality services; (iii) increasing household access to markets, good agricultural practices, better organization and affordable credit; and (iv) using public and private sector funding to reduce production and transportation costs and post-harvest losses through expanded and improved community access roads networks.

F. Alignment, ownership and partnerships

108. **Alignment with SDGs.** The NOSP design is fully aligned with the key SDGs. It contributes directly to SDG 1 (end poverty), SDG 2 (end hunger) and SDG 10 (reduced inequalities) through its key targets of economic and social transformation and

increased commercialisation of the smallholder agriculture. Its targeting approach relies largely on active and beneficial participation of women and girls in the NOSP groups and clusters (SDG 5 on gender and empowerment). The project directly promotes inclusive economic growth and employment (SDG 8) in the leading cash crop sector in the whole implementation area and promotes sustainable industrialisation in Northern and Eastern Uganda (SDG 9). Finally, on climate change (SDG 13), NOSP interventions in each hub aim to increase adaptive capacity of the smallholders through new, smarter farming practices and at the same time to generally improve the resilience of households through the improved household incomes and asset ownership in a "no regret" manner.

109. **Alignment with national priorities.** The NOSP objectives and interventions fully align to GoU's development strategies of NDPII and ASSP that focus on rural economic transformation and stress the importance of the commercialisation of smallholder agriculture. Oilseeds are listed as strategic crops in the ASSP with strong linkages to the development of key agro-processing industries as well as to the livestock sector through improved availability of animal cakes and feeds.

110. **Alignment with IFAD's policies and corporate priorities.** NOSP is fully aligned with the current Uganda COSOP, directly contributing to its three strategic objectives. At the corporate level, NOSP contributes to IFAD's Strategic Framework 2016-2025, notably Strategic Objectives 2 and 3 (SO2 and SO3) of enabling inclusive and sustainable transformation of rural areas through smallholder-led growth and mainstreaming priorities (climate change, gender, youth and nutrition).

111. **Harmonization and Partnerships.** NOSP will develop synergies with the other IFAD-supported programmes in Uganda to avoid duplication of efforts and to enhance the overall impact of the portfolio. It will link with PROFIRA to improve access to financial services for NOSP beneficiaries and builds on the PROFIRA's results to develop the VSLA model to better serve the needs of the smallholder oilseed producers. Furthermore, the community access roads operations of NOSP benefit from the models and results of PRELNOR on infrastructure development in the northern areas of Uganda. With some overlap between PRELNOR and NOSP, the two projects will work together to have ensure that there is clear targeting, and approaches to the way the development of CARs are done. IFAD/EU-supported Yield Uganda Investment Fund activities target, among other agro-firms, companies investing in processing facilities in then oilseeds industry and the related animal feed industry with its equity and semi-equity financing products. Key private sector players are considering expansion to the oilseeds sector and NOSP will continue discussions with them in this respect. Heifer International and OFID are co-financing partners in the NOSP investments. Furthermore, NOSP will build strategic and operational partnerships with other on-going and pipeline projects funded by other development partners such GIZ/KfW, Danida, DfID, the EU and USAID in oilseeds sub-sector, especially with the projects operating in the same geographic locations in Northern and Eastern Uganda.

G. Costs, benefits and financing

a. Project costs

112. The total investment and recurrent cost for the project is estimated at USD 160.7 million (UGX 655,694 million) including contingencies. The total base costs are USD 138.1 million (UGX 509,952 million). Physical and price contingencies account for USD 11.5 million and USD 11.1 million, respectively (8 per cent and 8 per cent of the total base costs). Baseline investment costs are estimated at USD 128.82 million representing 93 per cent of total baseline cost.

113. Project Components 1 and 2 are respectively counted as 13.8% and 20% climate change adaptation finance. The total amount of IFAD climate finance for this project is preliminarily calculated as US$16.2 million or 16% as per the MDB Methodologies for Tracking Climate Adaptation and Mitigation Finance.

114. The breakdown of the costs in USD by component/outputs and financiers is shown in the table 1 below:

Table 1: Programme/project costs by component (and sub-components) and financier
(Thousands of United States dollars)

Republic of Uganda
National Oilseeds Project
Components by Financiers
(US$ '000)

	IFAD Loan		OFID		Heifer		Kuehne Foundation		Beneficiaries		Private sector		Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
A. Component 1 Support to Oilseed Value Chain Development																
1. Sub-Component 1.1 Cluster development																
a. Supply chain brokering and investment facilitation	16,875	91.0	-	-	172	0.9	13	0.1	-	-	505	2.7	976	5.3	18,541	11.5
b. Producer group mentoring	19,221	69.6	-	-	5,978	21.7	-	-	-	-	-	-	2,407	8.7	27,606	17.2
Subtotal Sub-Component 1.1 Cluster development	36,096	78.2	-	-	6,150	13.3	13	-	-	-	505	1.1	3,383	7.3	46,147	28.7
2. Sub-Component 1.2 Support market development																
a. Financial services	2,188	90.0	-	-	-	-	-	-	-	-	-	-	243	10.0	2,431	1.5
b. Technical Services																
Farm Production Advisors Scheme	4,617	87.0	-	-	-	-	-	-	-	-	-	-	687	13.0	5,304	3.3
Auxiliary Farm Services Promotion Scheme	8,783	41.7	-	-	-	-	-	-	4,834	23.0	5,331	25.3	2,105	10.0	21,053	13.1
Quality Declared Seed Production Scheme	1,834	86.5	-	-	-	-	-	-	-	-	-	-	286	13.5	2,120	1.3
Subtotal Technical Services	15,234	53.5	-	-	-	-	-	-	4,834	17.0	5,331	18.7	3,078	10.8	28,477	17.7
Subtotal Sub-Component 1.2 Support market development	17,422	56.4	-	-	-	-	-	-	4,834	15.6	5,331	17.2	3,321	10.7	30,908	19.2
Subtotal Component 1 Support to Oilseed Value Chain Developmer	53,518	69.5	-	-	6,150	8.0	13	-	4,834	6.3	5,836	7.6	6,704	8.7	77,055	48.0
B. Component 2 Support to Market Linkage Infrastructure Serving Oilseed	32,900	47.0	30,000	42.9	-	-	-	-	-	-	-	-	7,033	10.1	69,933	43.5
C. Project Coordination and Management	10,965	97.4	-	-	-	-	-	-	-	-	-	-	286	2.6	11,251	7.0
D. Knowledge Management and Monitoring & Evaluation	2,187	89.4	-	-	-	-	-	-	-	-	-	-	260	10.6	2,447	1.5
Total PROJECT COST	99,560	62.0	30,000	18.7	6,150	3.8	13	-	4,834	3.0	5,836	3.6	14,294	8.9	160,686	100.0

115. The breakdowns of the costs in USD by expenditure category and financiers, as well as by years are shown in the following tables.

Table 2: Programme/project costs by expenditure category and financier

(Thousands of United States dollars)

Republic of Uganda
National Oilseeds Project
Expenditure Accounts by Financiers
(US$ '000)

	IFAD Loan		OFID		Heifer		Kuehne Foundation		Beneficiaries		Private sector		Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
I. Investment Costs																
A. Works	25,911	41.4	30,000	48.6	-	-	-	-	-	-	-	-	6,168	10.0	61,679	38.4
B. Goods, Services & Inputs	33,002	60.2	-	-	6,150	11.2	-	-	4,834	8.8	5,331	9.7	5,480	10.0	54,796	34.1
C. Equipment and Materials	4,598	80.0	-	-	-	-	-	-	-	-	-	-	1,149	20.0	5,747	3.6
D. Consultancies																
1. Technical Assistance																
International Technical Assistance	3,840	100.0	-	-	-	-	-	-	-	-	-	-	-	-	3,840	2.4
National Technical Assistance	891	90.0	-	-	-	-	-	-	-	-	-	-	99	10.0	990	0.6
Subtotal Technical Assistance	4,731	98.0	-	-	-	-	-	-	-	-	-	-	99	2.0	4,830	3.0
E. Training and Workshops	11,427	89.9	-	-	-	-	13	0.1	-	-	-	-	1,271	10.0	12,710	7.9
F. Grants and Subsidies	9,899	95.0	-	-	-	-	-	-	-	-	505	5.0	-	-	10,105	6.3
Total Investment Costs	88,868	59.3	30,000	20.0	6,150	4.1	13	-	4,834	3.2	5,836	3.9	14,167	9.5	149,868	93.3
II. Recurrent Costs																
A. Salaries and allowances	9,550	100.0	-	-	-	-	-	-	-	-	-	-	-	-	9,550	5.9
B. Operating costs	1,141	90.0	-	-	-	-	-	-	-	-	-	-	127	10.0	1,268	0.8
Total Recurrent Costs	10,692	98.8	-	-	-	-	-	-	-	-	-	-	127	1.2	10,819	6.7
Total PROJECT COSTS	99,560	62.0	30,000	18.7	6,150	3.8	13	-	4,834	3.0	5,836	3.6	14,294	8.9	160,686	100.0

Table 3: Programme/project costs by component and year

(Millions of United States dollars)

Republic of Uganda
National Oilseeds Project
Project Components by Year -- Totals Including Contingencies
(US$ Million)

	Totals Including Contingencies							
	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
A. Component 1 Support to Oilseed Value Chain Development								
1. Sub-Component 1.1 Cluster development								
a. Supply chain brokering and investment facilitation	1.4	1.8	3.0	4.3	4.6	3.4	0.1	18.5
b. Producer group mentoring	3.6	8.4	7.7	4.0	2.0	1.1	0.8	27.6
Subtotal Sub-Component 1.1 Cluster development	5.0	10.1	10.7	8.3	6.6	4.6	0.9	46.1
2. Sub-Component 1.2 Support market development								
a. Financial services	0.6	0.9	0.6	0.2	0.2	0.0	0.0	2.4
b. Technical Services								
Farm Production Advisors Scheme	0.8	0.7	1.0	1.1	0.8	0.5	0.4	5.3
Auxiliary/Farm Services Promotion Scheme	0.9	2.9	3.1	2.9	4.2	3.6	3.5	21.1
Quality/Declared Seed Production Scheme	0.2	0.9	0.3	0.3	0.2	0.2	0.0	2.1
Subtotal Technical Services	1.9	4.5	4.4	4.4	5.2	4.2	4.0	28.5
Subtotal Sub-Component 1.2 Support market development	2.5	5.4	4.9	4.6	5.3	4.2	4.0	30.9
Subtotal Component 1 Support to Oilseed Value Chain Development	7.4	15.6	15.6	12.9	11.9	8.8	4.9	77.1
B. Component 2 Support to Market Linkage Infrastructure Serving Oilseed Sector	-	2.1	2.8	26.0	26.5	12.3	0.2	69.9
C. Project Coordination and Management	0.5	1.9	2.2	1.6	1.6	1.7	1.7	11.3
D. Knowledge Management and Monitoring & Evaluation	0.6	0.1	0.1	1.0	0.2	0.1	0.3	2.4
Total PROJECT COSTS	8.6	19.7	20.7	41.5	40.3	22.8	7.1	160.7

b. Project financing/co-financing strategy and plan

116. The IFAD loan is programmed for USD 99.56 million. Co-financing from Opec Fund for International Development (OFID) is targeted to cover roads civil works expenses totalling USD 30 million. Heifer International will finance USD 6.15 million of the Producer Group mentoring activity under the Cluster Development Sub-Component. Smallholder beneficiaries and small enterprises will contribute to the tractor mechanisation operations of the Auxiliary Farm Services Promotion Scheme USD 4.8 million and USD 5.3 million, respectively. The Government will contribute USD 14.3 million in the form of taxes and duties. In addition, technical assistance by Kuehne Foundation will be an in-kind contribution of USD 13,000 towards the training of hub-based value chain experts over a period of three years to enhance their skills and methods in smallholder oilseed producer training.

c. Disbursement

117. Under NOSP, there will be three types of disbursement mechanisms for the programme consisting of: (i) Advance Withdrawals; (ii) Direct Payments; and (iii) Reimbursements. Disbursements from IFAD will be made by way of an advance to the Designated Account and subsequent replenishments based on expenditure incurred as supported with Statement of Expenditure (SoE). There will be one designated account that would receive funds from IFAD which will have a corresponding dedicated project operational account in local currency managed by PCU. The modalities of the designated account for the IFAD resources will be detailed in the Letter to the Borrower, which would be issued by IFAD. The IFAD loan will be disbursed in accordance with IFAD Loan Disbursement Handbook. Details of the specific names, titles and signature(s) of the persons authorized to operate the account will be submitted by Government of Uganda, MoFPED, and must reach IFAD before withdrawals are initiated. Component 2 is financed by both IFAD and OFID. OFID will extend a loan of USD 30 million to contribute to the financing of the

Infrastructure Development component. OFID loan is to be administered by IFAD. Contributions from OFID will be used only for co-payments of component 2 using the Special Account Disbursement method. It is expected that disbursement from OFID will start in year 2021 and end in year 2025 The Designated Account limit will be set at the total 9 months of the AWPB. In Project Years 4, 5, and 6, the payments from NOSP through MOLG are expected to significantly increase as a result of large payments for road construction. The DA limit will then be adjusted upward to accommodate the increased payments.

118. There will be some activities to be carried out by participating districts mainly related to supervision and monitoring of rural infrastructure development and environmental activities. The earmarked advances for specific activities agreed with the PCU will be disbursed through Districts Treasury Single Accounts (TSA) using IFMIS and accounted for on a quarterly basis. To manage risks related to delays in accounting for funds disbursed to districts, advances will be made covering quarterly budgets, and additional amounts for the subsequent quarter made only after 50% of the previous disbursements has been accounted for. Recording of expenditure to the project accounting system will be done by PCU/PICT based on expenditure reports submitted by the districts. All key payments for consultancy and infrastructure contractors will be paid directly from the PCU.

119. While MoFPED has demonstrated they have enhanced IFMIS to have adequate capabilities to carry out project accounting requirements, no IFAD project is fully using IFMIS for project reporting. IFMIS requires special coding and mapping to enable it to handle the key financial reporting and monitoring requirements, to be done at the commencement of the project. To mitigate on the risks and also to monitor the use of IFMIS for IFAD projects financial reporting, a simple off-the-shelf accounting system (Pastel) will be installed at the PCU and PICT that will be run parallel to IFMIS. The system needs to integrate accounting and reporting operations in the PCU at MAAIF and in the PICT at MoLG in a manner that allows for automatic consolidation of project's financial statements. After the first two years of operations, based on results of monitoring of IFMIS for project financial reporting, the project will consider whether to report using solely the IFMIS.

120. The project expenditure initiation, authorization and payments will be in line with Public Finance Act of GoU. The PS, MAAIF/MoLG (and ministry officials under their delegation) will authorize all withdrawals from the project special account, local account and GoU counterpart fund account under their components. The PSs of MAAIF and MoLG are the accounting officers for MAAIF and MoLG, respectively. The Financial Controller at the PCU will be responsible for appropriate recording in accounting system and all financial reporting for the project and will produce consolidated financial statements for all the components covering all activities under MAAIF and MoLG. The financial reporting will comply with International Public-Sector Accounting Standards (IPSAS)-Cash Basis.

d. Summary of benefits and economic analysis

121. The commercialization of the oilseed sector covers all actors along the value chain and the supporting infrastructure required to ensure its success and sustainability. The primary target of the core investments is the smallholder farming population engaged in the production of oilseeds in the six NOSP hubs. These hubs cover the poorest regions of Uganda.

122. In total, NOSP will support the operations of approximately 200 oilseed clusters in the six hubs covered by the project. The average smallholder membership per cluster is projected at 500-600 households, with the total target of reaching 120,000 smallholder households. The NOSP support to the improvement of community access roads in and around the NOSP oilseed clusters is expected to benefit approximately 350,000 rural households. The indirect target group to be reached with investments in such services as agricultural demonstrations, rural financial services, policy development and presentations in radio, internet and other media is expected to be much bigger.

123. The projected household and beneficiary entry into the Project economic analysis over the seven-year implementation period is shown table below.

124. **Household, Beneficiaries and Phasing**

	PY 1	**PY 2**	**PY 3**	**PY 4**	**PY 5**	**PY 6**	**PY7**
Total Households \1							
Incremental	-	45,000	34,500	33,000	7,500	-	-
Cumulative	-	45,000	79,500	112,500	120,000	120,000	120,000
Households participating\2							
Incremental	-	33,750	25,875	24,750	5,625	-	-
Cumulative	-	33,750	59,625	84,375	90,000	90,000	90,000

	PY 1	PY 2	PY 3	PY 4	PY 5	PY 6	PY7
Total Households [\1]							
Beneficiaries participating [\3]							
Incremental	-	168,750	129,375	123,750	28,125	-	-
Cumulative	-	168,750	298,125	421,875	450,000	450,000	450,000

[\1] Refer to Main Report Targeting Section
[\2] 75% adoption rate economic modelling
[\3] Assuming 5 persons per household.

125. Direct benefits would accrue from smallholder agricultural development within a strengthening supply chain for the targeted commodities. The foundation of the benefits quantified in the financial and economic analysis is the incremental production at household level realized across the four farm types where existing practices and cropping patterns are changed to emphasise oilseed production using improved seeds, inputs and practices.

126. **Financial viability.** Illustrative models have been developed to examine the financial viability of the investments in the four representative farm models. Net income cash flows and the net present value indicator are shown in the table below. All farm system types examined were found financially viable. Incremental returns to incremental labour provide a sound incentive for household production as well as an argument against outmigration of labour.

127. **Household Financial Incremental Income for NOSP Farm Models**

	Household Incremental Income (UGX)			
Project Year	**Sunflower – Sesame**	**Sunflower – Groundnut**	**Sesame - Soy bean**	**Soy bean – Sesame**
PY1	-282,400	-272,400	-340,000	-348,960
PY2	-207,557	-1,086,231	169,086	-21,040
PY3	-148,081	-891,913	1,118,016	475,880
PY4	72,418	259,199	2,171,615	1,001,485
PY5	300,078	1,307,998	2,555,338	1,339,938
PY6	640,838	1,873,067	2,919,278	1,652,198
PY7	685,518	1,915,087	2,958,638	1,688,898
PY8	635,518	1,865,087	2,908,638	1,638,898

PY9	685,518	1,915,087	2,958,638	1,688,898
PY10 +	435,518	1,665,087	2,708,638	1,438,898
NPV [\1]	2,186,725	6,404,396	14,738,056	7,782,363

[\1] 12% discount rate equivalent to weighted average interest rate of term deposits

128. **Economic viability**. The economic viability of the project is assessed by comparing the aggregated incremental benefits and costs. The benefit stream is based on the value of the incremental production from the targeted 120,000 farm household models phased in over the implementation period. A 75 per cent adoption rate is assumed so the actual update in modelled conservatively on 90,000 farm households. A non-quantified benefit stream from the improvement of community access roads in and around the NOSP oilseed clusters is expected to benefit approximately 350,000 rural households. The cost stream is based on the value of the NOSP investment and recurrent costs. Both cash flows are projected over a 20-year analysis period that includes appropriate recurrent costs beyond the NOSP implementation to justify the sustained benefits over that period. The incremental net benefit stream so derived forms the basis of the investment appraisal.

129. **Economic indicators**. The overall NOSP project economic net present value (ENPV) is USD 60 million at 10 per cent discount rate. The economic internal rate of return (EIRR) is 1717.9 per cent. The benefit cost ratio (BCR) of 1.44 indicates a return of approximately 1.44 dollars for every dollar invested. Results indicate that the project is a worthwhile investment.

130. **Sensitivity analysis**. An increase in programme costs by 10 per cent will reduce the EIRR to 15.8 per cent, while a decrease in overall programme benefits by 20 per cent will result in an EIRR of 13.0 per cent. A one-year delay in benefits reduces the EIRR to 14.9 per cent and a two-year delay to 12.7 per cent. The modelling indicates that economic viability is maintained in the face of a 31 per cent decrease in benefits, or a 44 per cent increase in costs.

e. Exit Strategy and Sustainability

131. Sustainability of the NOSP benefits and results can be approached at three different levels: the smallholder, the farmer group/cooperative and the value chain. The NOSP exit strategy and its success is closely linked to results achieved at all these three sustainability levels.

132. **Sustainability: Smallholder level.** At the smallholder farmer level, NOSP will support oilseed production systems that are suitable to local agro-ecological zones and climatic conditions. Environmental management, resource use efficiency and climatic adaptation will be enhanced in the NOSP messages. At the same time the long-term approach to mentoring and training in business and technical skills is expected to significantly improve smallholders' potential to sustain the benefits from NOSP interventions even when the project support ends.

133. **Sustainability: Group/Cooperative level.** Majority of the interventions supported by the project will be owned by community organisations and structures that will be trained to professionally conduct their business. The key objective of NOSP is that all producer groups in NOSP clusters should graduate to being fully independent, financially robust and self-managing within four years of project engagement. Success in this area will be a decisive factor for whole sustainability of NOSP results and benefits in the period after the project closure.

134. **Sustainability: Value chain level.** As indicated above, the core of the value chain and cluster development approach is a rolling process of action-oriented brokering, dialogue and investment facilitation among the key actors in each cluster/hub to catalyse investments and remove bottlenecks to increase trading and profits, and to make the most of practical opportunities for growth. Even after the closing of NOSP, the MSPs are expected to continue operating systematically according to rolling joint cluster action plans. In total, the combination of the project impact on farmers, groups/cooperatives and the whole value chain, as well as the private-sector focus of the project, is expected to ensure favourable results on sustainability of the NOSP benefits.

135. **Exit strategy.** The NOSP focus on sustainable results and on independent, profitable institutions and private sector-based partnerships forms the core exit strategy for the project. The NOSP exit strategy is further discussed in Annex 10 of this PDR.

3. Risks

H. Project risks and mitigation measures

136. The following can be envisioned as the main risks for the successful implementation of NOSP, including for the implications for the ESMF, presented with the proposed mitigation measures[31]:

Main risks	Mitigation measures incorporated into NOSP Design	Implications for the ESMF
Weak farmers' organisations and their members are unable to respond to commercialisation messages of NOSP in production and marketing.	Component 1 of NOSP aims to conduct major capacity enhancement programme for clusters, groups and their members covering production technologies, marketing and business skills. Enhanced technical support services support these messages, as well as improved access to finance. Cluster-level MSPs support contract making with agro-companies at improved terms.	Capacity building will also include awareness raising of environmental and social repercussions resulting from adopting or improving production technologies.
Smallholders will not be able to get timely credit for procurement of planting seeds and other inputs, with adverse impact on productivity and production targets.	NOSP will introduce agricultural input credit products to all VSLAs in supported clusters. Tailored TA will be provided to formal FIs and SACCOs to develop and roll-out agricultural financial products suitable for oilseed growers.	Financial advice on management of loans as well as management of income from oilseed sales to ensure that beneficiary households do not default, and that income is invested well for the benefit of household members
Financial management may be challenging especially at district level due to low capacities. Another challenge is the MoFPED requirement for project financial reporting using IFMIS which has not been tested comprehensively on capability for project financial reporting.	Key payments for infrastructure works will be budgeted and paid from the parent ministry (MoLG), hence reducing funds to be disbursed or required to be budgeted by districts. A simple off-shelf accounting system (pastel) will run concurrently with IFMIS for the first 18 months which will serve as a pilot phase, after which a review will be made.	Budgets will be provided for environmental and social mitigation as well as for the preparation of ESIAs/ESMPs. For new districts, percentage of finances provided for start-up activities, and in particular for sensitisation, needs to be higher compared to districts that implemented VODP.
Increased commercialisation of cash crop production, such as in the case of oilseeds, may have adverse social and environmental impacts.	The use of the GALS will promote gender participation and empowerment in the target areas. NOSP will promote environmentally friendly technologies and resource use efficiency. ESMPs will be developed for the road infrastructure development.	The ESMP (Chapter 7) provides guidance on the types of impacts anticipated, and mitigation for those impacts. Capacity building proposed in Chapter 10 will assist in the appreciation of environmentally friendly technologies and resource use. The GALS methodology will promote value addition – youth may find this easier than farming.
Increased rainfall variability results in more droughts and intense rainfall that adversely affects yields of oil seeds and infrastructure developed.	NOSP will promote climate smart agricultural practices and the infrastructure designs will be informed by climate risk analysis and mapping.	Chapter 8 of the ESMF addresses the implications of climate change and makes recommendations for improving resilience.
Weak technical and institutional capacities in community access road development in some project area districts can lead to slow disbursement, lower project benefits as well as delays in implementation.	Experiences and lessons learnt from currently on-going road projects in same area will be fully utilised in NOSP. Effective support from hub and national level will be organised to fill the gaps in capacities in weaker districts. For the rural roads-related procurement operations, the NOSP budget will include senior level support to the procurement and implementation teams both at the PCU and the PICT/MoLG level (see the PIM for details). IFAD will also support the planning and implementation of an intensive training programme at the project start-up to familiarise the Central Ministries and District PDUs with NOSP/IFAD Guidelines on procurement and contract management.	Capacity building includes training in environmental and social aspects related to project implementation. These are elaborated in Chapter 10 of the ESMF.

Main risks	Mitigation measures incorporated into NOSP Design	Implications for the ESMF
Procurement related issues, particularly at the district level, include capacity constraints leading to failure to comply with applicable rules and contract awarding principles; delays in processing procurement and in evaluations, reviews and approvals; weak records keeping and filing as well as overall weaknesses in contract management and follow-up.	Mitigation measures include – a draft for a comprehensive Procurement Manual for NOSP; an experienced Procurement and Contracts Manager will be recruited in the PCU and PICT immediately after NOSP start-up; IFAD-supported international TA will be provided at early stages of the project to NOSP to strengthen procurement capacity and to assist in the planning and implementation of the procurement operations; and IFAD will also support the planning and implementation of an intensive training programme at the project start-up to familiarise the Central Ministries and District PDUs with NOSP/IFAD Guidelines on procurement and contract management.	Recommendations have been made in the ESMF for environmental and social considerations in contract documents for CARs.

137. Uganda's inherent risk is high as measured by Transparency International's Corruption Perceptions Index (CPI). The 2018 Transparency International Corruption Perception Index for Uganda score rating was 26 (High Risk) which was same as 2017 and a drop from 2016 & 2015 that had a score of 25. The country ranking was 149 out of 180 and improvement from 2017 that had a ranking of 151.

138. The last Public Expenditure and Financial Accountability (PEFA) assessment report was issued on December 2017. The reports showed the following areas of weaknesses:

    1. **Aggregate Fiscal Discipline:** control of contractual commitments is not sufficiently effective, creating a risk of generating further expenditure arrears. The strong external audit function enhances fiscal discipline.
    2. **Strategic allocation of resources:** There is a strong emphasis on the overall fiscal framework. The Chart of Accounts caters for a multidimensional analysis of expenditure. However, the link between the medium-term perspective in expenditure budgeting and strategic plans needs to be developed to improve the strategic allocation of resources.
    3. **Efficient use of resources for service delivery:**The current weaknesses in competitive bidding in the procurement system could have adverse implications for the efficiency in service delivery. The strengths in the accountability mechanisms such as the comprehensiveness and production of annual financial statements - make external audits effective as counter checks on inefficient use of resources. Publishing of performance targets and outcomes also assists the efficient use of resources, though the lack of systematic program evaluation and data on resources available at service delivery units can undermine accountability. Such information would help management decision-making to support improved service delivery

139. The PEFA report concluded that there have been improvements in the orderliness and participation in the budget process as well as multi-year fiscal forecasts and functional allocation. Debt recording and reporting had also improved as had payroll functions and elements of procurement. It noted payroll and procurement had achieved this despite an ambitious decentralization policy. Internal control and internal audit have also advanced. The main area of backsliding is arrears, tax audits and reconciliation of arrears. Many of these improvements were attributed to strong management of the PFM reform programme as well as the enactment of the new PFM Act (2015). Some improvements have already been made as a result of the Act and its legal requirements, whilst others are still being developed.

140. In March 2016, the World Bank Group issued a Country Partnership Framework (CPF) for the Republic of Uganda for the period 2016 -2021. The overall risks to the CPF were assessed as substantial, with two areas rated as High Risk:

    - Institutional capacity for the effective implementation of projections - due to either understaffing, underutilization of capacity, incomplete implementation of policies and weak oversight and control mechanisms
    - Environment and social - weak government ownership of safeguards

141. The following areas having substantial ratings:

    - Political and governance – mainly due to concerns relating to governance and effective public-sector management
    - Sector studies and policies – lack of institutionalization and weak links between planning budgeting and implementation
    - Fiduciary – primarily in the area of procurement as well as weak financial management and internal audit functions.

I. Environment and Social category

142. The social risks anticipated to result from the NOSP activities are linked to women's empowerment and nutrition. Given the differentiated decision-making roles, commercialisation of oilseeds traditionally controlled by women as food crops (i.e. groundnut and sesame) can reduce the share of household income and assets that women control. Similarly, commercialization of oilseeds may reduce women's involvement in decisions related to production of and income received from these crops. From the nutrition perspective, while increased production of nutritious foods like oilseeds may increase supply and decrease prices,

participation in high-value supply chains can also dis-incentivise consumption as people prefer to sell for profit. The use of the Gender Action Learning System (GALS) in NOSP clusters, which now integrates nutrition, should mitigate the above negative impacts to some extent.

143. In the event that land is to be acquired for Project supported interventions, the land will be identified by the communities in conjunction with the local authorities, and the FPIC process will be followed. Should any individual not consent to relinquish land for the purposes of subproject infrastructure (such as road alignments, demonstration plots, runoff harvesting structures), then alternative sites/locations will be identified, again with community participation and consent. All consultations will be documented as required by the FPIC process.

144. Some adverse impacts on the environment are expected from the agricultural expansion activities, increased use of agro-chemicals in some locations and the road infrastructure development. The impacts will include vegetation clearing, land use change and point pollution. However, these impacts are expected to be site specific, mostly reversible and can be minimized through appropriate mitigation measures.

145. Therefore, **the environmental and social categorization of NOSP is B** Appropriate environmental and social mitigation measures will be further defined in subproject specific Environmental and Social Management Plans (ESMPs) during implementation.

146. An Environmental and Social Management Framework (ESMF) has been elaborated during design that includes procedures to ensure that environmental and social risks are avoided or mitigated. To adhere to the categorization, the infrastructure development under NOSP will be limited to non-sensitive areas, road stretches of 10 km or less, and will not involve any physical or economic displacement. The screening criteria for each of the projects, requirements for feasibility studies and environmental and social impact analyses as well as approval procedures have been articulated in the ESMF.

J. Climate Risk classification

147. The NOSP target beneficiaries are dependent on natural resources that are exposed and sensitive to climate change impacts. The smallholders practice predominantly rain-fed agriculture. Despite having sufficient overall rainfall during the two rainy seasons (March–June and October–January) in the south to central parts and one long rainy season in the northern-easterly region, variability in rain distribution has been noted. The main climate risks being faced in the NOSP target areas are droughts, floods and increasing temperatures. Agricultural productivity is adversely impacted by late rains and late cessation that have been reported by smallholders. Climate variability also affects the post-harvest handling of the agricultural produce particularly the drying and storage practices.

148. Yield projections based on the Climate Adaptation in Rural Development Assessment Tool between 2021 and 2032 range for groundnuts from 0.93% to 5.12% and for soybeans from 0.49% to 4.72%. Given the mixed projections and relative intensity of the extreme events, the **NOSP climate risk classification is Moderate**

149. A climate vulnerability analysis is being conducted for Uganda by the University of Cape Town with financing from the Adaptation for Smallholder Agriculture Programme (ASAP 2). The study includes the oilseeds crops targeted by NOSP and therefore, the implementation phase will benefit from recommendations for climate change adaptation measures that will be promoted under Component 1. Initial findings indicate that between the present time and the Mid-Century Future (defined as ~2040-2069) the Central region of Uganda will be most vulnerable to climate change impacts for groundnut and sesame cultivation and the Western Region for groundnuts and soyabean. For the Eastern and Northern Regions, the impacts of climate change will generally have a positive impact on groundnuts, sesame, soyabean and sunflower, while soyabean production is also anticipated to improve in Central Region. The recommendations will be incorporated in the climate smart agriculture practices to be promoted by NOSP.

4. Implementation

K. Organizational Framework

a. Project management and coordination

150. **Project Oversight.** The co-lead agencies for NOSP at national level will be MAAIF and MoLG. A Programme Steering Committee (PSC) will be constituted to (i) provide strategic guidance to programme implementation, (ii) oversee programme planning, (iii) review the Annual Work Plans and Budgets (AWPB) prior to submission to IFAD, and (iv) review implementation progress and impact. The PSC shall meet twice a year and otherwise when required. The PSC will be chaired by the PS MAAIF and comprise of representatives of public and private sector stakeholders engaged in the development of the oilseeds sector.

151. **National Level.** MAAIF will establish a Project Coordination Unit (PCU), to be responsible for managing the implementation of the Project, with emphasis on Component 1. It will be led by a Project Manager and include Supply Chain Leader and Deputy; Financial Controller; Procurement Specialist; Specialists for Social Inclusion, Environment and Climate, M&E and KM, Rural Finance; and supporting staff. The PCU will be based in Lira Municipality, located centrally in the project area, to facilitate close supervision, coordination and technical support of the NOSP field activities. The PCU would have a small Liaison Office in MAAIF, Kampala. The responsibilities of the PCU in MAAIF will include the following core tasks: (i) manage effectively project activities and finances, with emphasis on Component 1; (ii) liaise with line ministries and other agencies to ensure smooth

project implementation; (iii) procure, contract, manage and supervise performance-based contracts with service providers as required for different NOSP activities; (iv) prepare project AWPBs for the PSC and IFAD approval; (v) control the flow of NOSP funds; (vi) develop and implement a knowledge management and communication strategy; (vii) report through a participatory M&E system to be developed for NOSP; and (viii) submit required project implementation progress and financial reports to GoU, IFAD and other stakeholders.

152. MoLG will establish a small NOSP Project Implementation Coordination Team (PICT) to coordinate the rural infrastructure component of the project (Component 2). The PICT will comprise of a Coordinator; Infrastructure Engineering Advisor (seconded by MoWT); Financial Controller; Procurement Specialist; and Accountant. In addition, five Infrastructure Engineers will be recruited and based in selected hubs. Specific responsibilities of the PICT in MoLG will be: (i) manage project activities under Component 2 and the related IFAD and OFID loan funds; (ii) procure, contract, manage and supervise design contracts for CARs in liaison with DLGs; (iii) support DLGs in procurement and management of contractors of CARs; (iv) liaise with the MAAIF PCU to prepare project AWPBs for PSC and IFAD approval; (v) disburse and control the flow of funds for Component 2 activities; and (vi) work with the MAAIF PCU to submit and consolidate required project implementation progress and financial reports to GoU, IFAD and other stakeholders.

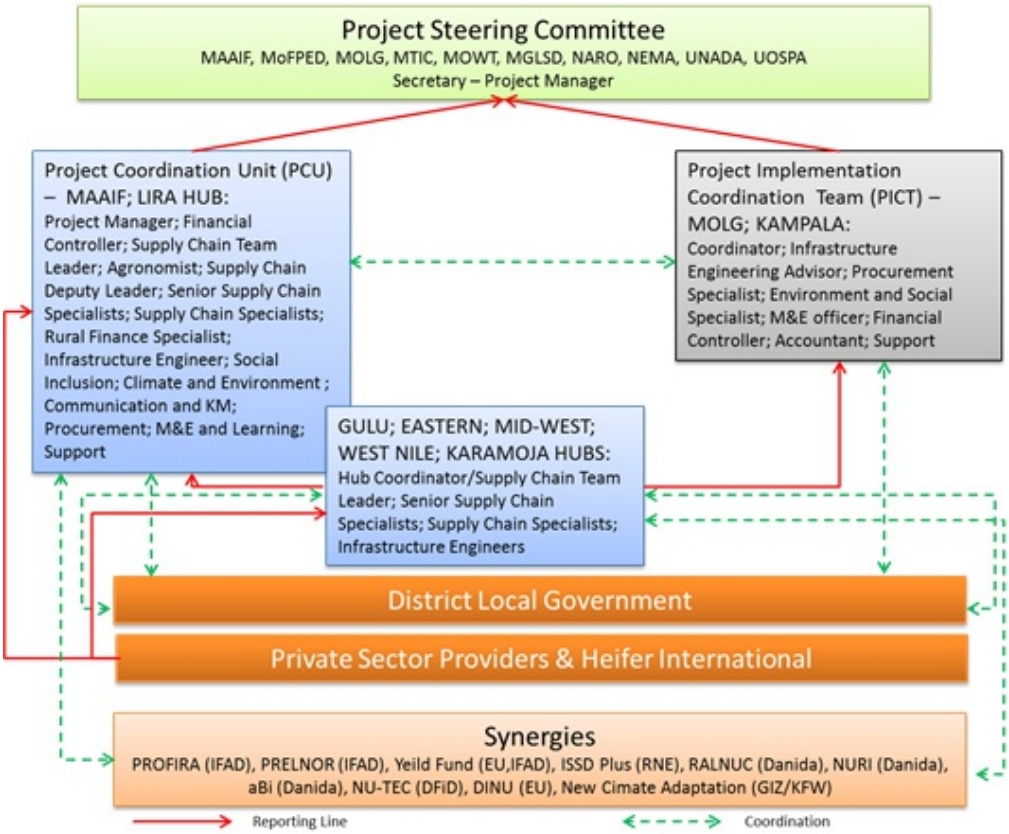
153. The PCU in MAAIF and the PICT in MoLG will conduct regular joint planning and review sessions to ensure full harmonisation of their respective components' activities.

154. **Hub level.** In each hub, a technical implementation team will be set up to lead the field implementation of project activities, focusing on Component 1. The responsibilities of the hub-team will cover supply chain brokering; investment facilitation; producer group mentoring; business skills development; as well as farm production enhancement, seed multiplication and auxiliary services, environmental and social management of Hub activities.The MSPs in different hubs and clusters will play a key role in Component 1 implementation and in the selection process of CARs for construction/rehabilitation, together with local governments.

155. **District level.** At the district level, the district local governments (DLG) will ensure that NOSP activities are coordinated within the District Development Plans (DDPs) through the District Technical Planning Committees (DTPC) and will play a key role in the NOSP-supported construction and rehabilitation of community access roads. In each district, the Chief Administrative Officer (CAO) will be responsible for project implementation and will designate appropriate officers to different NOSP-related activities.

156. At the start of project implementation, a tripartite *Memorandum of Understanding* (MoU) will be signed by the MAAIF, MoLG and each participating DLG, defining their respective roles and responsibilities in NOSP implementation. The staff positions at each operational level as well as the TOR for officers and private sector service providers in NOSP operations are presented in the PIM.

157. Summary of the implementation structure of NOSP is presented below:



b. Financial Management, Procurement and Governance

158. Financial Management System: NOSP financial management arrangements follow the government of Uganda financial management system with some enhancements proposed to mitigate on risks identified. A financial management assessment for NOSP has been carried out in accordance with IFAD's Guidance Note on Undertaking Financial Management Assessment at Design. The objective of FMA is to provide assurance that NOSP will be implemented within sound financial management practices (timely and efficient accounting systems), and punctual professional reviews; both internally (internal audit) and externally (external audit). The assessment was based at the PCU of VODP2 Kampala because NOSP will be adopting similar processes and procedures. The PCU-based assessment was combined with reviews at MoLG, the proposed implementing agency for component 2. It also included discussion and review of IFMIS and other MoFPED processes and further reviews of district level disbursements and financial reporting arrangements.

159. The Government of Uganda (the Borrower) will be required to maintain acceptable financial management systems including accounting, financial reporting, and auditing systems for the 'National Oilseeds Project (NOSP)'. Some project's specific additional measures have been incorporated to enhance financial management of the project.

160. **Implementing and participating organizations with fiduciary responsibilities**

161. The **Lead Project Implementing Agency** *(*LPA) will be the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) through a dedicated Project Management Unit (PMU) which will directly manage all components. Component 2, "Support to Public Infrastructure Serving Oil-Seed Sector" that will be implemented by Ministry of Local Government (MoLG) with close coordination with MAAIF.

162. MoLG will have a lean implementation support unit (ISU), that will manage component 2, including the districts that will be implementing activities related to community access roads under component 2. The Permanent Secretary of MAAIF and MoLG will be the accounting officers to Parliament for NOSP funds implemented under their ministries and are accountable to the Parliament of the Republic of Uganda.

163. **Districts:** Participating districts have some activities related to districts operations that will be paid at districts levels mainly relating to supervisions and monitoring of infrastructure development, community awareness and other agricultural and environmental related activities. All consultants and roads contractors will directly be paid by the PMUs. The basic role of the participating districts will be to receive and to account for activity earmarked advances in line with instructions from the PMU/ISU. The PMU/ISU will provide suitable templates to enable the districts to provide acceptable accountabilities of advances received.

164. **Heifer Project International** is a co-financier to the project and is contributing 20% matching amounts for the component/sub-components that they will be managing. Heifer Project International is a non-profit corporation with head office in Arkansas, USA that work with communities to end hunger and poverty and to care for the Earth by providing families in need with long-term solutions in development. It has a memorandum of understanding with IFAD reference number EB 2017/122/INF.3 dated 17 September 2017 with a view to strengthening collaborations and leveraging investments in support of agricultural development and improved food security. The organization has previous implemented IFAD funded projects in neighboring countries (Rwanda and Tanzania) and has also implemented other donor funded projects in Uganda. It has a country office in Uganda, which manages projects implemented in the country. They will receive matching funds from MAAIF as a performance contract payments with specific deliverables upon which the payments are made. Heifer uses ERP accounting system called Aggreso that is able to provide financial reports per components and categories as may be required by PMU.

165. The **Project Management Unit (PCU).** The PMU under MAAIF will be the overall accounting hub for the project including consolidation of the entire project financial statements while MoLG implementation support unit will manage component 2, "Support to Public Infrastructure Serving Oil-Seed Sector" which is under MoLG. The PMU as the overall accounting hub will be responsible for:

    1. Budget consolidation ensuring a bottom-up approach and timely submissions for inclusions in GoU overall approved budget estimates of the components under MAAIF;
    2. Procurement planning, execution and support service;
    3. Disbursement of funds through IFMS (including advances to other implementing centres),
    4. Management of withdrawal applications from IFAD;
    5. Financial reporting and consolidation of financial statements for audits under the two ministries (MAAIF & MoLG).
    6. Any requests for No Objection to IFAD will emanate from the PCU.

166. **Infrastructure Support Unit:** The Unit under MoLG will be the accounting hub for component 2, "Support to Public Infrastructure Serving Oil-Seed Sector" under MoLG. The Unit as the overall accounting hub for component 2 will be responsible for:

    1. Budget consolidation for component 2 activities ensuring a bottom-up approach and timely submissions for inclusions in GoU (MoLG) overall approved budget estimates;
    2. Procurement planning, execution and support service;
    3. Regular financial reporting to PMU on project financial progress

167. **Audits.** The consolidated financial statements for the project will be audited on an annual basis by the Office of the Auditor General. The audited financial statements will be submitted to IFAD within six months after the financial year end in accordance with IFAD guidelines.

168. NOSP will utilise the internal audit function at MAAIF and MoLG. The internal auditors in the two ministries are under the direct

supervision of the Internal Auditor General at MoFPED. Internal audits will be conducted to provide assurance that NOSP is being implemented in accordance with the PIM, complies with GoU regulations and is complying with project's financing covenants.

169. **Procurement. PRM Assessment.** As part of the NOSP design process, a Project's Procurement Risk Matrix (PRM) was developed. The overall procurement risk is rated "Medium" at central level and "High" at district level. The assessment indicated the following risks particularly at the district level: capacity constraints leading to failure to comply with applicable rules and contract awarding principles; delays in processing procurement and in evaluations, reviews and approvals; weak records keeping and filing as well as overall weaknesses in contract management and follow-up. Key mitigation measures to address procurement capacity gaps are presented in detail in the comprehensive procurement section of the PIM.

170. **Procurement Regulations Applicable to NOSP.** All procurements with cost estimate above the threshold for International Competitive Bidding (ICB) will be undertaken according to the World Bank Guidelines. All contracts procured at national level based on National Competitive Bidding (NCB) and other lower procurement procedures such as Restricted Bidding and Shopping (Request for Quotations) will follow the national public procurement law (the Procurement and Disposal of Public Assets Authority (PPDA) Act, 2003 and its attendant regulations. These procedures have been reviewed by IFAD and found to be satisfactory, except for the following provisions, which will not be applicable under this project: (a) domestic preferences shall not apply under NCB; (b) the charging of fees for dealing with bidder complaints at procuring entity level shall not be permitted; (c) Paragraph 6(1) (b and c) of the fourth schedule of the PPDA Act (restrictions on contract amendments) shall not apply with respect to consultancy services; and (d) procedure for conducting merit point evaluation for Work, Goods and Non-Consulting Services shall not apply.

171. **Institutional Arrangements.** The NOSP PCU in the MAAIF will be responsible for overseeing and implementing all procurement transactions under Component 1 and 3 (Project Management). Activities under Component 2 will be implemented under a two-tiered institutional arrangement. At the national level, the MoLG PDU and Contracts Committee will be the main implementing agency for the activities that will cut across districts. Districts PDUs and Contracts Committees will be the executing agencies for the road construction works.

172. With regard to the management and execution of procurement activities under NOSP, an experienced Procurement and Contracts Manager will be recruited in the PCU immediately after NOSP start-up. He/she will be in overall charge of the implementation of the procurement activities under the project. Furthermore, a Procurement Specialist will be recruited at NOSP effectiveness to the PICT in MoLG, to support and oversee the procurement activities related to the construction and rehabilitation of rural roads (see detailed TOR for both procurement posts in the PIM). Furthermore, IFAD-supported international TA will be provided at early stages of the project to NOSP to strengthen procurement capacity and to assist in the planning and start-up of the procurement operations. IFAD will also support the planning and implementation of an intensive training programme at the project start-up to familiarise the Central Ministries and District PDUs with NOSP/IFAD Guidelines on procurement and contract management.

L. Planning, M&E, Learning, KM and Communication

a. Planning, M&E, Learning, Knowledge Management and Communication

173. **Planning**. The logframe of NOSP (see Annex 1 of PDR) will be the key guide in the development of work plans and budgets. Planning and budgeting will be integrated in the GoU processes and cycles and will be based on Annual Work Plans and Budgets (AWPBs). These, together with the logframe's quantified results-based indicators and NOSP MIS database, will provide the primary basis for monitoring the NOSP progress.

174. The planning process will start at hub-level taking into consideration the priorities identified through MSPs. Under the guidance of the PCU and PICT, hub plans and budgets will be consolidated into a comprehensive NOSP AWPB that will be submitted to the PSC for review and approval and then to IFAD for review and the issuing of no objection. The AWPB will clearly indicate which activities and budget lines fall under the Budget Framework Papers of MAAIF and MoLG, respectively.

175. The PCU and PICT will jointly provide overall guidance in the planning and budgeting processes. The PCU M&E Specialist will work in close liaison with Financial Controllers in both ministries to ensure the budgeting is adequate and conforms to the right categories and components. Subsequent AWPB processes will offer the opportunities to the PCU and PICT to reflect on lessons from the implementation experience of the previous years, and to propose activities and expenditures required to achieve the intended programme outcomes. The Programme will have the possibility of revising the AWPB at any time of the year, and any proposed adjustments will require approvals by both the GoU and IFAD.

176. **Monitoring and Evaluation.** NOSP will develop a robust M&E system in compliance with IFAD and the GoU requirements. It will be embedded in project management, coordinated by the PCU and supported by additional professional staff who will work closely with NOSP subject-matter specialists to strengthen learning and knowledge management. The M&E system will be fully aligned with IFAD's Operational Results Management System (ORMS).

177. The NOSP M&E system will: (i) collect, analyse and update information on project results and impact; (ii) support PCU and the Steering Committee in planning and making informed decisions on NOSP strategies and actions; (iii) maintain and strengthen strategic partnerships with stakeholders; (iv) create opportunities for learning and sharing results. The system will be participatory, gender sensitive and results-oriented while enabling the integration of physical and financial progress reporting. In addition, the system will enable the analysis of climate change vulnerability among the beneficiaries. It will incorporate in-depth baseline and completion surveys, a mid-term review and other thematic studies as relevant, including qualitative studies. The baseline surveys will include context-specific needs assessments of the concrete barriers to smallholder-driven agricultural

sector development in the oilseeds sector and address pressing information needs for implementation planning.

178. Relevant indicators have been specified in the NOSP logframe and, to the extent possible, quantified. The indicators relate to the different levels (output, outcome and impact) and include IFAD Core Indicators (CIs) as well as project specific indicators. The approach is based on the Theory of Change of NOSP (see Annex 2 of the PDR), and demonstrates the logical links between the results at their different levels, thereby enables the meaningful analysis of whether the project is on-track towards its planned results even in the first years of implementation when higher-level results are not yet expected.

179. **Learning and knowledge management.** After the project start-up, the project will, with support from IFAD experts, develop an effective NOSP Knowledge Management (KM) Strategy. Lessons learnt in implementation will be actively shared between clusters and hubs. Quarterly review meetings with implementing partners will be organised by project management to discuss progress towards results in relation to each quarterly progress report, the format of which will explicitly include a focus on lessons learnt in terms of challenges, good practices, etc. Study tours, exchange visits and learning routes will be organised for lateral knowledge transfer. An effective downward and upward flow of information about project progress to beneficiaries and implementing partners in the field is of utmost relevance in fostering ownership and participation.

180. The KM Strategy will have a strong focus on documenting best practices as well as positive and negative lessons from NOSP implementation experience, supported by reliable evidence and analysis. The wider adoption of NOSP's documented best practices will be an important measure of its success in knowledge management. Key elements of the NOSP approach to be documented in KM products and promoted for wider adoption by other organizations are expected to include, inter alia: improved business skills and financial literacy; multi-stakeholder cluster meetings and associated processes for inclusive cluster development; producer groups and member mentoring; market-based service market development; social mentoring and household methodologies; and promotion of private smallholder investment via savings and credit rather than grants.

b. Innovation and scaling up

181. NOSP will focus on innovations that have a potential to be scaled up with financing from other sources than NOSP, either during the project implementation or after the NOSP activities close. The innovative elements in the NOSP design include: (i) the use of MSPs at cluster level to enhance investment and market relations; (ii) extensive use of private sector-based extension services in both group/cluster development and in technical services; (iii) promotion of community-based extension agents as a sustainable alternative to commission-based agents working for a single agro-company; (iv) extensive development of local seed businesses in each cluster to support local self-reliance in quality planting seeds; and (v) rolling out of an agricultural credit product to all VSLAs to provide local financing to cover input procurement costs, especially the cost of planting seeds, without externally provided loans.

M. Implementation plans

a. Implementation readiness and start-up plans.

182. **Implementation Readiness and Start-up Plans.** Project implementation is planned to start in July 2020. To meet this target, (i) IFAD will complete the Project Design Report and submit it to the GoU by 15 August 2019; (ii) the GoU's comments will be submitted to IFAD by 30 August 2019; and (iii) a final PDR will ready by 4 September 2019.

183. Negotiations on the Loan Financing Agreement between the GoU and IFAD will be conducted by 15 October 2019, and NOSP will be presented in early-December 2019 to the IFAD Executive Board for approval. The GoU will conduct the required internal approvals, including the approval by MFPED by 30 September 2019, the Cabinet by 30 November 2019, and the Parliament by 31 May 2020.

184. A draft Project Implementation Manual (PIM), a draft AWPB for the first 18 months of project implementation, and a draft procurement plan for the first 18 months have been prepared as part of the NOSP design process. These documents aim to ensure the project implementation starts as scheduled, without unnecessary delays during the first project year.

b. Supervision, Mid-term Review and Completion plans.

185. **Supervision**. NOSP will be directly supervised by IFAD with annual supervision and implementation support missions, followed initially by shorter follow-up missions as needed, organised with the participation of the GoU. Continuous implementation support will be provided to the project from ICO-based staff and, as required, by staff from IFAD's technical divisions. Supervision will be used as an opportunity to assess achievements and lessons jointly, and to reflect on ways to improve the NOSP implementation and impact. The focus of these missions will be on: (i) development impact based on progress measured against agreed indicators; (ii) joint identification of implementation challenges and solutions with implementers and beneficiaries, and agreement on actions to achieve project objectives; and, (iii) ensuring compliance with loan covenants, procurement and efficient use of project funds.

186. **Mid-term Review (MTR).** As NOSP is a seven-year project, an MTR will be undertaken during the fourth year of NOSP implementation. The MTR will be jointly organised by the GoU and IFAD in close collaboration with the other stakeholders.

187. **Programme Completion Report (PCR)**. At the end of project implementation period, the GoU in collaboration with IFAD will undertake a project completion review exercise, in order to report on the results and impact achieved. The PCR would need to be finalised before the project closing date, which will be six months after the completion date. As part of the completion

activities, a Beneficiary Impact Assessment will be undertaken and findings used to inform the PCR. The lessons documented in the impact assessment and PCR will be used by both IFAD and the GoU to improve the quality of the future designs and implementation.

Footnotes

[1]https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=UG

[2]https://data.worldbank.org/indicator/SI.POV.RUHC?locations=UG&view=chart

[3] Focus on Soy, Sunflower, Sesame and Groundnuts

[4] Which are also the best agro-ecological regions for oilseeds

[5] Currently mostly exported and re-imported as animal feed

[6] See Challenges to Oilseeds commercialization prepared by the VODP and VODP2 team (document available on request)

[7] Specifically animal feed cakes

[8] West Nile, Gulu, Lira and Mid-Western

[9] Bank of Uganda, Key Economic Indicators for 2017/2018

[10] UNDP Human Development Index 2018

[11] United Nation's population projections for 2050.

[12] Bank of Uganda, Key Economic Indicators, June 2019

[13]https://www.ubos.org/wp-content/uploads/publications/03_20182017_Statistical_Abstract.pdf

[14] World Bank: "Closing the Potential-Performance Divide in Ugandan Agriculture", 2018

[15] Extraction rate of oil varies from 30%-60%

[16] James Joughin, "The Political Economy of the Edible Oil Industry in Uganda", June 2018

[17] The SECAP Annex of this PDR (Annex 5) provides a summary of the Women Empowerment in Agriculture Index Survey findings.

[18] People living below the poverty line of USD 1 per day

[19] Uganda National Household Survey 2016/17

[20] Long production runs reduce the setup costs per product unit.

[21] IOE Interim Evaluation; Report No. 2195-UG; 2011

[22] IOE Project Completion Report Validation for VODP; December 2014

[23] As VODP2 uses both private and public sector-led interventions, the results in production, productivity and farmer group/cooperative development vary significantly between the two approaches, with better results in the private sector-led interventions.

[24] Interventions in other countries (Nepal – High Value Agriculture Project; Cambodia – Project for Agricultural Development and Economic Empowerment; Montenegro – Rural Clustering and Transformation Project) provide case studies of successfully run private sector-run multi-stakeholder platforms.

[25] Detailed interventions, by target group, are available in the PIM.

[26] Average landholding for smallholder farmers in the country is about 1.1 hectares (2.7 acres). In the North is 1.6 hectares (3.9 acres); in the East, it is 1.1 hectares (2.7acres), in Mid Western it is 0.8 hectares (1.97acres); 2009 Agricultural Census Data. It is estimated that these holding have further decreased as the population has increased and the lands have continued being divided among the household members.

[27] More detailed descriptions of NOSP activities and the implementation arrangements are provided in Annex 8 (Project Implementation Manual PIM).

[28] Until October 2021, the Sida-financed, IFAD-implemented technical assistance programme INSURED is supporting assessment and implementation of a new agricultural insurance product and/or efficient delivery mechanisms to help to scale-up coverage for oilseed smallholder farming, in collaboration with the insurance sector.

[29] National Environment Act, 2019

[30] This estimation is derived from a weighted average of recently awarded contracts under the PRELNOR (ranging between US$9,000 to US$80,000 per km) project and verified with the costs from the CAIIP projects.

[31] See Annex 9 for other risks and mitigation measures foreseen for NOSP.

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National Oilseeds Project

Project Design Report

Annex 1: Logframe

Document Date:	26/10/2019
Project No.	2000002260
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East and Southern Africa Division
Programme Management Department

National Oilseeds Project

Logical Framework

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outreach	1.b Estimated corresponding total number of households members				Project reports, Outcome surveys	Annual	PCU/PICT	Continued social, political and economic stability in the country and region. Manageable climatic events. Macro-economy continues to improve.
	Household members		1089300	1750000				
	1.a Corresponding number of households reached				Project reports, Outcome surveys	Annual	PCU/PICT	
	Women-headed households		67540	108500				
	Non-women-headed households							
	Households		217860	350000				
	1 Persons receiving services promoted or supported by the project				Project reports, Outcome surveys	Annual	PCU/PICT	
	Females		44820	72000				
	Males		29880	48000				
	Young		29880	48000				
	Not Young							
	Total number of persons receiving services		74700	120000				
Project Goal Inclusive rural transformation through sustainable development of the oilseeds sector	Number of households that experience an increase in household assets				IFAD Impact Study	Before and after project implementation	IFAD/PMU	Economic policies continue to support oilseeds sector and associated value chains for smallholder farmers.
	Women Headed Households		17370	27900				
	Households		56020	90000				
	Women reporting improved quality of their diets				IFAD Impact study	Before and after project implementation	PMU	
	Females		20	50				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Development Objective To accelerate commercialisation in key oilseeds value chains and thereby improve the livelihoods and resilience of the smallholders engaged oilseed production and marketing	Number of households that experience an increase in household income				Outcome Surveys, IFAD Impact Study	Annual	PMU	Implementation builds on limited local government capacity through private sector led support services to smallholder oilseeds farmers. Local and international demand for oilseeds continues to grow. No adverse climatic events destabilize the oilseeds sector.
	Households		56020	90000				
	Males							
	Females							
	Young							
	Number of HHs reporting increased sales of oilseed crops				Outcome Surveys, IFAD Impact Study	Annual	PMU	
	Total Number of households		56020	90000				
Outcome Outcome 1 - Increased production, productivity and profitability in oilseeds sector	1.2.4 Households reporting an increase in production				Outcome Suveys	Annual	PMU	The project beneficiaries utilize the knowledge and skills given during the trainings.
	Households		40	75				
	3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices				Outcome Suveys	Annual	PMU	
	Households		50	80				
Output Output 1.1 - Multi-stakeholder platforms (MSP) formed and oilseed production clusters established	Multi-stakeholder platforms (MSPs)/Clusters established and brokering deals between stakeholders				HCU Reports, PCU Reports	Quartely	PMU/HCU	Project resources at village level can strengthen group capacity. Smallholder farmers are influenced by the clustering of production, thereby allowing them to have parity with off-takers. Suitable agricultural related income-generating activities.
	MSPs Cluster level		400	400				
	MSPs Hub level		5	6				
	Number of Clusters		200	200				
	Number of MSPs	0	405	406				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Output Output 1.2 - Production Groups trained in market-orientation and business skills	2.1.2 Persons trained in income-generating activities or business management				Business Skills Mentor reports, HCU and PCU reports	Quartely	PMU/HCU	Off-takers are interested intrading with clustered smallholder oilseeds producers. Producers and private sector can negotiate satisfactory arrangements
	Females		44820	72000				
	Males							
	Young		29880	48000				
	Persons trained in IGAs or BM (total)		74400	120000				
Output Output 1.3 - Social mentoring provided to production groups and high-risk households	Clusters facilitated in GALS				Mentoring Reports from Mentors, HCU reports, PCU reports	Quartely	PMU/HCU	Social mentoring can resolve priority issues/constraints.
	Number of Clusters		200	200				
	Number of high-risk HHs receive HH mentoring				Mentoring Reports from Mentors, HCU reports, PCU reports	Quartely	PMU/HCU	
	Female-Headed HHs		12000	12000				
	Number of high-risk HHs - Number		20000	20000				
	Youth-Headed HHs - Number		8000	8000				
Output Output 1.4. Financial Services enhanced in supported clusters	Percentage of VSLAs credit-linked with FIs				HCU and PCU reports	Quartely	PMU/HCU	The GoU facilitates access to the Agriculture Credit Facility to benefit smallholder oilseeds producers.
	Women farmers assessing credit/financial services		40	60				
	VLSAs with majority women members		85	85				
	Youth farmers assessing credit/ financial services		30	40				
	% of VLSAs		30	60				
	Number of formal FIs supported to launch innovative oilseeds products				HCU and PCU reports	Quartely	PMU/HCU	

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Number of formal FIs supported		2	4				
	Number of formal FIs with innovative oilseeds products		2	4				
	1.1.7 Persons in rural areas trained in financial literacy and/or use of financial products and services							
	Females		44820	72000				
	Males							
	Young		29880	48000				
	Persons in rural areas trained in financial literacy and/or use of financial products and services							
Output Output 1.5 Market-based technical services for smallholders enhanced	Number of Farm Production Advisors (FPA) mobilised and trained				HCU and PCU reports	Quartely	HCU	Smallholders willing to, through commercialization, pay for the private sector led support services.
	Women FPAs		60	120				
	Youth FPAs		40	80				
	Total Numbers of FPA		100	200				
	Number of Auxiliary Farm Service Providers (AFSP) trained and operational				HCU and PCU reports	Quartely	HCU	
	Total Numbers of AFSPs		100	200				
	Youth AFSPs		40	80				
	Women AFSPs		60	120				
	Local seed businesses (LSB) supplying Quality Declared Seeds established and operational				HCU and PCU reports	Quartely	HCU	
	Women LSB run/led		60	120				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Youth LSB run/led		40	80				
	Total LSB run/led		100	200				
Outcome Outcome 2 - Transport Infrastructure Serving Oilseeds Sector Improved	2.2.6 Households reporting improved physical access to markets, processing and storage facilities				Project reports, Outcome/HH surveys, Market Surveys	Annual	PMU	Local government has the resources to support to maintain upgraded or new CARs. CARs complement other NOSP activities.
	Households reporting improved physical access to markets		20	75				
	Males							
	Females							
	Young							
	Males							
	Females							
	Young							
	Oilseeds producers reporting reduced transport costs				Project reports, Outcome/HH surveys, Market Surveys	Annual	PMU	
	Percentage of oilseeds producers		20	75				
	Youth oilseeds producers		20	40				
Output Output 2.1 - Community access roads constructed or rehabilitated to all- weather standard	2.1.5 Roads constructed, rehabilitated or upgraded				Project Engineers' reports, PMU report	Quartely	PMU	Local government has the resources to support road design, construction and maintenance.
	Length of roads			2500				

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Project Design Report

Annex 2: Theory of change

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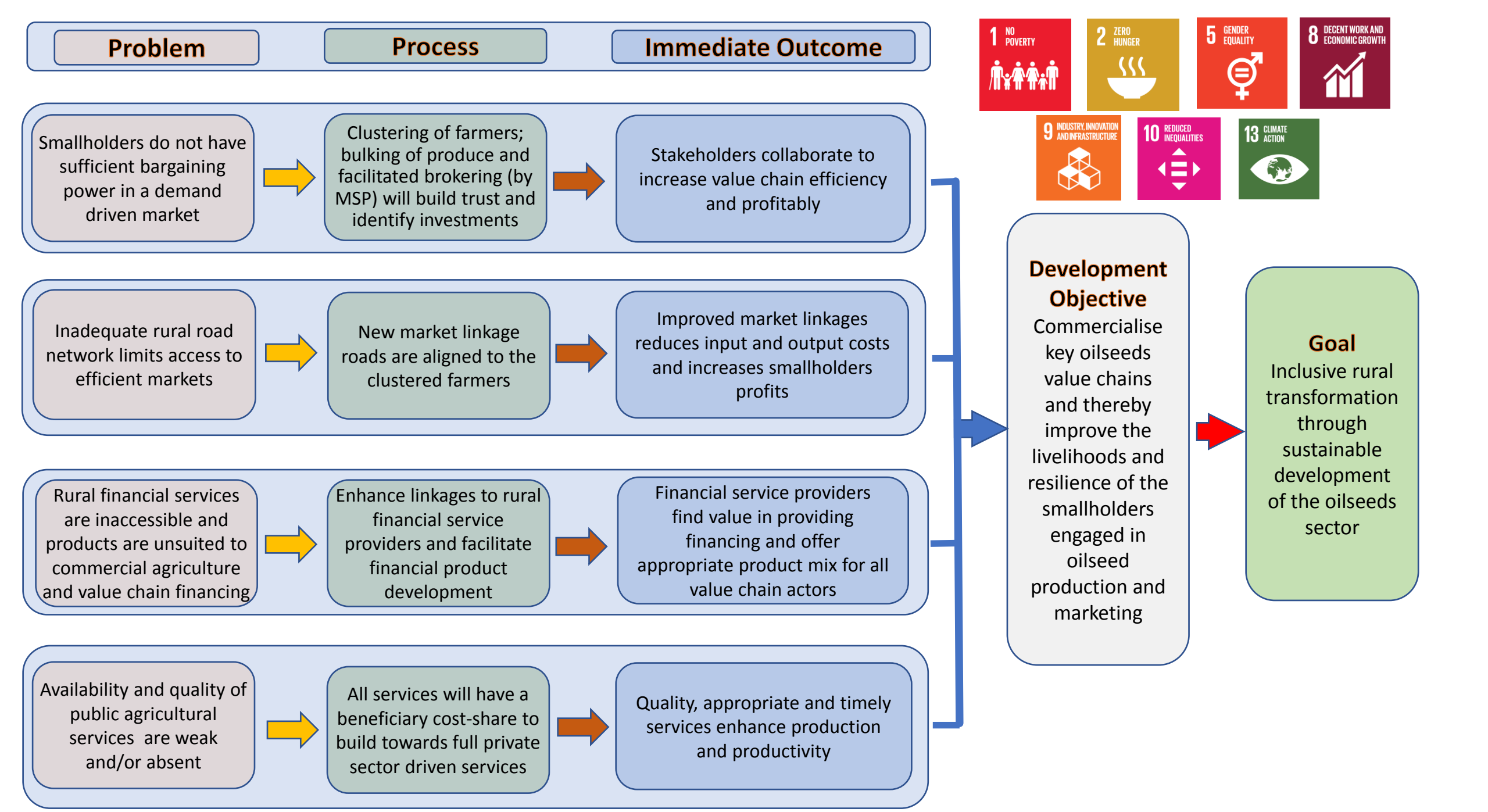
Programme Management Department

NOSP PDR

ANNEX 2

NOSP THEORY OF CHANGE


Problem
Process
Immediate Outcome
Smallholders do not have sufficient bargaining power in a demand driven market
Clustering of farmers; bulking of produce and facilitated brokering (by MSP) will build trust and identify investments
Stakeholders collaborate to increase value chain efficiency and profitably
Inadequate rural road network limits access to efficient markets
New market linkage roads are aligned to the clustered farmers
Improved market linkages reduces input and output costs and increases smallholders profits
Rural financial services are inaccessible and products are unsuited to commercial agriculture and value chain financing
Enhance linkages to rural financial service providers and facilitate financial product development
Financial service providers find value in providing financing and offer appropriate product mix for all value chain actors
Availability and quality of public agricultural services are weak and/or absent
All services will have a beneficiary cost-share to build towards full private sector driven services
Quality, appropriate and timely services enhance production and productivity
1 NO POVERTY
2 ZERO HUNGER
5 GENDER EQUALITY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
13 CLIMATE ACTION
Development Objective
Commercialise key oilseeds value chains and thereby improve the livelihoods and resilience of the smallholders engaged in oilseed production and marketing
Goal
Inclusive rural transformation through sustainable development of the oilseeds sector

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National Oilseeds Project

Project Design Report

Annex 3: Project cost and financing: Detailed costs tables

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East and Southern Africa Division
Programme Management Department

Annex 3: Project Costs and Financing

A. Main assumptions

1. **Programme duration.** The duration of the NOSP implementation is seven years with an intended project start in July 2020.

2. **Prices and costs.** Costs have been collected as of July 2019. Costs are entered in US dollars with inflation adjustments made for the differing cost bases. Data were collected by the consultants in the field and via partners and other IFAD projects. The Project costs are presented in both Ugandan Shillings (UGX) and USD. Conversions from current USD values into UGX over the course of project implementation assume constant purchasing power exchange rates.

3. **Inflation**. The local inflation scenario for the 7 years of the programme is provided in Table 1. 1 below. The average inflation over the past 10 years has been 7.2 per cent, with a high of 15.0 per cent in 2011 and a low of 2.6 per cent in 2018 (IMF 2019 [1]). The forecasts of the IMF and the World Bank for the next period estimate continuous moderate level of inflation. Foreign inflation is set at 2 per cent per annum over the Project period, based on the Manufactures Unit Value Index of 15 large economies (MUV15).

Table 1. 1: Inflation rates (local and foreign)

	2020	2021	2022	2023	2024	2025	2026
Components							
Foreign inflation	2%	2%	2%	2%	2%	2%	2.%
Local inflation	4.4%	4.9%	5.0%	5.0%	5.0%	5.0%	5.0%

4. **Exchange rate**. The Bank Uganda reference rate as of 4 October 2019 of UGX 3,675/USD has been assumed.[2]

5. **Contingencies, taxes and duties**. The expenditure categories assumed in the cost model and shown in Table 1. 2 below.[3]

Table 1. 2: Physical contingencies, foreign exchange and taxes/duties

Expenditure accounts	Physical contingencies	Foreign exchange	Duties/taxes
Works	15%	10%	10%
Goods, services and inputs	5%	20%	10%
Equipment and materials	10%	65%	20%
Consultancies – TA – International	-	100%	-
Consultancies – TA – National	-	-	15%
Trainings and workshops	10%	-	10%
Grants and subsidies	-	-	-
Salaries and allowances	-	-	-
Other operating costs	10%	5%	10%

[1] https://www.imf.org/external/datamapper/PCPIPCH@WEO/OEMDC/UGA Accessed 16 Jul 2019
[2] Bank of Uganda https://www.bou.or.ug/bou/rates_statistics/statistics.html Accessed 8 October 2019
[3] The categories applied a consistent with the Standardised Category Descriptions for Loan Grant Allocation Table (Schedule 2) in Financing Agreements, IC/FOD/02/2013, dated 29 August 2013.

6. The Government of Uganda finances the taxes on all goods and services purchased under the project.

B. Component costs

7. **Total component cost**. The total investment and recurrent cost for the Project is estimated at USD 160.7 million (UGX 655,694 million) including contingencies. The total base costs are USD 138.1 million (UGX 509,952 million). Physical and price contingencies account for USD 11.5 million and USD 11.1 million respectively (8 per cent and 8 per cent of the total base costs). Baseline investment costs are estimated at USD 128.2 million representing 93 per cent of baseline cost. The breakdown of the costs by component is shown in Table 1. 3

Table 1. 3 – Components Project Cost Summary

Republic of Uganda
National Oilseeds Project

Components Project Cost Summary	(UGX Million)			(US$ Million)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
A. Component 1 Support to Oilseed Value Chain Development								
1. Sub-Component 1.1 Cluster development								
a. Supply chain brokering and investment facilitation	54,119.8	7,852.3	61,972.0	14.7	2.1	16.8	13	12
b. Producer group mentoring	66,580.4	25,886.8	92,467.2	18.0	7.0	25.0	28	18
Subtotal Sub-Component 1.1 Cluster development	120,700.2	33,739.1	154,439.3	32.7	9.1	41.8	22	30
2. Sub-Component 1.2 Support market development								
a. Financial services	8,191.8	19.2	8,211.0	2.2	0.0	2.2	-	2
b. Technical Services								
Farm Production Advisors Scheme	12,481.6	4,564.3	17,046.0	3.4	1.2	4.6	27	3
Auxiliary Farm Services Promotion Scheme	56,366.3	11,625.3	67,991.6	15.3	3.1	18.4	17	13
Quality Declared Seed Production Scheme	5,020.8	1,809.8	6,830.6	1.4	0.5	1.8	26	1
Subtotal Technical Services	73,868.8	17,999.4	91,868.2	20.0	4.9	24.9	20	18
Subtotal Sub-Component 1.2 Support market development	82,060.6	18,018.6	100,079.2	22.2	4.9	27.1	18	20
Subtotal Component 1 Support to Oilseed Value Chain Development	202,760.8	51,757.7	254,518.5	54.9	14.0	68.9	20	50
B. Component 2 Support to Market Linkage Infrastructure Serving Oilseed Sector	185,011.4	24,231.8	209,243.2	50.1	6.6	56.7	12	41
C. Project Coordination and Management	35,833.1	2,289.9	38,123.0	9.7	0.6	10.3	6	7
D. Knowledge Management and Monitoring & Evaluation	6,143.0	1,924.4	8,067.4	1.7	0.5	2.2	24	2
Total BASELINE COSTS	429,748.2	80,203.8	509,952.0	116.4	21.7	138.1	16	100
Physical Contingencies	36,864.8	5,755.6	42,620.4	10.0	1.6	11.5	14	8
Price Contingencies	89,325.2	13,796.2	103,121.4	9.6	1.5	11.1	13	8
Total PROJECT COSTS	555,938.2	99,755.6	655,693.8	135.9	24.8	160.7	15	116

8. **Component costs**. The Project costs comprise two components as follows. Component 1 Support to Oilseed Supply Chain Development is estimated at USD 68.9 million or 50 per cent of the base costs. This component comprises: Sub-Component 1.1 Cluster development USD 41.8 million or 30 per cent of base costs; and, Sub-Component 1.2 Support market development USD 27.1 million or 20 per cent of base costs. Component 2 Component 2 Support to Public Infrastructure Serving Oilseed Sector is estimated at USD 56.7 million or 41 per cent of base costs. Project Coordination, Knowledge Management and Monitoring and Evaluation combined is estimated at USD 12.5 million or 9 per cent of base costs. Further breakdown is shown above in Table 1. 3.

C. Financing plan

9. **Component cost by financier**. An IFAD loan will finance USD 99.56 million or 62.0 per cent of total project costs. The IFAD loan includes: USD 53.5 million or 69.5 per cent of Component 1: Support to Oilseed Supply Chain Development for which the total cost is USD 77.1 million; and, USD 32.9 million or 47.0 per cent of Component 2: Support to Public Infrastructure Serving Oilseed Sector for which the total cost is USD 69.9 million. The OPEC Fund for International Development (OFID) will finance USD 30 million of Component 2 Support to Public Infrastructure Serving Oilseed Sector or 42.3 per cent of that component. Heifer International will finance USD 6.15 million or 13.3 per cent of Sub-Component 1.1 Cluster development within Component 1 Support

to Oilseed Supply Chain Development. The Kuehne Foundation will finance USD 13,000 for supply chain logistics training under the Supply chain brokering and investment facilitation activity.

10. The beneficiaries will finance USD 4.83 million or 3.0 per cent of the total project costs. The private sector will finance USD 5.84 million or 3.6 per cent of the total project costs. Co-financing from the beneficiaries and the private sector with both take place within the Auxiliary Farm Services Promotion Scheme activity under the Support Market Development Sub-Component

11. The Government will finance USD 14.29 million in the form of taxes and duties or 9 per cent of the total project costs. The NOSP financing plan is shown in Table 1. 4

Table 1. 4 – Disbursement Accounts by Financiers

Republic of Uganda
National Oilseeds Project
Disbursement Accounts by Financiers

(US$ '000)	IFAD Loan		OFID		Heifer		Kuehne Foundation		Beneficiaries		Private sector		Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1. Works	25,511	41.4	30,000	48.6	-	-	-	-	-	-	-	-	6,168	10.0	61,679	38.4
2. Grants & Subsidies	9,599	95.0	-	-	-	-	-	-	-	-	505	5.0	-	-	10,105	6.3
3. Goods, Services & Inputs	33,002	60.2	-	-	6,150	11.2	-	-	4,834	8.8	5,331	9.7	5,480	10.0	54,796	34.1
4. Equipment and Materials	4,598	80.0	-	-	-	-	-	-	-	-	-	-	1,149	20.0	5,747	3.6
5. Consultancies	4,731	98.0	-	-	-	-	-	-	-	-	-	-	99	2.0	4,830	3.0
6. Training and Workshops	11,427	89.9	-	-	-	-	13	0.1	-	-	-	-	1,271	10.0	12,710	7.9
7. Recurrent Costs	10,692	98.8	-	-	-	-	-	-	-	-	-	-	127	1.2	10,819	6.7
Total PROJECT COSTS	99,560	62.0	30,000	18.7	6,150	3.8	13	-	4,834	3.0	5,836	3.6	14,294	8.9	160,686	100.0

12. The NOSP financing plan by components is shown in Table 1. 5.

Table 1. 5 – NOSP Components by Financiers

Republic of Uganda
National Oilseeds Project
Components by Financiers
(US$ '000)

	IFAD Loan		OFID		Heifer		Kuehne Foundation		Beneficiaries		Private sector		Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
A. Component 1 Support to Oilseed Value Chain Development																
1. Sub-Component 1.1 Cluster development																
a. Supply chain brokering and investment facilitation	16,875	91.0	-	-	172	0.9	13	0.1	-	-	505	2.7	976	5.3	18,541	11.5
b. Producer group mentoring	19,221	69.6	-	-	5,978	21.7	-	-	-	-	-	-	2,407	8.7	27,606	17.2
Subtotal Sub-Component 1.1 Cluster development	36,096	78.2	-	-	6,150	13.3	13	-	-	-	505	1.1	3,383	7.3	46,147	28.7
2. Sub-Component 1.2 Support market development																
a. Financial services	2,188	90.0	-	-	-	-	-	-	-	-	-	-	243	10.0	2,431	1.5
b. Technical Services																
Farm Production Advisors Scheme	4,617	87.0	-	-	-	-	-	-	-	-	-	-	687	13.0	5,304	3.3
Auxiliary Farm Services Promotion Scheme	8,783	41.7	-	-	-	-	-	-	4,834	23.0	5,331	25.3	2,105	10.0	21,053	13.1
Quality Declared Seed Production Scheme	1,834	86.5	-	-	-	-	-	-	-	-	-	-	286	13.5	2,120	1.3
Subtotal Technical Services	15,234	53.5	-	-	-	-	-	-	4,834	17.0	5,331	18.7	3,078	10.8	28,477	17.7
Subtotal Sub-Component 1.2 Support market development	17,422	56.4	-	-	-	-	-	-	4,834	15.6	5,331	17.2	3,321	10.7	30,908	19.2
Subtotal Component 1 Support to Oilseed Value Chain Development	53,518	69.5	-	-	6,150	8.0	13	-	4,834	6.3	5,836	7.6	6,704	8.7	77,055	48.0
B. Component 2 Support to Market Linkage Infrastructure Serving Oilseed Sector	32,900	47.0	30,000	42.9	-	-	-	-	-	-	-	-	7,033	10.1	69,933	43.5
C. Project Coordination and Management	10,955	97.4	-	-	-	-	-	-	-	-	-	-	296	2.6	11,251	7.0
D. Knowledge Management and Monitoring & Evaluation	2,187	89.4	-	-	-	-	-	-	-	-	-	-	260	10.6	2,447	1.5
Total PROJECT COSTS	99,560	62.0	30,000	18.7	6,150	3.8	13	-	4,834	3.0	5,836	3.6	14,294	8.9	160,686	100.0

D. Appendix 1.1 Summary Cost and Financing Tables

Table 1: Components Project Cost Summary

Table 2: Expenditure Accounts Project Cost Summary

Table 3: Expenditure Accounts by Components – Totals including Contingencies (USD Million)

Table 4: Expenditure Accounts by Components – Totals including Contingencies (UGX Million)

Table 5: Project Components by Year -- Totals Including Contingencies (USD Million)

Table 6: Project Components by Year -- Investment/Recurrent Costs (USD Million)

Table 7: Expenditure Accounts by Year -- Totals Including Contingencies (USD Million)

Table 8: Expenditure Accounts Breakdown (USD Million)

Table 9: Components by Financiers (USD Million)

Table 10: Disbursement Accounts by Financiers (USD ’000)

Table 11: Expenditure Accounts by Financiers (USD ’000)

Table 12: Allocation of Loan Proceed (Loan Agreement Schedule 2)

Appendix 1.1 Summary Cost and Financing Tables

Table 1: Components Project Cost Summary

Republic of Uganda
National Oilseeds Project

Components Project Cost Summary	(UGX Million)			(US$ Million)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
A. Component 1 Support to Oilseed Value Chain Development								
1. Sub-Component 1.1 Cluster development								
a. Supply chain brokering and investment facilitation	54,119.8	7,852.3	61,972.0	14.7	2.1	16.8	13	12
b. Producer group mentoring	66,580.4	25,886.8	92,467.2	18.0	7.0	25.0	28	18
Subtotal Sub-Component 1.1 Cluster development	120,700.2	33,739.1	154,439.3	32.7	9.1	41.8	22	30
2. Sub-Component 1.2 Support market development								
a. Financial services	8,191.8	19.2	8,211.0	2.2	0.0	2.2	-	2
b. Technical Services								
Farm Production Advisors Scheme	12,481.6	4,564.3	17,046.0	3.4	1.2	4.6	27	3
Auxiliary Farm Services Promotion Scheme	56,366.3	11,625.3	67,991.6	15.3	3.1	18.4	17	13
Quality Declared Seed Production Scheme	5,020.8	1,809.8	6,830.6	1.4	0.5	1.8	26	1
Subtotal Technical Services	73,868.8	17,999.4	91,868.2	20.0	4.9	24.9	20	18
Subtotal Sub-Component 1.2 Support market development	82,060.6	18,018.6	100,079.2	22.2	4.9	27.1	18	20
Subtotal Component 1 Support to Oilseed Value Chain Development	202,760.8	51,757.7	254,518.5	54.9	14.0	68.9	20	50
B. Component 2 Support to Market Linkage Infrastructure Serving Oilseed Sector	185,011.4	24,231.8	209,243.2	50.1	6.6	56.7	12	41
C. Project Coordination and Management	35,833.1	2,289.9	38,123.0	9.7	0.6	10.3	6	7
D. Knowledge Management and Monitoring & Evaluation	6,143.0	1,924.4	8,067.4	1.7	0.5	2.2	24	2
Total BASELINE COSTS	429,748.2	80,203.8	509,952.0	116.4	21.7	138.1	16	100
Physical Contingencies	36,864.8	5,755.6	42,620.4	10.0	1.6	11.5	14	8
Price Contingencies	89,325.2	13,796.2	103,121.4	9.6	1.5	11.1	13	8
Total PROJECT COSTS	555,938.2	99,755.6	655,693.8	135.9	24.8	160.7	15	116

Appendix 1.1 Summary Cost and Financing Tables

Table 2: Expenditure Accounts Project Cost Summary

Republic of Uganda
National Oilseeds Project

Expenditure Accounts Project Cost Summary	(UGX Million)			(US$ Million)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
I. Investment Costs								
A. Works	163,756.7	18,195.2	181,951.9	44.3	4.9	49.3	10	36
B. Goods, Services & Inputs	144,653.8	36,163.5	180,817.3	39.2	9.8	49.0	20	35
C. Equipment and Materials	6,452.8	11,983.8	18,436.6	1.7	3.2	5.0	65	4
D. Consultancies								
1. Technical Assistance								
International Technical Assistance	-	13,664.1	13,664.1	-	3.7	3.7	100	3
National Technical Assistance	3,656.1	-	3,656.1	1.0	-	1.0	-	1
Subtotal Technical Assistance	3,656.1	13,664.1	17,320.2	1.0	3.7	4.7	79	3
E. Training and Workshops	40,484.9	-	40,484.9	11.0	-	11.0	-	8
F. Grants and Subsidies	34,344.9	-	34,344.9	9.3	-	9.3	-	7
Total Investment Costs	393,349.2	80,006.5	473,355.7	106.5	21.7	128.2	17	93
II. Recurrent Costs								
A. Salaries and allowances	32,650.7	-	32,650.7	8.8	-	8.8	-	6
B. Operating costs	3,748.3	197.3	3,945.6	1.0	0.1	1.1	5	1
Total Recurrent Costs	36,399.1	197.3	36,596.3	9.9	0.1	9.9	1	7
Total BASELINE COSTS	429,748.2	80,203.8	509,952.0	116.4	21.7	138.1	16	100
Physical Contingencies	36,864.8	5,755.6	42,620.4	10.0	1.6	11.5	14	8
Price Contingencies	89,325.2	13,796.2	103,121.4	9.6	1.5	11.1	13	8
Total PROJECT COSTS	555,938.2	99,755.6	655,693.8	135.9	24.8	160.7	15	116

Appendix 1.1 Summary Cost and Financing Tables

Table 3: Expenditure Accounts by Components – Totals including Contingencies (USD million)

Republic of Uganda
National Oilseeds Project
Expenditure Accounts by Components - Totals Including
(US$ Million)

	Component 1 Support to Oilseed Value Chain Development									
	Sub-Component 1.1 Cluster development		Sub-Component 1.2 Support market development							
				Technical Services						
	Supply chain brokering and investment facilitation	Producer group mentoring	Financial services	Farm Production Advisors Scheme	Auxiliary Farm Services Promotion Scheme	Quality Declared Seed Production Scheme	Component 2 Support to Market Linkage Infrastructure Serving Oilseed Sector	Project Coordination and Management	Knowledge Management and Monitoring & Evaluation	Total
I. Investment Costs										
A. Works	-	-	-	-	-	-	61.7	-	-	61.7
B. Goods, Services & Inputs	4.5	19.9	0.0	2.0	17.9	0.4	7.9	-	2.1	54.8
C. Equipment and Materials	1.8	-	-	1.6	-	0.7	0.4	1.0	0.3	5.7
D. Consultancies										
1. Technical Assistance										
International Technical Assistance	0.3	3.5	-	-	-	-	-	-	-	3.8
National Technical Assistance	-	-	0.8	-	-	-	-	0.2	-	1.0
Subtotal Technical Assistance	0.3	3.5	0.8	-	-	-	-	0.2	-	4.8
E. Training and Workshops	1.2	4.1	1.6	1.7	3.2	0.9	-	-	-	12.7
F. Grants and Subsidies	10.1	-	-	-	-	-	-	-	-	10.1
Total Investment Costs	17.9	27.6	2.4	5.3	21.1	2.0	69.9	1.3	2.4	149.9
II. Recurrent Costs										
A. Salaries and allowances	0.1	-	-	-	-	-	-	9.3	0.1	9.6
B. Operating costs	0.5	-	-	-	-	0.1	-	0.6	-	1.3
Total Recurrent Costs	0.6	-	-	-	-	0.1	-	10.0	0.1	10.8
Total PROJECT COSTS	18.5	27.6	2.4	5.3	21.1	2.1	69.9	11.3	2.4	160.7
Taxes	1.0	2.4	0.2	0.7	2.1	0.3	7.0	0.3	0.3	14.3
Foreign Exchange	2.4	7.5	0.0	1.4	3.6	0.6	8.0	0.7	0.6	24.8

Appendix 1.1 Summary Cost and Financing Tables

Table 4: Expenditure Accounts by Components – Totals including Contingencies (UGX million)

Republic of Uganda
National Oilseeds Project
Expenditure Accounts by Components - Totals Including
(UGX Million)

	Component 1 Support to Oilseed Value Chain Development									
	Component 1.1 Cluster development		Sub-Component 1.2 Support market development							
				Technical Services						
	Supply chain brokering and investment facilitation	Producer group mentoring	Financial services	Farm Production Advisors Scheme	Auxiliary Farm Services Promotion Scheme	Quality Declared Seed Production Scheme	Component 2 Support to Market Linkage Infrastructure Serving Oilseed Sector	Project Coordination and Management	Knowledge Management and Monitoring & Evaluation	Total
I. Investment Costs										
A. Works	-	-	-	-	-	-	256,342.6	-	-	256,342.6
B. Goods, Services & Inputs	18,239.7	78,984.6	117.8	8,242.7	74,017.3	1,533.8	31,558.6	-	8,535.6	221,230.0
C. Equipment and Materials	6,866.3	-	-	6,294.9	-	2,922.2	1,532.1	4,055.2	941.8	22,612.4
D. Consultancies										
1. Technical Assistance										
International Technical Assistance	1,175.6	13,740.8	-	-	-	-	-	-	-	14,916.4
National Technical Assistance	-	-	2,814.1	-	-	-	-	842.0	-	3,656.1
Subtotal Technical Assistance	1,175.6	13,740.8	2,814.1	-	-	-	-	842.0	-	18,572.5
E. Training and Workshops	4,791.4	16,236.9	6,376.8	6,822.9	12,840.9	3,428.4	-	-	-	50,497.4
F. Grants and Subsidies	41,895.0	-	-	-	-	-	-	-	-	41,895.0
Total Investment Costs	72,968.0	108,962.3	9,308.6	21,360.4	86,858.1	7,884.4	289,433.2	4,897.2	9,477.5	611,149.8
II. Recurrent Costs										
A. Salaries and allowances	511.5	-	-	-	-	-	-	38,430.0	385.9	39,327.5
B. Operating costs	2,048.3	-	-	-	-	495.3	-	2,672.8	-	5,216.4
Total Recurrent Costs	2,559.8	-	-	-	-	495.3	-	41,102.9	385.9	44,543.9
Total PROJECT COSTS	75,527.8	108,962.3	9,308.6	21,360.4	86,858.1	8,379.7	289,433.2	46,000.0	9,863.4	655,693.8
Taxes	3,881.2	9,522.2	930.9	2,765.5	8,685.8	1,130.2	29,096.5	1,162.5	1,041.9	58,216.7
Foreign Exchange	9,389.1	29,537.7	23.6	5,740.2	14,803.5	2,231.0	32,941.8	2,769.5	2,319.3	99,755.6

Appendix 1.1 Summary Cost and Financing Tables

Table 5: Project Components by Year -- Totals Including Contingencies (USD million)

Republic of Uganda
National Oilseeds Project
Project Components by Year -- Totals Including Contingencies
(US$ Million)

	Totals Including Contingencies							
	20/21	**21/22**	**22/23**	**23/24**	**24/25**	**25/26**	**26/27**	**Total**
A. Component 1 Support to Oilseed Value Chain Development								
1. Sub-Component 1.1 Cluster development								
a. Supply chain brokering and investment facilitation	1.4	1.8	3.0	4.3	4.6	3.4	0.1	18.5
b. Producer group mentoring	3.6	8.4	7.7	4.0	2.0	1.1	0.8	27.6
Subtotal Sub-Component 1.1 Cluster development	5.0	10.1	10.7	8.3	6.6	4.6	0.9	46.1
2. Sub-Component 1.2 Support market development								
a. Financial services	0.6	0.9	0.6	0.2	0.2	0.0	0.0	2.4
b. Technical Services								
Farm Production Advisors Scheme	0.8	0.7	1.0	1.1	0.8	0.5	0.4	5.3
Auxiliary Farm Services Promotion Scheme	0.9	2.9	3.1	2.9	4.2	3.6	3.5	21.1
Quality Declared Seed Production Scheme	0.2	0.9	0.3	0.3	0.2	0.2	0.0	2.1
Subtotal Technical Services	1.9	4.5	4.4	4.4	5.2	4.2	4.0	28.5
Subtotal Sub-Component 1.2 Support market development	2.5	5.4	4.9	4.6	5.3	4.2	4.0	30.9
Subtotal Component 1 Support to Oilseed Value Chain Development	7.4	15.6	15.6	12.9	11.9	8.8	4.9	77.1
B. Component 2 Support to Market Linkage Infrastructure Serving Oilseed Sector	-	2.1	2.8	26.0	26.5	12.3	0.2	69.9
C. Project Coordination and Management	0.5	1.9	2.2	1.6	1.6	1.7	1.7	11.3
D. Knowledge Management and Monitoring & Evaluation	0.6	0.1	0.1	1.0	0.2	0.1	0.3	2.4
Total PROJECT COSTS	8.6	19.7	20.7	41.5	40.3	22.8	7.1	160.7

Appendix 1.1 Summary Cost and Financing Tables

Table 6: Project Components by Year -- Investment/Recurrent Costs (USD million)

Republic of Uganda
National Oilseeds Project

Project Components by Year -- Investment/Recurrent Costs	Totals Including Contingencies (US$ Million)							
	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
A. Component 1 Support to Oilseed Value Chain Development								
1. Sub-Component 1.1 Cluster development								
a. Supply chain brokering and investment facilitation								
Investment Costs	1.3	1.7	2.9	4.2	4.5	3.3	0.0	17.9
Recurrent Costs	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.6
Subtotal Supply chain brokering and investment facilitation	1.4	1.8	3.0	4.3	4.6	3.4	0.1	18.5
b. Producer group mentoring								
Investment Costs	3.6	8.4	7.7	4.0	2.0	1.1	0.8	27.6
Subtotal Sub-Component 1.1 Cluster development	5.0	10.1	10.7	8.3	6.6	4.6	0.9	46.1
2. Sub-Component 1.2 Support market development								
a. Financial services								
Investment Costs	0.6	0.9	0.6	0.2	0.2	0.0	0.0	2.4
b. Technical Services								
Farm Production Advisors Scheme								
Investment Costs	0.8	0.7	1.0	1.1	0.8	0.5	0.4	5.3
Auxiliary Farm Services Promotion Scheme								
Investment Costs	0.9	2.9	3.1	2.9	4.2	3.6	3.5	21.1
Quality Declared Seed Production Scheme								
Investment Costs	0.2	0.8	0.3	0.3	0.2	0.2	-	2.0
Recurrent Costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Subtotal Quality Declared Seed Production Scheme	0.2	0.9	0.3	0.3	0.2	0.2	0.0	2.1
Subtotal Technical Services	1.9	4.5	4.4	4.4	5.2	4.2	4.0	28.5
Subtotal Sub-Component 1.2 Support market development	2.5	5.4	4.9	4.6	5.3	4.2	4.0	30.9
Subtotal Component 1 Support to Oilseed Value Chain Development	7.4	15.6	15.6	12.9	11.9	8.8	4.9	77.1
B. Component 2 Support to Market Linkage Infrastructure Serving Oilseed Sector								
Investment Costs	-	2.1	2.8	26.0	26.5	12.3	0.2	69.9
Subtotal Component 2 Support to Market Linkage Infrastructure Serving Oilseed Sector	-	2.1	2.8	26.0	26.5	12.3	0.2	69.9
C. Project Coordination and Management								
Investment Costs	0.2	0.4	0.6	0.0	0.0	0.0	0.0	1.3
Recurrent Costs	0.3	1.5	1.6	1.6	1.6	1.7	1.7	10.0
Subtotal Project Coordination and Management	0.5	1.9	2.2	1.6	1.6	1.7	1.7	11.3
D. Knowledge Management and Monitoring & Evaluation								
Investment Costs	0.6	0.1	0.1	1.0	0.2	0.1	0.3	2.4
Recurrent Costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Subtotal Knowledge Management and Monitoring & Evaluation	0.6	0.1	0.1	1.0	0.2	0.1	0.3	2.4
Total PROJECT COSTS	8.6	19.7	20.7	41.5	40.3	22.8	7.1	160.7
Total Investment Costs	8.2	18.1	19.0	39.8	38.5	21.1	5.3	149.9
Total Recurrent Costs	0.4	1.6	1.7	1.7	1.8	1.8	1.8	10.8

Appendix 1.1 Summary Cost and Financing Tables

Table 7: Expenditure Accounts by Years -- Totals Including Contingencies (USD million)

Republic of Uganda
National Oilseeds Project
Expenditure Accounts by Years -- Totals Including Contingencies
(US$ Million)

	Totals Including Contingencies							
	20/21	**21/22**	**22/23**	**23/24**	**24/25**	**25/26**	**26/27**	**Total**
I. Investment Costs								
A. Works	-	-	-	24.8	25.2	11.6	0.1	61.7
B. Goods, Services & Inputs	3.2	12.0	12.9	8.9	7.8	5.7	4.4	54.8
C. Equipment and Materials	1.6	1.2	1.3	0.5	0.5	0.4	0.2	5.7
D. Consultancies								
1. Technical Assistance								
International Technical Assistance	1.2	1.2	0.7	0.4	0.4	0.0	-	3.8
National Technical Assistance	0.3	0.4	0.3	0.0	-	0.0	0.0	1.0
Subtotal Technical Assistance	1.4	1.6	1.0	0.4	0.4	0.0	0.0	4.8
E. Training and Workshops	1.9	3.3	2.5	2.5	1.2	0.7	0.6	12.7
F. Grants and Subsidies	-	0.1	1.4	2.7	3.3	2.7	-	10.1
Total Investment Costs	8.2	18.1	19.0	39.8	38.5	21.1	5.3	149.9
II. Recurrent Costs								
A. Salaries and allowances	0.3	1.4	1.5	1.5	1.6	1.6	1.6	9.6
B. Operating costs	0.1	0.2	0.2	0.2	0.2	0.2	0.2	1.3
Total Recurrent Costs	0.4	1.6	1.7	1.7	1.8	1.8	1.8	10.8
Total PROJECT COSTS	8.6	19.7	20.7	41.5	40.3	22.8	7.1	160.7

Appendix 1.1 Summary Cost and Financing Tables

Table 8: Expenditure Accounts Breakdown (USD million)

Republic of Uganda
National Oilseeds Project
Expenditure Accounts Breakdown
(US$ Million)

	Base Cost				Physical Contingencies				Price Contingencies				Total Incl. Cont.				Base Costs + Price Cont. on Base Costs	Physical Cont. Plus Price Cont. on Physical Cont.
	For. Exch.	Local (Excl. Taxes)	Duties & Taxes	Total	For. Exch.	Local (Excl. Taxes)	Duties & Taxes	Total	For. Exch.	Local (Excl. Taxes)	Duties & Taxes	Total	For. Exch.	Local (Excl. Taxes)	Duties & Taxes	Total		
I. Investment Costs																		
A. Works	4.9	39.4	4.9	49.3	0.7	5.9	0.7	7.4	0.5	4.0	0.5	5.0	6.2	49.3	6.2	61.7	53.6	8.0
B. Goods, Services & Inputs	9.8	34.3	4.9	49.0	0.5	1.7	0.2	2.4	0.7	2.4	0.3	3.4	11.0	38.4	5.5	54.8	52.2	2.6
C. Equipment and Materials	3.2	0.7	1.0	5.0	0.3	0.1	0.1	0.5	0.2	0.0	0.1	0.3	3.7	0.9	1.1	5.7	5.2	0.5
D. Consultancies																		
1. Technical Assistance																		
International Technical Assistance	3.7	-	-	3.7	-	-	-	-	0.1	-	-	0.1	3.8	-	-	3.8	3.8	-
National Technical Assistance	-	0.9	0.1	1.0	-	-	-	-	-	-	-	-	-	0.9	0.1	1.0	1.0	-
Subtotal Technical Assistance	3.7	0.9	0.1	4.7	-	-	-	-	0.1	-	-	0.1	3.8	0.9	0.1	4.8	4.8	-
E. Training and Workshops	-	9.9	1.1	11.0	-	1.0	0.1	1.1	-	0.6	0.1	0.7	-	11.4	1.3	12.7	11.6	1.2
F. Grants and Subsidies	-	9.3	-	9.3	-	-	-	-	-	0.8	-	0.8	-	10.1	-	10.1	10.1	-
Total Investment Costs	21.7	94.5	12.0	128.2	1.6	8.7	1.2	11.4	1.5	7.8	1.0	10.3	24.7	111.0	14.2	149.9	137.5	12.3
II. Recurrent Costs																		
A. Salaries and allowances	-	8.8	-	8.8	-	-	-	-	-	0.7	-	0.7	-	9.6	-	9.6	9.6	-
B. Operating costs	0.1	0.9	0.1	1.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.1	1.1	0.1	1.3	1.2	0.1
Total Recurrent Costs	0.1	9.7	0.1	9.9	0.0	0.1	0.0	0.1	0.0	0.8	0.0	0.8	0.1	10.6	0.1	10.8	10.7	0.1
Total	21.7	104.2	12.1	138.1	1.6	8.8	1.2	11.5	1.5	8.6	1.0	11.1	24.8	121.6	14.3	160.7	148.2	12.4

Appendix 1.1 Summary Cost and Financing Tables

Table 9: Components by Financiers (USD '000)

Republic of Uganda
National Oilseeds Project

Components by Financiers (US$ '000)	**IFAD Loan**		**OFID**		**Heifer**		**Kuehne Foundation**		**Beneficiaries**		**Private sector**		**Government**		**Total**	
	Amount	**%**	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**
A. Component 1 Support to Oilseed Value Chain Development																
1. Sub-Component 1.1 Cluster development																
a. Supply chain brokering and investment facilitation	16,875	91.0	-	-	172	0.9	13	0.1	-	-	505	2.7	976	5.3	18,541	11.5
b. Producer group mentoring	19,221	69.6	-	-	5,978	21.7	-	-	-	-	-	-	2,407	8.7	27,606	17.2
Subtotal Sub-Component 1.1 Cluster development	36,096	78.2	-	-	6,150	13.3	13	-	-	-	505	1.1	3,383	7.3	46,147	28.7
2. Sub-Component 1.2 Support market development																
a. Financial services	2,188	90.0	-	-	-	-	-	-	-	-	-	-	243	10.0	2,431	1.5
b. Technical Services																
Farm Production Advisors Scheme	4,617	87.0	-	-	-	-	-	-	-	-	-	-	687	13.0	5,304	3.3
Auxiliary Farm Services Promotion Scheme	8,783	41.7	-	-	-	-	-	-	4,834	23.0	5,331	25.3	2,105	10.0	21,053	13.1
Quality Declared Seed Production Scheme	1,834	86.5	-	-	-	-	-	-	-	-	-	-	286	13.5	2,120	1.3
Subtotal Technical Services	15,234	53.5	-	-	-	-	-	-	4,834	17.0	5,331	18.7	3,078	10.8	28,477	17.7
Subtotal Sub-Component 1.2 Support market development	17,422	56.4	-	-	-	-	-	-	4,834	15.6	5,331	17.2	3,321	10.7	30,908	19.2
Subtotal Component 1 Support to Oilseed Value Chain Development	53,518	69.5	-	-	6,150	8.0	13	-	4,834	6.3	5,836	7.6	6,704	8.7	77,055	48.0
B. Component 2 Support to Market Linkage Infrastructure Serving Oilseed Sector	32,900	47.0	30,000	42.9	-	-	-	-	-	-	-	-	7,033	10.1	69,933	43.5
C. Project Coordination and Management	10,955	97.4	-	-	-	-	-	-	-	-	-	-	296	2.6	11,251	7.0
D. Knowledge Management and Monitoring & Evaluation	2,187	89.4	-	-	-	-	-	-	-	-	-	-	260	10.6	2,447	1.5
Total PROJECT COSTS	99,560	62.0	30,000	18.7	6,150	3.8	13	-	4,834	3.0	5,836	3.6	14,294	8.9	160,686	100.0

Appendix 1.1 Summary Cost and Financing Tables

Table 10: Disbursement Accounts by Financiers (USD '000)

Republic of Uganda
National Oilseeds Project
Disbursement Accounts by Financiers

(US$ '000)	IFAD Loan		OFID		Heifer		Kuehne Foundation		Beneficiaries		Private sector		Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1. Works	25,511	41.4	30,000	48.6	-	-	-	-	-	-	-	-	6,168	10.0	61,679	38.4
2. Grants & Subsidies	9,599	95.0	-	-	-	-	-	-	-	-	505	5.0	-	-	10,105	6.3
3. Goods, Services & Inputs	33,002	60.2	-	-	6,150	11.2	-	-	4,834	8.8	5,331	9.7	5,480	10.0	54,796	34.1
4. Equipment and Materials	4,598	80.0	-	-	-	-	-	-	-	-	-	-	1,149	20.0	5,747	3.6
5. Consultancies	4,731	98.0	-	-	-	-	-	-	-	-	-	-	99	2.0	4,830	3.0
6. Training and Workshops	11,427	89.9	-	-	-	-	13	0.1	-	-	-	-	1,271	10.0	12,710	7.9
7. Recurrent Costs	10,692	98.8	-	-	-	-	-	-	-	-	-	-	127	1.2	10,819	6.7
Total PROJECT COSTS	99,560	62.0	30,000	18.7	6,150	3.8	13	-	4,834	3.0	5,836	3.6	14,294	8.9	160,686	100.0

Table 11: Expenditure Accounts by Financiers (USD '000)

Republic of Uganda
National Oilseeds Project
Expenditure Accounts by Financiers

(US$ '000)	IFAD Loan		OFID		Heifer		Kuehne Foundation		Beneficiaries		Private sector		Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
I. Investment Costs																
A. Works	25,511	41.4	30,000	48.6	-	-	-	-	-	-	-	-	6,168	10.0	61,679	38.4
B. Goods, Services & Inputs	33,002	60.2	-	-	6,150	11.2	-	-	4,834	8.8	5,331	9.7	5,480	10.0	54,796	34.1
C. Equipment and Materials	4,598	80.0	-	-	-	-	-	-	-	-	-	-	1,149	20.0	5,747	3.6
D. Consultancies																
1. Technical Assistance																
International Technical Assistance	3,840	100.0	-	-	-	-	-	-	-	-	-	-	-	-	3,840	2.4
National Technical Assistance	891	90.0	-	-	-	-	-	-	-	-	-	-	99	10.0	990	0.6
Subtotal Technical Assistance	4,731	98.0	-	-	-	-	-	-	-	-	-	-	99	2.0	4,830	3.0
E. Training and Workshops	11,427	89.9	-	-	-	-	13	0.1	-	-	-	-	1,271	10.0	12,710	7.9
F. Grants and Subsidies	9,599	95.0	-	-	-	-	-	-	-	-	505	5.0	-	-	10,105	6.3
Total Investment Costs	88,868	59.3	30,000	20.0	6,150	4.1	13	-	4,834	3.2	5,836	3.9	14,167	9.5	149,868	93.3
II. Recurrent Costs																
A. Salaries and allowances	9,550	100.0	-	-	-	-	-	-	-	-	-	-	-	-	9,550	5.9
B. Operating costs	1,141	90.0	-	-	-	-	-	-	-	-	-	-	127	10.0	1,268	0.8
Total Recurrent Costs	10,692	98.8	-	-	-	-	-	-	-	-	-	-	127	1.2	10,819	6.7
Total PROJECT COSTS	99,560	62.0	30,000	18.7	6,150	3.8	13	-	4,834	3.0	5,836	3.6	14,294	8.9	160,686	100.0

Appendix 1.1 Summary Cost and Financing Tables

Table 12: Allocation of Loan Proceed (Loan Agreement Schedule 2)

Republic of Uganda
National Oilseeds Project
Allocation of Loan Proceeds **ested Allocation**
IFAD Loan **.oan Proceeds**
(US$ '000)

	Loan Amount	Disbursement %	Total Project Cost			Average Disbursement %			Loan Amounts						
										Unallocated			Allocated		
			Total	Local	Foreign	Total	Local	Foreign	Total	Total	Local	Foreign	Total	Local	Foreign
1. Works	22,960	41	61,679	55,511	6,168	41	41	46	25,511	2,551	2,268	283	22,960	20,409	2,551
2. Equipment and Materials	4,138	80	5,747	2,012	3,736	80	43	100	4,598	460	86	374	4,138	776	3,362
3. Consultancies	4,258	98	4,830	990	3,840	98	90	100	4,731	473	89	384	4,258	802	3,456
4. Grants and Subsidies	8,639	95	10,105	10,105	-	95	95	-	9,599	960	960	-	8,639	8,639	-
5. Recurrent Costs	9,623	99	10,819	10,755	63	99	99	100	10,692	1,069	1,063	6	9,623	9,566	57
6. Training and Workshops	10,284	90	12,710	12,710	-	90	90	-	11,427	1,143	1,143	-	10,284	10,284	-
7. Goods, Services and Inputs	29,701	60	54,796	43,836	10,959	60	59	67	33,002	3,300	2,567	733	29,701	23,101	6,600
Unallocated	9,956	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	99,560	62	160,686	135,920	24,767	-	-	-	99,560	9,956	8,175	1,781	89,604	73,577	16,027

E. Appendix 1.2 Detailed Cost Tables

Appendix 1.2 Detailed Tables

Table 1. Supply Chain Brokering and Investment Facilitation

Republic of Uganda
National Oilseeds Project
Table 1. Supply Chain Brokering and Investment Facilitation

Detailed Costs	Unit	Quantities								Unit Cost	Base Cost (US$ '000)							
		20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
I. Investment Costs																		
A. Supply chain bokering and facilitation																		
1. Projected HH, groups and clusters: QUANTITIES ONLY /a																		
No of HHs reached (cumulative)	HH	-	45,000	79,500	112,500	120,000	120,000	120,000	597,000		-	-	-	-	-	-	-	-
No of groups formed - existing (incremental) /b	group	-	900	-	-	-	-	-	900		-	-	-	-	-	-	-	-
No of groups formed - new (incremental) /c	group	-	300	-	-	-	-	-	300		-	-	-	-	-	-	-	-
Overall no. of groups (cumulative) /d	group	-	900	1,200	1,200	1,200	1,200	1,200	6,900		-	-	-	-	-	-	-	-
No of clusters (cumulative) /e	cluster	-	150	200	200	200	200	200	1,150		-	-	-	-	-	-	-	-
Subtotal Projected HH, groups and clusters: QUANTITIES ONLY											-	-	-	-	-	-	-	-
2. Hub and cluster operations /f																		
MSP Hub level meetings /g	meeting	-	36	28	26	6	-	-	96	2,500	-	90	70	65	15	-	-	240
MSP cluster level meetings /h	meeting	-	863	661	663	144	-	-	2,331	250	-	216	165	166	36	-	-	583
Pre-investment support, training and demonstration and B2B activities	cluster	-	150	50	-	-	-	-	200	1,000	-	150	50	-	-	-	-	200
Hub coordination and consultative meeting /i	meeting	1	3	3	3	3	3	3	19	1,000	1	3	3	3	3	3	3	19
Subtotal Hub and cluster operations											1	459	288	234	54	3	3	1,042
Subtotal Supply chain bokering and facilitation											1	459	288	234	54	3	3	1,042
B. Support to Value Chain Development																		
Technical Support to Value Chain Specialists /j	pers-month	6	6	3	-	-	-	-	15	20,000	120	120	60	-	-	-	-	300
C. Oilseed Sector Development Facility																		
Public Fund to address specific bottlenecks to the SC development /k	lumpsum	-	1	13	25	30	24	-	93	95,000	-	95	1,235	2,375	2,850	2,280	-	8,835
Industry Contribution to the Public Fund 5% /l	lumpsum	-	1	13	25	30	24	-	93	5,000	-	5	65	125	150	120	-	465
Subtotal Oilseed Sector Development Facility											-	100	1,300	2,500	3,000	2,400	-	9,300
D. Vehicles and Equipment																		
1. PMU - Vehicles and equipment																		
Office furniture for PMU SCT	set	3	-	-	-	-	-	-	3	400	1	-	-	-	-	-	-	1
Tablets for PMU for M&E entry	no	3	-	-	3	-	-	-	6	150	0	-	-	0	-	-	-	1
Laptop for PMU for M&E entry	no	3	-	-	33	-	-	-	36	1,500	5	-	-	50	-	-	-	54
Subtotal PMU - Vehicles and equipment											6	-	-	50	-	-	-	56
2. Hub - Vehicles and equipment																		
4x4 Vehicles for Hubs Supply chain team (2 per hub)	no	10	-	1	-	-	-	-	11	42,000	420	-	42	-	-	-	-	462
4x4 Vehicles - Hubs operation and maintenance	lumpsum										105	105	116	116	116	116	11	683
Motorcycles for hubs supply chain team	no	20	-	2	-	-	-	-	22	3,000	60	-	6	-	-	-	-	66
Motorcycles - Hub O&M	lumpsum										15	15	17	17	17	17	2	98
Office furniture for Hub SCTs	set	30	-	-	-	-	-	-	30	400	12	-	-	-	-	-	-	12
Tablets for Hub SCTs - for M&E entry	no	33	-	-	30	-	-	-	63	150	5	-	-	5	-	-	-	9
Laptop for Hub SCTs - for M&E entry	no	30	-	-	30	-	-	-	60	1,500	45	-	-	45	-	-	-	90
Printer/Photocopier/Scanner for Hub (1 per hub)	no	5	-	1	-	-	-	-	6	6,000	30	-	6	-	-	-	-	36
LCD Projector & screen for hub (1 per each office)	no	5	-	1	-	-	-	-	6	2,000	10	-	2	-	-	-	-	12
Dig. camera with GPS for hub (1 per each office)	no	5	-	1	-	-	-	-	6	500	3	-	1	-	-	-	-	3
Subtotal Hub - Vehicles and equipment											704	120	189	182	132	132	12	1,470
Subtotal Vehicles and Equipment											711	120	189	231	132	132	12	1,527
E. Hub Coordination Consultancies																		
Supply Chain Team Leader - Hub (1 per hub) - 5 hubs @ start, Karamoja fr	pers-month	30	60	72	72	72	36	-	342	2,500	75	150	180	180	180	90	-	855
Snr Supply Chain Specialists - Hub (2 per hub, 1 in Karamoja from Yr 3)	pers-month	60	120	132	132	132	66	-	642	2,000	120	240	264	264	264	132	-	1,284
Supply Chain Specialists - Hub (3 per hub, 1 in Karmoja from Yr 3)	pers-month	90	180	192	192	192	96	-	942	1,500	135	270	288	288	288	144	-	1,413
Environment and Social Officer - Hub (1 per hub, 1 in Karamoja from Yr 3)	pers-month	30	60	72	72	72	36	-	342	1,500	45	90	108	108	108	54	-	513
Subtotal Hub Coordination Consultancies											375	750	840	840	840	420	-	4,065

Appendix 1.2 Detailed Tables

Table 1. Supply Chain Brokering and Investment Facilitation (Continued)

Republic of Uganda
National Oilseeds Project
Table 1. Supply Chain Brokering and Investment Facilitation

Detailed Costs	Unit	Quantities								Unit Cost	Base Cost (US$ '000)							
		20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
I. Investment Costs																		
F. Supply Chain Logistics Training																		
Trainer	pers-day	-	5	5	-	5	-	-	15	300	-	2	2	-	2	-	-	5
Travel costs /m	lumpsum										-	0	0	-	0	-	-	1
Accommodation	day	-	5	5	-	5	-	-	15	120	-	1	1	-	1	-	-	2
DSA	day	-	5	5	-	5	-	-	15	50	-	0	0	-	0	-	-	1
Materials	lumpsum										-	0	0	-	0	-	-	0
Venue hire	lumpsum										-	1	1	-	1	-	-	2
Miscellaneous	lumpsum										-	1	1	-	1	-	-	2
Subtotal Supply Chain Logistics Training											-	4	4	-	4	-	-	12
Total Investment Costs											1,207	1,553	2,681	3,805	4,030	2,955	15	16,245
II. Recurrent Costs																		
A. Hub Expenses																		
Hub office expenses	office month	30	60	66	66	66	66	66	420	1,000	30	60	66	66	66	66	66	420
B. Hub Allowances																		
DSA fo SC PMU & Hub staff	pers-year	17	34	36	36	36	36	36	231	500	9	17	18	18	18	18	18	116
Total Recurrent Costs											39	77	84	84	84	84	84	536
Total											1,245	1,630	2,765	3,889	4,114	3,039	99	16,781

\a This section indicates the physical quantities only, for reference purposes.
\b Existing mature from VODP2 (average: start 50HH/group w/ consolidation, end 100HH/group)
\c New or immature from VODP (average: start 40HH/group, end 100HH/group)
\d 100 HH/group when mature, 30 HH/group when new (cumulative)
\e Average 500 HHs / cluster
\f NOSP does not pay facilitation / attendance allowance for any MSP meetings at hub or cluster
\g Multi-stakeholder platforms (2 time / year per 'commodity group' - x2 commodity groups e.g. soy/sunflower as one commodity group,)
\h 2x / year per 'commodity group' - e.g. soy/sunflower as one commodity group
\i Every 4 months for the project management on rotation basis
\j Based at PMU, intermittent TA
\k Identified by the SC actors (95% of the total cost)
\l 5% of the total cost
\m Air fares

Appendix 1.2 Detailed Tables
Table 2. Producer Group Mentoring

Republic of Uganda
National Oilseeds Project
Table 2. Producer Group Mentoring

Detailed Costs	Unit	Quantities								Unit Cost	Base Cost (US$ '000)							
		20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
I. Investment Costs																		
A. Projected HH, groups and clusters: QUANTITIES ONLY /a																		
No of HHs reached (cumulative)	HH	-	45,000	79,500	112,500	120,000	120,000	120,000	597,000		-	-	-	-	-	-	-	-
No of groups formed - existing (incremental) /b	group	-	900	-	-	-	-	-	900		-	-	-	-	-	-	-	-
No of groups formed - new (incremental) /c	group	-	300	-	-	-	-	-	300		-	-	-	-	-	-	-	-
Overall no. of groups (cumulative) /d	group	-	900	1,200	1,200	1,200	1,200	1,200	6,900		-	-	-	-	-	-	-	-
No of clusters (cumulative) /e	cluster	-	150	200	200	200	200	200	1,150		-	-	-	-	-	-	-	-
Subtotal Projected HH, groups and clusters: QUANTITIES ONLY											-	-	-	-	-	-	-	-
B. Producer Group Mentoring																		
Economic Mobilisation (existing & new groups)	group	-	900	300	-	-	-	-	1,200	50	-	45	15	-	-	-	-	60
B2B interaction - Village level /f	meeting	-	3,600	4,200	4,000	2,000	2,000	2,000	17,800	50	-	180	210	200	100	100	100	890
Subtotal Producer Group Mentoring											-	225	225	200	100	100	100	950
C. Business Skills Training																		
Businss Skills Training (BST) course development /g	month	3	6	4	4	1	1	1	20	25,000	75	150	100	100	25	25	25	500
ToT Training to Business Skills Mentors (BSM) /h	event	-	24	8	-	-	-	-	32	10,000	-	240	80	-	-	-	-	320
BST related printing /i	per HH	-	45,000	34,500	33,000	7,500	-	-	120,000	5	-	225	173	165	38	-	-	600
BST course roll-out - group level /j	course	-	1,800	1,380	1,320	300	-	-	4,800	200	-	360	276	264	60	-	-	960
Fee to BSMs to teach BST courses /k	course	-	1,800	1,380	1,320	300	-	-	4,800	100	-	180	138	132	30	-	-	480
BSM partial renumeration /l	year	-	1,725	1,323	1,265	288	-	-	4,601	40	-	69	53	51	12	-	-	184
Tablets for BSMs /m	unit	-	600	200	-	300	100	-	1,200	120	-	72	24	-	36	12	-	144
Subtotal Business Skills Training											75	1,296	843	712	200	37	25	3,188
D. Memo Note: Economic Mobilizers - quantities only																		
Economic Mobilizers (EM), at cluster level /n	person	-	150	200	200	200	200	200	1,150		-	-	-	-	-	-	-	-
EM Supervisors (1 Supervisor: 10 EMs)	person	-	15	20	20	20	20	20	115		-	-	-	-	-	-	-	-
EM Manager (1 per hub)	person	-	5	5	6	6	6	6	34		-	-	-	-	-	-	-	-
Subtotal Memo Note: Economic Mobilizers - quantities only											-	-	-	-	-	-	-	-
E. Salaries - Economic Mobilizers																		
Economic Mobilizers /o	pers-month	-	900	1,590	2,250	1,500	810	150	7,200	100	-	90	159	225	150	81	15	720
EM Supervisors - salary	pers-month	-	90	159	225	150	81	15	720	400	-	36	64	90	60	32	6	288
EM Managers - salary	pers-month	-	27	48	68	45	24	5	217	600	-	16	29	41	27	14	3	130
Subtotal Salaries - Economic Mobilizers											-	142	251	356	237	128	24	1,138
F. VSLA mobilization																		
VSLA Facilitator /p	month	175	250	300	300	250	-	-	1,275	200	35	50	60	60	50	-	-	255
G. EM Capacity building																		
EM training on EMs and other PSP staff /q	event	-	7	2	-	-	-	-	9	20,000	-	140	40	-	-	-	-	180
Follow up EM training on EM, MIS, VC & MSP /r	event	-	-	7	9	2	9	-	27	7,500	-	-	53	68	15	68	-	203
Subtotal EM Capacity building											-	140	93	68	15	68	-	383
H. EM Equipment																		
Tablets for EMs	unit	-	150	50	-	-	-	-	200	150	-	23	8	-	-	-	-	30
Tablets for EM Supervisors and Managers	unit	-	15	5	-	-	-	-	20	150	-	2	1	-	-	-	-	3
Laptop / Desktop for EM Supervisors / Managers	unit	-	20	5	1	-	-	-	26	1,500	-	30	8	2	-	-	-	39
Subtotal EM Equipment											-	55	16	2	-	-	-	72

Appendix 1.2 Detailed Tables
Table 2. Producer Group Mentoring (Continued)

Republic of Uganda
National Oilseeds Project
Table 2. Producer Group Mentoring

Detailed Costs	Unit	Quantities								Unit Cost	Base Cost (US$ '000)							
		20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
I. Investment Costs																		
I. EM Vehicles																		
4WD pickups - EM Hub Team /s	each	10	-	1	-	-	-	-	11	42,000	420	-	42	-	-	-	-	462
4WD operations and maitenance	lumpsum										105	105	116	116	116	116	116	788
Motorcycles - EM field team /t	each	50	-	2	-	-	-	-	52	3,000	150	-	6	-	-	-	-	156
Motorcycle operation and maintenance	lumpsum										38	38	39	39	39	39	39	270
Subtotal EM Vehicles											713	143	203	155	155	155	155	1,676
J. Office operating																		
Internet fees /u	pers-year	-	165	220	220	220	220	220	1,265	50	-	8	11	11	11	11	11	63
K. Allowances	pers-year	-	170	225	226	226	226	226	1,299	750	-	128	169	170	170	170	170	974
L. Other Hub operating costs	hub	-	5	5	6	6	6	6	34	10,000	-	50	50	60	60	60	60	340
M. Gender Action Learning System																		
1. Memo: Overall Target																		
Potential farmer groups	group	1,200	1,200	1,200	1,200	-	-	-	4,800		-	-	-	-	-	-	-	-
High risk HHs within FGs	HH	-	20,000	20,000	-	-	-	-	40,000		-	-	-	-	-	-	-	-
Probable HHs for HH Mentoring /v	HH	-	20,000	20,000	-	-	-	-	40,000		-	-	-	-	-	-	-	-
No of Mentors /w	person	-	2,400	2,400	-	-	-	-	4,800		-	-	-	-	-	-	-	-
No of Mentors to be trained /x	person	2,400	-	-	-	-	-	-	2,400		-	-	-	-	-	-	-	-
HHM Field Supervisors /y	person	240	240	240	-	-	-	-	720		-	-	-	-	-	-	-	-
HHM Field Supervisors to be trained in TOT	person	240	-	-	-	-	-	-	240		-	-	-	-	-	-	-	-
HHM Senior Supervisors /z	person	24	24	240	-	-	-	-	288		-	-	-	-	-	-	-	-
Subtotal Memo: Overall Target											-	-	-	-	-	-	-	-
2. HHs Methodology & Social Mentoring																		
ToT costs for HHM Mentoring Field Supervisors	event	8	-	-	-	-	-	-	8	10,000	80	-	-	-	-	-	-	80
Training costs for HHM Mentors	event	25	-	-	-	-	-	-	25	5,000	125	-	-	-	-	-	-	125
Bicycles for Mentors	each	2,400	-	-	-	-	-	-	2,400	120	288	-	-	-	-	-	-	288
Materials for HHM /aa	set	2,400	-	-	-	-	-	-	2,400	50	120	-	-	-	-	-	-	120
Support to Young Farmer Groups /bb	school	-	240	-	-	-	-	-	240	150	-	36	-	-	-	-	-	36
Subtotal HHs Methodology & Social Mentoring											613	36	-	-	-	-	-	649
3. Study (Mapping, Assessments,)																		
HH Methodology Impact Study	study	-	1	-	1	-	-	-	2	100,000	-	100	-	100	-	-	-	200
National level Knowledge Event/Workshop of HH methodology	w/shop	-	-	-	-	1	-	-	1	7,000	-	-	-	-	7	-	-	7
Subtotal Study (Mapping, Assessments,)											-	100	-	100	7	-	-	207
4. GALS salaries																		
HHM Senior Supervisors /cc	pers-year	-	24	24	-	-	-	-	48	6,000	-	144	144	-	-	-	-	288
HHM Field Supervisors /dd	pers-year	-	240	240	-	-	-	-	480	3,600	-	864	864	-	-	-	-	1,728
HHM Mentors /ee	pers-year	-	2,400	2,400	-	-	-	-	4,800	780	-	1,872	1,872	-	-	-	-	3,744
Subtotal GALS salaries											-	2,880	2,880	-	-	-	-	5,760
Subtotal Gender Action Learning System											613	3,016	2,880	100	7	-	-	6,616
N. Provision for PSP (Hub Mentoring & GALS) Overhead /ff	lumpsum										36	639	743	410	148	125	113	2,214
O. Improved climate information services																		
1. Climate data collection																		
a. Uganda National Meterological Authority (UNMA)																		
Clean historic climate data	lumpsum										50	50	-	-	-	-	-	100
Generate down-scaled climate models for improved agricultural plan	lumpsum										15	15	-	-	-	-	-	30
Subtotal Uganda National Meterological Authority (UNMA)											65	65	-	-	-	-	-	130
b. Farmers Groups																		
Rain Gauges & Temperature Recording Micro Stations	unit	600	600	600	600	-	-	-	2,400	60	36	36	36	36	-	-	-	144
c. Training material and dissemination																		
Develop dissemination Programs and material on climate risk and in	lumpsum										25	25	-	-	-	-	-	50
Develop training modules on climate awareness and data interpretati	lumpsum										25	25	-	-	-	-	-	50
Establish links with the Land Degradation Surveillance Framework (L	lumpsum										25	-	-	-	-	-	-	25
Subtotal Training material and dissemination											75	50	-	-	-	-	-	125
Subtotal Climate data collection											176	151	36	36	-	-	-	399

Appendix 1.2 Detailed Tables
Table 2. Producer Group Mentoring (Continued)

Republic of Uganda
National Oilseeds Project
Table 2. Producer Group Mentoring

Detailed Costs	Unit	Quantities								Unit Cost	Base Cost (US$ '000)							
		20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
I. Investment Costs																		
2. Capacity Building for Climate Change and Environmental Manag																		
Awareness, Knowledge and Participation of Farmers on CC and Weatl	session	50	50	50	50	-	-	-	200	5,000	250	250	250	250	-	-	-	1,000
Build capacity for technical staff /gg	w/shop	5	5	-	5	5	-	-	20	20,000	100	100	-	100	100	-	-	400
Information transfer at local level for improved forecasting - MAAIF/MLG	lumpsum										5	5	5	5	5	5	-	30
Build capacity of UNMA staff on weather data analysis, interpretation ar	w/shop	1	-	-	1	-	-	-	2	50,000	50	-	-	50	-	-	-	100
Annual Refresh 3-day Training on Environmental, Climate Change	w/shop	5	5	5	5	5	5	-	30	20,000	100	100	100	100	100	100	-	600
Build capacity of Communities in the use of rain gauges	w/shop	50	50	50	50	-	-	-	200	50	3	3	3	3	-	-	-	10
Subtotal Capacity Building for Climate Change and Environmental I											508	458	358	508	205	105	-	2,140
3. Climate risk and vulnerability assessment																		
Climate Risk and Vulnerability Assessment (District level)	no	20	20	10	-	-	-	-	50	20,000	400	400	200	-	-	-	-	1,000
Service provision for the risk assessment	no	1	1	1	-	-	-	-	3	40,000	40	40	40	-	-	-	-	120
Subtotal Climate risk and vulnerability assessment											440	440	240	-	-	-	-	1,120
4. Social Impact Assessments																		
Data collection	survey	40	40	40	40	40	-	-	200	1,000	40	40	40	40	40	-	-	200
Data analysis and reporting	contract										100	100	50	-	-	-	-	250
Subtotal Social Impact Assessments											140	140	90	40	40	-	-	450
5. Soil health assessments																		
Land degradation surveillance framework sites	site	10	10	10	10	10	-	-	50	30,000	300	300	300	300	300	-	-	1,500
Capacity building for LDSF	w/shop	1	-	1	-	1	-	-	3	20,000	20	-	20	-	20	-	-	60
Monitoring of the soil fertility and health	site	-	15	15	15	15	15	-	75	200	-	3	3	3	3	3	-	15
Subtotal Soil health assessments											320	303	323	303	323	3	-	1,575
6. Environmental awareness raising																		
Radio progarmmes (regional level)	sessions	15	15	15	15	15	15	-	90	400	6	6	6	6	6	6	-	36
7. Nutrition awareness raising																		
Nutrition Fairs	no	100	100	100	100	100	-	-	500	500	50	50	50	50	50	-	-	250
Training on aflatoxin reduction (group level)	session	600	600	600	600	-	-	-	2,400	500	300	300	300	300	-	-	-	1,200
Subtotal Nutrition awareness raising											350	350	350	350	50	-	-	1,450
Subtotal Improved climate information services											1,940	1,848	1,403	1,243	624	114	-	7,170
Total											3,411	7,739	6,946	3,544	1,776	966	657	25,039

Appendix 1.2 Detailed Tables
Table 2. Producer Group Mentoring (Continued)

Republic of Uganda
National Oilseeds Project
Table 2. Producer Group Mentoring

Detailed Costs		**Quantities**								**Unit Cost**	**Base Cost (US$ '000)**							
	Unit	**20/21**	**21/22**	**22/23**	**23/24**	**24/25**	**25/26**	**26/27**	**Total**	**(US$)**	**20/21**	**21/22**	**22/23**	**23/24**	**24/25**	**25/26**	**26/27**	**Total**

\a This section indicates the physical quantities only, for reference purposes.
\b Existing mature from VODP2 (average: start 50HH/group w/ consolidation, end 100HH/group)
\c New or immature from VODP (average: start 40HH/group, end 100HH/group)
\d 100 HH/group when mature, 30 HH/group when new (cumulative)
\e Average 500 HHs / cluster
\f 4 / Cluster MSP, 10 / Hub MSP, 50% after MTR.
\g Course design, materials development, Master ToT delivery, QA
\h Business Skills Training course delivery & Data Entry on Tablet by Econ. Mobilizers 4 BMS per cluster, 25 BSMs per ToT class for 10 days.
\i Business skills training material and Farm Business Diary
\j Business Skills Training - 25 pp/ course x 20 session by BSMs
\k 20 Session @ $5 per session
\l For data collection+MIS Entry via tablet $20 /seasaon, paid annually
\m Including 50% replacement after 3 yrs
\n Approximatley 1 EM : 6 groups
\o Phased with the recruitment of the HH, each cohort of EM funded by NOSP from three years before assumed that the private sector adopts the expense.
\p 15 to 20 VSLAs per mobiliser - decreasing engagement with VSLAs as per age.
\q covering MIS, MSP, B2B, BSMs, Gender & CYGN - 25-30 pp per class, for max 20 training days
\r 25-30 SMS per class for max 5 training days.
\s 2 per hub plus 1 in Karamoja in the 3rd year.
\t 10 per hub plus 2 in karamoja in the 3rd year.
\u For MIS Data Entry / Online Discussion for SM and BLF
\v 50% of high risk family
\w 2 for each FG of approx. 100 members who will work together to deliver mentoring at both group and HH level
\x 2 for each FG of approx. 100 members
\y Under PSP
\z Under PSP
\aa At FG and HH level
\bb Pilot in 1 school per sub county. Exact no of sub counties yet to be determined
\cc 1 for 10 HHM Field Supervisors
\dd 1 for 10 HHM Field Supervisors
\ee 2 for each group comprising around 100 members
\ff Taken as 15% of (annual cost minus BST training development). i.e. excludes PSP business skills development contract costs.
\gg Mainstreaming environmental management and CC risk management

Appendix 1.2 Detailed Tables
Table 3. Financial Services

Republic of Uganda
National Oilseeds Project
Table 3. Financial Services

Detailed Costs	Unit	Quantities								Unit Cost	Base Cost (US$ '000)							
		20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
I. Investment Costs																		
A. VSLA Training																		
Training on VSLA governance, book keeping /a	batches	6	5	-	-	-	-	-	11	3,000	18	15	-	-	-	-	-	33
Training to VSLAs on governance,member responsibility, book keeping /b	days	6,500	300	300	-	-	-	-	7,100	20	130	6	6	-	-	-	-	142
Subtotal VSLA Training											148	21	6	-	-	-	-	175
B. VSLA level financial products for oil seed production																		
Training material development /c	lumpsum										1	-	-	-	-	-	-	1
Training of personnel in financial products at VSLA /d	batch	10	11	5	3	-	-	-	29	1,500	15	17	8	5	-	-	-	44
Subtotal VSLA level financial products for oil seed production											16	17	8	5	-	-	-	45
C. Training on Financial literacy including insurance literacy																		
Curriculum adjustment for financial literacy modules and insurance literacy	lumpsum										2	-	-	-	-	-	-	2
Training of trainers on finanical literacy including insurance literacy /f	batch	16	20	-	-	-	-	-	36	3,000	48	60	-	-	-	-	-	108
Training of VSLA members on financial literacy including insurance literacy	day	5,460	12,660	7,200	-	-	-	-	25,320	20	109	253	144	-	-	-	-	506
Subtotal Training on Financial literacy including insurance literacy											159	313	144	-	-	-	-	616
D. Training on VSLA linkage banking and other mainstream bank linka																		
Training of trainers on VSLA linkage banking /VC financing /h	batch	10	10	10	5	-	-	-	35	2,000	20	20	20	10	-	-	-	70
Training of VSLA members on linkage banking/ VC financing /i	VSLA	520	780	1,500	2,200	2,600	-	-	7,600	10	5	8	15	22	26	-	-	76
Subtotal Training on VSLA linkage banking and other mainstream ban											25	28	35	32	26	-	-	146
E. Engagement with banks																		
High level meeting with Financial instiuttions, Insurance companies and Ba	meeting	2	2	-	-	-	-	-	4	500	1	1	-	-	-	-	-	2
Planning and co ordination meeting at hub level with major financial instituti	meeting	5	20	20	10	10	10	10	85	200	1	4	4	2	2	2	2	17
Policy briefs and other KM products	per brief	-	1	1	2	2	1	-	7	1,000	-	1	1	2	2	1	-	7
Subtotal Engagement with banks											2	6	5	4	4	3	2	26
F. Technical assistance to Financial institutions																		
1. Tier 4 institutions																		
a. Agri product development - SACCOs, Agriculture enterprise co opera	SACCO	25	25	25	-	-	-	-	75	6,000	150	150	150	-	-	-	-	450
2. Tier 1, 2 & 3 Financial Institutions																		
a. TA for product development/ product modifications /m	pers-day	60	180	60	60	-	-	-	360	400	24	72	24	24	-	-	-	144
b. Training of branch managers and credit officers on new products inclu	batch	2	15	11	-	-	-	-	28	6,000	12	90	66	-	-	-	-	168
Subtotal Tier 1, 2 & 3 Financial Institutions											36	162	90	24	-	-	-	312
3. Training programme on oil seed value chain financing for bank staff inclu	batch	-	2	2	2	-	-	-	6	7,500	-	15	15	15	-	-	-	45
4. Exposure visit for senior management banks and Government officials /	batch	-	1	-	1	1	-	-	3	75,000	-	75	-	75	75	-	-	225
Subtotal Technical assistance to Financial institutions											186	402	255	114	75	-	-	1,032
G. Support to Insurance Companies																		
1. Training of insurance company staff in branches, PSP agents, /q	batch	2	4	4	4	-	-	-	14	1,000	2	4	4	4	-	-	-	14
2. Piloting and scaling up of agriculture insurance products /r	annual contract	-	1	1	-	-	-	-	2	50,000	-	50	50	-	-	-	-	100
Subtotal Support to Insurance Companies											2	54	54	4	-	-	-	114
H. Training on crop insurance for PSP and mobilisers /s	training	-	10	5	10	10	-	-	35	2,000	-	20	10	20	20	-	-	70
Total											538	861	517	179	125	3	2	2,223

Appendix 1.2 Detailed Tables
Table 3. Financial Services (Continued)

Republic of Uganda
National Oilseeds Project
Table 3. Financial Services
Detailed Costs

		Quantities								Unit Cost	Base Cost (US$ '000)							
	Unit	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total

\a 5 days training to PSPs- 6 EM managers, 20 EM supervisors, 300 VSLA facilitators,. USD 1250 per batch of 20 persons.
\b Village level as part of group meetings. USD 20 per training day covering 2 groups per day
\c Material development
\d 2 days training by RF manager with local support from a local trainer. Trainees include 6 Hub co ordinators, 6 Hub M&E officers, PSP - 6 EM managers, 20 EM supervisors, 200 - EMs, 300 VSLA facilitators.
\e Available material to be reviewed and modified to suit proejct requirements
\f 5 days training to PSPs- 6 EM managers, 20 EM supervisors, 200 - Economic mobilisers, 300 VSLA facilitators.
\g VSLA facilitator to train two groups in a day during group meetings. 70% of old groups and all new groups will under go the training
\h 2 day training to 6 Hub co ordinators, 6 Hub M&E officers, PSP- 6 EM managers, 20 EM supervisors, 200 - Economic mobilisers, 300 VSLA facilitators,
\i During VSLA meeting before such linkages. USD 10 per training
\j Senior management of financial institutions and Bank of Uganda
\k Quarterly meetings in the initial three years and half yearly there after.
\l 75 SACCOs;30 days per SACCO spread over 12 months and one TA provider per hub. VSLA linkage banking, agri product, equipment financing.
\m 4 institutions with about 8 products; year 1 one FI;year 2 -2 FIs: year 3- 1 FI
\n 720 persons trained (5 partners with total 40 branches & other outreach units and 6 loan officers per branch); 3 day training; fees of trainers to be borne by project & all logistics by the FIs. USD6000 / 2 persons 6 days incl. preparation/delivery
\o 3 week training course for bank staff - cost of trainers covered. Banks to bare logistics.
\p 5 days exposure visit for senior Government officilas and seniuor management of financial instiuttions to study value chain financing
\q 45 persons in total - trained twice a year.
\r technical assistance for one oilseed crop insurance product per year. Policy briefs on the intiatives f the project including new financial products,
\s two days training to PSPs- 6 EM managers, 20 EM supervisors, 200 - Economic mobilisers, 300 VSLA facilitators

Appendix 1.2 Detailed Tables
Table 4. Farm Production Advisors Scheme

Republic of Uganda
National Oilseeds Project
Table 4. Farm Production Advisors Scheme

Detailed Costs	Unit	Quantities								Unit Cost	Base Cost (US$ '000)							
		20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
I. Investment Costs																		
A. Farm Production Advisors Training																		
Develop course curriculum /a	manual	4	-	-	4	-	-	4	12	15,000	60	-	-	60	-	-	60	180
Production of training material /b	units	5,000	-	-	5,000	-	-	5,000	15,000	10	50	-	-	50	-	-	50	150
Training of Trainers /c	trainers	12	-	-	12	-	-	-	24	5,000	60	-	-	60	-	-	-	120
Training of FPA on the field /d	persons	75	133	188	200	125	68	11	800	500	38	67	94	100	63	34	6	400
Training of FPA theory classes /e	persons	75	133	188	200	125	68	11	800	500	38	67	94	100	63	34	6	400
Subtotal Farm Production Advisors Training											245	133	188	370	125	68	121	1,250
B. Demonstration Plots																		
Inputs - seed ,fert,CPP /f	input packs	75	133	188	200	125	68	11	800	100	8	13	19	20	13	7	1	80
Equipment and tools /g	pack	75	133	188	200	125	68	11	800	75	6	10	14	15	9	5	1	60
Signage /h	signs	75	133	188	200	125	68	11	800	25	2	3	5	5	3	2	0	20
Purchase of Mechanisation services	acres	75	133	188	200	125	68	11	800	60	5	8	11	12	8	4	1	48
M&E of Demo plot (inspections by PSP)	inspection	75	133	188	200	125	68	11	800	100	8	13	19	20	13	7	1	80
Field days for farmer groups in cluster /i	field days	300	530	750	800	500	270	50	3,200	100	30	53	75	80	50	27	5	320
Distribution and logistics /j	plots	300	530	750	800	500	270	50	3,200	200	60	106	150	160	100	54	10	640
Subtotal Demonstration Plots											117	207	293	312	195	105	19	1,248
C. FPA Extension program																		
Development of audio visual extension material /k	programs	12	-	12	-	12	-	-	36	7,500	90	-	90	-	90	-	-	270
Portable Audio visual equipment for extension	kits	100	100	-	-	-	-	-	200	750	75	75	-	-	-	-	-	150
Tablet for M&E	unit	100	100	10	10	10	10	10	250	150	15	15	2	2	2	2	2	38
Soft ware for M&E	unit	200	200	200	200	200	200	200	1,400	50	10	10	10	10	10	10	10	70
IT tech support from systems service provider	day	548	365	365	365	365	365	365	2,738	100	55	37	37	37	37	37	37	274
Training of FPA's on extension service provision /l	each	75	133	188	200	125	68	13	802	250	19	33	47	50	31	17	3	201
Transport allowance for extension /m	days	2,700	4,770	6,750	7,200	4,520	2,430	450	28,820	5	14	24	34	36	23	12	2	144
Subtotal FPA Extension program											277	194	219	134	192	77	54	1,146
D. General Support to FPAS																		
M&E : production and trade data from groups	farmers	45,000	79,500	112,500	120,000	120,000	120,000	120,000	717,000	0.55	25	44	62	66	66	66	66	394
M&E: Data management and processing /n	lumpsum										36	36	36	36	36	36	36	252
Logistics support /o	seasons	2	2	2	2	2	2	2	14	12,000	24	24	24	24	24	24	24	168
Program review /p	review	1	1	1	1	1	1	1	7	22,500	23	23	23	23	23	23	23	158
Subtotal General Support to FPAS											107	126	144	149	149	149	149	972
Total											746	660	844	965	660	399	342	4,616

\a Develop course curriculum. Program level PSP will develop course material for all oil seed crops and produce a production hand book. X4 book @ $10 000/book. New additions will be provided in the 4th and 7th year of the project
\b Production of training material: this will be a lever arch book so new material can be added, 5000 copies (x25/cluster)
\c TOT by Program level PSP. $5000 per trainer PSP. This will cover food accomodation, venue and training for four weeks in kampala, x2 trainers per custer
\d Training of FPA on the field 9 months , x1 contact session every 2 weeks = 18 contact sessions . Hub level PSP
\e Training of FPA on the field 9 months , x1 contact session every 2 weeks = 18 contact sessions . Hub level PSP
\f Inputs - seed ,fert, CPP $100 (to be procured by PMU) +$25 for delivery (PSP)
\g Equipment and tools- nap sack sprayer, tarpaulin, gerry can, PPE, record book
\h Signage for show garden with NOSP logo and demo plot number. Local PSP to be contracted to produce signage
\i Field days for farmer groups in cluster, cost of refreshments and administration
\j Distribution of inputs tool and equipment PSP - $50/plot per season (x4 seasons) from kampala to plot
\k Development of audio visual extension material $7500 per production x8 crop specific programs and x4 general programs
\l Training of FPA's on extension service provision, $250/student course
\m Transport allowance for extension $5/ session to facilitate public transport within the clusters and DSA, 36 extension days per annum (18 per season)
\n IT consultant support
\o Logistics support - general support for distribution of materials and co ordinating the program
\p Program review, technical review to check the program is on track 30days *$750

Appendix 1.2 Detailed Tables

Table 5. Auxiliary Farm Services Promotion Scheme

Republic of Uganda
National Oilseeds Project
Table 5. Auxiliary Farm Services Promotion Scheme

Detailed Costs	Unit	Quantities								Unit Cost	Base Cost (US$ '000)							
		20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
I. Investment Costs																		
A. Scheme Design and Supervision																		
1. Mechanization Business Training Course Set-up																		
Develop curriculum & materials for training program	module	6	-	-	-	-	-	-	6	10,000	60	-	-	-	-	-	-	60
Procurment Support to PMU /a	lump sum										10	10	10	10	10	10	10	70
ToT Mech Bus. training of hub implementers (PSP)	implementer	4	4	4	-	-	-	-	12	40,000	160	160	160	-	-	-	-	480
Monitoring & Mentoring of Hub Implementers /b	implementer	-	-	8	8	8	8	-	32	10,000	-	-	80	80	80	80	-	320
Subtotal Mechanization Business Training Course Set-up											230	170	250	90	90	90	10	930
2. Machinery packages for Hub Implementers usage																		
Small scale thresher package for Hub training	package	10	-	-	-	-	-	-	10	5,000	50	-	-	-	-	-	-	50
Small scale mechanization package for Hub training	package	5	-	-	-	-	-	-	5	8,400	42	-	-	-	-	-	-	42
Medium scale mechanization package for Hub training	package	5	-	-	-	-	-	-	5	38,800	194	-	-	-	-	-	-	194
Large scale mechanization package for Hub training	package	5	-	-	-	-	-	-	5	55,800	279	-	-	-	-	-	-	279
Subtotal Machinery packages for Hub Implementers usage											565	-	-	-	-	-	-	565
Subtotal Scheme Design and Supervision											795	170	250	90	90	90	10	1,495
B. Mechanization Business Training																		
Tractor operator training /c	each	-	210	210	210	240	220	220	1,310	1,250	-	263	263	263	300	275	275	1,638
Mechanic training course	man	6	6	6	6	6	6	6	42	2,400	14	14	14	14	14	14	14	101
Field Visits and mentoring of operators	each	-	105	105	105	120	110	110	655	500	-	53	53	53	60	55	55	328
Monitoring of extensions	session	-	105	105	105	120	110	110	655	100	-	11	11	11	12	11	11	66
Subtotal Mechanization Business Training											14	340	340	340	386	355	355	2,131
C. Mechanization Business Financing Round 1 - First movers																		
1. Small-scale mech package (USD 11,200 each, incl taxes)																		
a. Investor = Producer group (incentive = 50% w/ women bonus)																		
Investment incentive - NOSP	package	-	50	50	-	-	-	-	100	5,600	-	280	280	-	-	-	-	560
Beneficary contribution	package	-	50	50	-	-	-	-	100	5,600	-	280	280	-	-	-	-	560
Subtotal Investor = Producer group (incentive = 50% w/ women b											-	560	560	-	-	-	-	1,120
b. Investor = SME (incentive = 35% w/ women bonus)																		
Investment incentive - NOSP	package	-	25	25	-	-	-	-	50	3,920	-	98	98	-	-	-	-	196
Beneficary contribution	package	-	25	25	-	-	-	-	50	7,280	-	182	182	-	-	-	-	364
Subtotal Investor = SME (incentive = 35% w/ women bonus)											-	280	280	-	-	-	-	560
Subtotal Small-scale mech package (USD 11,200 each, incl taxes)											-	840	840	-	-	-	-	1,680
2. Medium-scale mech package (USD 44,310 each, incl taxes)																		
a. Investor = Producer group (incentive = 50% w/ women bonus)																		
Investment incentive - NOSP	package	-	15	15	-	-	-	-	30	22,155	-	332	332	-	-	-	-	665
Beneficary contribution	package	-	15	15	-	-	-	-	30	22,155	-	332	332	-	-	-	-	665
Subtotal Investor = Producer group (incentive = 50% w/ women b											-	665	665	-	-	-	-	1,329
b. Investor = SME (incentive = 35% w/ women bonus)																		
Investment incentive - NOSP	package	-	15	15	-	-	-	-	30	15,508	-	233	233	-	-	-	-	465
Beneficary contribution	package	-	15	15	-	-	-	-	30	28,802	-	432	432	-	-	-	-	864
Subtotal Investor = SME (incentive = 35% w/ women bonus)											-	665	665	-	-	-	-	1,329
Subtotal Medium-scale mech package (USD 44,310 each, incl taxes)											-	1,329	1,329	-	-	-	-	2,659
Subtotal Mechanization Business Financing Round 1 - First movers											-	2,169	2,169	-	-	-	-	4,339

Appendix 1.2 Detailed Tables

Table 5. Auxiliary Farm Services Promotion Scheme (Continued)

Republic of Uganda
National Oilseeds Project
Table 5. Auxiliary Farm Services Promotion Scheme

Detailed Costs	Unit	Quantities 20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	Unit Cost (US$)	Base Cost (US$ '000) 20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
I. Investment Costs																		
D. Mechanization Business Financing Round 2 - Early expanders																		
1. Small-scale mech package (USD 11,200 each, incl taxes)																		
a. Investor = Producer group (incentive = 40% w/ women bonus)																		
Investment incentive - NOSP	package	-	-	-	50	50	-	-	100	4,480	-	-	-	224	224	-	-	448
Beneficary contribution	package	-	-	-	50	50	-	-	100	6,720	-	-	-	336	336	-	-	672
Subtotal Investor = Producer group (incentive = 40% w/ women b											-	-	-	560	560	-	-	1,120
b. Investor = SME (incentive = 25% w/ women bonus)																		
Investment incentive - NOSP	package	-	-	-	25	25	-	-	50	2,800	-	-	-	70	70	-	-	140
Beneficary contribution	package	-	-	-	25	25	-	-	50	8,400	-	-	-	210	210	-	-	420
Subtotal Investor = SME (incentive = 25% w/ women bonus)											-	-	-	280	280	-	-	560
Subtotal Small-scale mech package (USD 11,200 each, incl taxes)											-	-	-	840	840	-	-	1,680
2. Medium-scale mech package (USD 44,310 each, incl taxes)																		
a. Investor = Producer group (incentive = 40% w/ women bonus)																		
Investment incentive - NOSP	package	-	-	-	15	10	-	-	25	17,724	-	-	-	266	177	-	-	443
Beneficary contribution	package	-	-	-	15	10	-	-	25	26,586	-	-	-	399	266	-	-	665
Subtotal Investor = Producer group (incentive = 40% w/ women b											-	-	-	665	443	-	-	1,108
b. Investor = SME (incentive = 25% w/ women bonus)																		
Investment incentive - NOSP	package	-	-	-	15	10	-	-	25	11,077	-	-	-	166	111	-	-	277
Beneficary contribution	package	-	-	-	15	10	-	-	25	33,233	-	-	-	498	332	-	-	831
Subtotal Investor = SME (incentive = 25% w/ women bonus)											-	-	-	665	443	-	-	1,108
Subtotal Medium-scale mech package (USD 44,310 each, incl taxes)											-	-	-	1,329	886	-	-	2,216
3. Large-scale mech package (USD 56,330 each, incl taxes)																		
a. Investor = Producer group (incentive = 40% w/ women bonus)																		
Investment incentive - NOSP	package	-	-	-	-	10	-	-	10	22,532	-	-	-	-	225	-	-	225
Beneficary contribution	package	-	-	-	-	10	-	-	10	33,798	-	-	-	-	338	-	-	338
Subtotal Investor = Producer group (incentive = 40% w/ women b											-	-	-	-	563	-	-	563
b. Investor = SME (incentive = 25% w/ women bonus)																		
Investment incentive - NOSP	package	-	-	-	-	15	-	-	15	14,082	-	-	-	-	211	-	-	211
Beneficary contribution	package	-	-	-	-	15	-	-	15	42,248	-	-	-	-	634	-	-	634
Subtotal Investor = SME (incentive = 25% w/ women bonus)											-	-	-	-	845	-	-	845
Subtotal Large-scale mech package (USD 56,330 each, incl taxes)											-	-	-	-	1,408	-	-	1,408
Subtotal Mechanization Business Financing Round 2 - Early expande											-	-	-	2,169	3,134	-	-	5,304
E. Mechanization Business Financing Round 3 - Main adopters																		
1. Small-scale mech package (USD 11,200 each, incl taxes)																		
a. Investor = Producer group (incentive = 30% w/ women bonus)																		
Investment incentive - NOSP	package	-	-	-	-	-	50	50	100	3,360	-	-	-	-	-	168	168	336
Beneficary contribution	package	-	-	-	-	-	50	50	100	7,840	-	-	-	-	-	392	392	784
Subtotal Investor = Producer group (incentive = 30% w/ women b											-	-	-	-	-	560	560	1,120
b. Investor = SME (incentive = 20% w/ women bonus)																		
Investment incentive - NOSP	package	-	-	-	-	-	25	25	50	2,240	-	-	-	-	-	56	56	112
Business contribution	package	-	-	-	-	-	25	25	50	8,960	-	-	-	-	-	224	224	448
Subtotal Investor = SME (incentive = 20% w/ women bonus)											-	-	-	-	-	280	280	560
Subtotal Small-scale mech package (USD 11,200 each, incl taxes)											-	-	-	-	-	840	840	1,680

Appendix 1.2 Detailed Tables

Table 5. Auxiliary Farm Services Promotion Scheme (Continued)

Republic of Uganda
National Oilseeds Project
Table 5. Auxiliary Farm Services Promotion Scheme

Detailed Costs	Unit	Quantities								Unit Cost	Base Cost (US$ '000)							
		20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
2. Medium-scale mech package (USD 44,310 each, incl taxes)																		
a. Investor = Producer group (incentive = 30% w/ women bonus)																		
Investment incentive - NOSP	package	-	-	-	-	-	10	10	20	13,293	-	-	-	-	-	133	133	266
Beneficary contribution	package	-	-	-	-	-	10	10	20	31,017	-	-	-	-	-	310	310	620
Subtotal Investor = Producer group (incentive = 30% w/ women b											-	-	-	-	-	443	443	886
b. Investor = SME (incentive = 20% w/ women bonus)																		
Investment incentive - NOSP	package	-	-	-	-	-	10	10	20	8,862	-	-	-	-	-	89	89	177
Business contribution	package	-	-	-	-	-	10	10	20	35,448	-	-	-	-	-	354	354	709
Subtotal Investor = SME (incentive = 20% w/ women bonus)											-	-	-	-	-	443	443	886
Subtotal Medium-scale mech package (USD 44,310 each, incl taxes)											-	-	-	-	-	886	886	1,772
3. Large-scale mech package (USD 56,330 each, incl taxes)																		
a. Investor = Producer group (incentive = 30% w/ women bonus)																		
Investment incentive - NOSP	package	-	-	-	-	-	5	5	10	16,899	-	-	-	-	-	84	84	169
Beneficary contribution	package	-	-	-	-	-	5	5	10	39,431	-	-	-	-	-	197	197	394
Subtotal Investor = Producer group (incentive = 30% w/ women b											-	-	-	-	-	282	282	563
b. Investor = SME (incentive = 20% w/ women bonus)																		
Investment incentive - NOSP	package	-	-	-	-	-	10	10	20	11,266	-	-	-	-	-	113	113	225
Business contribution	package	-	-	-	-	-	10	10	20	45,064	-	-	-	-	-	451	451	901
Subtotal Investor = SME (incentive = 20% w/ women bonus)											-	-	-	-	-	563	563	1,127
Subtotal Large-scale mech package (USD 56,330 each, incl taxes)											-	-	-	-	-	845	845	1,690
Subtotal Mechanization Business Financing Round 3 - Main adopters											-	-	-	-	-	2,571	2,571	5,142
Total											809	2,679	2,759	2,599	3,611	3,017	2,937	18,411

\a Scheme Implementer / Machinery Suppliers: Define ToRs, technical advise to PMU, due dilligence
\b 1 / season / implementer
\c On usage and maintenance of equipment - 2 operators per package

Appendix 1.2 Detailed Tables
Table 6. Quality Declared Seed Production Scheme

Republic of Uganda
National Oilseeds Project
Table 6. Quality Declared Seed Production Scheme

Detailed Costs	Unit	Quantities								Unit Cost	Base Cost (US$ '000)							
		20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
I. Investment Costs																		
A. Local Seed Business Training																		
Develop and implement QMS documentation /a	manual	1	-	-	-	-	-	-	1	25,000	25	-	-	-	-	-	-	25
Production of training material and documentation	copies	500	-	500	-	-	-	-	1,000	25	13	-	13	-	-	-	-	25
PSP training LSB /b	pers-day	900	900	900	900	900	900	-	5,400	20	18	18	18	18	18	18	-	108
Subtotal Local Seed Business Training											56	18	31	18	18	18	-	158
B. Local Seed Business Plots																		
Inputs - seed, fertilizer, crop protection products /c	packs	20	25	30	35	45	50	-	205	300	6	8	9	11	14	15	-	62
Equipment and tools /d	no	20	25	30	35	45	50	-	205	50	1	1	2	2	2	3	-	10
Signage /e	no	20	25	30	35	45	50	-	205	20	0	1	1	1	1	1	-	4
Purchase of mechanisation services /f	acres	40	50	60	70	90	100	-	410	85	3	4	5	6	8	9	-	35
Certification and inspection /g	no	100	125	150	175	225	250	-	1,025	20	2	3	3	4	5	5	-	21
Tablets for M&E /h	no	20	25	30	35	45	50	-	205	150	3	4	5	5	7	8	-	31
Software developement /i	lumpsum										20	-	-	-	-	-	-	20
Software and reg /j	no	20	45	75	110	155	205	-	610	50	1	2	4	6	8	10	-	31
M&E : production and trade data from groups /k	LSB	20	25	30	35	45	50	-	205	50	1	1	2	2	2	3	-	10
M&E: Data management and processing /l	pers-day	100	100	100	100	100	100	-	600	50	5	5	5	5	5	5	-	30
Subtotal Local Seed Business Plots											43	28	34	40	51	57	-	253
C. Supply Chain Development	no	-	10	10	10	10	10	-	50	1,500	-	15	15	15	15	15	-	75
D. Training of Seed Inspectors /m																		
Seed inspectors training by PSP	inspectors	-	38	29	28	6	-	-	101	1,000	-	38	29	28	6	-	-	101
Equiping seed inspectors	set	-	38	39	38	6	-	-	121	500	-	19	20	19	3	-	-	61
Subtotal Training of Seed Inspectors											-	57	49	47	9	-	-	162
E. Supporting Seed Production Systems																		
1. Soy Seed - Increase genetic yield potential of local varieties	trial	-	1	1	1	1	1	-	5	25,000	-	25	25	25	25	25	-	125
2. Build Capacity of plant breeders	scholarships	-	1	-	-	-	-	-	1	25,000	-	25	-	-	-	-	-	25
3. Increasing capacity for foundation seed supply																		
Develop a sustainble business model and Supply chain to provide LSB v	plan	-	1	-	-	-	-	-	1	10,000	-	10	-	-	-	-	-	10
Irrigation system for foundation seed production	acres	-	10	-	-	-	-	-	10	5,000	-	50	-	-	-	-	-	50
Training on irrigation system operation and maintenance	session	-	1	-	-	-	-	-	1	2,500	-	3	-	-	-	-	-	3
Subtotal Increasing capacity for foundation seed supply											-	63	-	-	-	-	-	63
4. Support to National Soy Bean Seed Production																		
4WD Pickup	no	1	-	-	-	-	-	-	1	42,000	42	-	-	-	-	-	-	42
Subtotal Supporting Seed Production Systems											42	113	25	25	25	25	-	255
F. Innoculant Supply Chain																		
Develop capacity of private sector labs to produce innoculant /n	labs	-	1	-	-	-	-	-	1	115,000	-	115	-	-	-	-	-	115
Innoculant storage /o	no	40	40	40	40	40	-	-	200	1,000	40	40	40	40	40	-	-	200
Set up certification scheme for innoculant at Makarere University /p	lumpsum										-	30	-	-	-	-	-	30
Set up QMS for production of innoculant /q	lumpsum										-	20	-	-	-	-	-	20
Capacity building - production of innoculant /r	course	-	1	1	-	-	-	-	2	10,000	-	10	10	-	-	-	-	20
Equip Makarere Laboratory for innoculant production /s	lumpsum										-	120	-	-	-	-	-	120
Subtotal Innoculant Supply Chain											40	335	50	40	40	-	-	505
G. Research and Development																		
Scholarships MSc	students	-	10	-	10	-	-	-	20	6,000	-	60	-	60	-	-	-	120
Scholarships PhD	students	-	5	5	-	-	-	-	10	12,000	-	60	60	-	-	-	-	120
Workshops	w/shop	-	1	1	1	1	1	-	5	10,000	-	10	10	10	10	10	-	50
Supporting institutons on oil seed research	programs	-	2	-	-	-	-	-	2	25,000	-	50	-	-	-	-	-	50
Subtotal Research and Development											-	180	70	70	10	10	-	340
Total Investment Costs											180	746	273	255	168	125	-	1,747

Appendix 1.2 Detailed Tables
Table 6. Quality Declared Seed Production Scheme (Continued)

Republic of Uganda
National Oilseeds Project
Table 6. Quality Declared Seed Production Scheme

Detailed Costs	Unit	Quantities								Unit Cost	Base Cost (US$ '000)							
		20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
II. Recurrent Costs																		
A. Support to National Soy Bean Production																		
Vehicle operating	lumpsum										15	15	15	15	15	15	15	103
Total Recurrent Costs											15	15	15	15	15	15	15	103
Total											195	760	288	270	182	140	15	1,850

\a Develop and implement QMS documentation and Quality Manuals for seed companies
\b Training and mentoring of LSB on the field x 5 trainer per hub, full time to mentor and guide LSB $18000/trainer to PSP for full cost
\c Inputs - seed ,fert,seed bags, labels CPP $250/acres x2 acres
\d Equipment and tools, PPE, napsakc sprayer, tarpaulins
\e Signage for fields to ID project
\f Purchase of Mechanisation services, tillage for 2 acres x3 passes
\g Certification and inspection, cost of private inspector, 5 inspection per season
\h Tablets for M&E, one tablet per LSB for M&E
\i lump sum for developing software - will link to NSCS & NOPS data base
\j Software licences for operating systems
\k M&E : productionand trade data from groups, LSB paid $25 /season to submit all data on sales, production etc
\l M&E: Data management and processing, of all data from LSB on sales and volumes, customers
\m Training of seed inspectors - training provided by NSCS - 25 days - DSA = $30 =$750 + $250 for equipment = $1000
\n Subsidy scheme for private sector innoculant producer
\o Fridges for innoculant supply chain scheme - $1,000 refrigerated storage/offgrid subsidy for agrodealers / coops
\p Set up certification scheme for innoculant at Makarere University TA $500 @ 60 days = $30000
\q Set up QMS for production of innoculant PSP $20 000
\r Capacity buiding and training of private sector labs PSP 1 training = 5 days $10000
\s Equip Laboratory at Makarere for certification 560 000 lab equipment $10 000 IT/labels

Appendix 1.2 Detailed Tables

Table 7. Public Infrastructure Serving Oilseed Sector

Republic of Uganda
National Oilseeds Project
Table 7. Public Infrastructure Serving Oilseed Sector

Detailed Costs	Unit	Quantities								Unit Cost	Base Cost (US$ '000)							
		20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
I. Investment Costs																		
A. Vehicles																		
4WD Pickups	no	-	5	-	-	-	-	-	5	42,000	-	210	-	-	-	-	-	210
Office car	no	-	1	-	-	-	-	-	1	50,000	-	50	-	-	-	-	-	50
Subtotal Vehicles											-	260	-	-	-	-	-	260
B. Office equipment																		
Desktop computers	no	-	-	15	-	-	-	-	15	1,000	-	-	15	-	-	-	-	15
Laptops	no	-	-	15	-	-	-	-	15	1,500	-	-	23	-	-	-	-	23
Printers	no	-	-	15	-	-	-	-	15	500	-	-	8	-	-	-	-	8
Multifunctional Printer/Scanner	no	-	-	1	-	-	-	-	1	12,000	-	-	12	-	-	-	-	12
Office furniture	set	-	-	11	-	-	-	-	11	2,000	-	-	22	-	-	-	-	22
GPS and Tablet equipment	no	-	-	6	-	-	-	-	6	1,000	-	-	6	-	-	-	-	6
Software	no	-	1	1	1	1	1	1	6	500	-	1	1	1	1	1	1	3
Subtotal Office equipment											-	1	86	1	1	1	1	88
C. Community awareness and social mobilisation	lumpsum	-	0.1	0.1	0.2	0.2	0.2	0.2	1	600,000	-	60	60	120	120	120	120	600
D. Feasibility studies and engineering designs /a	kms	-	1,000	1,495	-	-	-	-	2,495	1,000	-	1,000	1,495	-	-	-	-	2,495
E. Environmental and Social Impact Assessments /b	kms	-	1,000	1,495	-	-	-	-	2,495	600	-	600	897	-	-	-	-	1,497
F. ESMP implementation - Restoration of water supply	lumpsum	-	-	-	0.3	0.3	0.2	0.2	1	269,400	-	-	-	81	81	54	54	269
G. Road construction works																		
Road Construction works	kms	-	-	-	1,000	1,000	450	-	2,450	20,000	-	-	-	20,000	20,000	9,000	-	49,000
H. Construction supervision /c	kms	-	-	-	1,000	1,000	450	-	2,450	1,000	-	-	-	1,000	1,000	450	-	2,450
Total Investment Costs											-	1,921	2,538	21,201	21,201	9,624	174	56,659
II. Recurrent Costs																		
Total											-	1,921	2,538	21,201	21,201	9,624	174	56,659

\a 5% of construction costs
\b Consultancy services 3% of construction costs
\c 5% of construction costs

Appendix 1.2 Detailed Tables

Table 8. Project Management and Coordination

Republic of Uganda
National Oilseeds Project
Table 8. Project Coordination and Management

Detailed Costs	Unit	Quantities								Unit Cost	Base Cost (US$ '000)							
		20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
I. Investment Costs																		
A. MAAIF PCU																		
1. Technical Assistance																		
National M&E, KM and Communication Specialist /a	pers-month	4	4	4	-	-	2	2	16	8,000	32	32	32	-	-	16	16	128
TA to strengthen the PEs	lumpsum										13	38	-	-	-	-	-	50
Procurement Capacity Building Programme	lumpsum										25	25	-	-	-	-	-	50
Subtotal Technical Assistance											70	95	32	-	-	16	16	228
2. Vehicles																		
4WD Pickups	no	-	-	9	-	-	-	-	9	42,000	-	-	378	-	-	-	-	378
Office car (Station wagon)	no	1	-	-	-	-	-	-	1	50,000	50	-	-	-	-	-	-	50
Subtotal Vehicles											50	-	378	-	-	-	-	428
3. Office equipment																		
Desktop computer	unit	-	-	13	-	-	-	-	13	1,000	-	-	13	-	-	-	-	13
Laptops	unit	-	-	12	-	-	-	-	12	1,500	-	-	18	-	-	-	-	18
Mutifunctional printer/scanner	unit	-	-	1	-	-	-	-	1	12,000	-	-	12	-	-	-	-	12
Office furniture	set	-	-	13	-	-	-	-	13	2,000	-	-	26	-	-	-	-	26
GPS and tablet equipment	unit	-	-	6	-	-	-	-	6	1,000	-	-	6	-	-	-	-	6
Software	lumpsum										-	1	1	1	1	1	1	3
Subtotal Office equipment											-	1	76	1	1	1	1	78
Subtotal MAAIF PCU											120	95	486	1	1	17	17	734
B. MoLG PCU																		
1. Vehicles																		
4WD Pickups	no	-	6	-	-	-	-	-	6	42,000	-	252	-	-	-	-	-	252
Office car (Station wagon)	no	1	1	-	-	-	-	-	2	50,000	50	50	-	-	-	-	-	100
Subtotal Vehicles											50	302	-	-	-	-	-	352
2. Office equipment																		
Desktop computer	unit	-	-	8	-	-	-	-	8	1,000	-	-	8	-	-	-	-	8
Laptops	unit	-	-	6	-	-	-	-	6	1,500	-	-	9	-	-	-	-	9
Mutifunctional printer/scanner	unit	-	-	1	-	-	-	-	1	12,000	-	-	12	-	-	-	-	12
Office furniture	set	-	-	8	-	-	-	-	8	2,000	-	-	16	-	-	-	-	16
GPS and tablet equipment	unit	-	-	6	-	-	-	-	6	1,000	-	-	6	-	-	-	-	6
Software	lumpsum										-	1	1	1	1	1	1	3
Subtotal Office equipment											-	1	52	1	1	1	1	54
Subtotal MoLG PCU											50	303	52	1	1	1	1	406
Total Investment Costs											170	398	537	1	1	17	17	1,140

Appendix 1.2 Detailed Tables

Table 8. Project Management and Coordination (Continued)

Republic of Uganda
National Oilseeds Project
Table 8. Project Coordination and Management

Detailed Costs	Unit	Quantities								Unit Cost	Base Cost (US$ '000)							
		20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
II. Recurrent Costs																		
A. MAAIF PCU																		
1. Staff Salaries																		
Project Coordinator	pers-month	6	12	12	12	12	12	12	78	5,000	30	60	60	60	60	60	60	390
Agronomist	pers-month	6	12	12	12	12	12	12	78	4,000	24	48	48	48	48	48	48	312
Supply Chain Team Leader	pers-month	6	12	12	12	12	12	12	78	4,000	24	48	48	48	48	48	48	312
Supply Chain Deputy Team Leader	pers-month	12	24	24	24	24	24	24	156	3,000	36	72	72	72	72	72	72	468
Financial Controller	pers-month	6	12	12	12	12	12	12	78	3,000	18	36	36	36	36	36	36	234
Procurement and Contract Manager	pers-month	6	12	12	12	12	12	6	72	3,500	21	42	42	42	42	42	21	252
Social Inclusion Specialist /b	pers-month	-	12	12	12	12	12	12	72	3,000	-	36	36	36	36	36	36	216
Environment and Climate Specialist	pers-month	-	12	12	12	12	12	12	72	3,000	-	36	36	36	36	36	36	216
M&E and KM Specialist	pers-month	12	12	12	12	12	12	12	84	3,000	36	36	36	36	36	36	36	252
Rural Finance Advisor	pers-month	-	12	12	12	12	12	12	72	3,000	-	36	36	36	36	36	36	216
Accountant	pers-month	6	12	12	12	12	12	12	78	2,000	12	24	24	24	24	24	24	156
Account Assistant	pers-month	6	12	12	12	12	12	12	78	1,500	9	18	18	18	18	18	18	117
Data Management Assistant	pers-month	-	12	12	12	12	12	12	72	1,000	-	12	12	12	12	12	12	72
Office Administrator	pers-month	-	12	12	12	12	12	12	72	1,000	-	12	12	12	12	12	12	72
Office Attendants	pers-month	-	24	24	24	24	24	24	144	500	-	12	12	12	12	12	12	72
Drivers	pers-month	-	108	108	108	108	108	108	648	500	-	54	54	54	54	54	54	324
Subtotal Staff Salaries											210	582	582	582	582	582	561	3,681
2. Staff Salary Other																		
NSSF contribution (10% of salary)	lumpsum										21	58	58	58	58	58	56	368
Gratuity	lumpsum										32	87	87	87	87	87	84	552
Staff Medical Insurance	lumpsum										-	22	22	22	22	22	22	130
Subtotal Staff Salary Other											53	167	167	167	167	167	162	1,050
3. Staff Allowances																		
Per diem for national travel	day	-	300	600	600	600	600	600	3,300	50	-	15	30	30	30	30	30	165
Tele and internet subs	month	-	2,220	2,220	2,220	2,220	2,220	2,220	13,320	5	-	11	11	11	11	11	11	67
Subtotal Staff Allowances											-	26	41	41	41	41	41	232
4. Operation and maintenance																		
a. Vehicle O&M	lumpsum										-	27	27	27	27	27	27	162
b. Office supplies																		
Office supplies	lumpsum										-	10	10	10	10	10	10	60
Pastel Software(Provisional cost)	lumpsum										20	-	-	-	-	-	-	20
Pastel Annual Maintenance /c	lumpsum										-	3	3	3	3	3	3	18
Performance Audit - Bi Annual	bi-annual	-	-	1	-	1	-	1	3	20,000	-	-	20	-	20	-	20	60
IFMIS Mapping for financial reporting /d	day	20	-	-	-	-	-	-	20	250	5	-	-	-	-	-	-	5
Subtotal Office supplies											25	13	33	13	33	13	33	163
Subtotal Operation and maintenance											25	40	60	40	60	40	60	325
5. Office rent	pers-month										-	55	55	55	55	55	55	330
Subtotal MAAIF PCU											288	870	905	885	905	885	879	5,618
B. MoLG NOSP Implementation Support Team																		
1. Staff Salaries																		
Project Coordinator	pers-month	-	12	12	12	12	12	12	72	2,000	-	24	24	24	24	24	24	144
Infrastructure Engineering Advisor (from MoWT)	pers-month	-	12	12	12	12	12	12	72	1,500	-	18	18	18	18	18	18	108
Infrastructure Engineers	pers-month	-	60	60	60	60	60	60	360	3,000	-	180	180	180	180	180	180	1,080
Social and Community Development Specialist	pers-month	-	12	12	12	12	12	12	72	2,000	-	24	24	24	24	24	24	144
M&E Officer	pers-month	-	12	12	12	12	12	12	72	2,000	-	24	24	24	24	24	24	144
Project Accountant	pers-month	6	12	12	12	12	12	12	78	2,000	12	24	24	24	24	24	24	156
Procurement Specialist	pers-month	6	12	12	12	12	12	6	72	3,000	18	36	36	36	36	36	18	216
Accounts Assistant	pers-month	6	12	12	12	12	12	12	78	1,500	9	18	18	18	18	18	18	117
Office Administrator	pers-month	-	12	12	12	12	12	12	72	1,000	-	12	12	12	12	12	12	72
Drivers	pers-month	-	84	84	84	84	84	84	504	500	-	42	42	42	42	42	42	252
Subtotal Staff Salaries											39	402	402	402	402	402	384	2,433

Appendix 1.2 Detailed Tables

Table 8. Project Management and Coordination (Continued)

Republic of Uganda
National Oilseeds Project
Table 8. Project Coordination and Management

Detailed Costs	Unit	Quantities								Unit Cost	Base Cost (US$ '000)							
		20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
2. Staff Salary Other																		
NSSF contribution (10% of salary)	lumpsum										4	40	40	40	40	40	38	243
Gratuity	lumpsum										6	60	60	60	60	60	58	365
Staff Medical Insurance	lumpsum										-	20	20	20	20	20	20	122
Subtotal Staff Salary Other											10	121	121	121	121	121	116	730
3. Staff Allowances																		
Per diem for national travel	day	-	300	600	600	600	600	600	3,300	35	-	11	21	21	21	21	21	116
Tele and internet subs	month	-	2,220	2,220	2,220	2,220	2,220	2,220	13,320	5	-	11	11	11	11	11	11	67
Subtotal Staff Allowances											-	22	32	32	32	32	32	182
4. Operation and maintenance																		
a. Vehicle O&M	lumpsum										-	27	27	27	27	27	27	162
b. Office supplies	lumpsum										-	10	10	10	10	10	9	59
Subtotal Operation and maintenance											-	37	37	37	37	37	36	221
Subtotal MoLG NOSP Implementation Support Team											49	581	592	592	592	592	568	3,565
Total Recurrent Costs											336	1,452	1,497	1,477	1,497	1,477	1,447	9,183
Total											506	1,849	2,034	1,478	1,498	1,494	1,464	10,323

\a ITA including international travel.
\b a.k.a Community Development Officer
\c Provisional cost
\d Provision for a financial consultant to support on IFMIS Mapping for financial reporting

Appendix 1.2 Detailed Tables

Table 9. Knowledge Management and Monitoring and Evaluation

Republic of Uganda
National Oilseeds Project
Table 9. Knowledge Management and Monitoring & Evaluation

Detailed Costs	Unit	Quantities								Unit Cost	Base Cost (US$ '000)							
		20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total	(US$)	20/21	21/22	22/23	23/24	24/25	25/26	26/27	Total
I. Investment Costs																		
A. M&E System /a																		
Establish MIS /b	contract										100	-	-	-	-	-	-	100
Server / Cloud costs	lumpsum										1	1	1	1	1	1	1	4
Baseline survey	survey	1	-	-	-	-	-	-	1	150,000	150	-	-	-	-	-	-	150
SC annual tracking survey /c	survey	1	1	1	1	1	1	1	7	50,000	50	50	50	50	50	50	50	350
Mid-term survey /d	survey	-	-	-	1	-	-	-	1	800,000	-	-	-	800	-	-	-	800
Impact Assessment Survey	survey	-	-	-	-	1	-	-	1	50,000	-	-	-	-	50	-	-	50
End-line survey	survey	-	-	-	-	-	-	1	1	150,000	-	-	-	-	-	-	150	150
Subtotal M&E System											301	51	51	851	101	51	201	1,604
B. KM products and communications																		
Annual review workshop for PCU/PICT/Hub Environ+Social	w/shop	-	1	1	1	1	1	1	6	10,000	-	10	10	10	10	10	10	60
KM product and communication activities /e	lumpsum										30	30	30	30	30	30	30	210
Subtotal KM products and communications											30	40	40	40	40	40	40	270
C. Equipment																		
GSM-enabled tablet /f	unit	1,345	-	-	-	-	-	-	1,345	140	188	-	-	-	-	-	-	188
GPS units /g	unit	25	-	-	-	-	-	-	25	500	13	-	-	-	-	-	-	13
Desktop computer /h	unit	10	-	-	-	-	-	-	10	1,500	15	-	-	-	-	-	-	15
Digital Camera professional /i	unit	7	-	-	-	-	-	-	7	1,000	7	-	-	-	-	-	-	7
Subtotal Equipment											223	-	-	-	-	-	-	223
Total Investment Costs											553	91	91	891	141	91	241	2,096
II. Recurrent Costs																		
A. Staff allowances																		
M&E and KM Specialist /j	pers-day	30	30	30	30	30	30	30	210	40	1	1	1	1	1	1	1	8
PMU Data Management Assistant	pers-day	35	35	35	35	35	35	35	245	40	1	1	1	1	1	1	1	10
Hub M&E Assistant /k	pers-day	250	250	250	250	250	250	250	1,750	40	10	10	10	10	10	10	10	70
Total Recurrent Costs											13	13	13	13	13	13	13	88
Total											566	103	103	903	153	103	253	2,185

\a Monitoring and evaluation, Management Information System
\b Contract for establishment of M&E/MIS and KM systems and strategies.
\c For all active SCs includes rolling baseline, SC survey combined with limted HH survey (annual outcome)
\d Contracted by IFAD
\e Includes policy briefings, website, webinars, printing etc.
\f For HHM mentors, Supervisors, M&E and core comp staff at Hub and M&E team at PMU; excluding BSs team as it has been budgeted in Component 1 separately.
\g For areas where there is no cellular connection. 10 in each Hub
\h 2 at PMU and 1 at each Hub and 3 for when additional data management support is required
\i 1 in each hub and 2 at PMU.
\j At PCU
\k One per hub

Investing in rural people

Uganda

National Oilseeds Project

Project Design Report

Annex 4: Economic and Financial Analysis

Document Date:	26/10/2019
Project No.	2000002260
Report No.	5155-UG

East and Southern Africa Division
Programme Management Department

Annex 4: Economic and Financial Analysis

EFA Summary Page [1]

Table A: Household Financial Incremental Income for NOSP Farm Models

	Household Incremental Income (UGX)			
Project Year	**Sunflower - Sesame**	**Sunflower - Groundnut**	**Sesame - Soy bean**	**Soy bean - Sesame**
PY1	-282,400	-272,400	-340,000	-348,960
PY2	-207,557	-1,086,231	169,086	-21,040
PY3	-148,081	-891,913	1,118,016	475,880
PY4	72,418	259,199	2,171,615	1,001,485
PY5	300,078	1,307,998	2,555,338	1,339,938
PY6	640,838	1,873,067	2,919,278	1,652,198
PY7	685,518	1,915,087	2,958,638	1,688,898
PY8	635,518	1,865,087	2,908,638	1,638,898
PY9	685,518	1,915,087	2,958,638	1,688,898
PY10 +	435,518	1,665,087	2,708,638	1,438,898
NPV @ 12% \1	**2,186,725**	6,404,396	14,738,056	7,782,363

\1 12% discount rate equivalent to average interest rate of term deposits

Table B: Project Cost and Log Frame Indicators

Total Project Costs (USD m): **160.81**		**IFAD loan**: (USD m): **99.56**	
Target population \1	People: **600,000** \2	Households**: 120,000**	
Cost per targeted population\3	**268** USD / person	**1,340** USD / HH	
Components / Outputs and Cost (USD M)		**Selected Outputs and Indicators**	
A. Increased production, productivity and profitability in oilseeds sector			
A.1.1 - Oilseed production clusters established	16.1	200	# Clustered established and functional
A.1.2 - Multi-stakeholder platforms formed		200	# MSPs established and functional
A.1.3 - Production Groups trained in market-orientation and business skills	19.2	200	# Clusters trained in Business Skills and market orientation
A.1.4 - Social mentoring provided to production groups and high-risk households		20,000	# Number of high risk HHs receive HH mentoring
A.1.5 Financial Services enhanced in supported clusters	2.2	60%	Percentage of VSLAs credit-linked with FIs
		4	# formal FIs supported in innovative product development

[1] As per IFAD PMD Operational Instruction: Revised Guidance on Logframes and EFA 31 July 2015

		30%	% of farmers availing crop insurance services
A.1.6 Market-based technical services for smallholders enhanced	4.5	400	# Farm Production Advisors mobilised and trained
	18.8	650	# Auxiliary Farm Service Providers trained and operational
	1.9	200	# local seed businesses supplying Quality Declared Seeds established and operational
B. Transport Infrastructure Serving Oilseeds Sector Improved			
B.1 - Community access roads constructed or rehabilitated to all weather standard	33.8	2,450 km	# Length of roads constructed or rehabilitated

\1 The primary target of the core investments is the smallholder farming population engaged in the production of oilseeds in the six NOSP hubs. In total, NOSP will support the operations of approximately 200 oilseed clusters in the six hubs covered by the project. with the total target of reaching 120,000 smallholder households.

\2 Direct beneficiaries - assumes 5 persons per household.

\3 IFAD loan (USD 99.56 million) / Project target HHs (i.e. reached by project interventions)

Table C: Selected Financial Analysis Assumptions

Parameters				
Selected Outputs	Av. Yield \1	Price (UGX/kg)	**Selected Inputs**	Price (UGX)
Sunflower hybrid	490 kg/acre	1,00	Hybrid sunflower seed	45,000 / kg
Ground nuts	1,090 kg/acre	3,000	Sesame seed	4,000 / kg
Soy bean	540 kg/acre	1,400	Groundnut seed	5,000 / kg
Sesame	300 kg/acre	4,000	Soy bean seed	5,000 / kg
			Hired Labour	4,000 / per-day

\1 Full development - rounded

Table D: Household, Beneficiaries and Phasing

	PY 1	**PY 2**	**PY 3**	**PY 4**	**PY 5**	**PY 6**	**PY7**
Total Households \1							
Incremental	-	45,000	34,500	33,000	7,500	-	-
Cumulative	-	45,000	79,500	112,500	120,000	120,000	120,000
Households participating \2							
Incremental	-	33,750	25,875	24,750	5,625	-	-
Cumulative	-	33,750	59,625	84,375	90,000	90,000	90,000
Beneficiaries participating \3							
Incremental	-	168,750	129,375	123,750	28,125	-	-
Cumulative	-	168,750	298,125	421,875	450,000	450,000	450,000

\1 Refer to Main Report Targeting Section

\2 75% adoption rate economic modelling

\3 Assuming 5 persons per household.

Table E: Key Economic Analysis Assumptions

Parameter	Value	Remarks
Official exchange rate	3,675	USD 1 = UGX 3,693 Bank of Uganda reference rate 4th Oct 2019*
Shadow exchange rate factor (SERF)	1.02	Project costs are estimated in USD and converted using the Costab software to economic terms using the SERF. All financial costs are converted into economic costs through the elimination of subsidies, duties and taxes
Shadow wage rate factor (SWRF)	85%	Applied to unskilled wage rates to reflect the relative abundance of unskilled labour, though in some locations at sometimes of year this may undervalue unskilled labour due to the temporary migration of labour to other parts of Uganda or abroad.
Financial opportunity cost of capital	12%	Equivalent to the current average deposit rate commercial banks
Social rate of discount	10%	Assumed to: i) reflect the public nature of the investment; ii) account for scarcity of resources; and iii) ensure good use of public funds. Consistent with current recent IFAD appraisals.
Project life	20	Twenty 20 years is been assumed or the project life in line with the investment lifecycle and IFAD Guidelines.

Bank of Uganda https://www.bou.or.ug/bou/collateral/interbank_forms/2019/Jul/MAJOR_12-July-2019.html

Table F: Project Economic Cash Flow (UGX million)

Selected years	Incremental benefits \1	Invest Costs	Recurrent Costs	Post Rural Roads \2	Total incremental costs	Net incremental benefits
1	-	26,861	1,488	-	28,349	(28,349)
2	(10,122)	58,644	5,746	-	64,391	(74,513)
3	(11,034)	60,593	5,939	-	66,532	(77,566)
4	206	124,354	5,866	-	130,220	(130,014)
5	40,181	118,258	5,939	-	124,197	(84,016)
6	89,900	63,696	5,866	-	69,562	20,337
7	128,030	15,434	5,754	-	21,188	106,842
8	152,729	-	-	42,805	42,805	109,924
9	162,779	-	-	42,805	42,805	119,974
10…	166,178	-	-	42,805	42,805	123,373
15…	167,441	-	-	42,805	42,805	125,727
20…	167,223	-	-	42,805	42,805	117,870
					ENPV @ 10% UGX million	220,740
					ENPV @ 10% USD million	60.07
					EIRR	17.9%

BCR	1.44
Switching value benefits	(31%)
Switching value costs	44%

\1 Provision to account for ongoing rural access maintenance.

Graph G: NOSP Economic Incremental Net Cash Flow

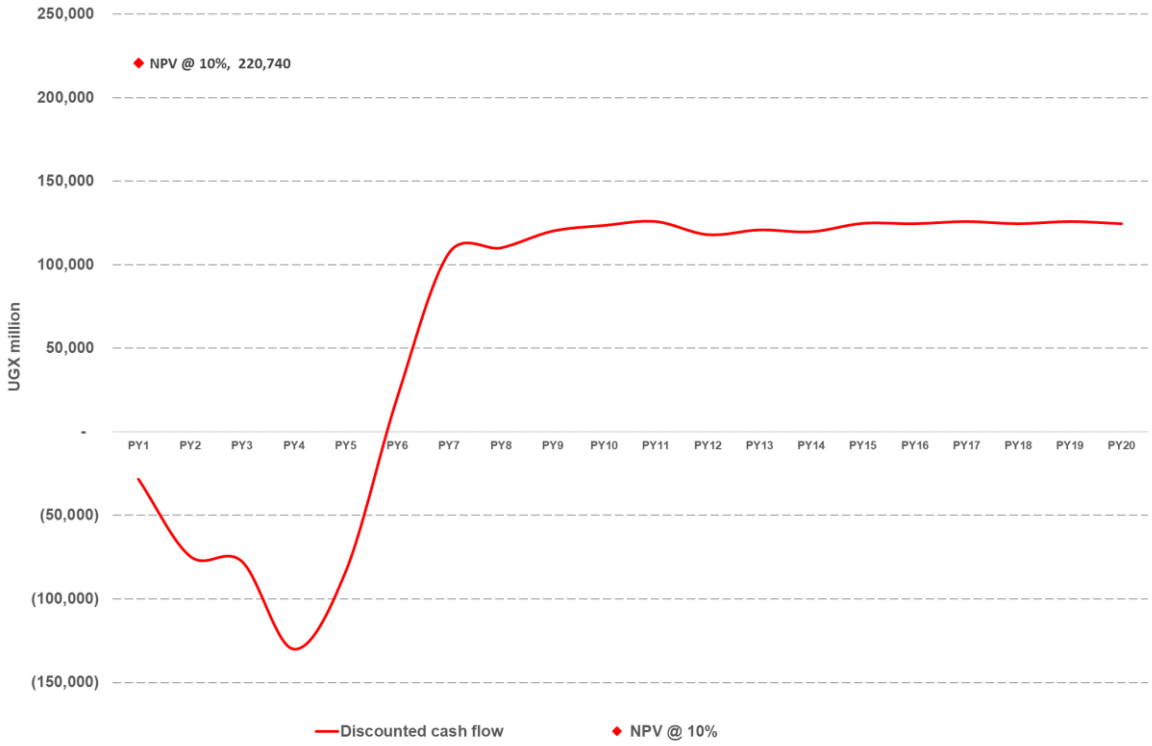
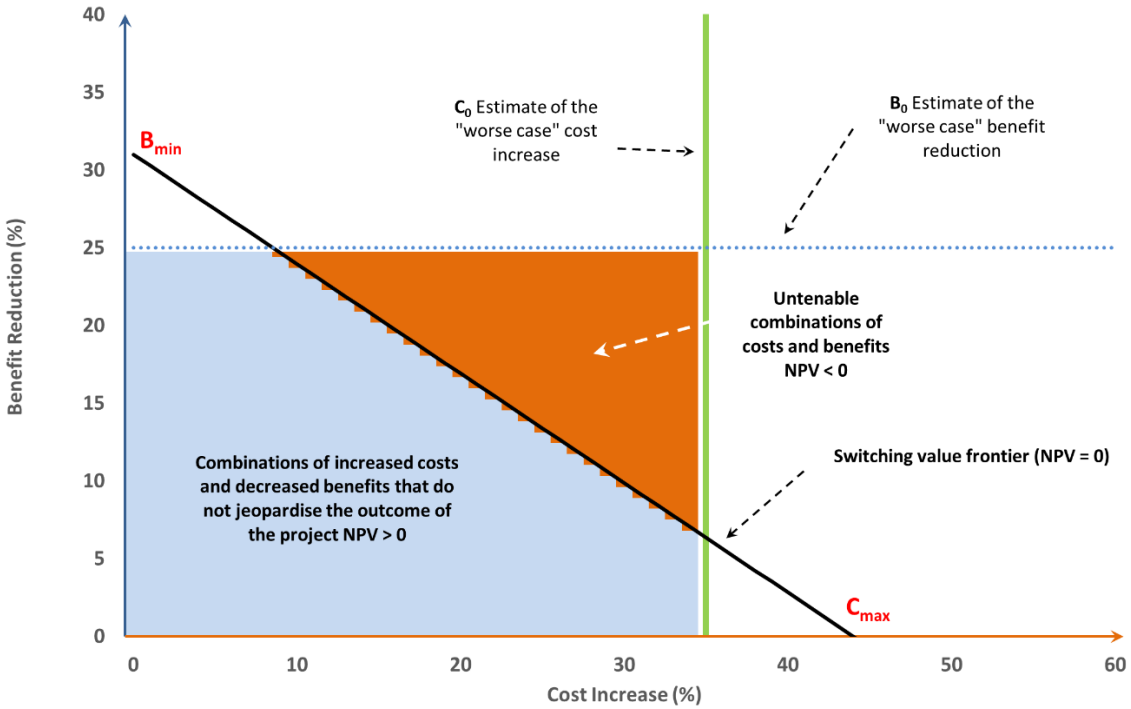


Table H: NOSP Sensitivity Analysis

Scenario			Link to Risk Matrix Issues	EIRR [1]	ENPV (UGX m)[2]
Base Case				17.9%	220,740
Δ% to Base Case					
Project Costs	**Incr'l Benefits**	**Benefits delayed**			
+ 10%			Increase in the cost of inputs.	15.8%	170,620
+ 20%				13.9%	120,500
	- 20%		Reduced producer prices / demand.	13.0%	76,350
	- 40%		Infrastructure investments are not directed to areas of highest production potential. Technical coordination by the implementing agencies and service providers is not responsive to the group level needs.	6.8%	(68,040)
+ 10%	- 10%		Combinations of the above	13.5%	98,430
+ 20%	- 20%			9.1%	(23,890)
Base Case	Base Case	1 year	Ineffective inter-institutional cooperation & dialogue on development issues means financing is not disbursed in a timely manner to support field implementation.	14.9%	155,110
		2 years		12.7%	95,440
		3 years		11.1%	41,200
Base case	- 20%	1 year	Insufficient cohesion within farmer groups affect their success potential	9.1%	(26,270)
		2 years	Ineffective coordination between districts, sub-counties, villages and supply chain enterprises undermining implementation progress	7.8%	(74,010)
		3 years	Financial service providers not interested to invest in Programme-targeted value chain Borrowers divert loans for other purpose	6.8%	(117,400)
+ 20%	- 20%	2 years	Climate-change and disaster impacts. External shocks to macro economy.	6.4%	(124,130)
Switching Values [2]					
	Benefits	**(31%)**			
	Costs	**44%**			

[1] Hurdle rate 10 per cent.
[2] Rounded.
[3] Percent change in cost and/or benefit streams to obtain an ENPV of USD 0, i.e., economic viability threshold.

Graph I: Switching Value Frontier[2]



[2] As per IFAD (2015) Economic and Financial Analysis of Rural Investment Projects – Internal Guide

I. FINANCIAL ANALYSIS

A. Objective and Methodology

1. The objective of the financial analysis is to assess the viability of the move into commercialisation at the farm household. Profitability at this level underpins the supply chain and farmer group development sought by the Project. The approach is guided by the development objective that seeks *to commercialise key oilseeds value chains and improve the livelihoods and resilience of the smallholders engaged in oilseed production and marketing*. The approach developed provides insights into: (i) the increased oilseed trade volumes, and, (ii) increased household income, two of the key indicators.

2. The methodology employed establishes individual gross margin enterprise budgets for the oilseed crops (sunflowers, soya bean, sesame and groundnuts) as well as representative domestic crops (e.g.: sorghum, beans cassava and maize). These later crops are included due to the need to present results at a household level, the farm models presented look at the total cropping picture and how the introduction or expansion of oilseed crops affects household income and labour productivity. These budgets provide the basic building blocks of the household farming businesses and are combined according generalised cropping patterns to form farm budgets.

3. At the level of the farm, other characteristics of the household are included to provide an overall representation of operations and profitability. These other factors can include financing (including short and/or long credit, grants), on-farm use, household consumption, household labour availability, taxes and farm level investment and operating expenses.

4. The financial and economic analysis is formulated on an incremental basis and as such compares the with project (WP) situation to the without project (WoP)[3]. In this way, the difference between the two scenarios, the incremental net benefit, is the basis of the appraisal[4]. This approach is applied both for the financial analysis from the perspective of the household and in aggregated form for the economic analysis from the perspective of society (see next section).

5. The remainder of this section presents the assumptions and the results of the individual enterprise and farm budgets. Farm budgets are developed for four generalised types of smallholder farming household targeted in the Project area. These four types are:

- Sunflower – Sesame Farm Model
- Sunflower – Groundnut Farm Model
- Sesame – Soy bean Farm Model
- Soy bean – Sesame Farm Model

6. The generalised cropping patterns assumed for these four categories of farms is show below in following four tables. These cropping patterns were developed in association with the IFAD Mission agronomists and the VODP2 Hub coordinators and staff of private service providers. Note that a complete household cropping pattern is presented that includes non-oilseed crops used for home consumption and some sales.

[3] The descriptions below "Without Project" is synonymous with "Existing", while "With Project" is synonymous with "New".
[4] The methodology is guided by: Gittinger, J.P (1982), Economic Analysis of Agricultural Projects, Second Edition, EDI World Bank, and (IFAD (2015) Economic and Financial Analysis of Rural Investment Projects – Internal Guide.

These crops are included in order to ensure a total household income is derived which includes the decline of some traditional crops as the move into more commercial oilseed production is achieved. In all instances it is assumed that additional land will be rented (as is the current practice) as the profitability of the move to oilseed crops becomes apparent.

Table 1: Sunflower – Sesame Farm Model – Cropping Pattern

Season	WOP – Existing Technology Farm size 1.5 acres		WP – New Technology Farm size 1.5 expanding to 3.8 acres	
	Crop	Acres	Crop	Acres
First Rains – Season A	Maize	0.25	Soy bean	0.95
	Beans	0.25	Maize	0.95
	Groundnuts	0.50	Sunflower	1.90
	Cassava (1 – 4 mths)	0.50		
Second Rains – Season B	Sesame	0.50	Sesame	1.90
	Sweet potato	0.50	Sunflower	1.90
	Cassava (5 – 9 mths)	0.50		

Example hubs: Lira and Gulu

Table 2: Sunflower – Groundnut Farm Model – Cropping Pattern

Season	WOP – Existing Technology Farm size 1.5 acres		WP – New Technology Farm size 1.5 expanding to 3.8 acres	
	Crop	Acres	Crop	Acres
First Rains – Season A	Maize	0.25	Soy bean	1.43
	Beans	0.25	Maize	0.48
	Groundnuts	0.50	Sunflower	1.90
	Cassava (1 – 4 mths)	0.50		
Second Rains – Season B	Sesame	0.50	Groundnuts	0.95
	Sweet potato	0.50	Sunflower	2.85
	Cassava (5 – 9 mths)	0.50		

Example hub: Eastern

Table 3: Sesame – Soy bean Farm Model – Cropping Pattern

Season	WOP – Existing Technology Farm size 2 acres		WP – New Technology Farm size 2 expanding to 3.8 acres	
	Crop	Acres	Crop	Acres
First Rains – Season A	Cassava (1–4 months)	0.25	Sunflower	0.95
	Beans	0.75	Soy bean	1.90
	Sorghum	1.00	Cassava (1–4 months)	0.95
Second Rains – Season B	Sesame	1.50	Sesame	2.85
	Beans	0.25	Cassava (5-9 months)	0.95
	Cassava (5–9 months)	0.25		

Example hub: West Nile – Lower belt

Table 4: Soy bean - Sesame Farm Model – Cropping Pattern

Season	WOP – Existing Technology Farm size 2 acres		WP – New Technology Farm size 2 expanding to 2.85 acres	
	Crop	Acres	Crop	Acres
First Rains – Season A	Sesame	1.00	Sesame	1.90
	Soy beans	0.25	Soy bean	0.48
	Cassava (1–4 months)	0.25	Cassava (1–4 months)	0.48
Second Rains – Season B	Cassava (5-9 months)	0.25	Cassava (5-9 months)	0.48
	Soy beans	0.50	Bean	0.48
	Beans	0.25	Soy bean	1.90
	Sorghum	0.50		

Example hub: West Nile – Lower belt

7. The changes in crops and cropping area as well as the productivity changes described below are facilitated by the transition from existing to new technologies. These technologies and the processes involved are described in the main text and the project implementation manual. A summary of the existing and new circumstances as well as the related NOSP investments is provided in Table 5. Further details of the investments are available in the Main Report and Annex 8 Project Implementation Manual.

Table 5: Summary of NOSP Technological Changes and Investments

Without Project Existing Technologies	With Project New Technologies	Project Support / Investments
Crops grown for food security, selling excess when produced, no commercial production of oilseeds. Little support from extension services. Land preparation by hand or hiring of animal traction. Use of retained seeds. No use of purchased inputs.	Change in land allocation to focus on commercial oilseed crops, with some food crop production. Hiring of additional land. More timely land preparation using hired mechanisation services. For payment extension services available. Use of improved OPV and hybrid seeds. Adoption of use of fertilisers (TSP, NPK) (not for sunflower), agro-chemicals and inoculant (soy bean). Producer groups formed, joint marketing of production. Access to inputs, field services and marketing facilitated through improved market linkage infrastructure.	Support to oilseed value chain through a) Cluster Development – covering the primary supply chains through an inclusive cluster development approach and producer mentoring in each of the hubs including investment facilitation, and b) Market Development – covering the supply of essential financial and technical services and inputs. Technical services to include both a farm production advisors scheme, an auxiliary farm services promotion scheme and a quality declared seed production scheme. Support to the provision of market linkage infrastructure serving the oilseed sector. [Refer to Main Report for details]

Source: NOSP Design Team

B. Oilseed Production Models

8. **Gross margins.** Each model presents revenues based on projected yields and prices, together with operating expenses are defined in terms of inputs and labour. Labour is defined in terms of month, based on the cropping calendar activities and

gender.[5] The income (gross margin) is reported before and after the valuation of family labour costs. [6]

9. The prices of the inputs to, and outputs from these models are provided in Appendix 1. It is recognised that cropping patterns vary considerably from year to year depending on market conditions. The models developed are meant to indicate average conditions as well as be reflective of typical returns for field and oilseed crops.

10. The yield and input assumptions for the production models indicated in the cropping patterns above are provided in Appendix 2. Changes in values for the 20-year projection period are indicated.

11. The investment in market linkage infrastructure results in a range of benefits at the farm level which are factored into this financial and consequently the economic analysis. The benefits include decline in transportation costs, increased availability of inputs and services, decline of losses and improved access to markets. The incremental use of inputs and tractor services and improved market channels and prices assumed in these models are largely owed to improvements in rural roads.

12. **Sunflower** The key characteristics of this production model are presented in Table 6. The current production level with local varieties is assumed at 350 kg per acre. With the NOSP interventions these yields are expected to increase to 493 per acre over 5 years, an increase of 41 per cent. This is the result of hybrid seed as well as improved inputs and practices. The gross margin before and after labour costs is projected to increase by 65 and 111 per cent respectively. Details of the operating inputs and financial results are shown in Appendix 2 Tables 1 and 2 respectively. [7]

Table 6: Sunflower Gross Margin Summary

Parameter	Unit	Without	With [\1]	% change
Post harvest yield	kg/acre	350	493	41%
Revenue	UGX/acre	280,000	493,000	176%
Operating costs	UGX/acre	69,300	146,000	111%
Gross margin – before labour	UGX/acre	210,700	347,000	65%
Gross margin – after labour	UGX/acre	122,700	259,000	111%

Source: NOSP Design Team

[\1] At full development

13. **Soy bean** The key characteristics of this production model are presented in Table 7. The current production levels with local varieties is assumed at 200 kg per acre. With the NOSP interventions these yields are expected to increase to 540 per acre over 5 years, an increase of 170 per cent. This is the result of improved seed, inoculant, ag

[5] Labour budgets for each crop were specified in conjunction with the VODP2 hub coordinators and staff of service providers many of whom are farmers. The budgets suggested are consistent with the project design team's experiences elsewhere.

[6] The models presented are based on a rapid appraisal with VODP2 Hub coordinators and private service providers (PSP) during the field visit to Lira in July 2019. It was noted that VODP2 had yet to develop oilseed gross margins or HH farm models as part of their planning or M&E processes. Yield estimates therefore are based on the local expertise of the coordinators and the PSP in addition to the consultant. The models should be considered as an illustrative and the basis for further development.

[7] Note that while the Sunflower gross margin model depicts both the WOP and WP scenarios, the farm level modelling does not include sunflower in WOP scenarios.

chemicals and practices. Net income before and after labour costs is projected to increase by 78 and 198 per cent respectively. Details of the operating inputs and financial results are shown in Appendix 2 Tables 3 and 4 respectively.

Table 7: Soy Bean Gross Margin Summary

Parameter	Unit	Without	With [\1]	% change
Post harvest yield	kg/acre	200	540	170%
Revenue	UGX/acre	250,000	756,000	202%
Operating costs	UGX/acre	118,400	522,000	341%
Gross margin – before labour	UGX/acre	131,600	234,000	78%
Gross margin – after labour	UGX/acre	43,600	130,000	198%

Source: NOSP Design Team

[\1] At full development

14. **Sesame** The key characteristics of this production model are presented in Table 8. With the NOSP interventions these yields are expected to increase from 150 to 250 kg per acre over 5 years, an increase of 97 per cent. This is the result of improved seed, inputs and practices. Net income before and after labour costs is projected to increase by 63 and 93 per cent respectively. Details of the operating inputs and financial results are shown in Appendix 2 Tables 5 and 6 respectively.

Table 8: Sesame Gross Margin Summary

Parameter	Unit	Without	With[\1]	% change
Post harvest yield	kg/acre	150	295	97%
Revenue	UGX/acre	600,000	1,239,000	107%
Operating costs	UGX/acre	124,200	288,650	132%
Gross margin – before labour	UGX/acre	475,800	950,350	100%
Gross margin – after labour	UGX/acre	355,800	862,350	142%

Source: NOSP Design Team

[\1] At full development

15. **Groundnuts.** The key features of this production model are presented in Table 9. With the NOSP interventions these yields are expected to increase to 1,100 kg per acre over 5 years, an increase of 47 per cent. This is the result of improved seed, inputs and practices. Net income before and after labour costs is projected to increase by 47 and 53 per cent respectively. Details of the operating inputs and financial results are shown in Appendix 2 Tables 7 and 8 respectively.

Table 9: Groundnuts Gross Margin Summary

Parameter	Unit	Without	With[\1]	% change
Post harvest yield	kg/acre	750	1,085	45%
Revenue	UGX/acre	2,100,000	3,255,000	55%
Operating costs	UGX/acre	186,600	495,000	165%
Gross margin – before labour	UGX/acre	1,913,400	2,760,000	44%
Gross margin – after labour	UGX/acre	1,793,400	2,704,000	51%

Source: NOSP Design Team

[\1] At full development

16. **Other Household crops.** As noted in the section on cropping patters above, a range of other field crops combine with the four oilseed crops to make up the complete household farming system. The assumed yields and returns for maize, beans, cassava, sweet potato and sorghum are included in the project file. Where feasible with project yields of these domestic crops also reflect increases due to changing cultural practices and improve seed/fertilizer availability.

C. Illustrative Farm Models

17. The enterprise budgets described above together with the other field crops outlined are combined to form illustrative household farm models by applying the cropping patterns presented above in Tables 1 to 4. At the farm level further additions and adjustments are made to complete the farm household configurations for financial analysis. Key farm budget assumptions common to all household models are described in Table 11.

18. **Family Labour**. Family labour is not entered as a cost; instead the "wages" for the family become a part of the net benefit. Thus, as NOSP increases the net benefit, it also in effect increases the family's income or "wages" for its labour. A key input therefore at the farm level is to define the household labour availability. In order to facilitate this analysis (in the absence of survey information) it is assumed that there are on average five persons per farming household. Of these the working adult equivalent is 1.5 persons for both men and women. Using this logic and a assumptions on the number of working days per month and the availability of both men and women a monthly availability for both male and female labour is defined – refer to Table 10. [8]

19. **Farm Area Increase**. Increasing farm areas upon transition to oilseed cropping is common practise and reported by hub coordinators, PSP staff and small scale commercial farmers. The assumed increases are considered conservative. All increases are assumed to be on a rental basis.

[8] Labour availability assumptions based on discussions the VODP2 hub coordinators, service providers and farmers.

Table 10: Household Labour Availability

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Days/month	31	28	31	30	31	30	31	31	30	31	30	31
Non-working	15	15	8	6	6	6	6	6	6	8	10	15
Working days	16	13	23	24	25	24	25	25	24	23	20	16
Female availability	60%	60%	60%	50%	50%	50%	50%	50%	50%	60%	60%	60%
Male availability	40%	40%	40%	50%	50%	50%	50%	50%	50%	40%	40%	40%
Female person days/month	14	12	21	18	19	18	19	19	18	21	18	14
Male person days/month	10	8	14	18	19	18	19	19	18	14	12	10

Source: NOSP Design Team

20. The indicators of profitability and productivity developed are:

- Farm Family Benefits After Financing
- Returns to Family-Day of Labour
- Ratio of Returns to Family-Day of Labour to the unskilled daily wage rate [9]

21. The indicators for farm investment appraisal are:

- Financial net present value
- Financial internal rate of return

Table 11: Key Farm Budget Assumptions

Parameter	Description
On farm use	Where appropriate enterprise inputs that can be sourced from enterprise outputs are included, e.g. own production is used for seed supplies
Seasonal credit	All models assume variable inputs for the year are financed through short term borrowing. Interest is assumed at 12% per cent for 4-month period.
Land rental	UGX 50,000 per acre per season in With Project scenarios where additional land is farmed.
Labour requirements	Labour requirements (by gender and month) for each farming activity are estimated and compared to the household labour availability. Where additional labour is required it is assumed that labour would be hired at market rates.
Labour availability	The household labour availability by month and gender is estimated. Households are assumed to have 1.5 male and 1.5 female able-bodied persons available for farm work. Availability is assumed to vary according to month and gender, with male availability between 40 and 50%, while female availability is between 50 to 60%. On average males are assumed to be available 14.9 days per month while the figure for women is 17.6 person days per month. Refer to Table 10 above.
Machinery costs	Include hire of machine, fuel and labour
Cost of hired labour	Demand for labour is first served by family labour. Where family labour is insufficient hired labour at UGX 4,000 per day is purchased.
Value of urban	UGX 8,000 per day. Used to compare with the incremental return for

[9] The ratio of the returns to day of labour to the daily wage is an important indicator of the incentive for labour to stay and/or return to farming.

Parameter	Description
unskilled labour	incremental day of labour

Source: NOSP Design Team

22. **Sunflower - Sesame Household Model** This model examines the profitability of moving from a beans/maize/groundnut/cassava regime to a sunflower/sesame/soy bean regime. The oilseed production, and financial results for this household model are shown in Table 12. Full details of the physical and financial modeling as provided in Appendix 3 Tables 1 and 2 respectively.

Table 12: Sunflower - Sesame Household Model Results

	1.5 acre farm (WOP) expanding to 3.8 acres (WP)		
	Unit	**Without**	**With** \1
Key features:			
Sunflower production	kgs/year	-	1,873
Soy bean production	kgs/year	-	513
Sesame production	kgs/year	75	561
Financial indicators:			
Farm Family Benefits After Financing	UGX/year	2,285,750	2,735,468
	USD/year	622	744
Returns per Family-Day of Labour	UGX/person/day	31,099	14,021
	USD/person/day	8.5	3.8
Ratio to unskilled urban daily wage rate (UGX 8,000)	Ratio to Unskilled DWR	3.9x	1.8x

Source: NOSP Design Team
\1 Full development

23. The annual farm family benefits after financing WP at full development are estimated at UGX 2.74 million per year. This is equivalent to USD 744 per household per year. The returns per day of labour are projected at UGX 14,021 per person day. In USD terms, the returns per family-day of labour equate to USD 3.8 per person day. The ratio of the returns to labour to the minimum urban unskilled daily wage is projected at 1.8x indicating that an additional day of labour in the WP scenario produces twice the urban unskilled labour rate. While the impact of Project interventions produces 20 per cent increase in farm family benefits after financing, return to labour are reduced due to the additional labour needs.

24. **Sunflower - Groundnut Farm Household Model** This model examines the profitability of moving from a beans/cassava/sweet potato and limited oilseeds to one system with a dominance of sunflower, groundnuts and soy bean. The key characteristics of, and results for this household model are shown in Table 13.

Table 13: Sunflower - Groundnut Farm Household Model Results

Description	1.5 acre (WOP) farm expanding to 3.8 acres (WP)		
	Unit	**Without**	**With** \1
Key features:			
Sunflower production (hybrid)	kgs/year	-	2,342
Groundnut production	kgs/year	-	1,031
Soy bean production	kgs/year	-	770
Financial indicators:			
Farm Family Benefits After Financing	UGX/year	2,335,750	4,015,037
	USD/year	636	1,093
Returns per Family-Day of Labour	UGX/person/day	31,779	22,645
	USD/person/day	8.6	6.2
Ratio to unskilled urban daily wage rate (UGX 8,000)	Ratio to DWR	4.0	2.8

Source: NOSP Design Team
\1 Full development

25. The annual farm family benefits after financing WP at full development are estimated at UGX 4.0 million per year which represents around 72 per cent increase over the WOP scenario. The WP benefits is equivalent to around USD 1,093 per household per year. The returns per family-day of labour WP are projected at UGX 22,645 per person day. In USD terms, the WP returns per family-day of labour equate to USD 6.2 per person day. The ratio of the returns to labour to the minimum daily wage is projected at 2.8 indicating that this cropping system can provide competitive employment opportunities. A detailed production and inputs schedule, as well as the financial budget for the rainfed paddy and upland household, are provided in Appendix 3.

26. Note that returns to labour WP in the sunflower/sesame and sunflower/groundnut HH models indicate negative incremental results. This is due to the additional labour requirements and reflects actual field conditions wherein farmers see that sunflower is the most marginal of the oilseed crops. Further analysis would most likely reveal other crop combinations yielding higher returns to labour. Nevertheless, farm family benefits in both HH types improve and the incremental returns per incremental farm family day are greater than urban unskilled daily rates thus indicating a positive incentive to engage in agriculture.

27. **Sesame - Soy Bean Farm Household Model** This model examines the profitability of moving from a beans/cassava/sorghum/sesame model to a regime dominated by sesame and soy bean. The key characteristics of, and results for this household model are shown in Table 14.

Table 14: Sesame - Soy Bean Farm Household Model Results

Description	2 acre farm expanding to 3.8 acres		
	Unit	**Without**	**With** \1
Key features:			
Soy bean production	kgs/year	-	1,026
Sesame production	kgs/year		840
Sunflower production	kgs/year	-	468
Financial indicators:			
Farm Family Benefits After Financing	UGX/year	1,390,175	4,141,413
	USD/year	378	1,127
Returns per Family-Day of Labour	UGX/person/day	12,667	24,368
	USD/person/day	3.4	6.6
Ratio to unskilled urban daily wage rate (UGX 8,000)	Ratio to DWR	1.6	3.0

Source: NOSP Design Team
\1 Full development

28. The annual farm family benefits after financing WP at full development are estimated at UGX 4.1 million per year which represents around 198 per cent increase over the WOP scenario. The WP benefits is equivalent to around USD 1,285 per household per year. The returns per family-day of labour WP are projected at UGX 24,368 per person day. In USD terms, the WP returns per family-day of labour equate to USD 6.6 per person day. The ratio of the returns to labour to the minimum daily wage is projected at 3.0. A detailed production and inputs schedule, as well as the financial budget for the Sesame - Soy Bean Farm Household, are provided in Appendix 3.

29. **Soya Bean - Sesame Farm Household Model** This model examines the profitability of moving from a mixed farm with cassava, beans, sesame and soy beans to a regime that is more dominated by soya beans and sesame. The key characteristics of, and results for this household model are shown in Table 15.

Table 15: Soy Bean - Sesame Household Farm Model Results

Description:	1.5 acre farm expanding to 2.85 acres		
	Unit	**Without**	**With** \1
Key features:			
Sesame production	kgs/year	150	561
Soy bean production	kgs/year	150	1,283
Financial indicators:			
Farm Family Benefits After Financing	UGX/year	1,052,125	2,519,423
	USD/year	286	686
Returns per Family-Day of Labour	UGX/person/day	14,924	20,330
	USD/person/day	4.1	5.5
Ratio to unskilled urban daily wage rate (UGX 8,000)	Ratio to DWR	1.9	2.5

Source: NOSP Design Team
\1 Full development

30. The annual farm family benefits after financing WP at full development are estimated at UGX 2.52 million per year which represents over a 140 per cent increase over the WOP scenario. The WP benefits is equivalent to around USD 700 per household per year. The returns per family-day of labour WP are projected at UGX 20,330 per person day. In USD terms, the WP returns per family-day of labour equate to around USD 5.5 per person day. The ratio of the returns to labour to the minimum daily wage is projected at 2.5. A detailed production and inputs schedule, as well as the financial budget for the rainfed paddy and upland household, are provided in Appendix 3.

D. Results of Financial Appraisal

31. The outcome of the farm investment appraisal for the household models described above is shown in Table 16. The net income changes for each farm model are indicated and shown to be strongly positive. The financial net present value (FNPV) at 12 per cent discount rate of the incremental benefit stream to be greater than zero in all cases, thus confirming the profitability of all farm types modelled and the potential for smallholder oilseed commercialisation. The financial internal rate of return (FIRR) after financing is above the financial opportunity cost of capital at 12 per cent.

Table 16: Key Financial Parameters by Farm Models

Farm Type	**Net Income UGX ('000)**		**% Increase**	**FNPV @ 12% (UGX)** \1	**FIRR** \2
	WOP	**WP**			
Sunflower - Sesame	2,285	2,735	20%	2,186,730	40%
Sunflower - Groundnut	2,335	4,015	80%	6,404,400	42%
Sesame - Soy bean	1,390	4,141	198%	14,738,060	189%
Soy bean - Sesame	1,052	2,519	140%	7,782,360	110%

Source: NOSP Design Team analysis
\1 FIRR and FNPV derived from Farmod's cashflow see financial budgets see Appendix Tables
\2 After financing. Models indicate very positive IRR and the need for further examination and refinement. Figures rounded

II. ECONOMIC ANALYSIS

A. Objective and Methodology

32. The objective of the economic analysis is to evaluate the expected contribution of the proposed project to the economic development of the project districts and the economy at large. The purpose of such an analysis is to determine whether the economic benefits sufficiently justify the use of the project resources.

33. For the purposes of the economic analysis the smallholder irrigation agriculture output forms the focus of the benefit modelling. The four farm model types described in financial analysis are converted to economic models and combined with the estimate of the number of farms of each model type to form an aggregated economic model. The analysis recognises that indirect benefits will also arise to those villagers dependent exclusively on agricultural labour and to those fully dependent on forest-based production systems. Indirect benefits are foreseen in employment generation arising in enhanced agricultural production and processing as well as decreasing the pressure on natural resources through a shift towards more intensive farming on irrigated and rainfed lands. These benefits as well as those arising from enhancing nutritional outcomes are recognised but do not form part of the quantitative modelling[10].

34. **Approach** The valuation of the incremental production at household level forms the basis of the benefit valuation framework[11]. Individual crop production enterprise models representing the likely paddy and cash crop combinations are established. In the manner described in the financial analysis, crop enterprise models are combined to estimate incremental smallholder farming household production and cashflow. These representative households are then aggregated to establish a project level value of incremental production. This is then combined with incremental project costs to derive the key appraisal indicators.

35. **Target population and participation.** The commercialisation of the oilseed sector covers all actors along the value chain and the supporting infrastructure required to ensure its success and sustainability. The primary target of the core investments is the smallholder farming population engaged in the production of oilseeds in the six NOSP hubs. These hubs cover the poorest regions of Uganda. In total, NOSP will support the operations of approximately 200 oilseed clusters in the six hubs covered by the project. The average smallholder membership per cluster is projected at 600 households, with the total target of reaching 120,000 smallholder households. The NOSP support to the improvement of community access roads in and around the NOSP oilseed clusters is expected to benefit approximately 350,000 rural households. The indirect target group to be reached with investments in such services as agricultural demonstrations, policy work and presentations in radio, internet and other media is expected to be much bigger.

36. The derivations of farming household and beneficiaries driving the economic analysis is shown below in Table 17. The theory of change describing the nature and the logic of the interventions is included in the Main Report and Annex 2. The process and the mechanisms involved to engage and support the participating households are presented in Annex 6 ABWP and Annex 8 Project Implementation Manual.

37. The split of the 120,000 target households into the four illustrative model types is based on a best estimate of the prevalence of each model type across the 5 hubs. The

[10] A note on non-quantified benefits is provide below.
[11] Achieved through the application of a Without and With project analytical framework.

adopted split is Sunflower – Sesame 20%; Sunflower / Groundnuts 15%; Sesame – Soy Bean 25%; and, Soy Bean Sesame 40%.

Table 17: Household Participation Assumptions

	PY 1	PY 2	PY 3	PY 4	PY 5	PY 6	PY 7
Target Households by Farm Type							
Sunflower - Sesame	-	9,000	6,900	6,600	1,500	-	-
Sunflower - Groundnut	-	6,750	5,175	4,950	1,125	-	-
Sesame - Soy bean	-	11,250	8,625	8,250	1,875	-	-
Soy bean - Sesame	-	18,000	13,800	13,200	3,000	-	-
Total – incremental	-	45,000	34,500	33,000	7,500	-	-
Total – cumulative	-	45,000	79,500	112,500	120,000	120,000	120,000
Household by Farm Type Adjusted for Adoption Rate [\1]							
Sunflower - Sesame	-	6,750	5,175	4,950	1,125	-	-
Sunflower - Groundnut	-	5,063	3,881	3,713	844	-	-
Sesame - Soy bean	-	8,438	6,469	6,188	1,406	-	-
Soy bean - Sesame	-	13,500	10,350	9,900	2,250	-	-
Total – incremental	-	33,750	25,875	24,750	5,625	-	-
Total – cumulative	-	33,750	59,625	84,375	90,000	90,000	90,000
Beneficiaries by farm type							
Sunflower - Sesame	-	33,750	25,875	24,750	5,625	-	-
Sunflower - Groundnut	-	25,313	19,406	18,563	4,219	-	-
Sesame - Soy bean	-	42,188	32,344	30,938	7,031	-	-
Soy bean - Sesame	-	67,500	51,750	49,500	11,250	-	-
Total – incremental	-	168,750	129,375	123,750	28,125	-	-
Total – cumulative	-	168,750	298,125	421,875	450,000	450,000	450,000

[\1] Assumes 75% adoption rate
Source: Consultant's estimates.

38. **Aggregation** The household farm type phasing and quantities shown in the table above are the basis of the aggregation of the respective farm models described above into the discounted cashflow that forms the economic cost benefit analysis (CBA) model. When a farm is recruited into the CBA in, for example project year (PY) 2, that farm's twenty-year projection enters the model in PY 2. Similarly, farms recruited in the PY 3 have their twenty-year projection commencing in the CBA in PY 3. In this way all the farms of one type of illustrative model form a sub-project for that model type. When all the farm type sub-projects are aggregated a project perspective is derived.

39. The distributions of farm numbers and areas together with the resulting aggregations in physical and financial terms for each farm type and the project are presented in Appendix 4.

B. Cost Benefit Analysis

40. **Main Assumptions**. The key parameters underpinning the economic analysis are presented below[12].

Parameter	Value	Remarks
Official exchange rate	3,675	USD 1 = UGX 3,675 Bank of Uganda reference rate 4th Oct 2019.
Shadow exchange rate factor	1.02	Project cost are estimated in USD and converted using the Costab software to economic terms using the SERF all financial costs are converted into economic costs through the elimination of subsidies, duties and taxes.
Standard conversion factor	0.97	As commonly applied in recent projects designs in Uganda. As appropriate all output prices are adjusted using the SCF in lieu of specific adjustment factors.
Value added tax	13%	Included in project costs and eliminated as appropriate for conversion to economic costs.
Shadow wage rate factor (SWRF)	85%	Applied to unskilled wage rates to reflect the relative abundance of unskilled labour, though in some locations at sometimes of year this may undervalue unskilled labour due to the temporary migration of labour to other parts of Uganda or abroad.
Economic opportunity cost of capital	10%	Hurdle rate for the economic internal rate of return
Project life	20	Twenty 20 years has been assumed or the project life in line with the investment lifecycle.
Cost base	2019	Projections are made in July 2019 price terms.

Source: NOSP Design Team

41. **Quantified Benefits – Incremental Production**. The quantified benefits assume a phased introduction of the beneficiary household farm models. The assumed uptake in incremental and cumulative terms across the farm types is shown in Table 17.

42. The adoption rate assumed is 75 per cent. This rate is justified due to the nature of the interventions under Component 1 in both supply chain facilitation and producer group mentoring. It is assumed that this focus on the development of the supply chain would mean commitment to the investments will mean fewer farmers will drop out.

43. Given this adoption rate the expected number of direct beneficiaries is reduced from the target of 120,000 to around 90,000. This reduction allows for both non-adoption and drop out over time. The composition of the smallholder farming models is described above in the financial analysis. The project's economic incremental benefits are derived through the aggregation of the individual household benefits in economic terms. The entry of each household into the project is represented in the cashflow by the incremental economic net benefit stream of the related household model.

44. As noted in the financial modelling the investment in market linkage infrastructure results in a range of benefits at the farm level which are factored into this financial and

[12] The analysis employs the function available in both Costab and Farmod to generate economic costs and benefits respectively.

consequently the economic analysis. The benefits include decline in transportation costs, increased availability of inputs and services, decline of losses and improved access to markets. These aspects of the road benefits are therefore considered factored into the economic analysis. Refer to the note below on other impacts while not quantified, are also considered significant.

45. The individual contributions to the overall incremental benefit stream by the four farm types identified is summarised in Table 18. This table restates the overall distribution of the 90,000 participating households across the four illustrative farm types and presents the annual benefit based on the farm models in economic terms for the WOP, WP and incremental perspectives. At full development of the technologies envisaged, the modelling indicates that an incremental annual value of UGX 167,223 million or USD 45.5 million will be generated.

46. Appendix 4 presents the implications of the phasing assumed in the form of farm area, cropped area, production/inputs and economic returns. All are presented in aggregated incremental terms.

Table 18: Incremental Benefit Aggregation - Farm Type to Project

Farm Type	Participating Households (number)	UGX Million			Annual Increment USD Million
		Aggregated annual benefit at full development			
		WOP	WP	Increment	
Sunflower - Sesame	18,000	37,102	46,466	9,364	2.55
Sunflower – Groundnut	13,500	28,483	53,612	25,128	6.84
Sesame – Soy bean	22,500	24,367	92,795	68,428	18.62
Soy bean – Sesame	36,000	30,726	95,028	64,302	17.50
Project	90,000	120,678	287,901	167,223	45.50

Source: NOSP Design team modelling

Refer to Appendix 4 Farm Model Aggregations for the derivation of the incremental values indicated.

47. A summary of the basis of the financial and economic pricing is show below in Table 19.

Table 19: Economic Pricing Assumptions

Commodity	Financial Prices	Traded?	Economic price basis
Sunflower	UGX 800 to 1,100 farmgate price	Yes Oil both exported and used as domestically for CPO substitution. CPO imported to fulfil shortfall in requirements – forms the floor price for local milling industry	CPO import parity price as reflected by the Kalangla oil palm fresh fruit berry price determination adjusted to farmgate price. UGX 1,100 mill gate assumed.
Sesame	UGX 4,250/kg farmgate price	Yes Seed exported in both organic and non-organic	FOB export parity price. Unit value of trade

Commodity	Financial Prices	Traded?	Economic price basis
		forms.	over last five years has ranged between UGX 2,895 – 4,647/kg. Current farmgate reflects this range UGX 4,250/kg assumed.
Soy bean	UGX 1,400/kg farmgate price	Yes Both beans and meal exported	FOB export parity price USD 480/tonne to the East African market. Current farmgate reflecting FOB plus transport costs
Ground nuts	UGX 2,800 – 3000/kg unshelled	No	Market price assumed.

Source: NOSP Design Team

48. Given that the aggregators and mills operate in largely competitive environment where the prices offered to farmers closely matches the export values, this analysis assumes the that economic value of the sunflower, soy bean and sesame crops is equivalent to the market price.

49. **Increment economic costs**. The costs are based on the full NOSP project costing. Costs have been adjusted to economic terms using the SERF (1.02) with taxes, duties and price contingencies removed.

50. Allowance have been made for the annual post-project recurrent costs to maintain rural access roads, assumed at 20 per cent of investment costs.

51. Note that the farm models assume that the operations are their own responsibility. None of the costs that are defined in the cost tables are elements in the farm models. Mechanisation for instance is included through rental costs not ownership. In this way double counting is avoided.

52. **Economic Viability** Three indicators have been used to assess the overall performance of the project. These are: (i) the economic internal rate of return (EIRR); (ii) the economic net present value (ENPV) and the benefit cost ratio (BCR). These were estimated using cash flow of the incremental benefit and cost streams as outlined above (refer to Appendix 1 Table 23 for a summary discounted cash flow). The overall NOSP project EIRR is 17.9 per cent. The estimated ENPV at a 10 per cent discount rate is UGX 220,740 million (USD 61 million). The BCR of 1.44 indicates a return of USD 1.44 for every dollar invested. These results indicate that the project is a sound investment yield a positive rate of return as the EIRR greater than the hurdle rate (10 per cent) and the ENPV is greater than zero[13].

53. These returns described above are further supported by the additional non-quantified benefits derived from the establishment and/or improvement to rural access, market linkages across the supply chains as well as the development of agricultural extension services and household improvements. The later will be through the

[13] A social discount rate of 10% is assumed consistent with current IFAD practice.

application of the Gender Action Learning System under the social mentoring program. [14] The conclusion of this analysis is therefore is that the investment in the Project is viable from an economic perspective.

54. **Risks** The main identified risks that may affect the economic outcome of the Project area are outlined in Table 20. A sensitivity analysis has been conducted to assess the potential impact of these risks resulting: in (a) reduced benefits; (b) increased costs; and/or, (c) delayed benefits (see Table 21).

Table 20: Overview of Main Project Risks affecting Project Economic Outcome

Risk category	Risk	Likelihood/ severity	Potential impact reflected in sensitivity analysis		
			Reduced benefits	Increased costs	Delayed benefits
Economy and Market Risks	External shocks to macro economy.	M/H	X	X	X
	Increase cost of inputs.	L/H		X	
	Reduced producer prices.	L/H	X		
	Reduced demand.	L/H	X		
Institutional	Changes to provincial and district administrative systems	M/H	X	X	X
	Insufficient cohesion within farmer groups affect their success potential Ineffective coordination between provinces, districts and supply chain related enterprises undermining implementation progress	M	X		X
	Unsustainable use of Project-financed civil works and inadequate capacity for on going maintenance.	M	X		X
	Elite capture/ disadvantaged groups not able to participate effectively	L/M	X		X
Market	Lack of technical capacity to respond to the identified needs	M	X	X	X
	Lower market prices for commodities	M	X		X
	Financial service providers not interested to invest in Project targeted initiatives	M	X		X
Policy	Farmers not treated as clients by government agencies and supply chain entities Climate change adaptation does not underpin agricultural and rural development policies at district levels Poor business environment does not provide incentive for supply chain investments.	M	X		X
Others	Natural calamities including flood and drought lower output of farm production.	H	XX	X	XX
	Damages to civil works built caused by natural disasters, like floods and land sliding.	M	X		X

Source: NOSP Design Team

55. An increase in programme costs by 10 per cent will reduce the EIRR to 15.9 per cent, while a decrease in overall programme benefits by 20 per cent will result in an EIRR of 14.1 per cent. A one-year delay in benefits reduces the EIRR to 15.0 per cent and a two-year delay to 12.8 per cent. A combination of a reduction in

[14] Targeting approximately 40% of high-risk households.

benefits of 20 per cent and an increase in costs by 20 per cent reduces the EIRR to 9.2 per cent indicating the investment becomes unviable in the face of adverse circumstances of that nature. The switching values show that the programme will remain economically viable if benefits decreased by 31 per cent, or programme costs increased by 45 per cent. Table 21 below provides an overview of the various scenarios of the sensitivity analysis and confirms the economic viability of the Project except in the most adverse of circumstances. Based on these results and the non-quantified benefits outlined below, it is fair to conclude that the economic benefits justify the use of the project resources.

Table 21: NOSP Sensitivity Analysis

Scenario			**Link to Risk Matrix Issues**	**EIRR** [\1]	**ENPV (UGX m)**[\2]
Base Case				17.9%	220,740
Δ% to Base Case					
Project Costs	**Incr'l Benefits**	**Benefits delayed**			
+ 10%			Increase in the cost of inputs.	15.8%	170,620
+ 20%				13.9%	120,500
	- 20%		Lower yields Reduced producer prices / demand.	13.0%	76,350
	- 40%		Infrastructure investments are not directed to areas of highest production potential. Technical coordination by the implementing agencies and service providers is not responsive to the group level needs.	6.8%	(68,040)
+ 10%	- 10%		Combinations of the above	13.5%	98,430
+ 20%	- 20%			9.1%	(23,890)
Base Case	Base Case	1 year	Ineffective inter-institutional cooperation & dialogue on development issues means financing is not disbursed in a timely manner to support field implementation. Slower participation rates.	14.9%	155,110
		2 years		12.7%	95,440
		3 years		11.1%	41,200
Base case	- 20%	1 year	Insufficient cohesion within farmer groups affect their success potential	9.1%	(26,270)
		2 years	Ineffective coordination between districts, sub-counties, villages and supply chain enterprises undermining implementation progress	7.8%	(74,010)
		3 years	Financial service providers not interested to invest in Programme-targeted value chain Borrowers divert loans for other purpose	6.8%	(117,400)
+ 20%	- 20%	2 years	Climate-change and disaster impacts. External shocks to macro economy.	6.4%	(124,130)
Switching Values [\2]					
Benefits		**(31%)**			
Costs		**44%**			

Source: NOSP economic model
[\1] Hurdle rate 10 per cent.
[\2] Discounted at 10 per cent, results rounded.
[\2] Percent change in cost and/or benefit streams to obtain an ENPV of USD 0, i.e., economic viability threshold.

C. Note on Non-Quantified Benefits.

56. The NOSP support to the improvement of community access roads in and around the NOSP oilseed clusters is expected to benefit approximately 350,000 rural households. The indirect target group to be reached with investments in such services as agricultural demonstrations, rural financial services, policy work and presentations in radio, internet and other media is expected to be considerable

57. **Rural access benefits**. Benefits from rural roads are foreseen to include: (i) changed patterns of production/increased areas; (ii) increased agricultural productivity; (iii) increased marketed output; (iv) increased producer prices; and (v) reduced losses (on-farm before transport and during transport). The impact of these outcomes is implicit in the farm modelling assumptions described above, for example the introduction of fertilisers and agro-chemicals is partially facilitated by better infrastructure links.

58. The improved roads also allow for: (a) Increased profits for transport operators; and (b) a variety of social benefits through increased access to health, nutrition, education and other social services, and information. These later impacts while possibly considerable, are not quantified in this analysis. An overview of the benefits of rural roads in Provided in Appendix 2. [15]

59. **Market linkages benefits**. The commercialisation of smallholder oilseed agriculture is to an important degree driven by the pull of the market. The Project will therefore facilitate improved interaction between farmer groups and other actors in the value chains: buyers, processors, financial institutions, licensed farmer organisations, input- and equipment suppliers and service providers. It will strengthen actors in strategic positions of oilseed supply chains.

60. Both effects outlined above have the potential to generate substantial benefits across the districts and throughout the economy of northern Uganda as a whole. The quantification of these impacts however required a larger study than the scope currently available.

List of Appendices

[15] Rural-urban Marketing Linkages. An Infrastructure Identification and Survey Guide John Tracey-White, 2005. Rural-urban Marketing Linkages. An Infrastructure Identification and Survey Guide. FAO Agricultural Services Bulletin No. 161. Rome, Italy. http://www.fao.org/3/a0159e/A0159E00.htm#TOC Accessed 11 Oct 2019.

III. APPENDIX 1 – FINANCIAL AND ECONOMIC PRICES

Appendix 1 Table 1: Financial and Economic Prices

Republic of Uganda
National Oilseeds Project
PRICES
(In UGX)

	Unit	Financial		Economic	
		Year 1	Year 20	Year 1	Year 20
Outputs					
Field crops					
Maize - traditional variety	kg	600	600	600	600
Maize - improved variety	kg	600	600	600	600
Beans - traditional variety	kg	1,800	1,800	1,800	1,800
Beans - improved variety	kg	1,800	1,800	1,800	1,800
Sweet Potato - traditional variety	bag	50,000	50,000	50,000	50,000
Sweet Potato - improved variety	bag	60,000	60,000	60,000	60,000
Cassava - traditional	bag (fresh)	80,000	80,000	80,000	80,000
Cassava - improved	kg (dry chips)	300	300	300	300
Sorghum	kg	400	400	400	400
Oilseed crops					
Soy bean - HH saved old varieties /a	kg	1,250	1,250	1,250	1,250
Soy bean - improved variety /b	kg	1,250	1,400	1,250	1,400
Sunflower - traditional	kg	800	800	800	800
Sunflower - hybrid	kg	800	1,000	800	1,000
Groundnut - traditonal /c	kg	2,800	2,800	2,800	2,800
Groundnut - improved /d	kg	2,800	3,000	2,800	3,000
Sesame	kg	4,000	4,200	4,000	4,200
Inputs					
Planting materials					
Maize seed - traditional	kg	600	600	540	540
Maize seed - improved /e	kg	6,000	6,000	5,400	5,400
Bean seed - traditional	kg	1,800	1,800	1,620	1,620
Bean seed - improved	kg	4,000	4,000	3,600	3,600
Sesame seed - retained old varities	kg	4,000	4,000	3,600	3,600
Sesame seed - improved /f	kg	4,000	4,000	3,600	3,600
Sweet potato cuttings - traditional	bag	50,000	50,000	45,000	45,000
Sweet potato cuttings - improved /g	bag	20,000	20,000	18,000	18,000
Cassava tubers - traditional	bag	80,000	80,000	72,000	72,000
Cassava tubers - improved /h	bag	25,000	25,000	22,500	22,500
Soy bean seed - HH saved /i	kg	1,200	1,200	1,080	1,080
Soy bean seed - improved /j	kg	5,000	5,000	4,500	4,500
Sunflower seed - traditional	kg	800	800	720	720
Sunflower seed - hybrid	kg	45,000	45,000	40,500	40,500
Ground nut seed - traditional	bag	90,000	90,000	81,000	81,000
Ground nut seed - improved	kg	5,000	5,000	4,500	4,500
Sorghum seed	kg	400	400	360	360
Fertilisers					
DAP /k	kg	40	40	36	36
NPK /l	kg	1,800	1,800	1,620	1,620
NPK - Soy blend (11:29:23) /m	kg	4,000	4,000	3,600	3,600
TSP /n	kg	2,400	2,400	2,160	2,160
Agro-chemicals					
Pesticide /o	litre	9,000	9,000	8,100	8,100
Fungicide /p	sachet	3,500	3,500	3,150	3,150

Financial and Economic Prices (Continued)

Republic of Uganda
National Oilseeds Project
PRICES
(In UGX)

	Unit	Financial		Economic	
		Year 1	Year 20	Year 1	Year 20
Other costs					
Bags	each	1,100	1,100	1,067	1,067
Tractor hire - ploughing	acre	90,000	90,000	87,300	87,300
Tractor hire - ripping	acre	90,000	90,000	87,300	87,300
Tractor hire - harrowing	acre	90,000	90,000	87,300	87,300
Power tiller - ploughing	acre	80,000	80,000	77,600	77,600
Oxen hire - ploughing	acre	60,000	60,000	58,200	58,200
Growth promoter /q	kg	40,000	40,000	38,800	38,800
Innoculant	sachet	3,500	3,500	3,395	3,395
Equipment (sprayer etc) /r	set	200,000	200,000	194,000	194,000
Tarpaulins /s	set	Value Basis	Value Basis	Value Basis	Value Basis
Drying racks	set	Value Basis	Value Basis	Value Basis	Value Basis
Investments					
Tractor and implements /t	members share	3,500,000	3,500,000	3,395,000	3,395,000
Labor					
Female family labor					
Jan female -	woman day	4,000	4,000	3,400	3,400
Feb female -	woman day	4,000	4,000	3,400	3,400
Mar female -	woman day	4,000	4,000	3,400	3,400
Apr female -	woman day	4,000	4,000	3,400	3,400
May female -	woman day	4,000	4,000	3,400	3,400
Jun female -	woman day	4,000	4,000	3,400	3,400
Jul female -	woman day	4,000	4,000	3,400	3,400
Aug female -	woman day	4,000	4,000	3,400	3,400
Sep female -	woman day	4,000	4,000	3,400	3,400
Oct female -	woman day	4,000	4,000	3,400	3,400
Nov female -	woman day	4,000	4,000	3,400	3,400
Dec female -	woman day	4,000	4,000	3,400	3,400
Male family labor					
Jan male -	man day	4,000	4,000	3,400	3,400
Feb male -	man day	4,000	4,000	3,400	3,400
Mar male -	man day	4,000	4,000	3,400	3,400
Apr male -	man day	4,000	4,000	3,400	3,400
May male -	man day	4,000	4,000	3,400	3,400
Jun male -	man day	4,000	4,000	3,400	3,400
Jul male -	man day	4,000	4,000	3,400	3,400
Aug male -	man day	4,000	4,000	3,400	3,400
Sept male -	man day	4,000	4,000	3,400	3,400
Oct male -	man day	4,000	4,000	3,400	3,400
Nov male -	man day	4,000	4,000	3,400	3,400
Dec male -	man day	4,000	4,000	3,400	3,400
Hired labour					
Hired labour - bird scaring	person day	1,000	1,000	850	850

Financial and Economic Prices (Continued)

Republic of Uganda
National Oilseeds Project
PRICES
(In UGX)

	Unit	Financial		Economic	
		Year 1	Year 20	Year 1	Year 20

\a Existing arrangements farmgate to agents
\b Improving prices following group formation and selling.
\c Unshelled
\d Unshelled - price increasing to reflect group selling
\e Hybrid varieties
\f E.g. Sesame 2 and Sesame 3
\g E.g. Naspot
\h Fresh cuttings
\i Old varieties
\j e.g. Maksoy 3N
\k 50 kg bag for UGX 2,000
\l 50 kg bag @ UGX 90,000
\m E.g. Grainpulse - 10 kg @ UGX 40,000
\n 50kg bag @ UGX 120,000
\o E.g. Cypermethrin
\p 250 gram sachet for 1 acre
\q E.g. Super Growth
\r Knapsack sprayer, gloves etc
\s Used for threshing and drying with project.
\t Share of loan for 35 HP tractor and implements

IV. APPENDIX 2 – OILSEED CROP PRODUCTION MODEL

Page

Notes on Appendix 2 Tables

1. The production models are presented in the form of a gross margin analysis with separate tables for the production/inputs and financial budgets
2. Figures shaded in yellow are quoted in the text.
3. All modelling is undertaken over a 20-year projection period.
4. Gross margin models are presented showing the existing/new technology scenarios and the incremental changes.
5. Oilseed crops can be grown in both the first and second rains. For the purpose of this analysis the gross margin model for an oilseed crop is the same for both first and second rains. Only the first rain models are included in the Appendix
6. For the presentational simplicity only the first 10 years of the Farm Model Without and With Project projections are displayed.
7. The farm model cropping pattern tables (Appendix 3) present the oilseed and other household crops assumed in the analysis. Only the oilseed crops are included in this appendix. Gross margins of the household crops are included in the project file.
8. All Appendix 1 tables are available in the project file in Excel format.

Appendix 2 Table 1: Sunflower Gross Margin - Yields and Inputs

Republic of Uganda
National Oilseeds Project
Sunflower First Rains Crop Model

YIELDS AND INPUTS (Per acre)	Unit	Existing Technology	New Technology					Increments				
		1 to 20	1	2	3	4	5 to 20	1	2	3	4	5 to 20
Yields	kg	350.0	350.0	368.0	422.0	475.0	493.0	-	18.0	72.0	125.0	143.0
Operating												
Inputs												
Sunflower seed - hybrid	kg	-	0.5	1.0	1.0	1.0	1.0	0.5	1.0	1.0	1.0	1.0
Sunflower seed - traditional	kg	2.0	1.0	-	-	-	-	-1.0	-2.0	-2.0	-2.0	-2.0
Oxen hire - ploughing	acre	1.0	1.0	1.0	-	-	-	-	-	-1.0	-1.0	-1.0
Tractor hire - ploughing	acre	-	-	-	1.0	1.0	1.0	-	-	1.0	1.0	1.0
Bags	each	7.0	8.0	9.0	10.0	10.0	10.0	1.0	2.0	3.0	3.0	3.0
Labor												
Apr male - Planting	man day	1.0	1.0	1.0	1.0	1.0	1.0	-	-	-	-	-
Apr female - Planting	woman day	1.0	1.0	1.0	1.0	1.0	1.0	-	-	-	-	-
Apr male - First weeding	man day	4.0	4.0	4.0	4.0	4.0	4.0	-	-	-	-	-
Apr female - First weeding	woman day	4.0	4.0	4.0	4.0	4.0	4.0	-	-	-	-	-
May male - Second weeding	man day	4.0	4.0	4.0	4.0	4.0	4.0	-	-	-	-	-
May female - Second weeding	woman day	4.0	4.0	4.0	4.0	4.0	4.0	-	-	-	-	-
Aug male - Harvest	man day	1.0	1.0	1.0	1.0	1.0	1.0	-	-	-	-	-
Aug female - Harvest	woman day	1.0	1.0	1.0	1.0	1.0	1.0	-	-	-	-	-
Aug female - Post harvest	woman day	2.0	2.0	2.0	2.0	2.0	2.0	-	-	-	-	-

Appendix 2 Table 2: Sunflower Gross Margin - Financial Budget

Republic of Uganda
National Oilseeds Project
Sunflower First Rains Crop Model
FINANCIAL BUDGET
(In UGX Per acre)

	Existing Technology			New Technology					Increments				
	1	2	3 to 20	1	2	3	4	5 to 20	1	2	3	4	5 to 20
Revenue	280,000	315,000	350,000	280,000	331,200	422,000	475,000	493,000	-	16,200	72,000	125,000	143,000
Input costs													
Sunflower seed - hybrid	-	-	-	22,500	45,000	45,000	45,000	45,000	22,500	45,000	45,000	45,000	45,000
Sunflower seed - traditional	1,600	1,600	1,600	800	-	-	-	-	-800	-1,600	-1,600	-1,600	-1,600
Oxen hire - ploughing	60,000	60,000	60,000	60,000	60,000	-	-	-	-	-	-60,000	-60,000	-60,000
Tractor hire - ploughing	-	-	-	-	-	90,000	90,000	90,000	-	-	90,000	90,000	90,000
Bags	7,700	7,700	7,700	8,800	9,900	11,000	11,000	11,000	1,100	2,200	3,300	3,300	3,300
Sub-total Input costs	69,300	69,300	69,300	92,100	114,900	146,000	146,000	146,000	22,800	45,600	76,700	76,700	76,700
Income (Before Labor Costs)	210,700	245,700	280,700	187,900	216,300	276,000	329,000	347,000	-22,800	-29,400	-4,700	48,300	66,300
Labor costs													
Apr male - Planting	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	-	-	-	-	-
Apr female - Planting	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	-	-	-	-	-
Apr male - First weeding	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	-	-	-	-	-
Apr female - First weeding	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	-	-	-	-	-
May male - Second weeding	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	-	-	-	-	-
May female - Second weeding	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	-	-	-	-	-
Aug male - Harvest	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	-	-	-	-	-
Aug female - Harvest	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	-	-	-	-	-
Aug female - Post harvest	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	-	-	-	-	-
Sub-total Labor costs	88,000	88,000	88,000	88,000	88,000	88,000	88,000	88,000	-	-	-	-	-
Income (After Labor Costs)	122,700	157,700	192,700	99,900	128,300	188,000	241,000	259,000	-22,800	-29,400	-4,700	48,300	66,300

Appendix 2 Table 3: Soy Bean Gross Margin - Yields and Inputs

Republic of Uganda
National Oilseeds Project
Soy Bean First Rains Crop Model
YIELDS AND INPUTS
(Per acre)

	Unit	Existing Technology	New Technology						Increments					
		1 to 20	1	2	3	4	5	6 to 20	1	2	3	4	5	6 to 20
Main Production														
Soy bean - HH saved old varieties	kg	200.0	-	-	-	-	-	-	-200.0	-200.0	-200.0	-200.0	-200.0	-200.0
Soy bean - improved variety	kg	-	350.0	374.0	445.0	516.0	540.0	540.0	350.0	374.0	445.0	516.0	540.0	540.0
Operating														
Inputs														
Soy bean seed - HH saved	kg	20.0	-	-	-	-	-	-	-20.0	-20.0	-20.0	-20.0	-20.0	-20.0
Soy bean seed - improved	kg	-	20.0	21.0	22.0	23.0	24.0	25.0	20.0	21.0	22.0	23.0	24.0	25.0
NPK - Soy blend (11:29:23)	kg	-	-	10.0	25.0	50.0	50.0	50.0	-	10.0	25.0	50.0	50.0	50.0
Innoculant	sachet	-	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Pesticide	litre	-	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Fungicide	sachet	-	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Bags	each	4.0	5.0	5.0	5.0	5.0	5.0	5.0	1.0	1.0	1.0	1.0	1.0	1.0
Tractor hire - ploughing	acre	1.0	-	-	-	-	-	-	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Tractor hire - ripping	acre	-	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Tractor hire - harrowing	acre	-	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Labor														
Apr male - Planting	man day	1.0	1.0	1.0	1.0	1.0	1.0	1.0	-	-	-	-	-	-
Apr female - Planting	woman day	1.0	1.0	1.0	1.0	1.0	1.0	1.0	-	-	-	-	-	-
Apr male - First weeding	man day	4.0	4.0	4.0	4.0	4.0	4.0	4.0	-	-	-	-	-	-
Apr female - First weeding	woman day	4.0	4.0	4.0	4.0	4.0	4.0	4.0	-	-	-	-	-	-
May male - Second weeding	man day	4.0	4.0	4.0	4.0	4.0	4.0	4.0	-	-	-	-	-	-
May female - Second weeding	woman day	4.0	4.0	4.0	4.0	4.0	4.0	4.0	-	-	-	-	-	-
August male - Harvest	man day	1.0	1.0	2.0	3.0	3.0	3.0	3.0	-	1.0	2.0	2.0	2.0	2.0
August female - Harvest	woman day	1.0	1.0	2.0	3.0	3.0	3.0	3.0	-	1.0	2.0	2.0	2.0	2.0
August female - Threshing/bagging	woman day	2.0	2.0	2.0	2.0	2.0	2.0	2.0	-	-	-	-	-	-

Appendix 2 Table 4: Soya Bean Gross Margin - Financial Budget

Republic of Uganda
National Oilseeds Project
Soy Bean First Rains Crop Model
FINANCIAL BUDGET
(In UGX Per acre)

	Existing Technology	New Technology						Increments					
	1 to 20	1	2	3	4	5	6 to 20	1	2	3	4	5	6 to 20
Revenue													
Soy bean - HH saved old varieties	250,000	-	-	-	-	-	-	-250,000	-250,000	-250,000	-250,000	-250,000	-250,000
Soy bean - improved variety	-	437,500	467,500	578,500	722,400	756,000	756,000	437,500	467,500	578,500	722,400	756,000	756,000
Sub-total Revenue	250,000	437,500	467,500	578,500	722,400	756,000	756,000	187,500	217,500	328,500	472,400	506,000	506,000
Input costs													
Soy bean seed - HH saved	24,000	-	-	-	-	-	-	-24,000	-24,000	-24,000	-24,000	-24,000	-24,000
Soy bean seed - improved	-	100,000	105,000	110,000	115,000	120,000	125,000	100,000	105,000	110,000	115,000	120,000	125,000
NPK - Soy blend (11:29:23)	-	-	40,000	100,000	200,000	200,000	200,000	-	40,000	100,000	200,000	200,000	200,000
Innoculant	-	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
Pesticide	-	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500
Fungicide	-	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
Bags	4,400	5,500	5,500	5,500	5,500	5,500	5,500	1,100	1,100	1,100	1,100	1,100	1,100
Tractor hire - ploughing	90,000	-	-	-	-	-	-	-90,000	-90,000	-90,000	-90,000	-90,000	-90,000
Tractor hire - ripping	-	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
Tractor hire - harrowing	-	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
Sub-total Input costs	118,400	297,000	342,000	407,000	512,000	517,000	522,000	178,600	223,600	288,600	393,600	398,600	403,600
Income (Before Labor Costs)	131,600	140,500	125,500	171,500	210,400	239,000	234,000	8,900	-6,100	39,900	78,800	107,400	102,400
Labor costs													
Apr male - Planting	4,000	4,000	4,000	4,000	4,000	4,000	4,000	-	-	-	-	-	-
Apr female - Planting	4,000	4,000	4,000	4,000	4,000	4,000	4,000	-	-	-	-	-	-
Apr male - First weeding	16,000	16,000	16,000	16,000	16,000	16,000	16,000	-	-	-	-	-	-
Apr female - First weeding	16,000	16,000	16,000	16,000	16,000	16,000	16,000	-	-	-	-	-	-
May male - Second weeding	16,000	16,000	16,000	16,000	16,000	16,000	16,000	-	-	-	-	-	-
May female - Second weeding	16,000	16,000	16,000	16,000	16,000	16,000	16,000	-	-	-	-	-	-
August male - Harvest	4,000	4,000	8,000	12,000	12,000	12,000	12,000	-	4,000	8,000	8,000	8,000	8,000
August female - Harvest	4,000	4,000	8,000	12,000	12,000	12,000	12,000	-	4,000	8,000	8,000	8,000	8,000
August female - Threshing/bagging	8,000	8,000	8,000	8,000	8,000	8,000	8,000	-	-	-	-	-	-
Sub-total Labor costs	88,000	88,000	96,000	104,000	104,000	104,000	104,000	-	8,000	16,000	16,000	16,000	16,000
Income (After Labor Costs)	43,600	52,500	29,500	67,500	106,400	135,000	130,000	8,900	-14,100	23,900	62,800	91,400	86,400

Appendix 2 Table 5: Sesame Gross Margin - Yields and Inputs

Republic of Uganda
National Oilseeds Project
Sesame First Rains Crop Model

YIELDS AND INPUTS (Per acre)	Unit	Existing Technology	New Technology					Increments				
		1 to 20	1	2	3	4	5 to 20	1	2	3	4	5 to 20
Yields	kg	150.0	200.0	212.0	248.0	283.0	295.0	50.0	62.0	98.0	133.0	145.0
Operating												
Inputs												
Sesame seed - retained old varities	kg	8.0	-	-	-	-	-	-8.0	-8.0	-8.0	-8.0	-8.0
Sesame seed - improved	kg	-	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pesticide - Pod borer	litre	-	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
NPK - top dressing	kg	-	10.0	15.0	25.0	50.0	50.0	10.0	15.0	25.0	50.0	50.0
Bags	each	2.0	2.0	3.0	4.0	4.0	4.0	-	1.0	2.0	2.0	2.0
Tractor hire - ploughing	acre	1.0	-	-	-	-	-	-1.0	-1.0	-1.0	-1.0	-1.0
Tractor hire - ripping	acre	-	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Tractor hire - harrowing	acre	-	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Labor												
Mar male - First plough	man day	8.0	-	-	-	-	-	-8.0	-8.0	-8.0	-8.0	-8.0
Mar male - Second plough	man day	8.0	-	-	-	-	-	-8.0	-8.0	-8.0	-8.0	-8.0
Apr male - Planting	man day	1.0	1.0	2.0	3.0	3.0	3.0	-	1.0	2.0	2.0	2.0
Apr female - Planting	woman day	1.0	1.0	2.0	3.0	3.0	3.0	-	1.0	2.0	2.0	2.0
Apr male - First weeding	man day	4.0	4.0	4.0	4.0	4.0	4.0	-	-	-	-	-
Apr female - First weeding	woman day	4.0	4.0	4.0	4.0	4.0	4.0	-	-	-	-	-
August male - Harvest	man day	1.0	1.0	2.0	3.0	3.0	3.0	-	1.0	2.0	2.0	2.0
August female - Harvest	woman day	1.0	1.0	2.0	3.0	3.0	3.0	-	1.0	2.0	2.0	2.0
August female - Threshing/bagging	woman day	2.0	2.0	2.0	2.0	2.0	2.0	-	-	-	-	-

Appendix 2 Table 6: Sesame Gross Margin - Financial Budget

Republic of Uganda
National Oilseeds Project
Sesame First Rains Crop Model
FINANCIAL BUDGET
(In UGX Per acre)

	Existing Technology					New Technology					Increments				
	1	2	3	4	5 to 20	1	2	3	4	5 to 20	1	2	3	4	5 to 20
Revenue	600,000	607,500	615,000	622,500	630,000	800,000	858,600	1,016,800	1,174,450	1,239,000	200,000	251,100	401,800	551,950	609,000
Input costs															
Sesame seed - retained old varities	32,000	32,000	32,000	32,000	32,000	-	-	-	-	-	-32,000	-32,000	-32,000	-32,000	-32,000
Sesame seed - improved	-	-	-	-	-	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Pesticide - Pod borer	-	-	-	-	-	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250
NPK - top dressing	-	-	-	-	-	18,000	27,000	45,000	90,000	90,000	18,000	27,000	45,000	90,000	90,000
Bags	2,200	2,200	2,200	2,200	2,200	2,200	3,300	4,400	4,400	4,400	-	1,100	2,200	2,200	2,200
Tractor hire - ploughing	90,000	90,000	90,000	90,000	90,000	-	-	-	-	-	-90,000	-90,000	-90,000	-90,000	-90,000
Tractor hire - ripping	-	-	-	-	-	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
Tractor hire - harrowing	-	-	-	-	-	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
Sub-total Input costs	124,200	124,200	124,200	124,200	124,200	214,450	224,550	243,650	288,650	288,650	90,250	100,350	119,450	164,450	164,450
Income (Before Labor Costs)	475,800	483,300	490,800	498,300	505,800	585,550	634,050	773,150	885,800	950,350	109,750	150,750	282,350	387,500	444,550
Labor costs															
Mar male - First plough	32,000	32,000	32,000	32,000	32,000	-	-	-	-	-	-32,000	-32,000	-32,000	-32,000	-32,000
Mar male - Second plough	32,000	32,000	32,000	32,000	32,000	-	-	-	-	-	-32,000	-32,000	-32,000	-32,000	-32,000
Apr male - Planting	4,000	4,000	4,000	4,000	4,000	4,000	8,000	12,000	12,000	12,000	-	4,000	8,000	8,000	8,000
Apr female - Planting	4,000	4,000	4,000	4,000	4,000	4,000	8,000	12,000	12,000	12,000	-	4,000	8,000	8,000	8,000
Apr male - First weeding	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	-	-	-	-	-
Apr female - First weeding	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	-	-	-	-	-
August male - Harvest	4,000	4,000	4,000	4,000	4,000	4,000	8,000	12,000	12,000	12,000	-	4,000	8,000	8,000	8,000
August female - Harvest	4,000	4,000	4,000	4,000	4,000	4,000	8,000	12,000	12,000	12,000	-	4,000	8,000	8,000	8,000
August female - Threshing/bagging	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	-	-	-	-	-
Sub-total Labor costs	120,000	120,000	120,000	120,000	120,000	56,000	72,000	88,000	88,000	88,000	-64,000	-48,000	-32,000	-32,000	-32,000
Income (After Labor Costs)	355,800	363,300	370,800	378,300	385,800	529,550	562,050	685,150	797,800	862,350	173,750	198,750	314,350	419,500	476,550

Appendix 2 Table 7: Groundnuts Gross Margin - Yields and Inputs

Republic of Uganda
National Oilseeds Project
Groundnuts First Rains Crop Model

YIELDS AND INPUTS (Per acre)	Unit	Existing Technology	New Technology					Increments				
		1 to 20	1	2	3	4	5 to 20	1	2	3	4	5 to 20
Main Production												
Groundnut - traditonal	kg	750.0	-	-	-	-	-	-750.0	-750.0	-750.0	-750.0	-750.0
Groundnut - improved	kg	-	800.0	836.0	943.0	1,049.0	1,085.0	800.0	836.0	943.0	1,049.0	1,085.0
Operating												
Inputs												
Ground nut seed - traditional	bag	1.0	-	-	-	-	-	-1.0	-1.0	-1.0	-1.0	-1.0
Ground nut seed - improved	kg	-	25.0	30.0	35.0	35.0	35.0	25.0	30.0	35.0	35.0	35.0
TSP	kg	-	-	20.0	30.0	40.0	50.0	-	20.0	30.0	40.0	50.0
Pesticide	litre	-	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Bags	each	6.0	7.0	8.0	9.0	10.0	10.0	1.0	2.0	3.0	4.0	4.0
Tractor hire - ploughing	acre	1.0	-	-	-	-	-	-1.0	-1.0	-1.0	-1.0	-1.0
Tractor hire - ripping	acre	-	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Tractor hire - harrowing	acre	-	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Labor												
Mar male - First plough	man day	8.0	8.0	-	-	-	-	-	-8.0	-8.0	-8.0	-8.0
Mar male - Second plough	man day	8.0	8.0	-	-	-	-	-	-8.0	-8.0	-8.0	-8.0
Apr male - Planting	man day	1.0	1.0	1.0	1.0	1.0	1.0	-	-	-	-	-
Apr female - Planting	woman day	1.0	1.0	1.0	1.0	1.0	1.0	-	-	-	-	-
Apr male - First weeding	man day	4.0	4.0	4.0	4.0	4.0	4.0	-	-	-	-	-
Apr female - First weeding	woman day	4.0	4.0	4.0	4.0	4.0	4.0	-	-	-	-	-
August male - Harvest	man day	1.0	1.0	1.0	1.0	1.0	1.0	-	-	-	-	-
August female - Harvest	woman day	1.0	1.0	1.0	1.0	1.0	1.0	-	-	-	-	-
August female - Threshing/bagging	woman day	2.0	2.0	2.0	2.0	2.0	2.0	-	-	-	-	-

Appendix 2 Table 8: Groundnuts Gross Margin - Financial Budget

Republic of Uganda
National Oilseeds Project
Groundnuts First Rains Crop Model
FINANCIAL BUDGET
(In UGX Per acre)

	Existing Technology	New Technology					Increments				
	1 to 20	1	2	3	4	5 to 20	1	2	3	4	5 to 20
Revenue											
Groundnut - traditonal	2,100,000	-	-	-	-	-	-2,100,000	-2,100,000	-2,100,000	-2,100,000	-2,100,000
Groundnut - improved	-	2,240,000	2,382,600	2,734,700	3,094,550	3,255,000	2,240,000	2,382,600	2,734,700	3,094,550	3,255,000
Sub-total Revenue	2,100,000	2,240,000	2,382,600	2,734,700	3,094,550	3,255,000	140,000	282,600	634,700	994,550	1,155,000
Input costs											
Ground nut seed - traditional	90,000	-	-	-	-	-	-90,000	-90,000	-90,000	-90,000	-90,000
Ground nut seed - improved	-	125,000	150,000	175,000	175,000	175,000	125,000	150,000	175,000	175,000	175,000
TSP	-	-	48,000	72,000	96,000	120,000	-	48,000	72,000	96,000	120,000
Pesticide	-	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000
Bags	6,600	7,700	8,800	9,900	11,000	11,000	1,100	2,200	3,300	4,400	4,400
Tractor hire - ploughing	90,000	-	-	-	-	-	-90,000	-90,000	-90,000	-90,000	-90,000
Tractor hire - ripping	-	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
Tractor hire - harrowing	-	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
Sub-total Input costs	186,600	321,700	395,800	445,900	471,000	495,000	135,100	209,200	259,300	284,400	308,400
Income (Before Labor Costs)	1,913,400	1,918,300	1,986,800	2,288,800	2,623,550	2,760,000	4,900	73,400	375,400	710,150	846,600
Labor costs											
Mar male - First plough	32,000	32,000	-	-	-	-	-	-32,000	-32,000	-32,000	-32,000
Mar male - Second plough	32,000	32,000	-	-	-	-	-	-32,000	-32,000	-32,000	-32,000
Apr male - Planting	4,000	4,000	4,000	4,000	4,000	4,000	-	-	-	-	-
Apr female - Planting	4,000	4,000	4,000	4,000	4,000	4,000	-	-	-	-	-
Apr male - First weeding	16,000	16,000	16,000	16,000	16,000	16,000	-	-	-	-	-
Apr female - First weeding	16,000	16,000	16,000	16,000	16,000	16,000	-	-	-	-	-
August male - Harvest	4,000	4,000	4,000	4,000	4,000	4,000	-	-	-	-	-
August female - Harvest	4,000	4,000	4,000	4,000	4,000	4,000	-	-	-	-	-
August female - Threshing/bagging	8,000	8,000	8,000	8,000	8,000	8,000	-	-	-	-	-
Sub-total Labor costs	120,000	120,000	56,000	56,000	56,000	56,000	-	-64,000	-64,000	-64,000	-64,000
Income (After Labor Costs)	1,793,400	1,798,300	1,930,800	2,232,800	2,567,550	2,704,000	4,900	137,400	439,400	774,150	910,600

V. APPENDIX 3 – ILLUSTRATIVE FARM MODELS

Notes on Appendix 3 Tables

1. Figures shaded in yellow are quoted in the text.
2. All modelling is undertaken over a 20-year projection period.
3. For the presentational simplicity only the first 10 years of the Farm Model Without and With Project projections are displayed.
4. All Appendix 2 tables are available in the project file in Excel format.

Appendix 3 Table 1: Sunflower - Sesame Farm Model – Cropping Pattern

Republic of Uganda
National Oilseeds Project
Sunflower - Sesame HH Model (1.5 to 3.8 ac)

CROPPING PATTERNS (In Units)	Unit	Without Project	With Project			
		1 to 10	1	2	3	4 to 10
Cropping Intensity	Percent	200.0	200.0	174.4	219.2	200.0
Cropping Pattern						
Existing Technology						
Beans First Rains	acre	0.25	0.25	0.19	0.06	0.00
Maize First Rains	acre	0.25	0.25	0.19	0.06	0.00
Groundnuts First Rains	acre	0.50	0.50	0.39	0.11	0.00
Cassava First Rains	acre	0.50	0.50	0.39	0.11	0.00
Sesame Second Rains	acre	0.50	0.50	0.39	0.11	0.00
Sweet Potato Second Rains	acre	0.50	0.50	0.39	0.11	0.00
Cassava Second Rains	acre	0.50	0.50	0.39	0.11	0.00
Sub-total Existing Technology		3.00	3.00	2.34	0.66	0.00
New Technology						
Maize First Rains	acre	0.00	0.00	0.21	0.74	0.95
Sesame Second Rains	acre	0.00	0.00	0.40	1.50	1.90
Soy Bean First Rains	acre	0.00	0.00	0.21	0.74	0.95
Sunflower First Rains	acre	0.00	0.00	0.40	1.50	1.90
Sunflower Second Rains	acre	0.00	0.00	0.40	1.50	1.90
Sub-total New Technology		0.00	0.00	1.62	5.98	7.60
Total Cropped Area		3.00	3.00	3.96	6.64	7.60

Appendix 3 Table 2: Sunflower - Sesame Farm Model - Production & Inputs

Republic of Uganda
National Oilseeds Project
Sunflower - Sesame HH Model (1.5 to 3.8 ac)
PRODUCTION AND INPUTS (Detailed)
(In Units)

	Unit	Without Project	With Project									
		1 to 10	1	2	3	4	5	6	7	8	9	10
Main Production												
Maize - traditional variety	kg	100.0	100.0	77.6	22.4	-	-	-	-	-	-	-
Maize - improved variety	kg	-	-	84.0	296.0	380.0	380.0	380.0	380.0	380.0	380.0	380.0
Beans - traditional variety	kg	50.0	50.0	38.8	11.2	-	-	-	-	-	-	-
Sweet Potato - traditional variety	bag	3.5	3.5	2.7	0.8	-	-	-	-	-	-	-
Cassava - traditional	bag (fresh)	11.5	11.5	9.0	2.5	-	-	-	-	-	-	-
Soy bean - improved variety	kg	-	-	73.5	276.8	422.8	490.2	513.0	513.0	513.0	513.0	513.0
Sunflower - hybrid	kg	-	-	280.0	1,104.0	1,603.6	1,805.0	1,873.4	1,873.4	1,873.4	1,873.4	1,873.4
Groundnut - traditonal	kg	375.0	375.0	292.5	82.5	-	-	-	-	-	-	-
Sesame	kg	75.0	75.0	138.5	334.5	471.2	537.7	560.5	560.5	560.5	560.5	560.5
On-Farm Use												
Maize - traditional variety	kg	2.5	2.5	1.9	0.6	-	-	-	-	-	-	-
Maize - improved variety	kg	-	-	2.1	7.4	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Beans - traditional variety	kg	6.0	6.0	4.7	1.3	-	-	-	-	-	-	-
Sweet Potato - traditional variety	bag	1.5	1.5	1.2	0.3	-	-	-	-	-	-	-
Groundnut - traditonal	kg	0.5	0.5	0.4	0.1	-	-	-	-	-	-	-
Sesame	kg	4.0	4.0	3.1	0.9	-	-	-	-	-	-	-
Sales												
Maize - traditional variety	kg	97.5	97.5	75.7	21.8	-	-	-	-	-	-	-
Maize - improved variety	kg	-	-	81.9	288.6	370.5	370.5	370.5	370.5	370.5	370.5	370.5
Beans - traditional variety	kg	44.0	44.0	34.1	9.9	-	-	-	-	-	-	-
Sweet Potato - traditional variety	bag	2.0	2.0	1.6	0.4	-	-	-	-	-	-	-
Cassava - traditional	bag (fresh)	11.5	11.5	9.0	2.5	-	-	-	-	-	-	-
Soy bean - improved variety	kg	-	-	73.5	276.8	422.8	490.2	513.0	513.0	513.0	513.0	513.0
Sunflower - hybrid	kg	-	-	280.0	1,104.0	1,603.6	1,805.0	1,873.4	1,873.4	1,873.4	1,873.4	1,873.4
Groundnut - traditonal	kg	374.5	374.5	292.1	82.4	-	-	-	-	-	-	-
Sesame	kg	71.0	71.0	135.4	333.6	471.2	537.7	560.5	560.5	560.5	560.5	560.5
Investment												
Equipment (sprayer etc)	set	-	1.0	-	-	-	-	1.0	-	-	-	-
Tarpaulins	set	-	50,000.0	-	50,000.0	-	50,000.0	-	50,000.0	-	50,000.0	-
Drying racks	set	50,000.0	50,000.0	60,000.0	70,000.0	80,000.0	90,000.0	100,000.0	100,000.0	100,000.0	100,000.0	100,000.0

Sunflower - Sesame Farm Model - Production & Inputs (continued)

Republic of Uganda
National Oilseeds Project
Sunflower - Sesame HH Model (1.5 to 3.8 ac)
PRODUCTION AND INPUTS (Detailed)
(In Units)

	Unit	Without Project	With Project								
		1 to 10	1	2	3	4	5	6	7	8	9	10
Operating												
Purchased Inputs												
Sesame seed - improved	kg	-	-	1.2	4.5	5.7	5.7	5.7	5.7	5.7	5.7	5.7
Soy bean seed - improved	kg	-	-	4.2	15.5	20.9	21.9	22.8	23.8	23.8	23.8	23.8
Sunflower seed - traditional	kg	-	-	0.8	-	-	-	-	-	-	-	-
Sunflower seed - hybrid	kg	-	-	0.4	3.0	3.8	3.8	3.8	3.8	3.8	3.8	3.8
NPK - top dressing	kg	-	-	4.0	22.5	47.5	95.0	95.0	95.0	95.0	95.0	95.0
NPK - Soy blend (11:29:23)	kg	-	-	-	7.4	23.8	47.5	47.5	47.5	47.5	47.5	47.5
Pesticide	litre	-	-	0.2	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Fungicide	sachet	-	-	0.2	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Bags	each	20.5	20.5	25.5	44.2	56.1	56.1	56.1	56.1	56.1	56.1	56.1
Tractor hire - ploughing	acre	1.0	1.0	0.8	0.2	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Tractor hire - ripping	acre	-	-	0.6	2.2	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Tractor hire - harrowing	acre	-	-	0.6	2.2	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Oxen hire - ploughing	acre	-	-	0.8	3.0	-	-	-	-	-	-	-
Innoculant	sachet	-	-	0.2	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Labor												
Apr female -	woman day	5.0	5.0	8.0	16.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
May female -	woman day	2.0	2.0	4.8	12.4	15.2	15.2	15.2	15.2	15.2	15.2	15.2
Aug female -	woman day	4.5	4.5	6.8	15.2	20.9	20.9	20.9	20.9	20.9	20.9	20.9
Sep female -	woman day	6.0	6.0	7.9	13.3	15.2	15.2	15.2	15.2	15.2	15.2	15.2
Oct female -	woman day	2.0	2.0	4.8	12.4	15.2	15.2	15.2	15.2	15.2	15.2	15.2
Nov female -	woman day	4.5	4.5	5.9	11.5	15.2	15.2	15.2	15.2	15.2	15.2	15.2
Mar male -	man day	16.0	16.0	15.8	15.4	15.2	15.2	15.2	15.2	15.2	15.2	15.2
Apr male -	man day	5.0	5.0	8.0	16.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
May male -	man day	2.0	2.0	4.8	12.4	15.2	15.2	15.2	15.2	15.2	15.2	15.2
Aug male -	man day	22.5	22.5	19.2	13.2	13.3	13.3	13.3	13.3	13.3	13.3	13.3
Sept male -	man day	6.0	6.0	7.9	13.3	15.2	15.2	15.2	15.2	15.2	15.2	15.2
Oct male -	man day	2.0	2.0	4.8	12.4	15.2	15.2	15.2	15.2	15.2	15.2	15.2
Nov male -	man day	1.5	1.5	2.0	4.8	7.6	7.6	7.6	7.6	7.6	7.6	7.6
Hired labour - bird scaring	person day	20.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0

Appendix 3 Table 3: Sunflower - Sesame Farm Model - Financial Budget

Republic of Uganda
National Oilseeds Project
Sunflower - Sesame HH Model (1.5 to 3.8 ac)
FINANCIAL BUDGET (DETAILED)
(In UGX)

	Without Project					With Project									
	1	2	3	4	5 to 10	1	2	3	4	5	6	7	8	9	10
Main Production															
Maize - traditional variety	60,000	60,000	60,000	60,000	60,000	60,000	46,560	13,440	-	-	-	-	-	-	-
Maize - improved variety	-	-	-	-	-	-	50,400	177,600	228,000	228,000	228,000	228,000	228,000	228,000	228,000
Beans - traditional variety	90,000	90,000	90,000	90,000	90,000	90,000	69,840	20,160	-	-	-	-	-	-	-
Sweet Potato - traditional variety	175,000	175,000	175,000	175,000	175,000	175,000	136,500	38,500	-	-	-	-	-	-	-
Cassava - traditional	920,000	920,000	920,000	920,000	920,000	920,000	717,600	202,400	-	-	-	-	-	-	-
Soy bean - improved variety	-	-	-	-	-	-	91,875	359,788	591,850	686,280	718,200	718,200	718,200	718,200	718,200
Sunflower - hybrid	-	-	-	-	-	-	252,000	1,104,000	1,603,600	1,805,000	1,873,400	1,873,400	1,873,400	1,873,400	1,873,400
Groundnut - traditonal	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	819,000	231,000	-	-	-	-	-	-	-
Sesame	300,000	303,750	307,500	311,250	315,000	300,000	560,925	1,371,450	1,955,480	2,258,340	2,354,100	2,354,100	2,354,100	2,354,100	2,354,100
Sub-total Main Production	2,595,000	2,598,750	2,602,500	2,606,250	2,610,000	2,595,000	2,744,700	3,518,338	4,378,930	4,977,620	5,173,700	5,173,700	5,173,700	5,173,700	5,173,700
On-Farm Use															
Maize - traditional variety	1,500	1,500	1,500	1,500	1,500	1,500	1,164	336	-	-	-	-	-	-	-
Maize - improved variety	-	-	-	-	-	-	1,260	4,440	5,700	5,700	5,700	5,700	5,700	5,700	5,700
Beans - traditional variety	10,800	10,800	10,800	10,800	10,800	10,800	8,381	2,419	-	-	-	-	-	-	-
Sweet Potato - traditional variety	75,000	75,000	75,000	75,000	75,000	75,000	58,500	16,500	-	-	-	-	-	-	-
Groundnut - traditonal	1,400	1,400	1,400	1,400	1,400	1,400	1,092	308	-	-	-	-	-	-	-
Sesame	16,000	16,200	16,400	16,600	16,800	16,000	12,636	3,608	-	-	-	-	-	-	-
Sub-Total On-Farm Use	104,700	104,900	105,100	105,300	105,500	104,700	83,033	27,611	5,700	5,700	5,700	5,700	5,700	5,700	5,700
Net Value Of Production	2,490,300	2,493,850	2,497,400	2,500,950	2,504,500	2,490,300	2,661,667	3,490,727	4,373,230	4,971,920	5,168,000	5,168,000	5,168,000	5,168,000	5,168,000
Production Cost															
Investment															
Equipment (sprayer etc)	-	-	-	-	-	200,000	-	-	-	-	200,000	-	-	-	-
Tarpaulins	-	-	-	-	-	50,000	-	50,000	-	50,000	-	50,000	-	50,000	-
Drying racks	50,000	50,000	50,000	50,000	50,000	50,000	60,000	70,000	80,000	90,000	100,000	100,000	100,000	100,000	100,000
Sub-total Investment Costs	50,000	50,000	50,000	50,000	50,000	300,000	60,000	120,000	80,000	140,000	300,000	150,000	100,000	150,000	100,000
Operating															
Purchased Inputs															
Sesame seed - improved	-	-	-	-	-	-	4,800	18,000	22,800	22,800	22,800	22,800	22,800	22,800	22,800
Soy bean seed - improved	-	-	-	-	-	-	21,000	77,700	104,500	109,250	114,000	118,750	118,750	118,750	118,750
Sunflower seed - traditional	-	-	-	-	-	-	640	-	-	-	-	-	-	-	-
Sunflower seed - hybrid	-	-	-	-	-	-	18,000	135,000	171,000	171,000	171,000	171,000	171,000	171,000	171,000
NPK - top dressing	-	-	-	-	-	-	7,200	40,500	85,500	171,000	171,000	171,000	171,000	171,000	171,000
NPK - Soy blend (11:29:23)	-	-	-	-	-	-	-	29,600	95,000	190,000	190,000	190,000	190,000	190,000	190,000
Pesticide	-	-	-	-	-	-	1,845	6,705	8,550	8,550	8,550	8,550	8,550	8,550	8,550
Fungicide	-	-	-	-	-	-	735	2,590	3,325	3,325	3,325	3,325	3,325	3,325	3,325
Bags	22,550	22,550	22,550	22,550	22,550	22,550	28,043	48,572	61,655	61,655	61,655	61,655	61,655	61,655	61,655
Tractor hire - ploughing	90,000	90,000	90,000	90,000	90,000	90,000	70,200	19,800	342,000	342,000	342,000	342,000	342,000	342,000	342,000
Tractor hire - ripping	-	-	-	-	-	-	54,900	201,600	256,500	256,500	256,500	256,500	256,500	256,500	256,500
Tractor hire - harrowing	-	-	-	-	-	-	54,900	201,600	256,500	256,500	256,500	256,500	256,500	256,500	256,500
Oxen hire - ploughing	-	-	-	-	-	-	48,000	180,000	-	-	-	-	-	-	-
Innoculant	-	-	-	-	-	-	735	2,590	3,325	3,325	3,325	3,325	3,325	3,325	3,325
Sub-Total Purchased Inputs	112,550	112,550	112,550	112,550	112,550	112,550	310,998	964,257	1,410,655	1,595,905	1,600,655	1,605,405	1,605,405	1,605,405	1,605,405

Sunflower - Sesame Farm Model - Financial Budget (Continued)

Republic of Uganda
National Oilseeds Project
Sunflower - Sesame HH Model (1.5 to 3.8 ac)
FINANCIAL BUDGET (DETAILED)
(In UGX)

	Without Project					With Project									
	1	2	3	4	5 to 10	1	2	3	4	5	6	7	8	9	10
Labor															
Apr female -	-	-	-	-	-	-	-	-	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Aug female -	-	-	-	-	-	-	-	-	7,600	7,600	7,600	7,600	7,600	7,600	7,600
Mar male -	8,000	8,000	8,000	8,000	8,000	8,000	7,232	5,568	4,800	4,800	4,800	4,800	4,800	4,800	4,800
Apr male -	-	-	-	-	-	-	-	-	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Aug male -	14,000	14,000	14,000	14,000	14,000	14,000	672	-	-	-	-	-	-	-	-
Oct male -	-	-	-	-	-	-	-	-	4,800	4,800	4,800	4,800	4,800	4,800	4,800
Hired labour - bird scaring	20,000	20,000	20,000	20,000	20,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
Sub-Total Hired Labor	42,000	42,000	42,000	42,000	42,000	62,000	47,904	45,568	65,200	65,200	65,200	65,200	65,200	65,200	65,200
Sub-total Operating Costs	154,550	154,550	154,550	154,550	154,550	174,550	358,902	1,009,825	1,475,855	1,661,105	1,665,855	1,670,605	1,670,605	1,670,605	1,670,605
Sub-Total Production Cost	204,550	204,550	204,550	204,550	204,550	474,550	418,902	1,129,825	1,555,855	1,801,105	1,965,855	1,820,605	1,770,605	1,820,605	1,770,605
Other Costs															
Land rental	-	-	-	-	-	-	76,500	153,500	230,000	230,000	230,000	230,000	230,000	230,000	230,000
OUTFLOWS	204,550	204,550	204,550	204,550	204,550	474,550	495,402	1,283,325	1,785,855	2,031,105	2,195,855	2,050,605	2,000,605	2,050,605	2,000,605
Cash Flow Before Financing	2,285,750	2,289,300	2,292,850	2,296,400	2,299,950	2,015,750	2,166,265	2,207,402	2,587,375	2,940,815	2,972,145	3,117,395	3,167,395	3,117,395	3,167,395
Financial Inflows															
Disbursements on Short Term Loan	-	-	-	-	-	20,000	204,352	855,275	1,321,305	1,506,555	1,511,305	1,516,055	1,516,055	1,516,055	1,516,055
Transfer from Previous Period	204,550	204,550	204,550	204,550	204,550	204,550	214,550	274,550	234,550	294,550	454,550	304,550	254,550	304,550	254,550
Contribution from own savings	-	-	-	-	-	250,000	-	-	-	-	-	-	-	-	-
Sub-Total Financial Inflows	204,550	204,550	204,550	204,550	204,550	474,550	418,902	1,129,825	1,555,855	1,801,105	1,965,855	1,820,605	1,770,605	1,820,605	1,770,605
Financial Outflows															
Short Term Principal	-	-	-	-	-	20,000	204,352	855,275	1,321,305	1,506,555	1,511,305	1,516,055	1,516,055	1,516,055	1,516,055
Short Term Interest	-	-	-	-	-	2,400	24,522	102,633	158,557	180,787	181,357	181,927	181,927	181,927	181,927
Transfer to Next Period	204,550	204,550	204,550	204,550	204,550	214,550	274,550	234,550	294,550	454,550	304,550	254,550	304,550	254,550	504,550
Sub-Total Financial Outflows	204,550	204,550	204,550	204,550	204,550	236,950	503,425	1,192,458	1,774,412	2,141,892	1,997,212	1,952,532	2,002,532	1,952,532	2,202,532
Net Financing	-	-	-	-	-	237,600	-84,522	-62,633	-218,557	-340,787	-31,357	-131,927	-231,927	-131,927	-431,927
Cash Flow After Financing	2,285,750	2,289,300	2,292,850	2,296,400	2,299,950	2,253,350	2,081,743	2,144,769	2,368,818	2,600,028	2,940,788	2,985,468	2,935,468	2,985,468	2,735,468
Change in Net Worth															
Contribution from own savings	-	-	-	-	-	250,000	-	-	-	-	-	-	-	-	-
Residual value of Transfer to Next Period	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sub-Total Change in Net Worth	-	-	-	-	-	-250,000	-	-	-	-	-	-	-	-	-
Farm Family Benefits After Financing	2,285,750	2,289,300	2,292,850	2,296,400	2,299,950	2,003,350	2,081,743	2,144,769	2,368,818	2,600,028	2,940,788	2,985,468	2,935,468	2,985,468	2,735,468
Returns per Family-Day of Labor	31,099	31,147	31,195	31,244	31,292	27,256	21,120	12,847	12,142	13,327	15,073	15,302	15,046	15,302	14,021
Incremental Returns per Incremental Family-Day of Labor	-	-	-	-	-	-	-	-	596	2,468	5,270	5,637	5,226	5,637	3,582

IRR = 40.6%, NPV = 2,186,725.78

Appendix 3 Table 4: Sunflower – Groundnut Farm Model – Cropping Pattern

Republic of Uganda
National Oilseeds Project
Sunflower - Groundnut HH Model (1.5 to 3.8 ac)

CROPPING PATTERNS (In Units)	Unit	Without Project	With Project					
		1 to 10	1	2	3	4	5	6 to 10
Cropping Intensity	Percent	200.0	200.0	130.3	141.3	172.0	197.9	200.0
Cropping Pattern								
Existing Technology								
Beans First Rains	acre	0.25	0.25	0.19	0.06	-	-	-
Maize First Rains	acre	0.25	0.25	0.19	0.06	-	-	-
Groundnuts First Rains	acre	0.50	0.50	-	-	-	-	-
Cassava First Rains	acre	0.50	0.50	0.39	0.11	-	-	-
Sweet Potato Second Rains	acre	0.50	0.50	0.39	0.11	-	-	-
Sesame Second Rains	acre	0.50	0.50	0.39	0.11	-	-	-
Cassava Second Rains	acre	0.50	0.50	0.39	0.11	-	-	-
Sub-total Existing Technology		3.00	3.00	1.95	0.55	-	-	-
New Technology								
Maize First Rains	acre	-	-	0.11	0.37	0.48	0.48	0.48
Groundnuts Second Rains	acre	-	-	0.08	0.30	0.65	0.87	0.95
Soy Bean First Rains	acre	-	-	0.18	0.71	1.25	1.43	1.43
Sunflower First Rains	acre	-	-	0.24	0.95	1.66	1.90	1.90
Sunflower Second Rains	acre	-	-	0.40	1.40	2.50	2.85	2.85
Sub-total New Technology		-	-	1.01	3.73	6.54	7.52	7.60
Total Cropped Area		3.00	3.00	2.96	4.28	6.54	7.52	7.60

Appendix 3 Table 5: Sunflower – Groundnut Farm Model - Production & Inputs

Republic of Uganda
National Oilseeds Project
Sunflower - Groundnut HH Model (1.5 to 3.8 ac)
PRODUCTION AND INPUTS (Detailed)
(In Units)

	Unit	Without Project	With Project								
		1 to 10	1	2	3	4	5	6	7	8	9	10
Main Production												
Maize - traditional variety	kg	100.0	100.0	77.6	22.4	-	-	-	-	-	-	-
Maize - improved variety	kg	-	-	44.0	148.0	190.0	190.0	190.0	190.0	190.0	190.0	190.0
Beans - traditional variety	kg	50.0	50.0	38.8	11.2	-	-	-	-	-	-	-
Sweet Potato - traditional variety	bag	3.5	3.5	2.7	0.8	-	-	-	-	-	-	-
Cassava - traditional	bag (fresh)	11.5	11.5	9.0	2.5	-	-	-	-	-	-	-
Soy bean - improved variety	kg	-	-	63.0	265.5	556.3	735.3	769.5	769.5	769.5	769.5	769.5
Sunflower - hybrid	kg	-	-	224.0	864.8	1,755.5	2,256.3	2,341.8	2,341.8	2,341.8	2,341.8	2,341.8
Groundnut - traditonal	kg	375.0	375.0	-	-	-	-	-	-	-	-	-
Groundnut - improved	kg	-	-	64.0	250.8	613.0	912.6	1,030.8	1,030.8	1,030.8	1,030.8	1,030.8
Sesame	kg	75.0	75.0	58.5	16.5	-	-	-	-	-	-	-
On-Farm Use												
Maize - traditional variety	kg	2.5	2.5	1.9	0.6	-	-	-	-	-	-	-
Maize - improved variety	kg	-	-	1.1	3.7	4.8	4.8	4.8	4.8	4.8	4.8	4.8
Beans - traditional variety	kg	6.0	6.0	4.7	1.3	-	-	-	-	-	-	-
Sweet Potato - traditional variety	bag	1.5	1.5	1.2	0.3	-	-	-	-	-	-	-
Groundnut - traditonal	kg	0.5	0.5	-	-	-	-	-	-	-	-	-
Sesame	kg	4.0	4.0	3.1	0.9	-	-	-	-	-	-	-
Sales												
Maize - traditional variety	kg	97.5	97.5	75.7	21.8	-	-	-	-	-	-	-
Maize - improved variety	kg	-	-	42.9	144.3	185.3	185.3	185.3	185.3	185.3	185.3	185.3
Beans - traditional variety	kg	44.0	44.0	34.1	9.9	-	-	-	-	-	-	-
Sweet Potato - traditional variety	bag	2.0	2.0	1.6	0.4	-	-	-	-	-	-	-
Cassava - traditional	bag (fresh)	11.5	11.5	9.0	2.5	-	-	-	-	-	-	-
Soy bean - improved variety	kg	-	-	63.0	265.5	556.3	735.3	769.5	769.5	769.5	769.5	769.5
Sunflower - hybrid	kg	-	-	224.0	864.8	1,755.5	2,256.3	2,341.8	2,341.8	2,341.8	2,341.8	2,341.8
Groundnut - traditonal	kg	374.5	374.5	-	-	-	-	-	-	-	-	-
Groundnut - improved	kg	-	-	64.0	250.8	613.0	912.6	1,030.8	1,030.8	1,030.8	1,030.8	1,030.8
Sesame	kg	71.0	71.0	55.4	15.6	-	-	-	-	-	-	-
Investment												
Equipment (sprayer etc)	set	-	1.0	-	-	-	-	1.0	-	-	-	-
Tarpaulins	set	-	50,000.0	-	50,000.0	-	50,000.0	-	50,000.0	-	50,000.0	-

Sunflower – Groundnut Farm Model - Production & Inputs (Continued)

Republic of Uganda
National Oilseeds Project
Sunflower - Groundnut HH Model (1.5 to 3.8 ac)
PRODUCTION AND INPUTS (Detailed)
(In Units)

	Unit	Without Project	With Project								
		1 to 10	1	2	3	4	5	6	7	8	9	10
Operating												
Purchased Inputs												
Soy bean seed - improved	kg	-	-	3.6	14.9	27.5	32.8	34.2	35.6	35.6	35.6	35.6
Sunflower seed - traditional	kg	-	-	0.6	-	-	-	-	-	-	-	-
Sunflower seed - hybrid	kg	-	-	0.3	2.4	4.2	4.8	4.8	4.8	4.8	4.8	4.8
Ground nut seed - improved	kg	-	-	1.6	6.6	16.3	21.8	23.8	23.8	23.8	23.8	23.8
NPK - Soy blend (11:29:23)	kg	-	-	-	7.1	31.3	71.3	71.3	71.3	71.3	71.3	71.3
TSP	kg	-	-	-	6.0	19.5	34.8	47.5	47.5	47.5	47.5	47.5
Pesticide	litre	-	-	0.2	0.7	1.3	1.6	1.7	1.7	1.7	1.7	1.7
Fungicide	sachet	-	-	0.2	0.7	1.3	1.4	1.4	1.4	1.4	1.4	1.4
Bags	each	20.5	20.5	20.9	33.2	56.6	66.2	67.0	67.0	67.0	67.0	67.0
Tractor hire - ploughing	acre	1.0	1.0	0.4	0.1	4.2	4.8	4.8	4.8	4.8	4.8	4.8
Tractor hire - ripping	acre	-	-	0.3	1.0	1.9	2.3	2.4	2.4	2.4	2.4	2.4
Tractor hire - harrowing	acre	-	-	0.3	1.0	1.9	2.3	2.4	2.4	2.4	2.4	2.4
Oxen hire - ploughing	acre	-	-	0.6	2.4	-	-	-	-	-	-	-
Innoculant	sachet	-	-	0.2	0.7	1.3	1.4	1.4	1.4	1.4	1.4	1.4
Labor												
Apr female -	woman day	5.0	5.0	4.6	10.7	16.9	19.0	19.0	19.0	19.0	19.0	19.0
May female -	woman day	2.0	2.0	3.7	8.6	13.5	15.2	15.2	15.2	15.2	15.2	15.2
Aug female -	woman day	4.5	4.5	4.4	9.2	15.8	18.0	18.1	18.1	18.1	18.1	18.1
Sep female -	woman day	6.0	6.0	6.6	8.1	12.6	14.9	15.2	15.2	15.2	15.2	15.2
Oct female -	woman day	2.0	2.0	3.5	7.2	12.6	14.9	15.2	15.2	15.2	15.2	15.2
Nov female -	woman day	4.5	4.5	5.0	6.1	9.5	11.2	11.4	11.4	11.4	11.4	11.4
Mar male -	man day	16.0	16.0	8.0	7.7	7.6	7.6	7.6	7.6	7.6	7.6	7.6
Apr male -	man day	5.0	5.0	4.6	10.7	16.9	19.0	19.0	19.0	19.0	19.0	19.0
May male -	man day	2.0	2.0	3.7	8.6	13.5	15.2	15.2	15.2	15.2	15.2	15.2
Aug male -	man day	22.5	22.5	18.2	9.3	9.0	10.4	10.5	10.5	10.5	10.5	10.5
Sept male -	man day	6.0	6.0	6.6	8.1	12.6	14.9	15.2	15.2	15.2	15.2	15.2
Oct male -	man day	2.0	2.0	3.5	7.2	12.6	14.9	15.2	15.2	15.2	15.2	15.2
Nov male -	man day	1.5	1.5	1.7	2.0	3.2	3.7	3.8	3.8	3.8	3.8	3.8
Hired labour - bird scaring	person day	20.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0

Appendix 3 Table 6: Sunflower – Groundnut Farm Model - Financial Budget

Republic of Uganda
National Oilseeds Project
Sunflower - Groundnut HH Model (1.5 to 3.8 ac)
FINANCIAL BUDGET (DETAILED)
(In UGX)

	Without Project					With Project									
	1	2	3	4	5 to 10	1	2	3	4	5	6	7	8	9	10
Main Production															
Maize - traditional variety	60,000	60,000	60,000	60,000	60,000	60,000	46,560	13,440	-	-	-	-	-	-	-
Maize - improved variety	-	-	-	-	-	-	26,400	88,800	114,000	114,000	114,000	114,000	114,000	114,000	114,000
Beans - traditional variety	90,000	90,000	90,000	90,000	90,000	90,000	69,840	20,160	-	-	-	-	-	-	-
Sweet Potato - traditional variety	175,000	175,000	175,000	175,000	175,000	175,000	136,500	38,500	-	-	-	-	-	-	-
Cassava - traditional	920,000	920,000	920,000	920,000	920,000	920,000	717,600	202,400	-	-	-	-	-	-	-
Soy bean - improved variety	-	-	-	-	-	-	78,750	345,202	778,750	1,029,420	1,077,300	1,077,300	1,077,300	1,077,300	1,077,300
Sunflower - hybrid	-	-	-	-	-	-	201,600	864,800	1,755,520	2,256,250	2,341,750	2,341,750	2,341,750	2,341,750	2,341,750
Groundnut - traditonal	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	-	-	-	-	-	-	-	-	-
Groundnut - improved	-	-	-	-	-	-	182,400	727,320	1,808,203	2,737,890	3,092,250	3,092,250	3,092,250	3,092,250	3,092,250
Sesame	300,000	303,750	307,500	311,250	315,000	300,000	236,925	67,650	-	-	-	-	-	-	-
Sub-total Main Production	2,595,000	2,598,750	2,602,500	2,606,250	2,610,000	2,595,000	1,696,575	2,368,272	4,456,473	6,137,560	6,625,300	6,625,300	6,625,300	6,625,300	6,625,300
On-Farm Use															
Maize - traditional variety	1,500	1,500	1,500	1,500	1,500	1,500	1,164	336	-	-	-	-	-	-	-
Maize - improved variety	-	-	-	-	-	-	660	2,220	2,850	2,850	2,850	2,850	2,850	2,850	2,850
Beans - traditional variety	10,800	10,800	10,800	10,800	10,800	10,800	8,381	2,419	-	-	-	-	-	-	-
Sweet Potato - traditional variety	75,000	75,000	75,000	75,000	75,000	75,000	58,500	16,500	-	-	-	-	-	-	-
Groundnut - traditonal	1,400	1,400	1,400	1,400	1,400	1,400	-	-	-	-	-	-	-	-	-
Sesame	16,000	16,200	16,400	16,600	16,800	16,000	12,636	3,608	-	-	-	-	-	-	-
Sub-Total On-Farm Use	104,700	104,900	105,100	105,300	105,500	104,700	81,341	25,083	2,850	2,850	2,850	2,850	2,850	2,850	2,850
Net Value Of Production	2,490,300	2,493,850	2,497,400	2,500,950	2,504,500	2,490,300	1,615,234	2,343,189	4,453,623	6,134,710	6,622,450	6,622,450	6,622,450	6,622,450	6,622,450
Production Cost															
Investment															
Equipment (sprayer etc)	-	-	-	-	-	200,000	-	-	-	-	200,000	-	-	-	-
Tarpaulins	-	-	-	-	-	50,000	-	50,000	-	50,000	-	50,000	-	50,000	-
Sub-total Investment Costs	-	-	-	-	-	250,000	-	50,000	-	50,000	200,000	50,000	-	50,000	-
Operating															
Purchased Inputs															
Soy bean seed - improved	-	-	-	-	-	-	18,000	74,550	137,500	163,875	171,000	178,125	178,125	178,125	178,125
Sunflower seed - traditional	-	-	-	-	-	-	512	-	-	-	-	-	-	-	-
Sunflower seed - hybrid	-	-	-	-	-	-	14,400	105,750	187,200	213,750	213,750	213,750	213,750	213,750	213,750
Ground nut seed - improved	-	-	-	-	-	-	8,000	33,000	81,250	108,750	118,750	118,750	118,750	118,750	118,750
NPK - Soy blend (11:29:23)	-	-	-	-	-	-	-	28,400	125,000	285,000	285,000	285,000	285,000	285,000	285,000
TSP	-	-	-	-	-	-	-	14,400	46,800	83,520	114,000	114,000	114,000	114,000	114,000
Pesticide	-	-	-	-	-	-	1,530	5,895	11,475	14,243	14,963	14,963	14,963	14,963	14,963
Fungicide	-	-	-	-	-	-	630	2,485	4,375	4,988	4,988	4,988	4,988	4,988	4,988
Bags	22,550	22,550	22,550	22,550	22,550	22,550	22,972	36,494	62,205	72,793	73,673	73,673	73,673	73,673	73,673
Tractor hire - ploughing	90,000	90,000	90,000	90,000	90,000	90,000	35,100	9,900	374,400	427,500	427,500	427,500	427,500	427,500	427,500
Tractor hire - ripping	-	-	-	-	-	-	23,400	90,900	171,000	206,550	213,750	213,750	213,750	213,750	213,750
Tractor hire - harrowing	-	-	-	-	-	-	23,400	90,900	171,000	206,550	213,750	213,750	213,750	213,750	213,750
Oxen hire - ploughing	-	-	-	-	-	-	38,400	141,000	-	-	-	-	-	-	-
Innoculant	-	-	-	-	-	-	630	2,485	4,375	4,988	4,988	4,988	4,988	4,988	4,988
Sub-Total Purchased Inputs	112,550	112,550	112,550	112,550	112,550	112,550	186,974	636,159	1,376,580	1,792,505	1,856,110	1,863,235	1,863,235	1,863,235	1,863,235

Sunflower – Groundnut Farm Model - Financial Budget (Continued)

Republic of Uganda
National Oilseeds Project
Sunflower - Groundnut HH Model (1.5 to 3.8 ac)
FINANCIAL BUDGET (DETAILED)
(In UGX)

	Without Project					With Project									
	1	2	3	4	5 to 10	1	2	3	4	5	6	7	8	9	10
Labor															
Apr female -	-	-	-	-	-	-	-	-	-	4,000	4,000	4,000	4,000	4,000	4,000
Mar male -	8,000	8,000	8,000	8,000	8,000	8,000	-	-	-	-	-	-	-	-	-
Apr male -	-	-	-	-	-	-	-	-	-	4,000	4,000	4,000	4,000	4,000	4,000
Aug male -	14,000	14,000	14,000	14,000	14,000	14,000	-	-	-	-	-	-	-	-	-
Oct male -	-	-	-	-	-	-	-	-	-	3,520	4,800	4,800	4,800	4,800	4,800
Hired labour - bird scaring	20,000	20,000	20,000	20,000	20,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
Sub-Total Hired Labor	42,000	42,000	42,000	42,000	42,000	62,000	40,000	40,000	40,000	51,520	52,800	52,800	52,800	52,800	52,800
Sub-total Operating Costs	154,550	154,550	154,550	154,550	154,550	174,550	226,974	676,159	1,416,580	1,844,025	1,908,910	1,916,035	1,916,035	1,916,035	1,916,035
Sub-Total Production Cost	154,550	154,550	154,550	154,550	154,550	424,550	226,974	726,159	1,416,580	1,894,025	2,108,910	1,966,035	1,916,035	1,966,035	1,916,035
Other Costs															
Land rental	-	-	-	-	-	-	76,500	153,500	230,000	230,000	230,000	230,000	230,000	230,000	230,000
OUTFLOWS	154,550	154,550	154,550	154,550	154,550	424,550	303,474	879,659	1,646,580	2,124,025	2,338,910	2,196,035	2,146,035	2,196,035	2,146,035
Cash Flow Before Financing	2,335,750	2,339,300	2,342,850	2,346,400	2,349,950	2,065,750	1,311,760	1,463,530	2,807,043	4,010,685	4,283,540	4,426,415	4,476,415	4,426,415	4,476,415
Financial Inflows															
Disbursements on Short Term Loan	-	-	-	-	-	20,000	72,424	521,609	1,262,030	1,689,475	1,754,360	1,761,485	1,761,485	1,761,485	1,761,485
Transfer from Previous Period	154,550	154,550	154,550	154,550	154,550	154,550	154,550	204,550	154,550	204,550	354,550	204,550	154,550	204,550	154,550
Contribution from own savings	-	-	-	-	-	250,000	-	-	-	-	-	-	-	-	-
Sub-Total Financial Inflows	154,550	154,550	154,550	154,550	154,550	424,550	226,974	726,159	1,416,580	1,894,025	2,108,910	1,966,035	1,916,035	1,966,035	1,916,035
Financial Outflows															
Short Term Principal	-	-	-	-	-	20,000	72,424	521,609	1,262,030	1,689,475	1,754,360	1,761,485	1,761,485	1,761,485	1,761,485
Short Term Interest	-	-	-	-	-	2,400	8,691	62,593	151,444	202,737	210,523	211,378	211,378	211,378	211,378
Transfer to Next Period	154,550	154,550	154,550	154,550	154,550	154,550	204,550	154,550	204,550	354,550	204,550	154,550	204,550	154,550	404,550
Sub-Total Financial Outflows	154,550	154,550	154,550	154,550	154,550	176,950	285,665	738,752	1,618,024	2,246,762	2,169,433	2,127,413	2,177,413	2,127,413	2,377,413
Net Financing	-	-	-	-	-	247,600	-58,691	-12,593	-201,444	-352,737	-60,523	-161,378	-261,378	-161,378	-461,378
Cash Flow After Financing	2,335,750	2,339,300	2,342,850	2,346,400	2,349,950	2,313,350	1,253,069	1,450,937	2,605,599	3,657,948	4,223,017	4,265,037	4,215,037	4,265,037	4,015,037
Change in Net Worth															
Contribution from own savings	-	-	-	-	-	250,000	-	-	-	-	-	-	-	-	-
Residual value of Transfer to Next Period	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sub-Total Change in Net Worth	-	-	-	-	-	-250,000	-	-	-	-	-	-	-	-	-
Farm Family Benefits After Financing	2,335,750	2,339,300	2,342,850	2,346,400	2,349,950	2,063,350	1,253,069	1,450,937	2,605,599	3,657,948	4,223,017	4,265,037	4,215,037	4,265,037	4,015,037
Returns per Family-Day of Labor	31,779	31,827	31,876	31,924	31,972	28,073	16,974	14,011	16,663	20,800	23,818	24,055	23,773	24,055	22,645
Incremental Returns per Incremental Family-Day of Labor	-	-	-	-	-	-	-	-	3,128	12,778	18,045	18,450	17,968	18,450	16,041

IRR = 42.4%, NPV = 6,404,396.40

Appendix 3 Table 7: Sesame – Soy bean Farm Model – Cropping Pattern

Republic of Uganda
National Oilseeds Project
Sesame - Soy bean HH Model (2 to 3.8 ac)

CROPPING PATTERNS (In Units)	Unit	Without Project	With Project				
		1 to 10	1	2	3	4	5 to 10
Cropping Intensity	Percent	200.0	200.0	170.9	175.2	186.3	200.0
Cropping Pattern							
Existing Technology							
Cassava First Rains	acre	0.25	-	-	-	-	-
Beans First Rains	acre	0.75	0.75	0.58	0.17	-	-
Sorghum First Rains	acre	1.00	1.00	0.78	0.22	-	-
Sesame Second Rains	acre	1.50	1.50	1.31	0.75	0.19	-
Cassava Second Rains	acre	0.25	-	-	-	-	-
Beans Second Rains	acre	0.25	0.25	0.19	0.06	-	-
Sub-total Existing Technology		4.00	3.50	2.86	1.20	0.19	-
New Technology							
Cassava First Rains	acre	-	0.25	0.41	0.79	0.95	0.95
Sesame Second Rains	acre	-	-	0.40	1.40	2.50	2.85
Cassava Second Rains	acre	-	0.25	0.41	0.79	0.95	0.95
Sunflower First Rains	acre	-	-	0.12	0.48	0.83	0.95
Soy Bean First Rains	acre	-	-	0.24	0.95	1.66	1.90
Sub-total New Technology		-	0.50	1.58	4.41	6.89	7.60
Total Cropped Area		4.00	4.00	4.44	5.61	7.08	7.60

Appendix 3 Table 8: Sesame – Soy bean Farm Model - Production & Inputs

Republic of Uganda
National Oilseeds Project
Sesame - Soy bean HH Model (2 to 3.8 ac)
PRODUCTION AND INPUTS (Detailed)
(In Units)

	Unit	Without Project	With Project									
		1 to 10	1	2	3	4	5	6	7	8	9	10
Main Production												
Beans - traditional variety	kg	200.0	200.0	154.8	45.2	-	-	-	-	-	-	-
Cassava - traditional	bag (fresh)	5.8	5.8	9.4	18.2	21.9	21.9	21.9	21.9	21.9	21.9	21.9
Sorghum	kg	200.0	200.0	156.0	44.0	-	-	-	-	-	-	-
Soy bean - improved variety	kg	-	-	84.0	355.3	738.7	980.4	1,026.0	1,026.0	1,026.0	1,026.0	1,026.0
Sunflower - hybrid	kg	-	-	42.0	176.6	350.3	451.3	468.4	468.4	468.4	468.4	468.4
Sesame	kg	225.0	225.0	276.5	409.3	648.5	806.6	840.8	840.8	840.8	840.8	840.8
On-Farm Use												
Beans - traditional variety	kg	24.0	24.0	18.6	5.4	-	-	-	-	-	-	-
Cassava - traditional	bag (fresh)	-	1.0	1.6	3.2	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Sorghum	kg	6.0	6.0	4.7	1.3	-	-	-	-	-	-	-
Sesame	kg	12.0	12.0	10.5	6.0	1.5	-	-	-	-	-	-
Sales												
Beans - traditional variety	kg	176.0	176.0	136.2	39.8	-	-	-	-	-	-	-
Cassava - traditional	bag (fresh)	5.8	4.8	7.8	15.0	18.1	18.1	18.1	18.1	18.1	18.1	18.1
Sorghum	kg	194.0	194.0	151.3	42.7	-	-	-	-	-	-	-
Soy bean - improved variety	kg	-	-	84.0	355.3	738.7	980.4	1,026.0	1,026.0	1,026.0	1,026.0	1,026.0
Sunflower - hybrid	kg	-	-	42.0	176.6	350.3	451.3	468.4	468.4	468.4	468.4	468.4
Sesame	kg	213.0	213.0	266.0	403.3	647.0	806.6	840.8	840.8	840.8	840.8	840.8
Investment												
Equipment (sprayer etc)	set	-	1.0	-	-	-	-	1.0	-	-	-	-
Tarpaulins	set	-	50,000.0	-	50,000.0	-	50,000.0	-	50,000.0	-	50,000.0	-
Drying racks	set	50,000.0	50,000.0	60,000.0	70,000.0	80,000.0	90,000.0	100,000.0	100,000.0	100,000.0	100,000.0	100,000.0
Operating												
Purchased Inputs												
Sesame seed - improved	kg	-	-	1.2	4.2	7.5	8.6	8.6	8.6	8.6	8.6	8.6
Soy bean seed - improved	kg	-	-	4.8	20.0	36.5	43.7	45.6	47.5	47.5	47.5	47.5
Sunflower seed - traditional	kg	-	-	0.1	-	-	-	-	-	-	-	-
Sunflower seed - hybrid	kg	-	-	0.1	0.5	0.8	1.0	1.0	1.0	1.0	1.0	1.0
NPK - top dressing	kg	-	-	4.0	21.0	62.5	142.5	142.5	142.5	142.5	142.5	142.5

Sesame – Soy bean Farm Model - Production & Inputs (Continued)

Republic of Uganda
National Oilseeds Project
Sesame - Soy bean HH Model (2 to 3.8 ac)
PRODUCTION AND INPUTS (Detailed)
(In Units)

	Unit	Without Project	With Project								
		1 to 10	1	2	3	4	5	6	7	8	9	10
Operating												
Purchased Inputs												
NPK - Soy blend (11:29:23)	kg	-	-	-	9.5	41.5	95.0	95.0	95.0	95.0	95.0	95.0
Pesticide - Pod borer	litre	-	-	0.2	0.8	1.5	1.7	1.7	1.7	1.7	1.7	1.7
Fungicide	sachet	-	-	0.2	1.0	1.7	1.9	1.9	1.9	1.9	1.9	1.9
Bags	each	14.8	14.8	19.7	34.3	48.8	52.3	52.3	52.3	52.3	52.3	52.3
Tractor hire - ploughing	acre	1.5	1.5	1.3	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Tractor hire - ripping	acre	-	-	0.6	2.4	4.2	4.8	4.8	4.8	4.8	4.8	4.8
Tractor hire - harrowing	acre	-	-	0.6	2.4	4.2	4.8	4.8	4.8	4.8	4.8	4.8
Oxen hire - ploughing	acre	-	-	0.1	0.5	-	-	-	-	-	-	-
Innoculant	sachet	-	-	0.2	1.0	1.7	1.9	1.9	1.9	1.9	1.9	1.9
Labor												
Apr female -	woman day	8.8	10.0	10.7	13.1	17.2	19.0	19.0	19.0	19.0	19.0	19.0
May female -	woman day	7.0	7.0	6.9	7.3	10.0	11.4	11.4	11.4	11.4	11.4	11.4
Aug female -	woman day	7.3	7.8	8.3	12.4	21.3	23.8	23.8	23.8	23.8	23.8	23.8
Sep female -	woman day	8.0	7.0	7.6	8.8	10.8	11.4	11.4	11.4	11.4	11.4	11.4
Oct female -	woman day	7.0	7.0	7.6	8.8	10.8	11.4	11.4	11.4	11.4	11.4	11.4
Nov female -	woman day	6.0	5.3	5.7	8.0	13.1	14.3	14.3	14.3	14.3	14.3	14.3
Mar male -	man day	28.0	30.0	25.0	12.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
Apr male -	man day	8.8	9.8	10.2	12.3	16.3	18.1	18.1	18.1	18.1	18.1	18.1
May male -	man day	7.0	7.0	6.9	7.3	10.0	11.4	11.4	11.4	11.4	11.4	11.4
Aug male -	man day	33.8	31.8	28.1	20.1	17.5	16.2	16.2	16.2	16.2	16.2	16.2
Sept male -	man day	8.0	7.0	7.6	8.8	10.8	11.4	11.4	11.4	11.4	11.4	11.4
Oct male -	man day	7.0	7.0	7.6	8.8	10.8	11.4	11.4	11.4	11.4	11.4	11.4
Nov male -	man day	2.0	1.8	1.9	3.6	7.7	8.6	8.6	8.6	8.6	8.6	8.6

Appendix 3 Table 9: Sesame – Soy bean Farm Model - Financial Budget

Republic of Uganda
National Oilseeds Project
Sesame - Soy bean HH Model (2 to 3.8 ac)
FINANCIAL BUDGET (DETAILED)
(In UGX)

	Without Project					With Project									
	1	2	3	4	5 to 10	1	2	3	4	5	6	7	8	9	10
Main Production															
Beans - traditional variety	360,000	360,000	360,000	360,000	360,000	360,000	278,640	81,360	-	-	-	-	-	-	-
Cassava - traditional	460,000	460,000	460,000	460,000	460,000	460,000	754,400	1,453,600	1,748,000	1,748,000	1,748,000	1,748,000	1,748,000	1,748,000	1,748,000
Sorghum	80,000	80,000	80,000	80,000	80,000	80,000	62,400	17,600	-	-	-	-	-	-	-
Soy bean - improved variety	-	-	-	-	-	-	105,000	461,890	1,034,180	1,372,560	1,436,400	1,436,400	1,436,400	1,436,400	1,436,400
Sunflower - hybrid	-	-	-	-	-	-	37,800	176,640	350,260	451,250	468,350	468,350	468,350	468,350	468,350
Sesame	900,000	911,250	922,500	933,750	945,000	900,000	1,119,825	1,678,130	2,691,275	3,387,510	3,531,150	3,531,150	3,531,150	3,531,150	3,531,150
Sub-total Main Production	1,800,000	1,811,250	1,822,500	1,833,750	1,845,000	1,800,000	2,358,065	3,869,220	5,823,715	6,959,320	7,183,900	7,183,900	7,183,900	7,183,900	7,183,900
On-Farm Use															
Beans - traditional variety	43,200	43,200	43,200	43,200	43,200	43,200	33,437	9,763	-	-	-	-	-	-	-
Cassava - traditional	-	-	-	-	-	80,000	131,200	252,800	304,000	304,000	304,000	304,000	304,000	304,000	304,000
Sorghum	2,400	2,400	2,400	2,400	2,400	2,400	1,872	528	-	-	-	-	-	-	-
Sesame	48,000	48,600	49,200	49,800	50,400	48,000	42,444	24,600	6,308	-	-	-	-	-	-
Sub-Total On-Farm Use	93,600	94,200	94,800	95,400	96,000	173,600	208,953	287,691	310,308	304,000	304,000	304,000	304,000	304,000	304,000
Net Value Of Production	1,706,400	1,717,050	1,727,700	1,738,350	1,749,000	1,626,400	2,149,112	3,581,529	5,513,407	6,655,320	6,879,900	6,879,900	6,879,900	6,879,900	6,879,900
Production Cost															
Investment															
Equipment (sprayer etc)	-	-	-	-	-	200,000	-	-	-	-	200,000	-	-	-	-
Tarpaulins	-	-	-	-	-	50,000	-	50,000	-	50,000	-	50,000	-	50,000	-
Drying racks	50,000	50,000	50,000	50,000	50,000	50,000	60,000	70,000	80,000	90,000	100,000	100,000	100,000	100,000	100,000
Sub-total Investment Costs	50,000	50,000	50,000	50,000	50,000	300,000	60,000	120,000	80,000	140,000	300,000	150,000	100,000	150,000	100,000
Operating															
Purchased Inputs															
Sesame seed - improved	-	-	-	-	-	-	4,800	16,800	30,000	34,200	34,200	34,200	34,200	34,200	34,200
Soy bean seed - improved	-	-	-	-	-	-	24,000	99,750	182,600	218,500	228,000	237,500	237,500	237,500	237,500
Sunflower seed - traditional	-	-	-	-	-	-	96	-	-	-	-	-	-	-	-
Sunflower seed - hybrid	-	-	-	-	-	-	2,700	21,600	37,350	42,750	42,750	42,750	42,750	42,750	42,750
NPK - top dressing	-	-	-	-	-	-	7,200	37,800	112,500	256,500	256,500	256,500	256,500	256,500	256,500
NPK - Soy blend (11:29:23)	-	-	-	-	-	-	-	38,000	166,000	380,000	380,000	380,000	380,000	380,000	380,000
Pesticide - Pod borer	-	-	-	-	-	-	1,980	7,425	13,095	14,963	14,963	14,963	14,963	14,963	14,963
Fungicide	-	-	-	-	-	-	840	3,325	5,810	6,650	6,650	6,650	6,650	6,650	6,650
Bags	16,225	16,225	16,225	16,225	16,225	16,225	21,646	37,699	53,713	57,475	57,475	57,475	57,475	57,475	57,475
Tractor hire - ploughing	135,000	135,000	135,000	135,000	135,000	135,000	117,900	67,500	91,800	85,500	85,500	85,500	85,500	85,500	85,500
Tractor hire - ripping	-	-	-	-	-	-	57,600	211,500	374,400	427,500	427,500	427,500	427,500	427,500	427,500
Tractor hire - harrowing	-	-	-	-	-	-	57,600	211,500	374,400	427,500	427,500	427,500	427,500	427,500	427,500
Oxen hire - ploughing	-	-	-	-	-	-	7,200	28,800	-	-	-	-	-	-	-
Innoculant	-	-	-	-	-	-	840	3,325	5,810	6,650	6,650	6,650	6,650	6,650	6,650
Sub-Total Purchased Inputs	151,225	151,225	151,225	151,225	151,225	151,225	304,402	785,024	1,447,478	1,958,188	1,967,688	1,977,188	1,977,188	1,977,188	1,977,188

Sesame – Soy bean Farm Model - Financial Budget (Continued)

Republic of Uganda
National Oilseeds Project
Sesame - Soy bean HH Model (2 to 3.8 ac)
FINANCIAL BUDGET (DETAILED)
(In UGX)

	Without Project					With Project									
	1	2	3	4	5 to 10	1	2	3	4	5	6	7	8	9	10
Hired Labor															
Apr female -	-	-	-	-	-	-	-	-	-	4,000	4,000	4,000	4,000	4,000	4,000
Aug female -	-	-	-	-	-	-	-	-	9,320	19,000	19,000	19,000	19,000	19,000	19,000
Mar male -	56,000	56,000	56,000	56,000	56,000	64,000	44,160	-	-	-	-	-	-	-	-
Apr male -	-	-	-	-	-	-	-	-	-	200	200	200	200	200	200
Aug male -	59,000	59,000	59,000	59,000	59,000	51,000	36,392	4,248	-	-	-	-	-	-	-
Sub-Total Hired Labor	115,000	115,000	115,000	115,000	115,000	115,000	80,552	4,248	9,320	23,200	23,200	23,200	23,200	23,200	23,200
Sub-total Operating Costs	266,225	266,225	266,225	266,225	266,225	266,225	384,954	789,272	1,456,798	1,981,388	1,990,888	2,000,388	2,000,388	2,000,388	2,000,388
Sub-Total Production Cost	316,225	316,225	316,225	316,225	316,225	566,225	444,954	909,272	1,536,798	2,121,388	2,290,888	2,150,388	2,100,388	2,150,388	2,100,388
Other Costs															
Land rental	-	-	-	-	-	-	60,000	120,000	180,000	180,000	180,000	180,000	180,000	180,000	180,000
OUTFLOWS	316,225	316,225	316,225	316,225	316,225	566,225	504,954	1,029,272	1,716,798	2,301,388	2,470,888	2,330,388	2,280,388	2,330,388	2,280,388
Cash Flow Before Financing	1,390,175	1,400,825	1,411,475	1,422,125	1,432,775	1,060,175	1,644,158	2,552,257	3,796,609	4,353,933	4,409,013	4,549,513	4,599,513	4,549,513	4,599,513
Financial Inflows															
Disbursements on Short Term Loan	-	-	-	-	-	-	118,729	523,047	1,190,573	1,715,163	1,724,663	1,734,163	1,734,163	1,734,163	1,734,163
Transfer from Previous Period	316,225	316,225	316,225	316,225	316,225	316,225	326,225	386,225	346,225	406,225	566,225	416,225	366,225	416,225	366,225
Contribution from own savings	-	-	-	-	-	250,000	-	-	-	-	-	-	-	-	-
Sub-Total Financial Inflows	316,225	316,225	316,225	316,225	316,225	566,225	444,954	909,272	1,536,798	2,121,388	2,290,888	2,150,388	2,100,388	2,150,388	2,100,388
Financial Outflows															
Short Term Principal	-	-	-	-	-	-	118,729	523,047	1,190,573	1,715,163	1,724,663	1,734,163	1,734,163	1,734,163	1,734,163
Short Term Interest	-	-	-	-	-	-	14,247	62,766	142,869	205,820	206,960	208,100	208,100	208,100	208,100
Transfer to Next Period	316,225	316,225	316,225	316,225	316,225	326,225	386,225	346,225	406,225	566,225	416,225	366,225	416,225	366,225	616,225
Sub-Total Financial Outflows	316,225	316,225	316,225	316,225	316,225	326,225	519,201	932,038	1,739,667	2,487,207	2,347,847	2,308,487	2,358,487	2,308,487	2,558,487
Net Financing	-	-	-	-	-	240,000	-74,247	-22,766	-202,869	-365,820	-56,960	-158,100	-258,100	-158,100	-458,100
Cash Flow After Financing	1,390,175	1,400,825	1,411,475	1,422,125	1,432,775	1,300,175	1,569,911	2,529,491	3,593,740	3,988,113	4,352,053	4,391,413	4,341,413	4,391,413	4,141,413
Change in Net Worth															
Contribution from own savings	-	-	-	-	-	250,000	-	-	-	-	-	-	-	-	-
Residual value of Transfer to Next Period	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sub-Total Change in Net Worth	-	-	-	-	-	-250,000	-	-	-	-	-	-	-	-	-
Farm Family Benefits After Financing	1,390,175	1,400,825	1,411,475	1,422,125	1,432,775	1,050,175	1,569,911	2,529,491	3,593,740	3,988,113	4,352,053	4,391,413	4,341,413	4,391,413	4,141,413
Returns per Family-Day of Labor	12,667	12,764	12,861	12,958	13,055	9,591	13,768	19,348	22,285	23,466	25,608	25,839	25,545	25,839	24,368
Incremental Returns per Incremental Family-Day of Labor	-	-	-	-	-	-	39,562	53,274	42,159	42,447	48,493	49,147	48,316	49,147	44,994

IRR = 189.4%, NPV = 14,738,056.61

Appendix 3 Table 10: Soy bean – Sesame Farm Model – Cropping Pattern

Republic of Uganda
National Oilseeds Project
Soy bean - Sesame HH Model (1.5 to 2.85 ac)

CROPPING PATTERNS (In Units) /a	Unit	Without Project	With Project				
		1 to 10	1	2	3	4	5 to 10
Cropping Intensity	Percent	200.0	150.0	147.9	171.3	189.0	200.0
Cropping Pattern							
Existing Technology							
Sesame First Rains	acre	1.00	1.00	0.88	0.50	0.13	-
Soy Bean First Rains	acre	0.25	0.25	0.22	0.13	0.03	-
Cassava First Rains	acre	0.25	-	-	-	-	-
Cassava Second Rains	acre	0.25	-	-	-	-	-
Soy Bean Second Rains	acre	0.50	0.50	0.44	0.25	0.06	-
Beans Second Rains	acre	0.25	0.25	0.19	0.06	-	-
Sorghum Second Rains	acre	0.50	0.50	0.39	0.11	-	-
Sub-total Existing Technology		3.00	2.50	2.12	1.04	0.22	-
New Technology							
Sesame First Rains	acre	-	-	0.24	0.95	1.66	1.90
Soy Bean First Rains	acre	-	-	0.06	0.24	0.42	0.48
Cassava First Rains	acre	-	0.25	0.30	0.43	0.48	0.48
Cassava Second Rains	acre	-	0.25	0.30	0.43	0.48	0.48
Soy Bean Second Rains	acre	-	-	0.24	0.95	1.66	1.90
Beans Second Rains	acre	-	-	0.11	0.37	0.48	0.48
Sub-total New Technology		-	0.50	1.25	3.36	5.17	5.70
Total Cropped Area		3.00	3.00	3.37	4.40	5.39	5.70

\a West Nile - Upper belt

Appendix 3 Table 11: Soy bean – Sesame Farm Model - Production & Inputs

Republic of Uganda
National Oilseeds Project
Soy bean - Sesame HH Model (2.0 to 2.85 ac)
PRODUCTION AND INPUTS (Detailed)
(In Units) /a

	Unit	Without Project	With Project								
		1 to 10	1	2	3	4	5	6	7	8	9	10
Main Production												
Beans - traditional variety	kg	50.0	50.0	60.8	85.2	95.0	95.0	95.0	95.0	95.0	95.0	95.0
Cassava - traditional	bag (fresh)	5.8	5.8	6.9	9.8	10.9	10.9	10.9	10.9	10.9	10.9	10.9
Sorghum	kg	100.0	100.0	78.0	22.0	-	-	-	-	-	-	-
Soy bean - HH saved old varieties	kg	150.0	150.0	131.8	75.0	18.2	-	-	-	-	-	-
Soy bean - improved variety	kg	-	-	105.0	445.1	925.6	1,225.5	1,282.5	1,282.5	1,282.5	1,282.5	1,282.5
Sesame	kg	150.0	150.0	180.0	276.4	431.2	537.7	560.5	560.5	560.5	560.5	560.5
On-Farm Use												
Beans - traditional variety	kg	6.0	6.0	4.7	1.3	-	-	-	-	-	-	-
Cassava - traditional	bag (fresh)	-	1.0	1.2	1.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Sorghum	kg	3.0	3.0	2.3	0.7	-	-	-	-	-	-	-
Soy bean - HH saved old varieties	kg	15.0	15.0	13.2	7.5	1.8	-	-	-	-	-	-
Sesame	kg	8.0	8.0	7.0	4.0	1.0	-	-	-	-	-	-
Sales												
Beans - traditional variety	kg	44.0	44.0	56.1	83.9	95.0	95.0	95.0	95.0	95.0	95.0	95.0
Cassava - traditional	bag (fresh)	5.8	4.8	5.7	8.1	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Sorghum	kg	97.0	97.0	75.7	21.3	-	-	-	-	-	-	-
Soy bean - HH saved old varieties	kg	135.0	135.0	118.6	67.5	16.4	-	-	-	-	-	-
Soy bean - improved variety	kg	-	-	105.0	445.1	925.6	1,225.5	1,282.5	1,282.5	1,282.5	1,282.5	1,282.5
Sesame	kg	142.0	142.0	173.0	272.4	430.1	537.7	560.5	560.5	560.5	560.5	560.5
Investment												
Equipment (sprayer etc)	set	-	1.0	-	-	-	-	1.0	-	-	-	-
Tarpaulins	set	-	50,000.0	-	50,000.0	-	50,000.0	-	50,000.0	-	50,000.0	-
Drying racks	set	50,000.0	50,000.0	60,000.0	70,000.0	80,000.0	90,000.0	100,000.0	100,000.0	100,000.0	100,000.0	100,000.0
Operating												
Purchased Inputs												
Sesame seed - improved	kg	-	-	0.7	2.9	5.0	5.7	5.7	5.7	5.7	5.7	5.7
Soy bean seed - improved	kg	-	-	6.0	25.0	45.8	54.6	57.0	59.4	59.4	59.4	59.4
NPK - top dressing	kg	-	-	2.4	14.3	41.5	95.0	95.0	95.0	95.0	95.0	95.0
NPK - Soy blend (11:29:23)	kg	-	-	2.4	26.2	93.5	118.8	118.8	118.8	118.8	118.8	118.8
Pesticide - Pod borer	litre	-	-	0.2	0.8	1.5	1.7	1.7	1.7	1.7	1.7	1.7
Fungicide	sachet	-	-	0.3	1.2	2.1	2.4	2.4	2.4	2.4	2.4	2.4
Bags	each	13.8	13.8	16.1	23.9	31.7	34.2	34.2	34.2	34.2	34.2	34.2
Tractor hire - ploughing	acre	1.8	1.8	1.5	0.9	0.2	-	-	-	-	-	-
Tractor hire - ripping	acre	-	-	0.5	2.1	3.7	4.3	4.3	4.3	4.3	4.3	4.3
Tractor hire - harrowing	acre	-	-	0.5	2.1	3.7	4.3	4.3	4.3	4.3	4.3	4.3
Power tiller - ploughing	acre	-	-	0.1	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Innoculant	sachet	-	-	0.3	1.2	2.1	2.4	2.4	2.4	2.4	2.4	2.4

Soy bean – Sesame Farm Model - Production & Inputs (Continued)

Republic of Uganda
National Oilseeds Project
Soy bean - Sesame HH Model (2.0 to 2.85 ac)
PRODUCTION AND INPUTS (Detailed)
(In Units) /a

	Unit	Without Project	With Project									
		1 to 10	1	2	3	4	5	6	7	8	9	10
Labor												
Apr female -	woman day	8.8	10.0	10.4	12.7	16.9	18.1	18.1	18.1	18.1	18.1	18.1
May female -	woman day	3.0	3.0	2.7	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9
Aug female -	woman day	6.3	6.8	7.3	9.9	14.5	15.7	15.7	15.7	15.7	15.7	15.7
Sep female -	woman day	4.0	3.0	3.9	6.5	8.8	9.5	9.5	9.5	9.5	9.5	9.5
Oct female -	woman day	3.0	3.0	3.9	6.5	8.8	9.5	9.5	9.5	9.5	9.5	9.5
Nov female -	woman day	3.0	2.3	3.0	5.8	9.9	10.9	10.9	10.9	10.9	10.9	10.9
Mar male -	man day	24.0	26.0	22.7	13.2	5.9	3.8	3.8	3.8	3.8	3.8	3.8
Apr male -	man day	8.8	9.8	10.1	12.3	16.4	17.6	17.6	17.6	17.6	17.6	17.6
May male -	man day	3.0	3.0	2.7	1.9	1.8	1.9	1.9	1.9	1.9	1.9	1.9
Aug male -	man day	8.8	6.8	6.2	6.1	9.1	10.0	10.0	10.0	10.0	10.0	10.0
Sept male -	man day	4.0	3.0	3.9	6.5	8.8	9.5	9.5	9.5	9.5	9.5	9.5
Oct male -	man day	3.0	3.0	3.9	6.5	8.8	9.5	9.5	9.5	9.5	9.5	9.5
Nov male -	man day	1.0	0.8	1.0	2.6	5.5	6.2	6.2	6.2	6.2	6.2	6.2

\a West Nile - Upper belt

Appendix 3 Table 12: Soy bean – Sesame Farm Model - Financial Budget

Republic of Uganda
National Oilseeds Project
Soy bean - Sesame HH Model (2.0 to 2.85 ac)
FINANCIAL BUDGET (DETAILED)
(In UGX) /a

	Without Project					With Project									
	1	2	3	4	5 to 10	1	2	3	4	5	6	7	8	9	10
Main Production															
Beans - traditional variety	90,000	90,000	90,000	90,000	90,000	90,000	109,440	153,360	171,000	171,000	171,000	171,000	171,000	171,000	171,000
Cassava - traditional	460,000	460,000	460,000	460,000	460,000	460,000	552,000	782,000	874,000	874,000	874,000	874,000	874,000	874,000	874,000
Sorghum	40,000	40,000	40,000	40,000	40,000	40,000	31,200	8,800	-	-	-	-	-	-	-
Soy bean - HH saved old varieties	187,500	187,500	187,500	187,500	187,500	187,500	164,750	93,750	22,750	-	-	-	-	-	-
Soy bean - improved variety	-	-	-	-	-	-	131,250	578,578	1,295,840	1,715,700	1,795,500	1,795,500	1,795,500	1,795,500	1,795,500
Sesame	600,000	607,500	615,000	622,500	630,000	600,000	729,000	1,133,240	1,789,397	2,258,340	2,354,100	2,354,100	2,354,100	2,354,100	2,354,100
Sub-total Main Production	1,377,500	1,385,000	1,392,500	1,400,000	1,407,500	1,377,500	1,717,640	2,749,728	4,152,987	5,019,040	5,194,600	5,194,600	5,194,600	5,194,600	5,194,600
On-Farm Use															
Beans - traditional variety	10,800	10,800	10,800	10,800	10,800	10,800	8,381	2,419	-	-	-	-	-	-	-
Cassava - traditional	-	-	-	-	-	80,000	96,000	136,000	152,000	152,000	152,000	152,000	152,000	152,000	152,000
Sorghum	1,200	1,200	1,200	1,200	1,200	1,200	936	264	-	-	-	-	-	-	-
Soy bean - HH saved old varieties	18,750	18,750	18,750	18,750	18,750	18,750	16,475	9,375	2,275	-	-	-	-	-	-
Sesame	32,000	32,400	32,800	33,200	33,600	32,000	28,512	16,400	4,316	-	-	-	-	-	-
Sub-Total On-Farm Use	62,750	63,150	63,550	63,950	64,350	142,750	150,304	164,458	158,591	152,000	152,000	152,000	152,000	152,000	152,000
Net Value Of Production	1,314,750	1,321,850	1,328,950	1,336,050	1,343,150	1,234,750	1,567,336	2,585,270	3,994,396	4,867,040	5,042,600	5,042,600	5,042,600	5,042,600	5,042,600
Production Cost															
Investment															
Equipment (sprayer etc)	-	-	-	-	-	200,000	-	-	-	-	200,000	-	-	-	-
Tarpaulins	-	-	-	-	-	50,000	-	50,000	-	50,000	-	50,000	-	50,000	-
Drying racks	50,000	50,000	50,000	50,000	50,000	50,000	60,000	70,000	80,000	90,000	100,000	100,000	100,000	100,000	100,000
Sub-total Investment Costs	50,000	50,000	50,000	50,000	50,000	300,000	60,000	120,000	80,000	140,000	300,000	150,000	100,000	150,000	100,000
Operating															
Purchased Inputs															
Sesame seed - improved	-	-	-	-	-	-	2,880	11,400	19,920	22,800	22,800	22,800	22,800	22,800	22,800
Soy bean seed - improved	-	-	-	-	-	-	30,000	124,950	228,800	273,125	285,000	296,875	296,875	296,875	296,875
NPK - top dressing	-	-	-	-	-	-	4,320	25,650	74,700	171,000	171,000	171,000	171,000	171,000	171,000
NPK - Soy blend (11:29:23)	-	-	-	-	-	-	9,600	104,600	374,000	475,000	475,000	475,000	475,000	475,000	475,000
Pesticide - Pod borer	-	-	-	-	-	-	1,890	7,493	13,095	14,963	14,963	14,963	14,963	14,963	14,963
Fungicide	-	-	-	-	-	-	1,050	4,165	7,280	8,313	8,313	8,313	8,313	8,313	8,313
Bags	15,125	15,125	15,125	15,125	15,125	15,125	17,736	26,331	34,907	37,620	37,620	37,620	37,620	37,620	37,620
Tractor hire - ploughing	157,500	157,500	157,500	157,500	157,500	157,500	138,510	78,750	19,890	-	-	-	-	-	-
Tractor hire - ripping	-	-	-	-	-	-	48,600	192,600	336,600	384,750	384,750	384,750	384,750	384,750	384,750
Tractor hire - harrowing	-	-	-	-	-	-	48,600	192,600	336,600	384,750	384,750	384,750	384,750	384,750	384,750
Power tiller - ploughing	-	-	-	-	-	-	8,800	29,600	38,000	38,000	38,000	38,000	38,000	38,000	38,000
Innoculant	-	-	-	-	-	-	1,050	4,165	7,280	8,313	8,313	8,313	8,313	8,313	8,313
Sub-Total Purchased Inputs	172,625	172,625	172,625	172,625	172,625	172,625	313,036	802,303	1,491,072	1,818,633	1,830,508	1,842,383	1,842,383	1,842,383	1,842,383

Soy bean – Sesame Farm Model - Financial Budget (Continued)

Republic of Uganda
National Oilseeds Project
Soy bean - Sesame HH Model (2.0 to 2.85 ac)
FINANCIAL BUDGET (DETAILED)
(In UGX) /a

	Without Project					With Project									
	1	2	3	4	5 to 10	1	2	3	4	5	6	7	8	9	10
Hired Labor															
Apr female -	-	-	-	-	-	-	-	-	-	200	200	200	200	200	200
Mar male -	40,000	40,000	40,000	40,000	40,000	48,000	34,880	-	-	-	-	-	-	-	-
Sub-Total Hired Labor	40,000	40,000	40,000	40,000	40,000	48,000	34,880	-	-	200	200	200	200	200	200
Sub-total Operating Costs	212,625	212,625	212,625	212,625	212,625	220,625	347,916	802,303	1,491,072	1,818,833	1,830,708	1,842,583	1,842,583	1,842,583	1,842,583
Sub-Total Production Cost	262,625	262,625	262,625	262,625	262,625	520,625	407,916	922,303	1,571,072	1,958,833	2,130,708	1,992,583	1,942,583	1,992,583	1,942,583
Other Costs															
Land rental	-	-	-	-	-	-	45,000	90,000	135,000	135,000	135,000	135,000	135,000	135,000	135,000
OUTFLOWS	262,625	262,625	262,625	262,625	262,625	520,625	452,916	1,012,303	1,706,072	2,093,833	2,265,708	2,127,583	2,077,583	2,127,583	2,077,583
Cash Flow Before Financing	1,052,125	1,059,225	1,066,325	1,073,425	1,080,525	714,125	1,114,420	1,572,967	2,288,324	2,773,208	2,776,893	2,915,018	2,965,018	2,915,018	2,965,018
Financial Inflows															
Disbursements on Short Term Loan	-	-	-	-	-	8,000	135,291	589,678	1,278,447	1,606,208	1,618,083	1,629,958	1,629,958	1,629,958	1,629,958
Transfer from Previous Period	262,625	262,625	262,625	262,625	262,625	262,625	272,625	332,625	292,625	352,625	512,625	362,625	312,625	362,625	312,625
Contribution from own savings	-	-	-	-	-	250,000	-	-	-	-	-	-	-	-	-
Sub-Total Financial Inflows	262,625	262,625	262,625	262,625	262,625	520,625	407,916	922,303	1,571,072	1,958,833	2,130,708	1,992,583	1,942,583	1,992,583	1,942,583
Financial Outflows															
Short Term Principal	-	-	-	-	-	8,000	135,291	589,678	1,278,447	1,606,208	1,618,083	1,629,958	1,629,958	1,629,958	1,629,958
Short Term Interest	-	-	-	-	-	960	16,235	70,761	153,414	192,745	194,170	195,595	195,595	195,595	195,595
Transfer to Next Period	262,625	262,625	262,625	262,625	262,625	272,625	332,625	292,625	352,625	512,625	362,625	312,625	362,625	312,625	562,625
Sub-Total Financial Outflows	262,625	262,625	262,625	262,625	262,625	281,585	484,151	953,065	1,784,486	2,311,577	2,174,877	2,138,177	2,188,177	2,138,177	2,388,177
Net Financing	-	-	-	-	-	239,040	-76,235	-30,761	-213,414	-352,745	-44,170	-145,595	-245,595	-145,595	-445,595
Cash Flow After Financing	1,052,125	1,059,225	1,066,325	1,073,425	1,080,525	953,165	1,038,185	1,542,205	2,074,910	2,420,463	2,732,723	2,769,423	2,719,423	2,769,423	2,519,423
Change in Net Worth															
Contribution from own savings	-	-	-	-	-	250,000	-	-	-	-	-	-	-	-	-
Residual value of Transfer to Next Period	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sub-Total Change in Net Worth	-	-	-	-	-	-250,000	-	-	-	-	-	-	-	-	-
Farm Family Benefits After Financing	1,052,125	1,059,225	1,066,325	1,073,425	1,080,525	703,165	1,038,185	1,542,205	2,074,910	2,420,463	2,732,723	2,769,423	2,719,423	2,769,423	2,519,423
Returns per Family-Day of Labor	14,924	15,024	15,125	15,226	15,327	10,303	14,212	16,712	17,745	19,532	22,051	22,348	21,944	22,348	20,330
Incremental Returns per Incremental Family-Day of Labor	-	-	-	-	-	-	-	21,846	21,571	25,081	30,926	31,612	30,677	31,612	26,933

IRR = 110.6%, NPV = 7,782,363.19

VI. APPENDIX 4 – FARM MODEL AGGEGRATIONS

Notes on Appendix 4 Tables

1. All figures are presented on an incremental basis, i.e. with project minus without project
2. Figures shaded in yellow are quoted in the text.
3. All modelling is undertaken over a 20-year projection period
4. All Appendix 4 tables are available in the project file in Excel format.

Appendix 4 Table 1: Aggregated Sunflower - Sesame Farm Models – Incremental Farm Distributions

Republic of Uganda
National Oilseeds Project
Sunflower - Sesame Subproject Mod
FARM DISTRIBUTIONS
(In Units)

	Increments							
	1	2	3	4	5	6	7	8 to 20
Number of Farms								
Non-Participating								
Sunflower - Sesame	-	-6,750	-11,925	-16,875	-18,000	-18,000	-18,000	-18,000
Participating								
Sunflower - Sesame	-	6,750	11,925	16,875	18,000	18,000	18,000	18,000
Cropped Area								
Non-Participating								
Sunflower - Sesame	-	-20,250	-35,775	-50,625	-54,000	-54,000	-54,000	-54,000
Participating								
Sunflower - Sesame	-	20,250	42,241.5	80,166.15	108,639.45	127,960.65	135,722.25	136,800
Farm Area								
Non-Participating								
Sunflower - Sesame	-	-10,125	-17,887.5	-25,312.5	-27,000	-27,000	-27,000	-27,000
Participating								
Sunflower - Sesame	-	15,322.5	36,132.75	64,125	68,400	68,400	68,400	68,400
Cropping Intensity	-	-32.29	-66.36	-73.06	-41.17	-12.92	-1.58	-

Appendix 4 Table 2: Aggregated Sunflower - Sesame Farm Models – Incremental Production and Inputs

Republic of Uganda
National Oilseeds Project
Sunflower - Sesame Subproject Model
PRODUCTION AND INPUTS (Detailed)
(In Units '000)

		Increments																			
	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Main Production																					
Maize - traditional variety	kg	-	-	-151	-640	-1,187	-1,602	-1,775	-1,800	-1,800	-1,800	-1,800	-1,800	-1,800	-1,800	-1,800	-1,800	-1,800	-1,800	-1,800	-1,800
Maize - improved variety	kg	-	-	567	2,433	4,513	6,091	6,746	6,840	6,840	6,840	6,840	6,840	6,840	6,840	6,840	6,840	6,840	6,840	6,840	6,840
Beans - traditional variety	kg	-	-	-76	-320	-594	-801	-887	-900	-900	-900	-900	-900	-900	-900	-900	-900	-900	-900	-900	-900
Sweet Potato - traditional variety	bag	-	-	-5	-22	-42	-56	-62	-63	-63	-63	-63	-63	-63	-63	-63	-63	-63	-63	-63	-63
Cassava - traditional	bag (fresh)	-	-	-17	-74	-137	-184	-204	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207
Soy bean - improved variety	kg	-	-	496	2,248	4,650	6,949	8,404	9,020	9,208	9,234	9,234	9,234	9,234	9,234	9,234	9,234	9,234	9,234	9,234	9,234
Sunflower - hybrid	kg	-	-	1,890	8,901	17,924	26,262	31,166	33,079	33,644	33,721	33,721	33,721	33,721	33,721	33,721	33,721	33,721	33,721	33,721	33,721
Groundnut - traditonal	kg	-	-	-557	-2,401	-4,453	-6,013	-6,657	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750
Sesame	kg	-	-	429	2,080	4,332	6,530	7,925	8,526	8,713	8,739	8,739	8,739	8,739	8,739	8,739	8,739	8,739	8,739	8,739	8,739
On-Farm Use																					
Maize - traditional variety	kg	-	-	-4	-16	-30	-40	-44	-45	-45	-45	-45	-45	-45	-45	-45	-45	-45	-45	-45	-45
Maize - improved variety	kg	-	-	14	61	113	152	169	171	171	171	171	171	171	171	171	171	171	171	171	171
Beans - traditional variety	kg	-	-	-9	-38	-71	-96	-106	-108	-108	-108	-108	-108	-108	-108	-108	-108	-108	-108	-108	-108
Sweet Potato - traditional variety	bag	-	-	-2	-10	-18	-24	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27
Groundnut - traditonal	kg	-	-	-1	-3	-6	-8	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9
Sesame	kg	-	-	-6	-26	-48	-64	-71	-72	-72	-72	-72	-72	-72	-72	-72	-72	-72	-72	-72	-72
Sales																					
Maize - traditional variety	kg	-	-	-147	-624	-1,158	-1,562	-1,730	-1,755	-1,755	-1,755	-1,755	-1,755	-1,755	-1,755	-1,755	-1,755	-1,755	-1,755	-1,755	-1,755
Maize - improved variety	kg	-	-	553	2,372	4,400	5,939	6,577	6,669	6,669	6,669	6,669	6,669	6,669	6,669	6,669	6,669	6,669	6,669	6,669	6,669
Beans - traditional variety	kg	-	-	-67	-281	-522	-705	-781	-792	-792	-792	-792	-792	-792	-792	-792	-792	-792	-792	-792	-792
Sweet Potato - traditional variety	bag	-	-	-3	-13	-24	-32	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36	-36
Cassava - traditional	bag (fresh)	-	-	-17	-74	-137	-184	-204	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207	-207
Soy bean - improved variety	kg	-	-	496	2,248	4,650	6,949	8,404	9,020	9,208	9,234	9,234	9,234	9,234	9,234	9,234	9,234	9,234	9,234	9,234	9,234
Sunflower - hybrid	kg	-	-	1,890	8,901	17,924	26,262	31,166	33,079	33,644	33,721	33,721	33,721	33,721	33,721	33,721	33,721	33,721	33,721	33,721	33,721
Groundnut - traditonal	kg	-	-	-556	-2,398	-4,447	-6,005	-6,648	-6,741	-6,741	-6,741	-6,741	-6,741	-6,741	-6,741	-6,741	-6,741	-6,741	-6,741	-6,741	-6,741
Sesame	kg	-	-	435	2,106	4,379	6,594	7,996	8,598	8,785	8,811	8,811	8,811	8,811	8,811	8,811	8,811	8,811	8,811	8,811	8,811
Investment																					
Equipment (sprayer etc)	set	-	7	5	5	1	-	7	5	5	1	-	7	5	5	1	-	-	-	-	-
Tarpaulins	set	-	337,500	258,750	585,000	315,000	585,000	315,000	585,000	315,000	585,000	315,000	585,000	315,000	585,000	315,000	585,000	315,000	585,000	315,000	585,000
Drying racks	set	-	-	67,500	186,750	355,500	535,500	715,500	828,000	888,750	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000
Operating																					
Purchased Inputs																					
Sesame seed - improved	kg	-	-	8	37	68	92	101	103	103	103	103	103	103	103	103	103	103	103	103	103
Soy bean seed - improved	kg	-	-	28	127	242	337	388	410	421	426	428	428	428	428	428	428	428	428	428	428
Sunflower seed - traditional	kg	-	-	5	4	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower seed - hybrid	kg	-	-	3	22	43	61	68	68	68	68	68	68	68	68	68	68	68	68	68	68
NPK - top dressing	kg	-	-	27	173	457	1,003	1,393	1,657	1,710	1,710	1,710	1,710	1,710	1,710	1,710	1,710	1,710	1,710	1,710	1,710
NPK - Soy blend (11:29:23)	kg	-	-	-	50	199	480	692	828	855	855	855	855	855	855	855	855	855	855	855	855
Pesticide	litre	-	-	1	6	11	15	17	17	17	17	17	17	17	17	17	17	17	17	17	17
Fungicide	sachet	-	-	1	6	11	15	17	17	17	17	17	17	17	17	17	17	17	17	17	17
Bags	each	-	-	34	186	387	547	627	640	640	640	640	640	640	640	640	640	640	640	640	640
Tractor hire - ploughing	acre	-	-	-1	-6	14	29	46	50	50	50	50	50	50	50	50	50	50	50	50	50
Tractor hire - ripping	acre	-	-	4	18	34	46	51	51	51	51	51	51	51	51	51	51	51	51	51	51
Tractor hire - harrowing	acre	-	-	4	18	34	46	51	51	51	51	51	51	51	51	51	51	51	51	51	51
Oxen hire - ploughing	acre	-	-	5	24	19	16	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Innoculant	sachet	-	-	1	6	11	15	17	17	17	17	17	17	17	17	17	17	17	17	17	17

Aggregated Sunflower - Sesame Farm Models – Incremental Production and Inputs (Continued)

Republic of Uganda
National Oilseeds Project
Sunflower - Sesame Subproject Model
PRODUCTION AND INPUTS (Detailed)
(In Units '000)

		Increments																			
	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Labor																					
Apr female -	woman day	-	-	20	90	166	225	249	252	252	252	252	252	252	252	252	252	252	252	252	252
May female -	woman day	-	-	19	85	157	212	234	238	238	238	238	238	238	238	238	238	238	238	238	238
Aug female -	woman day	-	-	15	84	177	251	289	295	295	295	295	295	295	295	295	295	295	295	295	295
Sep female -	woman day	-	-	13	59	109	148	163	166	166	166	166	166	166	166	166	166	166	166	166	166
Oct female -	woman day	-	-	19	85	157	212	234	238	238	238	238	238	238	238	238	238	238	238	238	238
Nov female -	woman day	-	-	10	54	115	164	188	193	193	193	193	193	193	193	193	193	193	193	193	193
Mar male -	man day	-	-	-1	-5	-9	-13	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14	-14
Apr male -	man day	-	-	20	90	166	225	249	252	252	252	252	252	252	252	252	252	252	252	252	252
May male -	man day	-	-	19	85	157	212	234	238	238	238	238	238	238	238	238	238	238	238	238	238
Aug male -	man day	-	-	-22	-80	-127	-160	-166	-166	-166	-166	-166	-166	-166	-166	-166	-166	-166	-166	-166	-166
Sept male -	man day	-	-	13	59	109	148	163	166	166	166	166	166	166	166	166	166	166	166	166	166
Oct male -	man day	-	-	19	85	157	212	234	238	238	238	238	238	238	238	238	238	238	238	238	238
Nov male -	man day	-	-	3	25	61	90	107	110	110	110	110	110	110	110	110	110	110	110	110	110
Hired labour - bird scaring	person day	-	135	239	338	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360

Appendix 4 Table 3: Aggregated Sunflower - Sesame Farm Models – Incremental Economic Budget

Republic of Uganda
National Oilseeds Project
Sunflower - Sesame Subproject Model
ECONOMIC BUDGET (DETAILED)
(In UGX Million)

	Increments																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Main Production																				
Maize - traditional variety	-	-	-91	-384	-712	-961	-1,065	-1,080	-1,080	-1,080	-1,080	-1,080	-1,080	-1,080	-1,080	-1,080	-1,080	-1,080	-1,080	-1,080
Maize - improved variety	-	-	340	1,460	2,708	3,655	4,047	4,104	4,104	4,104	4,104	4,104	4,104	4,104	4,104	4,104	4,104	4,104	4,104	4,104
Beans - traditional variety	-	-	-136	-576	-1,069	-1,442	-1,597	-1,620	-1,620	-1,620	-1,620	-1,620	-1,620	-1,620	-1,620	-1,620	-1,620	-1,620	-1,620	-1,620
Sweet Potato - traditional variety	-	-	-260	-1,121	-2,078	-2,806	-3,107	-3,150	-3,150	-3,150	-3,150	-3,150	-3,150	-3,150	-3,150	-3,150	-3,150	-3,150	-3,150	-3,150
Cassava - traditional	-	-	-1,366	-5,891	-10,925	-14,751	-16,332	-16,560	-16,560	-16,560	-16,560	-16,560	-16,560	-16,560	-16,560	-16,560	-16,560	-16,560	-16,560	-16,560
Soy bean - improved variety	-	-	645	3,148	6,509	9,729	11,765	12,627	12,892	12,928	12,928	12,928	12,928	12,928	12,928	12,928	12,928	12,928	12,928	12,928
Sunflower - hybrid	-	-	1,890	8,901	17,924	26,262	31,166	33,079	33,644	33,721	33,721	33,721	33,721	33,721	33,721	33,721	33,721	33,721	33,721	33,721
Groundnut - traditonal	-	-	-1,559	-6,724	-12,469	-16,835	-18,640	-18,900	-18,900	-18,900	-18,900	-18,900	-18,900	-18,900	-18,900	-18,900	-18,900	-18,900	-18,900	-18,900
Sesame	-	-	1,757	8,633	18,193	27,424	33,284	35,808	36,596	36,704	36,704	36,704	36,704	36,704	36,704	36,704	36,704	36,704	36,704	36,704
Sub-total Main Production	-	-	1,220	7,446	18,079	30,275	39,521	44,308	45,926	46,147	46,147	46,147	46,147	46,147	46,147	46,147	46,147	46,147	46,147	46,147
On-Farm Use																				
Maize - traditional variety	-	-	-2	-10	-18	-24	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27
Maize - improved variety	-	-	9	36	68	91	101	103	103	103	103	103	103	103	103	103	103	103	103	103
Beans - traditional variety	-	-	-16	-69	-128	-173	-192	-194	-194	-194	-194	-194	-194	-194	-194	-194	-194	-194	-194	-194
Sweet Potato - traditional variety	-	-	-111	-480	-891	-1,203	-1,331	-1,350	-1,350	-1,350	-1,350	-1,350	-1,350	-1,350	-1,350	-1,350	-1,350	-1,350	-1,350	-1,350
Groundnut - traditonal	-	-	-2	-9	-17	-22	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25
Sesame	-	-	-24	-106	-200	-269	-298	-302	-302	-302	-302	-302	-302	-302	-302	-302	-302	-302	-302	-302
Sub-Total On-Farm Use	-	-	-148	-638	-1,185	-1,600	-1,772	-1,796	-1,796	-1,796	-1,796	-1,796	-1,796	-1,796	-1,796	-1,796	-1,796	-1,796	-1,796	-1,796
Net Value Of Production	-	-	1,368	8,084	19,264	31,875	41,293	46,105	47,722	47,943	47,943	47,943	47,943	47,943	47,943	47,943	47,943	47,943	47,943	47,943
Production Cost																				
Investment																				
Equipment (sprayer etc)	-	1,310	1,004	960	218	-	1,310	1,004	960	218	-	1,310	1,004	960	218	-	-	-	-	-
Tarpaulins	-	327	251	567	306	567	306	567	306	567	306	567	306	567	306	567	306	567	306	567
Drying racks	-	-	65	181	345	519	694	803	862	873	873	873	873	873	873	873	873	873	873	873
Sub-total Investment Costs	-	1,637	1,320	1,709	869	1,087	2,309	2,375	2,128	1,659	1,179	2,750	2,183	2,401	1,397	1,440	1,179	1,440	1,179	1,440
Operating																				
Purchased Inputs																				
Sesame seed - improved	-	-	29	132	244	330	365	369	369	369	369	369	369	369	369	369	369	369	369	369
Soy bean seed - improved	-	-	128	570	1,090	1,518	1,746	1,845	1,893	1,919	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924	1,924
Sunflower seed - traditional	-	-	4	3	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower seed - hybrid	-	-	109	904	1,748	2,455	2,734	2,770	2,770	2,770	2,770	2,770	2,770	2,770	2,770	2,770	2,770	2,770	2,770	2,770
NPK - top dressing	-	-	44	280	740	1,625	2,257	2,684	2,770	2,770	2,770	2,770	2,770	2,770	2,770	2,770	2,770	2,770	2,770	2,770
NPK - Soy blend (11:29:23)	-	-	-	180	715	1,729	2,492	2,982	3,078	3,078	3,078	3,078	3,078	3,078	3,078	3,078	3,078	3,078	3,078	3,078
Pesticide	-	-	11	49	91	124	137	139	139	139	139	139	139	139	139	139	139	139	139	139
Fungicide	-	-	4	19	36	48	53	54	54	54	54	54	54	54	54	54	54	54	54	54
Bags	-	-	36	198	413	583	668	683	683	683	683	683	683	683	683	683	683	683	683	683
Tractor hire - ploughing	-	-	-130	-559	1,203	2,556	4,048	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400	4,400
Tractor hire - ripping	-	-	359	1,596	2,955	3,995	4,419	4,478	4,478	4,478	4,478	4,478	4,478	4,478	4,478	4,478	4,478	4,478	4,478	4,478
Tractor hire - harrowing	-	-	359	1,596	2,955	3,995	4,419	4,478	4,478	4,478	4,478	4,478	4,478	4,478	4,478	4,478	4,478	4,478	4,478	4,478
Oxen hire - ploughing	-	-	314	1,419	1,134	917	196	-	-	-	-	-	-	-	-	-	-	-	-	-
Innoculant	-	-	5	21	38	52	57	58	58	58	58	58	58	58	58	58	58	58	58	58
Sub-Total Purchased Inputs	-	-	1,274	6,407	13,365	19,926	23,591	24,940	25,171	25,197	25,202	25,202	25,202	25,202	25,202	25,202	25,202	25,202	25,202	25,202

Aggregated Sunflower - Sesame Farm Models – Incremental Economic Budget

Republic of Uganda
National Oilseeds Project
Sunflower - Sesame Subproject Model
ECONOMIC BUDGET (DETAILED)
(In UGX Million)

	Increments																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Labor																				
Apr female -	-	-	69	305	565	764	845	857	857	857	857	857	857	857	857	857	857	857	857	857
May female -	-	-	65	288	533	721	797	808	808	808	808	808	808	808	808	808	808	808	808	808
Aug female -	-	-	52	285	602	853	982	1,004	1,004	1,004	1,004	1,004	1,004	1,004	1,004	1,004	1,004	1,004	1,004	1,004
Sep female -	-	-	43	201	372	503	556	563	563	563	563	563	563	563	563	563	563	563	563	563
Oct female -	-	-	63	288	533	721	797	808	808	808	808	808	808	808	808	808	808	808	808	808
Nov female -	-	-	32	185	392	557	641	655	655	655	655	655	655	655	655	655	655	655	655	655
Mar male -	-	-	-4	-17	-32	-43	-48	-49	-49	-49	-49	-49	-49	-49	-49	-49	-49	-49	-49	-49
Apr male -	-	-	69	305	565	764	845	857	857	857	857	857	857	857	857	857	857	857	857	857
May male -	-	-	65	288	533	721	797	808	808	808	808	808	808	808	808	808	808	808	808	808
Aug male -	-	-	-76	-273	-431	-543	-564	-563	-563	-563	-563	-563	-563	-563	-563	-563	-563	-563	-563	-563
Sept male -	-	-	43	201	372	503	556	563	563	563	563	563	563	563	563	563	563	563	563	563
Oct male -	-	-	63	288	533	721	797	808	808	808	808	808	808	808	808	808	808	808	808	808
Nov male -	-	-	11	85	206	305	363	373	373	373	373	373	373	373	373	373	373	373	373	373
Hired labour - bird scaring	-	115	203	287	306	306	306	306	306	306	306	306	306	306	306	306	306	306	306	306
Sub-Total Hired Labor	-	115	697	2,716	5,050	6,855	7,670	7,797	7,797	7,797	7,797	7,797	7,797	7,797	7,797	7,797	7,797	7,797	7,797	7,797
Sub-total Operating Costs	-	115	1,971	9,123	18,414	26,780	31,261	32,737	32,968	32,994	32,998	32,998	32,998	32,998	32,998	32,998	32,998	32,998	32,998	32,998
Sub-Total Production Cost	-	1,752	3,291	10,832	19,283	27,867	33,570	35,111	35,096	34,652	34,177	35,748	35,181	35,399	34,395	34,439	34,177	34,439	34,177	34,439
Other Costs																				
Other Costs	-	-	516	1,432	2,726	3,589	4,054	4,140	4,140	4,140	4,140	4,140	4,140	4,140	4,140	4,140	4,140	4,140	4,140	4,140
OUTFLOWS	-	1,752	3,808	12,264	22,008	31,456	37,624	39,251	39,236	38,792	38,317	39,888	39,321	39,539	38,535	38,579	38,317	38,579	38,317	38,579
Cash Flow	-	-1,752	-2,439	-4,180	-2,744	419	3,668	6,853	8,487	9,151	9,626	8,055	8,622	8,404	9,408	9,364	9,626	9,364	9,626	9,364

Appendix 4 Table 4: Aggregated Sunflower - Groundnut Farm Models – Incremental Farm Distributions

Republic of Uganda
National Oilseeds Project
Sunflower - Groundnut Subproject Model
FARM DISTRIBUTIONS
(In Units '000)

	Increments									
	1	2	3	4	5	6	7	8	9	10 to 20
Number of Farms										
Non-Participating										
Sunflower - Groundnut	-	-5.063	-8.944	-12.657	-13.501	-13.501	-13.501	-13.501	-13.501	-13.501
Participating										
Sunflower - Groundnut	-	5.063	8.944	12.657	13.501	13.501	13.501	13.501	13.501	13.501
Cropped Area										
Non-Participating										
Sunflower - Groundnut	-	-15.189	-26.832	-37.971	-40.503	-40.503	-40.503	-40.503	-40.503	-40.503
Participating										
Sunflower - Groundnut	-	15.189	26.619	44.299	63.220	81.832	95.542	101.412	102.540	102.608
Farm Area										
Non-Participating										
Sunflower - Groundnut	-	-7.595	-13.416	-18.986	-20.252	-20.252	-20.252	-20.252	-20.252	-20.252
Participating										
Sunflower - Groundnut	-	11.493	27.100	48.097	51.304	51.304	51.304	51.304	51.304	51.304
Cropping Intensity	-	-32.290	-81.270	-105.130	-76.770	-40.500	-13.770	-2.330	-0.130	-

Appendix 4 Table 5: Aggregated Sunflower - Groundnut Farm Models – Incremental Production and Inputs

Republic of Uganda
National Oilseeds Project
Sunflower - Groundnut Subproject Model
PRODUCTION AND INPUTS (Detailed)
(In Units '000)

		Increments																			
	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Main Production																					
Maize - traditional variety	kg	-	-	-113	-480	-891	-1,201	-1,331	-1,350	-1,350	-1,350	-1,350	-1,350	-1,350	-1,350	-1,350	-1,350	-1,350	-1,350	-1,350	-1,350
Maize - improved variety	kg	-	-	223	920	1,700	2,286	2,530	2,565	2,565	2,565	2,565	2,565	2,565	2,565	2,565	2,565	2,565	2,565	2,565	2,565
Beans - traditional variety	kg	-	-	-57	-240	-445	-601	-666	-675	-675	-675	-675	-675	-675	-675	-675	-675	-675	-675	-675	-675
Sweet Potato - traditional variety	bag	-	-	-4	-17	-31	-42	-47	-47	-47	-47	-47	-47	-47	-47	-47	-47	-47	-47	-47	-47
Cassava - traditional	bag (fresh)	-	-	-13	-55	-102	-138	-153	-155	-155	-155	-155	-155	-155	-155	-155	-155	-155	-155	-155	-155
Soy bean - improved variety	kg	-	-	319	1,589	4,081	6,921	9,039	10,082	10,360	10,389	10,389	10,389	10,389	10,389	10,389	10,389	10,389	10,389	10,389	10,389
Sunflower - hybrid	kg	-	-	1,134	5,248	13,076	21,637	27,861	30,804	31,544	31,616	31,616	31,616	31,616	31,616	31,616	31,616	31,616	31,616	31,616	31,616
Groundnut - traditonal	kg	-	-	-1,899	-3,354	-4,746	-5,063	-5,063	-5,063	-5,063	-5,063	-5,063	-5,063	-5,063	-5,063	-5,063	-5,063	-5,063	-5,063	-5,063	-5,063
Groundnut - improved	kg	-	-	324	1,518	4,314	7,985	11,248	13,125	13,816	13,916	13,916	13,916	13,916	13,916	13,916	13,916	13,916	13,916	13,916	13,916
Sesame	kg	-	-	-84	-360	-668	-902	-999	-1,013	-1,013	-1,013	-1,013	-1,013	-1,013	-1,013	-1,013	-1,013	-1,013	-1,013	-1,013	-1,013
On-Farm Use																					
Maize - traditional variety	kg	-	-	-3	-12	-22	-30	-33	-34	-34	-34	-34	-34	-34	-34	-34	-34	-34	-34	-34	-34
Maize - improved variety	kg	-	-	6	23	42	57	63	64	64	64	64	64	64	64	64	64	64	64	64	64
Beans - traditional variety	kg	-	-	-7	-29	-53	-72	-80	-81	-81	-81	-81	-81	-81	-81	-81	-81	-81	-81	-81	-81
Sweet Potato - traditional variety	bag	-	-	-2	-7	-13	-18	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20
Groundnut - traditonal	kg	-	-	-3	-4	-6	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7
Sesame	kg	-	-	-4	-19	-36	-48	-53	-54	-54	-54	-54	-54	-54	-54	-54	-54	-54	-54	-54	-54
Sales																					
Maize - traditional variety	kg	-	-	-111	-468	-868	-1,171	-1,298	-1,316	-1,316	-1,316	-1,316	-1,316	-1,316	-1,316	-1,316	-1,316	-1,316	-1,316	-1,316	-1,316
Maize - improved variety	kg	-	-	217	897	1,657	2,229	2,466	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501	2,501
Beans - traditional variety	kg	-	-	-50	-211	-392	-529	-586	-594	-594	-594	-594	-594	-594	-594	-594	-594	-594	-594	-594	-594
Sweet Potato - traditional variety	bag	-	-	-2	-10	-18	-24	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27
Cassava - traditional	bag (fresh)	-	-	-13	-55	-102	-138	-153	-155	-155	-155	-155	-155	-155	-155	-155	-155	-155	-155	-155	-155
Soy bean - improved variety	kg	-	-	319	1,589	4,081	6,921	9,039	10,082	10,360	10,389	10,389	10,389	10,389	10,389	10,389	10,389	10,389	10,389	10,389	10,389
Sunflower - hybrid	kg	-	-	1,134	5,248	13,076	21,637	27,861	30,804	31,544	31,616	31,616	31,616	31,616	31,616	31,616	31,616	31,616	31,616	31,616	31,616
Groundnut - traditonal	kg	-	-	-1,896	-3,350	-4,740	-5,056	-5,056	-5,056	-5,056	-5,056	-5,056	-5,056	-5,056	-5,056	-5,056	-5,056	-5,056	-5,056	-5,056	-5,056
Groundnut - improved	kg	-	-	324	1,518	4,314	7,985	11,248	13,125	13,816	13,916	13,916	13,916	13,916	13,916	13,916	13,916	13,916	13,916	13,916	13,916
Sesame	kg	-	-	-79	-341	-632	-854	-945	-959	-959	-959	-959	-959	-959	-959	-959	-959	-959	-959	-959	-959
Investment																					
Equipment (sprayer etc)	set	-	5	4	4	1	-	5	4	4	1	-	5	4	4	1	-	-	-	-	-
Tarpaulins	set	-	253,150	194,050	438,800	236,250	438,800	236,250	438,800	236,250	438,800	236,250	438,800	236,250	438,800	236,250	438,800	236,250	438,800	236,250	438,800
Operating																					
Purchased Inputs																					
Soy bean seed - improved	kg	-	-	18	89	210	331	415	458	473	480	481	481	481	481	481	481	481	481	481	481
Sunflower seed - traditional	kg	-	-	3	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower seed - hybrid	kg	-	-	2	13	31	49	60	64	64	64	64	64	64	64	64	64	64	64	64	64
Ground nut seed - improved	kg	-	-	8	40	114	199	271	307	319	321	321	321	321	321	321	321	321	321	321	321
NPK - Soy blend (11:29:23)	kg	-	-	-	36	186	508	759	928	962	962	962	962	962	962	962	962	962	962	962	962
TSP	kg	-	-	-	30	122	274	453	571	631	641	641	641	641	641	641	641	641	641	641	641
Pesticide	litre	-	-	1	4	10	16	20	22	22	22	22	22	22	22	22	22	22	22	22	22
Fungicide	sachet	-	-	1	4	10	15	18	19	19	19	19	19	19	19	19	19	19	19	19	19
Bags	each	-	-	2	66	233	419	557	616	627	627	627	627	627	627	627	627	627	627	627	627
Tractor hire - ploughing	acre	-	-	-3	-7	10	27	45	50	51	51	51	51	51	51	51	51	51	51	51	51
Tractor hire - ripping	acre	-	-	1	6	15	23	29	31	32	32	32	32	32	32	32	32	32	32	32	32
Tractor hire - harrowing	acre	-	-	1	6	15	23	29	31	32	32	32	32	32	32	32	32	32	32	32	32
Oxen hire - ploughing	acre	-	-	3	14	11	9	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Innoculant	sachet	-	-	1	4	10	15	18	19	19	19	19	19	19	19	19	19	19	19	19	19

Aggregated Sunflower - Groundnut Farm Models – Incremental Production and Inputs (Continued)

Republic of Uganda
National Oilseeds Project
Sunflower - Groundnut Subproject Model
PRODUCTION AND INPUTS (Detailed)
(In Units '000)

		Increments																			
	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Labor																					
Apr female -	woman day	-	-	-2	27	81	138	174	187	189	189	189	189	189	189	189	189	189	189	189	189
May female -	woman day	-	-	8	40	90	137	166	177	178	178	178	178	178	178	178	178	178	178	178	178
Aug female -	woman day	-	-	-0	23	75	129	167	181	183	183	183	183	183	183	183	183	183	183	183	183
Sep female -	woman day	-	-	3	13	44	79	107	121	124	124	124	124	124	124	124	124	124	124	124	124
Oct female -	woman day	-	-	7	32	79	127	161	175	178	178	178	178	178	178	178	178	178	178	178	178
Nov female -	woman day	-	-	2	10	33	59	81	91	93	93	93	93	93	93	93	93	93	93	93	93
Mar male -	man day	-	-	-41	-73	-105	-113	-113	-113	-113	-113	-113	-113	-113	-113	-113	-113	-113	-113	-113	-113
Apr male -	man day	-	-	-2	27	81	138	174	187	189	189	189	189	189	189	189	189	189	189	189	189
May male -	man day	-	-	8	40	90	137	166	177	178	178	178	178	178	178	178	178	178	178	178	178
Aug male -	man day	-	-	-22	-84	-136	-166	-169	-164	-163	-163	-163	-163	-163	-163	-163	-163	-163	-163	-163	-163
Sept male -	man day	-	-	3	13	44	79	107	121	124	124	124	124	124	124	124	124	124	124	124	124
Oct male -	man day	-	-	7	32	79	127	161	175	178	178	178	178	178	178	178	178	178	178	178	178
Nov male -	man day	-	-	1	3	11	20	27	30	31	31	31	31	31	31	31	31	31	31	31	31
Hired labour - bird scaring	person day	-	101	179	253	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270

Appendix 4 Table 6: Aggregated Sunflower - Groundnut Farm Models – Incremental Economic Budget

Republic of Uganda
National Oilseeds Project
Sunflower - Groundnut Subproject Model
ECONOMIC BUDGET (DETAILED)
(In UGX Million)

	Increments																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Main Production																				
Maize - traditional variety	-	-	-68	-288	-534	-721	-799	-810	-810	-810	-810	-810	-810	-810	-810	-810	-810	-810	-810	-810
Maize - improved variety	-	-	134	552	1,020	1,372	1,518	1,539	1,539	1,539	1,539	1,539	1,539	1,539	1,539	1,539	1,539	1,539	1,539	1,539
Beans - traditional variety	-	-	-102	-432	-802	-1,081	-1,198	-1,215	-1,215	-1,215	-1,215	-1,215	-1,215	-1,215	-1,215	-1,215	-1,215	-1,215	-1,215	-1,215
Sweet Potato - traditional variety	-	-	-195	-841	-1,559	-2,105	-2,330	-2,363	-2,363	-2,363	-2,363	-2,363	-2,363	-2,363	-2,363	-2,363	-2,363	-2,363	-2,363	-2,363
Cassava - traditional	-	-	-1,025	-4,419	-8,194	-11,064	-12,250	-12,421	-12,421	-12,421	-12,421	-12,421	-12,421	-12,421	-12,421	-12,421	-12,421	-12,421	-12,421	-12,421
Soy bean - improved variety	-	-	415	2,225	5,713	9,689	12,655	14,115	14,504	14,545	14,545	14,545	14,545	14,545	14,545	14,545	14,545	14,545	14,545	14,545
Sunflower - hybrid	-	-	1,134	5,248	13,076	21,637	27,861	30,804	31,544	31,616	31,616	31,616	31,616	31,616	31,616	31,616	31,616	31,616	31,616	31,616
Groundnut - traditonal	-	-	-5,316	-9,391	-13,290	-14,176	-14,176	-14,176	-14,176	-14,176	-14,176	-14,176	-14,176	-14,176	-14,176	-14,176	-14,176	-14,176	-14,176	-14,176
Groundnut - improved	-	-	940	4,479	12,943	23,954	33,744	39,375	41,449	41,748	41,748	41,748	41,748	41,748	41,748	41,748	41,748	41,748	41,748	41,748
Sesame	-	-	-343	-1,495	-2,806	-3,788	-4,194	-4,253	-4,253	-4,253	-4,253	-4,253	-4,253	-4,253	-4,253	-4,253	-4,253	-4,253	-4,253	-4,253
Sub-total Main Production	-	-	-4,426	-4,362	5,567	23,717	40,831	50,595	53,799	54,211	54,211	54,211	54,211	54,211	54,211	54,211	54,211	54,211	54,211	54,211
On-Farm Use																				
Maize - traditional variety	-	-	-2	-7	-13	-18	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20
Maize - improved variety	-	-	3	14	25	34	38	38	38	38	38	38	38	38	38	38	38	38	38	38
Beans - traditional variety	-	-	-12	-52	-96	-130	-144	-146	-146	-146	-146	-146	-146	-146	-146	-146	-146	-146	-146	-146
Sweet Potato - traditional variety	-	-	-84	-360	-668	-902	-999	-1,013	-1,013	-1,013	-1,013	-1,013	-1,013	-1,013	-1,013	-1,013	-1,013	-1,013	-1,013	-1,013
Groundnut - traditonal	-	-	-7	-13	-18	-19	-19	-19	-19	-19	-19	-19	-19	-19	-19	-19	-19	-19	-19	-19
Sesame	-	-	-18	-80	-150	-202	-224	-227	-227	-227	-227	-227	-227	-227	-227	-227	-227	-227	-227	-227
Sub-Total On-Farm Use	-	-	-120	-498	-919	-1,236	-1,367	-1,386	-1,386	-1,386	-1,386	-1,386	-1,386	-1,386	-1,386	-1,386	-1,386	-1,386	-1,386	-1,386
Net Value Of Production	-	-	-4,307	-3,864	6,487	24,953	42,198	51,981	55,185	55,596	55,596	55,596	55,596	55,596	55,596	55,596	55,596	55,596	55,596	55,596
Production Cost																				
Investment																				
Equipment (sprayer etc)	-	982	753	720	164	-	982	753	720	164	-	982	753	720	164	-	-	-	-	-
Tarpaulins	-	246	188	426	229	426	229	426	229	426	229	426	229	426	229	426	229	426	229	426
Sub-total Investment Costs	-	1,228	941	1,146	393	426	1,211	1,179	949	589	229	1,408	982	1,146	393	426	229	426	229	426
Operating																				
Purchased Inputs																				
Soy bean seed - improved	-	-	82	403	947	1,490	1,868	2,061	2,130	2,159	2,164	2,164	2,164	2,164	2,164	2,164	2,164	2,164	2,164	2,164
Sunflower seed - traditional	-	-	2	2	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower seed - hybrid	-	-	66	532	1,271	1,992	2,426	2,577	2,597	2,597	2,597	2,597	2,597	2,597	2,597	2,597	2,597	2,597	2,597	2,597
Ground nut seed - improved	-	-	36	178	512	896	1,218	1,381	1,435	1,443	1,443	1,443	1,443	1,443	1,443	1,443	1,443	1,443	1,443	1,443
NPK - Soy blend (11:29:23)	-	-	-	129	669	1,830	2,733	3,341	3,463	3,463	3,463	3,463	3,463	3,463	3,463	3,463	3,463	3,463	3,463	3,463
TSP	-	-	-	66	264	592	979	1,232	1,362	1,385	1,385	1,385	1,385	1,385	1,385	1,385	1,385	1,385	1,385	1,385
Pesticide	-	-	7	32	78	126	161	177	181	182	182	182	182	182	182	182	182	182	182	182
Fungicide	-	-	3	14	31	47	57	60	61	61	61	61	61	61	61	61	61	61	61	61
Bags	-	-	2	70	249	447	594	657	669	669	669	669	669	669	669	669	669	669	669	669
Tractor hire - ploughing	-	-	-270	-600	897	2,395	3,887	4,376	4,420	4,420	4,420	4,420	4,420	4,420	4,420	4,420	4,420	4,420	4,420	4,420
Tractor hire - ripping	-	-	115	535	1,266	2,005	2,518	2,738	2,793	2,799	2,799	2,799	2,799	2,799	2,799	2,799	2,799	2,799	2,799	2,799
Tractor hire - harrowing	-	-	115	535	1,266	2,005	2,518	2,738	2,793	2,799	2,799	2,799	2,799	2,799	2,799	2,799	2,799	2,799	2,799	2,799
Oxen hire - ploughing	-	-	189	837	669	539	115	-	-	-	-	-	-	-	-	-	-	-	-	-
Innoculant	-	-	3	15	33	50	61	65	65	65	65	65	65	65	65	65	65	65	65	65
Sub-Total Purchased Inputs	-	-	350	2,746	8,154	14,413	19,134	21,405	21,970	22,043	22,048	22,048	22,048	22,048	22,048	22,048	22,048	22,048	22,048	22,048

Aggregated Sunflower - Groundnut Farm Models – Incremental Economic Budget (Continued)

Republic of Uganda
National Oilseeds Project
Sunflower - Groundnut Subproject Model
ECONOMIC BUDGET (DETAILED)
(In UGX Million)

	Increments																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Labor																				
Apr female -	-	-	-7	93	275	469	593	637	643	643	643	643	643	643	643	643	643	643	643	643
May female -	-	-	29	135	306	467	566	601	606	606	606	606	606	606	606	606	606	606	606	606
Aug female -	-	-	-2	79	255	440	567	615	622	622	622	622	622	622	622	622	622	622	622	622
Sep female -	-	-	10	44	149	268	365	411	421	422	422	422	422	422	422	422	422	422	422	422
Oct female -	-	-	25	110	270	432	546	594	605	606	606	606	606	606	606	606	606	606	606	606
Nov female -	-	-	8	33	112	201	274	308	316	317	317	317	317	317	317	317	317	317	317	317
Mar male -	-	-	-138	-249	-355	-383	-385	-386	-386	-386	-386	-386	-386	-386	-386	-386	-386	-386	-386	-386
Apr male -	-	-	-7	93	275	469	593	637	643	643	643	643	643	643	643	643	643	643	643	643
May male -	-	-	29	135	306	467	566	601	606	606	606	606	606	606	606	606	606	606	606	606
Aug male -	-	-	-75	-285	-461	-566	-575	-558	-553	-553	-553	-553	-553	-553	-553	-553	-553	-553	-553	-553
Sept male -	-	-	10	44	149	268	365	411	421	422	422	422	422	422	422	422	422	422	422	422
Oct male -	-	-	25	110	270	432	546	594	605	606	606	606	606	606	606	606	606	606	606	606
Nov male -	-	-	3	11	37	67	91	103	105	106	106	106	106	106	106	106	106	106	106	106
Hired labour - bird scaring	-	86	152	215	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230
Sub-Total Hired Labor	-	86	63	570	1,820	3,263	4,340	4,797	4,884	4,889	4,889	4,889	4,889	4,889	4,889	4,889	4,889	4,889	4,889	4,889
Sub-total Operating Costs	-	86	413	3,316	9,974	17,676	23,474	26,202	26,854	26,932	26,937	26,937	26,937	26,937	26,937	26,937	26,937	26,937	26,937	26,937
Sub-Total Production Cost	-	1,314	1,354	4,462	10,367	18,102	24,685	27,380	27,803	27,521	27,166	28,345	27,919	28,083	27,330	27,363	27,166	27,363	27,166	27,363
Other Costs																				
Other Costs	-	-	387	1,074	2,044	2,692	3,041	3,105	3,105	3,105	3,105	3,105	3,105	3,105	3,105	3,105	3,105	3,105	3,105	3,105
OUTFLOWS	-	1,314	1,742	5,536	12,411	20,793	27,726	30,486	30,908	30,626	30,272	31,450	31,024	31,188	30,435	30,468	30,272	30,468	30,272	30,468
Cash Flow	-	-1,314	-6,048	-9,400	-5,924	4,160	14,472	21,495	24,276	24,970	25,325	24,146	24,572	24,408	25,161	25,128	25,325	25,128	25,325	25,128

Appendix 4 Table 7: Aggregated Sesame – Soy bean Farm Models – Incremental Farm Distributions

Republic of Uganda
National Oilseeds Project
Sesame - Soy bean Subproject Mod
FARM DISTRIBUTIONS
(In Units '000) /a

	Increments								
	1	2	3	4	5	6	7	8	9 to 20
Number of Farms									
Non-Participating									
Sesame - Soy bean	-	-8.44	-14.91	-21.10	-22.50	-22.50	-22.50	-22.50	-22.50
Participating									
Sesame - Soy bean	-	8.44	14.91	21.10	22.50	22.50	22.50	22.50	22.50
Cropped Area									
Non-Participating									
Sesame - Soy bean	-	-33.75	-59.63	-84.38	-90.00	-90.00	-90.00	-90.00	-90.00
Participating									
Sesame - Soy bean	-	33.75	63.37	100.80	129.13	150.87	164.99	170.28	171.01
Farm Area									
Non-Participating									
Sesame - Soy bean	-	-16.88	-29.81	-42.19	-45.00	-45.00	-45.00	-45.00	-45.00
Participating									
Sesame - Soy bean	-	21.94	47.70	80.16	85.50	85.50	85.50	85.50	85.50
Cropping Intensity	-	-20.22	-50.93	-71.73	-48.98	-23.55	-7.04	-0.86	-

Appendix 4 Table 8: Aggregated Sesame – Soy bean Farm Models – Incremental Production and Inputs

Republic of Uganda
National Oilseeds Project
Sesame - Soy bean Subproject Model
PRODUCTION AND INPUTS (Detailed)
(In Units '000) /a

		Increments																			
	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Main Production																					
Beans - traditional variety	kg	-	-	-381	-1,599	-2,969	-4,003	-4,437	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500
Cassava - traditional	bag (fresh)	-	-	31	129	239	322	357	362	362	362	362	362	362	362	362	362	362	362	362	362
Sorghum	kg	-	-	-371	-1,601	-2,969	-4,009	-4,438	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500
Soy bean - improved variety	kg	-	-	709	3,541	9,051	15,368	20,070	22,400	23,022	23,086	23,086	23,086	23,086	23,086	23,086	23,086	23,086	23,086	23,086	23,086
Sunflower - hybrid	kg	-	-	354	1,762	4,358	7,226	9,287	10,266	10,514	10,538	10,538	10,538	10,538	10,538	10,538	10,538	10,538	10,538	10,538	10,538
Sesame	kg	-	-	435	1,888	5,084	8,860	11,837	13,373	13,807	13,855	13,855	13,855	13,855	13,855	13,855	13,855	13,855	13,855	13,855	13,855
On-Farm Use																					
Beans - traditional variety	kg	-	-	-46	-192	-356	-480	-532	-540	-540	-540	-540	-540	-540	-540	-540	-540	-540	-540	-540	-540
Cassava - traditional	bag (fresh)	-	8	20	43	64	79	85	86	86	86	86	86	86	86	86	86	86	86	86	86
Sorghum	kg	-	-	-11	-48	-89	-120	-133	-135	-135	-135	-135	-135	-135	-135	-135	-135	-135	-135	-135	-135
Sesame	kg	-	-	-13	-60	-137	-208	-252	-268	-270	-270	-270	-270	-270	-270	-270	-270	-270	-270	-270	-270
Sales																					
Beans - traditional variety	kg	-	-	-336	-1,407	-2,612	-3,523	-3,904	-3,960	-3,960	-3,960	-3,960	-3,960	-3,960	-3,960	-3,960	-3,960	-3,960	-3,960	-3,960	-3,960
Cassava - traditional	bag (fresh)	-	-8	11	85	175	244	272	277	277	277	277	277	277	277	277	277	277	277	277	277
Sorghum	kg	-	-	-360	-1,553	-2,880	-3,888	-4,305	-4,365	-4,365	-4,365	-4,365	-4,365	-4,365	-4,365	-4,365	-4,365	-4,365	-4,365	-4,365	-4,365
Soy bean - improved variety	kg	-	-	709	3,541	9,051	15,368	20,070	22,400	23,022	23,086	23,086	23,086	23,086	23,086	23,086	23,086	23,086	23,086	23,086	23,086
Sunflower - hybrid	kg	-	-	354	1,762	4,358	7,226	9,287	10,266	10,514	10,538	10,538	10,538	10,538	10,538	10,538	10,538	10,538	10,538	10,538	10,538
Sesame	kg	-	-	447	1,949	5,221	9,068	12,090	13,641	14,077	14,125	14,125	14,125	14,125	14,125	14,125	14,125	14,125	14,125	14,125	14,125
Investment																					
Equipment (sprayer etc)	set	-	8	6	6	1	-	8	6	6	1	-	8	6	6	1	-	-	-	-	-
Tarpaulins	set	-	421,900	323,450	731,300	393,750	731,300	393,750	731,300	393,750	731,300	393,750	731,300	393,750	731,300	393,750	731,300	393,750	731,300	393,750	731,300
Drying racks	set	-	-	84,380	233,450	444,400	669,410	894,420	1,035,050	1,110,990	1,125,050	1,125,050	1,125,050	1,125,050	1,125,050	1,125,050	1,125,050	1,125,050	1,125,050	1,125,050	1,125,050
Operating																					
Purchased Inputs																					
Sesame seed - improved	kg	-	-	10	43	98	148	180	191	192	192	192	192	192	192	192	192	192	192	192	192
Soy bean seed - improved	kg	-	-	41	199	467	735	922	1,018	1,052	1,066	1,069	1,069	1,069	1,069	1,069	1,069	1,069	1,069	1,069	1,069
Sunflower seed - traditional	kg	-	-	1	1	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower seed - hybrid	kg	-	-	1	4	10	16	20	21	21	21	21	21	21	21	21	21	21	21	21	21
NPK - top dressing	kg	-	-	34	203	688	1,742	2,541	3,094	3,206	3,206	3,206	3,206	3,206	3,206	3,206	3,206	3,206	3,206	3,206	3,206
NPK - Soy blend (11:29:23)	kg	-	-	-	80	412	1,129	1,686	2,062	2,138	2,138	2,138	2,138	2,138	2,138	2,138	2,138	2,138	2,138	2,138	2,138
Pesticide - Pod borer	litre	-	-	2	8	19	29	35	37	37	37	37	37	37	37	37	37	37	37	37	37
Fungicide	sachet	-	-	2	10	22	33	40	42	43	43	43	43	43	43	43	43	43	43	43	43
Bags	each	-	-	42	197	444	665	797	839	844	844	844	844	844	844	844	844	844	844	844	844
Tractor hire - ploughing	acre	-	-	-2	-8	-10	-13	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12
Tractor hire - ripping	acre	-	-	5	24	54	82	100	106	107	107	107	107	107	107	107	107	107	107	107	107
Tractor hire - harrowing	acre	-	-	5	24	54	82	100	106	107	107	107	107	107	107	107	107	107	107	107	107
Oxen hire - ploughing	acre	-	-	1	5	4	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Innoculant	sachet	-	-	2	10	22	33	40	42	43	43	43	43	43	43	43	43	43	43	43	43

Aggregated Sesame – Soy bean Farm Models – Incremental Production and Inputs (Continued)

Republic of Uganda
National Oilseeds Project
Sesame - Soy bean Subproject Model
PRODUCTION AND INPUTS (Detailed)
(In Units '000) /a

		Increments																			
	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Labor																					
Apr female -	woman day	-	11	24	56	113	170	211	228	231	231	231	231	231	231	231	231	231	231	231	231
May female -	woman day	-	-	-1	2	26	58	84	97	99	99	99	99	99	99	99	99	99	99	99	99
Aug female -	woman day	-	4	12	53	159	264	340	368	371	371	371	371	371	371	371	371	371	371	371	371
Sep female -	woman day	-	-8	-10	-2	25	51	69	76	77	77	77	77	77	77	77	77	77	77	77	77
Oct female -	woman day	-	-	5	19	47	74	91	98	99	99	99	99	99	99	99	99	99	99	99	99
Nov female -	woman day	-	-6	-7	11	70	127	170	184	186	186	186	186	186	186	186	186	186	186	186	186
Mar male -	man day	-	17	-12	-137	-288	-404	-452	-459	-459	-459	-459	-459	-459	-459	-459	-459	-459	-459	-459	-459
Apr male -	man day	-	8	19	45	97	151	190	207	209	209	209	209	209	209	209	209	209	209	209	209
May male -	man day	-	-	-1	2	26	58	84	97	99	99	99	99	99	99	99	99	99	99	99	99
Aug male -	man day	-	-17	-61	-164	-264	-346	-382	-394	-396	-396	-396	-396	-396	-396	-396	-396	-396	-396	-396	-396
Sept male -	man day	-	-8	-10	-2	25	51	69	76	77	77	77	77	77	77	77	77	77	77	77	77
Oct male -	man day	-	-	5	19	47	74	91	98	99	99	99	99	99	99	99	99	99	99	99	99
Nov male -	man day	-	-2	-2	11	57	102	135	146	147	147	147	147	147	147	147	147	147	147	147	147

Appendix 4 Table 9: Aggregated Sesame – Soy bean Farm Models – Incremental Economic Budget

Republic of Uganda
National Oilseeds Project
Sesame - Soy bean Subproject Model
ECONOMIC BUDGET (DETAILED)
(In UGX Million) /a

	Increments																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Main Production																				
Beans - traditional variety	-	-	-687	-2,877	-5,344	-7,205	-7,986	-8,100	-8,100	-8,100	-8,100	-8,100	-8,100	-8,100	-8,100	-8,100	-8,100	-8,100	-8,100	-8,100
Cassava - traditional	-	-	2,484	10,288	19,117	25,763	28,567	28,981	28,981	28,981	28,981	28,981	28,981	28,981	28,981	28,981	28,981	28,981	28,981	28,981
Sorghum	-	-	-149	-640	-1,188	-1,603	-1,775	-1,800	-1,800	-1,800	-1,800	-1,800	-1,800	-1,800	-1,800	-1,800	-1,800	-1,800	-1,800	-1,800
Soy bean - improved variety	-	-	921	4,958	12,672	21,515	28,098	31,360	32,231	32,320	32,320	32,320	32,320	32,320	32,320	32,320	32,320	32,320	32,320	32,320
Sunflower - hybrid	-	-	354	1,762	4,358	7,226	9,287	10,266	10,514	10,538	10,538	10,538	10,538	10,538	10,538	10,538	10,538	10,538	10,538	10,538
Sesame	-	-	1,782	7,836	21,355	37,210	49,717	56,167	57,989	58,191	58,191	58,191	58,191	58,191	58,191	58,191	58,191	58,191	58,191	58,191
Sub-total Main Production	-	-	4,707	21,327	50,971	82,905	105,909	116,874	119,815	120,131	120,131	120,131	120,131	120,131	120,131	120,131	120,131	120,131	120,131	120,131
On-Farm Use																				
Beans - traditional variety	-	-	-82	-345	-641	-865	-958	-972	-972	-972	-972	-972	-972	-972	-972	-972	-972	-972	-972	-972
Cassava - traditional	-	675	1,625	3,477	5,125	6,281	6,768	6,840	6,840	6,840	6,840	6,840	6,840	6,840	6,840	6,840	6,840	6,840	6,840	6,840
Sorghum	-	-	-4	-19	-36	-48	-53	-54	-54	-54	-54	-54	-54	-54	-54	-54	-54	-54	-54	-54
Sesame	-	-	-53	-251	-574	-875	-1,059	-1,125	-1,134	-1,134	-1,134	-1,134	-1,134	-1,134	-1,134	-1,134	-1,134	-1,134	-1,134	-1,134
Sub-Total On-Farm Use	-	675	1,485	2,861	3,874	4,493	4,698	4,689	4,680	4,680	4,680	4,680	4,680	4,680	4,680	4,680	4,680	4,680	4,680	4,680
Net Value Of Production	-	-675	3,221	18,466	47,097	78,412	101,211	112,185	115,135	115,450	115,450	115,450	115,450	115,450	115,450	115,450	115,450	115,450	115,450	115,450
Production Cost																				
Investment																				
Equipment (sprayer etc)	-	1,637	1,255	1,200	273	-	1,637	1,255	1,200	273	-	1,637	1,255	1,200	273	-	-	-	-	-
Tarpaulins	-	409	314	709	382	709	382	709	382	709	382	709	382	709	382	709	382	709	382	709
Drying racks	-	-	82	226	431	649	868	1,004	1,078	1,091	1,091	1,091	1,091	1,091	1,091	1,091	1,091	1,091	1,091	1,091
Sub-total Investment Costs	-	2,046	1,651	2,136	1,086	1,359	2,886	2,968	2,660	2,073	1,473	3,438	2,728	3,001	1,746	1,801	1,473	1,801	1,473	1,801
Operating																				
Purchased Inputs																				
Sesame seed - improved	-	-	36	156	352	534	647	687	693	693	693	693	693	693	693	693	693	693	693	693
Soy bean seed - improved	-	-	182	897	2,101	3,308	4,147	4,579	4,733	4,798	4,810	4,810	4,810	4,810	4,810	4,810	4,810	4,810	4,810	4,810
Sunflower seed - traditional	-	-	1	1	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower seed - hybrid	-	-	21	180	424	666	809	859	866	866	866	866	866	866	866	866	866	866	866	866
NPK - top dressing	-	-	55	329	1,115	2,823	4,116	5,012	5,194	5,194	5,194	5,194	5,194	5,194	5,194	5,194	5,194	5,194	5,194	5,194
NPK - Soy blend (11:29:23)	-	-	-	289	1,482	4,064	6,071	7,425	7,695	7,695	7,695	7,695	7,695	7,695	7,695	7,695	7,695	7,695	7,695	7,695
Pesticide - Pod borer	-	-	15	68	154	234	283	301	303	303	303	303	303	303	303	303	303	303	303	303
Fungicide	-	-	6	30	68	104	126	134	135	135	135	135	135	135	135	135	135	135	135	135
Bags	-	-	44	210	474	709	851	895	900	900	900	900	900	900	900	900	900	900	900	900
Tractor hire - ploughing	-	-	-140	-660	-880	-1,105	-1,067	-1,072	-1,080	-1,080	-1,080	-1,080	-1,080	-1,080	-1,080	-1,080	-1,080	-1,080	-1,080	-1,080
Tractor hire - ripping	-	-	471	2,093	4,737	7,196	8,717	9,258	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331
Tractor hire - harrowing	-	-	471	2,093	4,737	7,196	8,717	9,258	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331	9,331
Oxen hire - ploughing	-	-	59	281	224	183	39	-	-	-	-	-	-	-	-	-	-	-	-	-
Innoculant	-	-	7	32	73	112	136	144	145	145	145	145	145	145	145	145	145	145	145	145
Sub-Total Purchased Inputs	-	-	1,229	5,997	15,063	26,024	33,591	37,480	38,245	38,310	38,322	38,322	38,322	38,322	38,322	38,322	38,322	38,322	38,322	38,322

Aggregated Sesame – Soy bean Farm Models – Incremental Economic Budget (Continued)

Republic of Uganda
National Oilseeds Project
Sesame - Soy bean Subproject Model
ECONOMIC BUDGET (DETAILED)
(In UGX Million) /a

	Increments																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Labor																				
Apr female -	-	36	82	191	383	579	718	776	784	784	784	784	784	784	784	784	784	784	784	784
May female -	-	-	-3	5	89	197	287	330	337	337	337	337	337	337	337	337	337	337	337	337
Aug female -	-	14	41	181	541	896	1,157	1,251	1,262	1,262	1,262	1,262	1,262	1,262	1,262	1,262	1,262	1,262	1,262	1,262
Sep female -	-	-29	-33	-6	84	174	234	257	260	260	260	260	260	260	260	260	260	260	260	260
Oct female -	-	-	18	66	161	250	311	334	337	337	337	337	337	337	337	337	337	337	337	337
Nov female -	-	-22	-25	36	238	433	577	626	631	631	631	631	631	631	631	631	631	631	631	631
Mar male -	-	57	-41	-466	-978	-1,373	-1,537	-1,561	-1,561	-1,561	-1,561	-1,561	-1,561	-1,561	-1,561	-1,561	-1,561	-1,561	-1,561	-1,561
Apr male -	-	29	65	155	328	513	646	703	711	711	711	711	711	711	711	711	711	711	711	711
May male -	-	-	-3	5	89	197	287	330	337	337	337	337	337	337	337	337	337	337	337	337
Aug male -	-	-57	-206	-559	-896	-1,178	-1,300	-1,340	-1,346	-1,346	-1,346	-1,346	-1,346	-1,346	-1,346	-1,346	-1,346	-1,346	-1,346	-1,346
Sept male -	-	-29	-33	-6	84	174	234	257	260	260	260	260	260	260	260	260	260	260	260	260
Oct male -	-	-	18	66	161	250	311	334	337	337	337	337	337	337	337	337	337	337	337	337
Nov male -	-	-7	-8	39	195	346	459	497	501	501	501	501	501	501	501	501	501	501	501	501
Sub-Total Hired Labor	-	-7	-130	-293	480	1,459	2,384	2,792	2,850	2,850	2,850	2,850	2,850	2,850	2,850	2,850	2,850	2,850	2,850	2,850
Sub-total Operating Costs	-	-7	1,099	5,704	15,543	27,483	35,975	40,271	41,094	41,159	41,171	41,171	41,171	41,171	41,171	41,171	41,171	41,171	41,171	41,171
Sub-Total Production Cost	-	2,039	2,750	7,840	16,629	28,842	38,861	43,240	43,754	43,233	42,645	44,609	43,900	44,172	42,917	42,972	42,645	42,972	42,645	42,972
Other Costs																				
Other Costs	-	-	506	1,401	2,666	3,510	3,966	4,050	4,050	4,050	4,050	4,050	4,050	4,050	4,050	4,050	4,050	4,050	4,050	4,050
OUTFLOWS	-	2,039	3,256	9,241	19,295	32,352	42,827	47,290	47,805	47,283	46,695	48,659	47,950	48,223	46,967	47,022	46,695	47,022	46,695	47,022
Cash Flow	-	-2,714	-35	9,224	27,802	46,060	58,384	64,895	67,330	68,167	68,756	66,791	67,501	67,228	68,483	68,428	68,756	68,428	68,756	68,428

Appendix 4 Table 10: Aggregated Soy bean – Sesame Farm Models – Incremental Farm Distributions

Republic of Uganda
National Oilseeds Project
Soy Bean - Sesame Subproject Mod

FARM DISTRIBUTIONS (In Units '000) /a	Increments								
	1	2	3	4	5	6	7	8	9 to 20
Number of Farms									
Non-Participating									
Soy bean - Sesame	-	-13.5	-23.9	-33.8	-36.0	-36.0	-36.0	-36.0	-36.0
Participating									
Soy bean - Sesame	-	13.5	23.9	33.8	36.0	36.0	36.0	36.0	36.0
Cropped Area									
Non-Participating									
Soy bean - Sesame	-	-40.5	-71.6	-101.3	-108.0	-108.0	-108.0	-108.0	-108.0
Participating									
Soy bean - Sesame	-	40.5	76.6	124.0	158.4	183.9	199.2	204.5	205.2
Farm Area									
Non-Participating									
Soy bean - Sesame	-	-20.3	-35.8	-50.6	-54.0	-54.0	-54.0	-54.0	-54.0
Participating									
Soy bean - Sesame	-	30.8	61.3	96.2	102.6	102.6	102.6	102.6	102.6
Cropping Intensity	-	-32.6	-57.9	-68.7	-45.6	-20.8	-5.9	-0.7	-

\a West Nile - Upper belt

Appendix 4 Table 11: Aggregated Soy bean – Sesame Farm Models – Incremental Production and Inputs

Republic of Uganda
National Oilseeds Project
Soy Bean - Sesame Subproject Model
PRODUCTION AND INPUTS (Detailed)
(In Units '000) /a

	Unit	Increments																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Main Production																					
Beans - traditional variety	kg	-	-	146	587	1,079	1,446	1,598	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620
Cassava - traditional	bag (fresh)	-	-	16	66	123	166	184	186	186	186	186	186	186	186	186	186	186	186	186	186
Sorghum	kg	-	-	-297	-1,281	-2,375	-3,207	-3,551	-3,600	-3,600	-3,600	-3,600	-3,600	-3,600	-3,600	-3,600	-3,600	-3,600	-3,600	-3,600	-3,600
Soy bean - HH saved old varieties	kg	-	-	-246	-1,201	-2,736	-4,173	-5,051	-5,359	-5,400	-5,400	-5,400	-5,400	-5,400	-5,400	-5,400	-5,400	-5,400	-5,400	-5,400	-5,400
Soy bean - improved variety	kg	-	-	1,418	7,095	18,141	30,767	40,163	44,803	46,042	46,170	46,170	46,170	46,170	46,170	46,170	46,170	46,170	46,170	46,170	46,170
Sesame	kg	-	-	405	2,017	5,401	9,463	12,623	14,261	14,727	14,778	14,778	14,778	14,778	14,778	14,778	14,778	14,778	14,778	14,778	14,778
On-Farm Use																					
Beans - traditional variety	kg	-	-	-18	-77	-142	-192	-213	-216	-216	-216	-216	-216	-216	-216	-216	-216	-216	-216	-216	-216
Cassava - traditional	bag (fresh)	-	14	27	45	57	65	68	68	68	68	68	68	68	68	68	68	68	68	68	68
Sorghum	kg	-	-	-9	-38	-71	-96	-107	-108	-108	-108	-108	-108	-108	-108	-108	-108	-108	-108	-108	-108
Soy bean - HH saved old varieties	kg	-	-	-25	-120	-274	-417	-505	-536	-540	-540	-540	-540	-540	-540	-540	-540	-540	-540	-540	-540
Sesame	kg	-	-	-13	-64	-145	-222	-269	-286	-288	-288	-288	-288	-288	-288	-288	-288	-288	-288	-288	-288
Sales																					
Beans - traditional variety	kg	-	-	164	664	1,221	1,638	1,811	1,836	1,836	1,836	1,836	1,836	1,836	1,836	1,836	1,836	1,836	1,836	1,836	1,836
Cassava - traditional	bag (fresh)	-	-14	-11	21	66	101	116	118	118	118	118	118	118	118	118	118	118	118	118	118
Sorghum	kg	-	-	-288	-1,242	-2,304	-3,110	-3,444	-3,492	-3,492	-3,492	-3,492	-3,492	-3,492	-3,492	-3,492	-3,492	-3,492	-3,492	-3,492	-3,492
Soy bean - HH saved old varieties	kg	-	-	-221	-1,081	-2,462	-3,755	-4,546	-4,823	-4,860	-4,860	-4,860	-4,860	-4,860	-4,860	-4,860	-4,860	-4,860	-4,860	-4,860	-4,860
Soy bean - improved variety	kg	-	-	1,418	7,095	18,141	30,767	40,163	44,803	46,042	46,170	46,170	46,170	46,170	46,170	46,170	46,170	46,170	46,170	46,170	46,170
Sesame	kg	-	-	418	2,081	5,546	9,685	12,891	14,547	15,015	15,066	15,066	15,066	15,066	15,066	15,066	15,066	15,066	15,066	15,066	15,066
Investment																					
Equipment (sprayer etc)	set	-	14	10	10	2	-	14	10	10	2	-	14	10	10	2	-	-	-	-	-
Tarpaulins	set	-	675,000	517,500	1,170,000	630,000	1,170,000	630,000	1,170,000	630,000	1,170,000	630,000	1,170,000	630,000	1,170,000	630,000	1,170,000	630,000	1,170,000	630,000	1,170,000
Drying racks	set	-	-	135,000	373,500	711,000	1,071,000	1,431,000	1,656,000	1,777,500	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000
Operating																					
Purchased Inputs																					
Sesame seed - improved	kg	-	-	10	46	104	158	192	204	205	205	205	205	205	205	205	205	205	205	205	205
Soy bean seed - improved	kg	-	-	81	399	936	1,472	1,844	2,035	2,103	2,132	2,138	2,138	2,138	2,138	2,138	2,138	2,138	2,138	2,138	2,138
NPK - top dressing	kg	-	-	32	217	731	1,859	2,709	3,300	3,420	3,420	3,420	3,420	3,420	3,420	3,420	3,420	3,420	3,420	3,420	3,420
NPK - Soy blend (11:29:23)	kg	-	-	32	378	1,557	2,835	3,817	4,218	4,275	4,275	4,275	4,275	4,275	4,275	4,275	4,275	4,275	4,275	4,275	4,275
Pesticide - Pod borer	litre	-	-	3	13	30	46	56	59	60	60	60	60	60	60	60	60	60	60	60	60
Fungicide	sachet	-	-	4	19	43	66	80	85	86	86	86	86	86	86	86	86	86	86	86	86
Bags	each	-	-	32	162	372	568	689	731	736	736	736	736	736	736	736	736	736	736	736	736
Tractor hire - ploughing	acre	-	-	-3	-14	-32	-49	-59	-63	-63	-63	-63	-63	-63	-63	-63	-63	-63	-63	-63	-63
Tractor hire - ripping	acre	-	-	7	34	78	119	144	153	154	154	154	154	154	154	154	154	154	154	154	154
Tractor hire - harrowing	acre	-	-	7	34	78	119	144	153	154	154	154	154	154	154	154	154	154	154	154	154
Power tiller - ploughing	acre	-	-	1	6	11	15	17	17	17	17	17	17	17	17	17	17	17	17	17	17
Innoculant	sachet	-	-	4	19	43	66	80	85	86	86	86	86	86	86	86	86	86	86	86	86

Aggregated Soy bean – Sesame Farm Models – Incremental Production and Inputs (Continued)

Republic of Uganda
National Oilseeds Project
Soy Bean - Sesame Subproject Model
PRODUCTION AND INPUTS (Detailed)
(In Units '000) /a

		Increments																			
	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Labor																					
Apr female -	woman day	-	17	36	83	171	253	311	332	335	335	335	335	335	335	335	335	335	335	335	335
May female -	woman day	-	-	-4	-18	-31	-39	-41	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40
Aug female -	woman day	-	7	19	64	160	251	315	337	339	339	339	339	339	339	339	339	339	339	339	339
Sep female -	woman day	-	-14	-11	23	88	148	184	196	198	198	198	198	198	198	198	198	198	198	198	198
Oct female -	woman day	-	-	13	57	124	184	220	232	234	234	234	234	234	234	234	234	234	234	234	234
Nov female -	woman day	-	-10	-8	30	120	206	264	283	285	285	285	285	285	285	285	285	285	285	285	285
Mar male -	man day	-	27	3	-140	-365	-570	-686	-723	-727	-727	-727	-727	-727	-727	-727	-727	-727	-727	-727	-727
Apr male -	man day	-	14	29	72	156	237	294	315	318	318	318	318	318	318	318	318	318	318	318	318
May male -	man day	-	-	-4	-18	-31	-39	-41	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40
Aug male -	man day	-	-27	-55	-83	-53	-13	26	42	44	44	44	44	44	44	44	44	44	44	44	44
Sept male -	man day	-	-14	-11	23	88	148	184	196	198	198	198	198	198	198	198	198	198	198	198	198
Oct male -	man day	-	-	13	57	124	184	220	232	234	234	234	234	234	234	234	234	234	234	234	234
Nov male -	man day	-	-3	-3	19	77	132	172	185	186	186	186	186	186	186	186	186	186	186	186	186

\a West Nile - Upper belt

Appendix 4 Table 12: Aggregated Soy bean – Sesame Farm Models – Incremental Economic Budget

Republic of Uganda
National Oilseeds Project
Soy Bean - Sesame Subproject Model
ECONOMIC BUDGET (DETAILED)
(In UGX Million) /a

	Increments																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Main Production																				
Beans - traditional variety	-	-	262	1,057	1,942	2,603	2,876	2,916	2,916	2,916	2,916	2,916	2,916	2,916	2,916	2,916	2,916	2,916	2,916	2,916
Cassava - traditional	-	-	1,242	5,299	9,833	13,269	14,697	14,904	14,904	14,904	14,904	14,904	14,904	14,904	14,904	14,904	14,904	14,904	14,904	14,904
Sorghum	-	-	-119	-512	-950	-1,283	-1,420	-1,440	-1,440	-1,440	-1,440	-1,440	-1,440	-1,440	-1,440	-1,440	-1,440	-1,440	-1,440	-1,440
Soy bean - HH saved old varieties	-	-	-307	-1,501	-3,420	-5,216	-6,314	-6,699	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750
Soy bean - improved variety	-	-	1,843	9,933	25,398	43,073	56,228	62,724	64,458	64,638	64,638	64,638	64,638	64,638	64,638	64,638	64,638	64,638	64,638	64,638
Sesame	-	-	1,661	8,370	22,685	39,745	53,015	59,898	61,852	62,068	62,068	62,068	62,068	62,068	62,068	62,068	62,068	62,068	62,068	62,068
Sub-total Main Production	-	-	4,582	22,646	55,488	92,191	119,081	132,302	135,941	136,336	136,336	136,336	136,336	136,336	136,336	136,336	136,336	136,336	136,336	136,336
On-Farm Use																				
Beans - traditional variety	-	-	-33	-138	-256	-346	-383	-389	-389	-389	-389	-389	-389	-389	-389	-389	-389	-389	-389	-389
Cassava - traditional	-	1,080	2,124	3,622	4,590	5,188	5,436	5,472	5,472	5,472	5,472	5,472	5,472	5,472	5,472	5,472	5,472	5,472	5,472	5,472
Sorghum	-	-	-4	-15	-29	-38	-43	-43	-43	-43	-43	-43	-43	-43	-43	-43	-43	-43	-43	-43
Soy bean - HH saved old varieties	-	-	-31	-150	-342	-522	-631	-670	-675	-675	-675	-675	-675	-675	-675	-675	-675	-675	-675	-675
Sesame	-	-	-53	-265	-608	-932	-1,129	-1,200	-1,210	-1,210	-1,210	-1,210	-1,210	-1,210	-1,210	-1,210	-1,210	-1,210	-1,210	-1,210
Sub-Total On-Farm Use	-	1,080	2,004	3,053	3,355	3,350	3,250	3,170	3,155	3,155	3,155	3,155	3,155	3,155	3,155	3,155	3,155	3,155	3,155	3,155
Net Value Of Production	-	-1,080	2,578	19,593	52,133	88,841	115,831	129,132	132,785	133,180	133,180	133,180	133,180	133,180	133,180	133,180	133,180	133,180	133,180	133,180
Production Cost																				
Investment																				
Equipment (sprayer etc)	-	2,619	2,008	1,921	437	-	2,619	2,008	1,921	437	-	2,619	2,008	1,921	437	-	-	-	-	-
Tarpaulins	-	655	502	1,135	611	1,135	611	1,135	611	1,135	611	1,135	611	1,135	611	1,135	611	1,135	611	1,135
Drying racks	-	-	131	362	690	1,039	1,388	1,606	1,724	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746
Sub-total Investment Costs	-	3,274	2,641	3,418	1,737	2,174	4,618	4,749	4,256	3,317	2,357	5,500	4,365	4,802	2,794	2,881	2,357	2,881	2,357	2,881
Operating																				
Purchased Inputs																				
Sesame seed - improved	-	-	35	165	374	570	690	733	739	739	739	739	739	739	739	739	739	739	739	739
Soy bean seed - improved	-	-	365	1,798	4,211	6,624	8,299	9,159	9,465	9,595	9,619	9,619	9,619	9,619	9,619	9,619	9,619	9,619	9,619	9,619
NPK - top dressing	-	-	52	352	1,185	3,011	4,388	5,345	5,540	5,540	5,540	5,540	5,540	5,540	5,540	5,540	5,540	5,540	5,540	5,540
NPK - Soy blend (11:29:23)	-	-	117	1,360	5,604	10,206	13,740	15,185	15,390	15,390	15,390	15,390	15,390	15,390	15,390	15,390	15,390	15,390	15,390	15,390
Pesticide - Pod borer	-	-	23	109	246	374	453	481	485	485	485	485	485	485	485	485	485	485	485	485
Fungicide	-	-	13	60	137	208	252	267	269	269	269	269	269	269	269	269	269	269	269	269
Bags	-	-	34	173	397	606	735	780	786	786	786	786	786	786	786	786	786	786	786	786
Tractor hire - ploughing	-	-	-249	-1,222	-2,775	-4,242	-5,137	-5,456	-5,500	-5,500	-5,500	-5,500	-5,500	-5,500	-5,500	-5,500	-5,500	-5,500	-5,500	-5,500
Tractor hire - ripping	-	-	636	3,010	6,808	10,373	12,554	13,330	13,435	13,435	13,435	13,435	13,435	13,435	13,435	13,435	13,435	13,435	13,435	13,435
Tractor hire - harrowing	-	-	636	3,010	6,808	10,373	12,554	13,330	13,435	13,435	13,435	13,435	13,435	13,435	13,435	13,435	13,435	13,435	13,435	13,435
Power tiller - ploughing	-	-	115	476	879	1,183	1,309	1,327	1,327	1,327	1,327	1,327	1,327	1,327	1,327	1,327	1,327	1,327	1,327	1,327
Innoculant	-	-	14	65	147	224	271	288	290	290	290	290	290	290	290	290	290	290	290	290
Sub-Total Purchased Inputs	-	-	1,792	9,356	24,021	39,511	50,107	54,770	55,662	55,792	55,816	55,816	55,816	55,816	55,816	55,816	55,816	55,816	55,816	55,816

Aggregated Soy bean – Sesame Farm Models – Incremental Economic Budget (Continued)

Republic of Uganda
National Oilseeds Project
Soy Bean - Sesame Subproject Model
ECONOMIC BUDGET (DETAILED)
(In UGX Million) /a

	Increments																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Labor																				
Apr female -	-	57	122	283	580	860	1,059	1,130	1,138	1,138	1,138	1,138	1,138	1,138	1,138	1,138	1,138	1,138	1,138	1,138
May female -	-	-	-15	-62	-105	-132	-138	-135	-135	-135	-135	-135	-135	-135	-135	-135	-135	-135	-135	-135
Aug female -	-	23	64	218	544	852	1,070	1,145	1,154	1,154	1,154	1,154	1,154	1,154	1,154	1,154	1,154	1,154	1,154	1,154
Sep female -	-	-46	-38	79	298	504	626	668	673	673	673	673	673	673	673	673	673	673	673	673
Oct female -	-	-	43	194	420	627	748	790	796	796	796	796	796	796	796	796	796	796	796	796
Nov female -	-	-34	-29	103	409	702	897	962	970	970	970	970	970	970	970	970	970	970	970	970
Mar male -	-	92	12	-475	-1,241	-1,939	-2,331	-2,457	-2,472	-2,472	-2,472	-2,472	-2,472	-2,472	-2,472	-2,472	-2,472	-2,472	-2,472	-2,472
Apr male -	-	46	99	245	531	804	1,001	1,071	1,080	1,080	1,080	1,080	1,080	1,080	1,080	1,080	1,080	1,080	1,080	1,080
May male -	-	-	-15	-62	-105	-132	-138	-135	-135	-135	-135	-135	-135	-135	-135	-135	-135	-135	-135	-135
Aug male -	-	-92	-188	-281	-182	-43	90	143	150	150	150	150	150	150	150	150	150	150	150	150
Sept male -	-	-46	-38	79	298	504	626	668	673	673	673	673	673	673	673	673	673	673	673	673
Oct male -	-	-	43	194	420	627	748	790	796	796	796	796	796	796	796	796	796	796	796	796
Nov male -	-	-11	-10	63	260	449	584	628	633	633	633	633	633	633	633	633	633	633	633	633
Sub-Total Hired Labor	-	-11	49	577	2,127	3,684	4,842	5,267	5,321	5,321	5,321	5,321	5,321	5,321	5,321	5,321	5,321	5,321	5,321	5,321
Sub-total Operating Costs	-	-11	1,841	9,933	26,148	43,195	54,948	60,037	60,983	61,113	61,137	61,137	61,137	61,137	61,137	61,137	61,137	61,137	61,137	61,137
Sub-Total Production Cost	-	3,262	4,482	13,351	27,885	45,369	59,566	64,786	65,239	64,430	63,494	66,637	65,502	65,939	63,931	64,018	63,494	64,018	63,494	64,018
Other Costs																				
Other Costs	-	-	608	1,681	3,200	4,212	4,759	4,860	4,860	4,860	4,860	4,860	4,860	4,860	4,860	4,860	4,860	4,860	4,860	4,860
OUTFLOWS	-	3,262	5,090	15,032	31,085	49,581	64,325	69,646	70,099	69,290	68,354	71,497	70,362	70,799	68,791	68,878	68,354	68,878	68,354	68,878
Cash Flow	-	-4,342	-2,512	4,561	21,048	39,260	51,506	59,486	62,686	63,890	64,826	61,683	62,818	62,382	64,389	64,302	64,826	64,302	64,826	64,302

Appendix 4 Table 13: Overall NOSP – Incremental Farm Distributions

Republic of Uganda
National Oilseeds Project
Project Summary
FARM DISTRIBUTIONS
(In Units '000)

	Increments									
	1	2	3	4	5	6	7	8	9	10 to 20
Number of Farms										
Non-Participating										
Sunflower - Sesame	-	-6.8	-11.9	-16.9	-18.0	-18.0	-18.0	-18.0	-18.0	-18.0
Sunflower - Groundnut	-	-5.1	-8.9	-12.7	-13.5	-13.5	-13.5	-13.5	-13.5	-13.5
Sesame - Soy bean	-	-8.4	-14.9	-21.1	-22.5	-22.5	-22.5	-22.5	-22.5	-22.5
Soy bean - Sesame	-	-13.5	-23.9	-33.8	-36.0	-36.0	-36.0	-36.0	-36.0	-36.0
Participating										
Sunflower - Sesame	-	6.8	11.9	16.9	18.0	18.0	18.0	18.0	18.0	18.0
Sunflower - Groundnut	-	5.1	8.9	12.7	13.5	13.5	13.5	13.5	13.5	13.5
Sesame - Soy bean	-	8.4	14.9	21.1	22.5	22.5	22.5	22.5	22.5	22.5
Soy bean - Sesame	-	13.5	23.9	33.8	36.0	36.0	36.0	36.0	36.0	36.0
Cropped Area										
Non-Participating										
Sunflower - Sesame	-	-20.3	-35.8	-50.6	-54.0	-54.0	-54.0	-54.0	-54.0	-54.0
Sunflower - Groundnut	-	-15.2	-26.8	-38.0	-40.5	-40.5	-40.5	-40.5	-40.5	-40.5
Sesame - Soy bean	-	-33.8	-59.6	-84.4	-90.0	-90.0	-90.0	-90.0	-90.0	-90.0
Soy bean - Sesame	-	-40.5	-71.6	-101.3	-108.0	-108.0	-108.0	-108.0	-108.0	-108.0
Participating										
Sunflower - Sesame	-	20.3	42.2	80.2	108.6	128.0	135.7	136.8	136.8	136.8
Sunflower - Groundnut	-	15.2	26.6	44.3	63.2	81.8	95.5	101.4	102.5	102.6
Sesame - Soy bean	-	33.8	63.4	100.8	129.1	150.9	165.0	170.3	171.0	171.0
Soy bean - Sesame	-	40.5	76.6	124.0	158.4	183.9	199.2	204.5	205.2	205.2
Farm Area										
Non-Participating										
Sunflower - Sesame	-	-10.1	-17.9	-25.3	-27.0	-27.0	-27.0	-27.0	-27.0	-27.0
Sunflower - Groundnut	-	-7.6	-13.4	-19.0	-20.3	-20.3	-20.3	-20.3	-20.3	-20.3
Sesame - Soy bean	-	-16.9	-29.8	-42.2	-45.0	-45.0	-45.0	-45.0	-45.0	-45.0
Soy bean - Sesame	-	-20.3	-35.8	-50.6	-54.0	-54.0	-54.0	-54.0	-54.0	-54.0
Participating										
Sunflower - Sesame	-	15.3	36.1	64.1	68.4	68.4	68.4	68.4	68.4	68.4
Sunflower - Groundnut	-	11.5	27.1	48.1	51.3	51.3	51.3	51.3	51.3	51.3
Sesame - Soy bean	-	21.9	47.7	80.2	85.5	85.5	85.5	85.5	85.5	85.5
Soy bean - Sesame	-	30.8	61.3	96.2	102.6	102.6	102.6	102.6	102.6	102.6
Cropping Intensity	-	-28.9	-61.2	-76.5	-50.8	-23.1	-6.6	-0.9	-0.0	-

Appendix 4 Table 14: Overall NOSP – Incremental Production and Inputs

Republic of Uganda
National Oilseeds Project
Project Summary
PRODUCTION AND INPUTS (Detailed)
(In Units '000)

	Unit	Increments																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Main Production																					
Maize - traditional variety	kg	-	-	-265	-1,120	-2,078	-2,803	-3,106	-3,150	-3,150	-3,150	-3,150	-3,150	-3,150	-3,150	-3,150	-3,150	-3,150	-3,150	-3,150	-3,150
Maize - improved variety	kg	-	-	790	3,353	6,212	8,377	9,275	9,405	9,405	9,405	9,405	9,405	9,405	9,405	9,405	9,405	9,405	9,405	9,405	9,405
Beans - traditional variety	kg	-	-	-368	-1,571	-2,929	-3,958	-4,392	-4,455	-4,455	-4,455	-4,455	-4,455	-4,455	-4,455	-4,455	-4,455	-4,455	-4,455	-4,455	-4,455
Sweet Potato - traditional variety	bag	-	-	-9	-39	-73	-98	-109	-110	-110	-110	-110	-110	-110	-110	-110	-110	-110	-110	-110	-110
Cassava - traditional	bag (fresh)	-	-	17	66	123	165	184	186	186	186	186	186	186	186	186	186	186	186	186	186
Sorghum	kg	-	-	-668	-2,882	-5,344	-7,215	-7,989	-8,100	-8,100	-8,100	-8,100	-8,100	-8,100	-8,100	-8,100	-8,100	-8,100	-8,100	-8,100	-8,100
Soy bean - HH saved old varieties	kg	-	-	-246	-1,201	-2,736	-4,173	-5,051	-5,359	-5,400	-5,400	-5,400	-5,400	-5,400	-5,400	-5,400	-5,400	-5,400	-5,400	-5,400	-5,400
Soy bean - improved variety	kg	-	-	2,941	14,474	35,923	60,005	77,675	86,304	88,632	88,879	88,879	88,879	88,879	88,879	88,879	88,879	88,879	88,879	88,879	88,879
Sunflower - hybrid	kg	-	-	3,379	15,911	35,358	55,124	68,314	74,149	75,702	75,876	75,876	75,876	75,876	75,876	75,876	75,876	75,876	75,876	75,876	75,876
Groundnut - traditonal	kg	-	-	-2,456	-5,755	-9,200	-11,075	-11,720	-11,813	-11,813	-11,813	-11,813	-11,813	-11,813	-11,813	-11,813	-11,813	-11,813	-11,813	-11,813	-11,813
Groundnut - improved	kg	-	-	324	1,518	4,314	7,985	11,248	13,125	13,816	13,916	13,916	13,916	13,916	13,916	13,916	13,916	13,916	13,916	13,916	13,916
Sesame	kg	-	-	1,185	5,625	14,149	23,950	31,386	35,147	36,234	36,359	36,359	36,359	36,359	36,359	36,359	36,359	36,359	36,359	36,359	36,359
On-Farm Use																					
Maize - traditional variety	kg	-	-	-7	-28	-52	-70	-78	-79	-79	-79	-79	-79	-79	-79	-79	-79	-79	-79	-79	-79
Maize - improved variety	kg	-	-	20	84	155	209	232	235	235	235	235	235	235	235	235	235	235	235	235	235
Beans - traditional variety	kg	-	-	-80	-336	-623	-841	-932	-945	-945	-945	-945	-945	-945	-945	-945	-945	-945	-945	-945	-945
Sweet Potato - traditional variety	bag	-	-	-4	-17	-31	-42	-47	-47	-47	-47	-47	-47	-47	-47	-47	-47	-47	-47	-47	-47
Cassava - traditional	bag (fresh)	-	22	47	89	121	143	153	154	154	154	154	154	154	154	154	154	154	154	154	154
Sorghum	kg	-	-	-20	-86	-160	-216	-240	-243	-243	-243	-243	-243	-243	-243	-243	-243	-243	-243	-243	-243
Soy bean - HH saved old varieties	kg	-	-	-25	-120	-274	-417	-505	-536	-540	-540	-540	-540	-540	-540	-540	-540	-540	-540	-540	-540
Groundnut - traditonal	kg	-	-	-3	-8	-12	-15	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16	-16
Sesame	kg	-	-	-36	-169	-365	-542	-645	-680	-684	-684	-684	-684	-684	-684	-684	-684	-684	-684	-684	-684
Sales																					
Maize - traditional variety	kg	-	-	-258	-1,092	-2,026	-2,733	-3,028	-3,071	-3,071	-3,071	-3,071	-3,071	-3,071	-3,071	-3,071	-3,071	-3,071	-3,071	-3,071	-3,071
Maize - improved variety	kg	-	-	770	3,269	6,057	8,168	9,043	9,170	9,170	9,170	9,170	9,170	9,170	9,170	9,170	9,170	9,170	9,170	9,170	9,170
Beans - traditional variety	kg	-	-	-288	-1,236	-2,306	-3,118	-3,460	-3,510	-3,510	-3,510	-3,510	-3,510	-3,510	-3,510	-3,510	-3,510	-3,510	-3,510	-3,510	-3,510
Sweet Potato - traditional variety	bag	-	-	-5	-22	-42	-56	-62	-63	-63	-63	-63	-63	-63	-63	-63	-63	-63	-63	-63	-63
Cassava - traditional	bag (fresh)	-	-22	-30	-23	1	22	31	32	32	32	32	32	32	32	32	32	32	32	32	32
Sorghum	kg	-	-	-648	-2,795	-5,184	-6,999	-7,749	-7,857	-7,857	-7,857	-7,857	-7,857	-7,857	-7,857	-7,857	-7,857	-7,857	-7,857	-7,857	-7,857
Soy bean - HH saved old varieties	kg	-	-	-221	-1,081	-2,462	-3,755	-4,546	-4,823	-4,860	-4,860	-4,860	-4,860	-4,860	-4,860	-4,860	-4,860	-4,860	-4,860	-4,860	-4,860
Soy bean - improved variety	kg	-	-	2,941	14,474	35,923	60,005	77,675	86,304	88,632	88,879	88,879	88,879	88,879	88,879	88,879	88,879	88,879	88,879	88,879	88,879
Sunflower - hybrid	kg	-	-	3,379	15,911	35,358	55,124	68,314	74,149	75,702	75,876	75,876	75,876	75,876	75,876	75,876	75,876	75,876	75,876	75,876	75,876
Groundnut - traditonal	kg	-	-	-2,452	-5,748	-9,187	-11,061	-11,704	-11,797	-11,797	-11,797	-11,797	-11,797	-11,797	-11,797	-11,797	-11,797	-11,797	-11,797	-11,797	-11,797
Groundnut - improved	kg	-	-	324	1,518	4,314	7,985	11,248	13,125	13,816	13,916	13,916	13,916	13,916	13,916	13,916	13,916	13,916	13,916	13,916	13,916
Sesame	kg	-	-	1,221	5,794	14,514	24,493	32,031	35,827	36,918	37,043	37,043	37,043	37,043	37,043	37,043	37,043	37,043	37,043	37,043	37,043
Investment																					
Equipment (sprayer etc)	set	-	34	26	25	6	-	34	26	25	6	-	34	26	25	6	-	-	-	-	-
Tarpaulins	set	-	1,687,550	1,293,750	2,925,100	1,575,000	2,925,100	1,575,000	2,925,100	1,575,000	2,925,100	1,575,000	2,925,100	1,575,000	2,925,100	1,575,000	2,925,100	1,575,000	2,925,100	1,575,000	2,925,100
Drying racks	set	-	-	286,880	793,700	1,510,900	2,275,910	3,040,920	3,519,050	3,777,240	3,825,050	3,825,050	3,825,050	3,825,050	3,825,050	3,825,050	3,825,050	3,825,050	3,825,050	3,825,050	3,825,050

Overall NOSP – Incremental Production and Inputs (Continued)

Republic of Uganda
National Oilseeds Project
Project Summary
PRODUCTION AND INPUTS (Detailed)
(In Units '000)

	Unit	Increments																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Operating																					
Purchased Inputs																					
Sesame seed - improved	kg	-	-	28	126	269	398	473	497	500	500	500	500	500	500	500	500	500	500	500	500
Soy bean seed - improved	kg	-	-	168	815	1,855	2,876	3,569	3,921	4,049	4,104	4,115	4,115	4,115	4,115	4,115	4,115	4,115	4,115	4,115	4,115
Sunflower seed - traditional	kg	-	-	10	7	7	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower seed - hybrid	kg	-	-	5	40	85	126	147	153	154	154	154	154	154	154	154	154	154	154	154	154
Ground nut seed - improved	kg	-	-	8	40	114	199	271	307	319	321	321	321	321	321	321	321	321	321	321	321
NPK - top dressing	kg	-	-	93	593	1,876	4,604	6,642	8,050	8,336	8,336	8,336	8,336	8,336	8,336	8,336	8,336	8,336	8,336	8,336	8,336
NPK - Soy blend (11:29:23)	kg	-	-	32	544	2,353	4,953	6,955	8,037	8,230	8,230	8,230	8,230	8,230	8,230	8,230	8,230	8,230	8,230	8,230	8,230
TSP	kg	-	-	-	30	122	274	453	571	631	641	641	641	641	641	641	641	641	641	641	641
Pesticide	litre	-	-	7	32	70	106	128	135	137	137	137	137	137	137	137	137	137	137	137	137
Fungicide	sachet	-	-	8	39	86	129	155	163	165	165	165	165	165	165	165	165	165	165	165	165
Bags	each	-	-	109	610	1,436	2,198	2,670	2,825	2,847	2,847	2,847	2,847	2,847	2,847	2,847	2,847	2,847	2,847	2,847	2,847
Tractor hire - ploughing	acre	-	-	-9	-35	-18	-5	20	26	26	26	26	26	26	26	26	26	26	26	26	26
Tractor hire - ripping	acre	-	-	18	83	181	270	323	341	344	344	344	344	344	344	344	344	344	344	344	344
Tractor hire - harrowing	acre	-	-	18	83	181	270	323	341	344	344	344	344	344	344	344	344	344	344	344	344
Power tiller - ploughing	acre	-	-	1	6	11	15	17	17	17	17	17	17	17	17	17	17	17	17	17	17
Oxen hire - ploughing	acre	-	-	10	44	35	28	6	-	-	-	-	-	-	-	-	-	-	-	-	-
Innoculant	sachet	-	-	8	39	86	129	155	163	165	165	165	165	165	165	165	165	165	165	165	165
Labor																					
Apr female -	woman day	-	27	78	257	530	786	945	1,000	1,006	1,006	1,006	1,006	1,006	1,006	1,006	1,006	1,006	1,006	1,006	1,006
May female -	woman day	-	-	22	108	242	368	445	472	475	475	475	475	475	475	475	475	475	475	475	475
Aug female -	woman day	-	11	46	224	571	895	1,110	1,180	1,189	1,189	1,189	1,189	1,189	1,189	1,189	1,189	1,189	1,189	1,189	1,189
Sep female -	woman day	-	-22	-5	94	266	426	524	558	564	564	564	564	564	564	564	564	564	564	564	564
Oct female -	woman day	-	-	44	193	407	597	707	743	749	749	749	749	749	749	749	749	749	749	749	749
Nov female -	woman day	-	-16	-4	105	338	557	702	750	756	757	757	757	757	757	757	757	757	757	757	757
Mar male -	man day	-	44	-51	-355	-767	-1,100	-1,265	-1,309	-1,314	-1,314	-1,314	-1,314	-1,314	-1,314	-1,314	-1,314	-1,314	-1,314	-1,314	-1,314
Apr male -	man day	-	22	66	234	500	750	907	961	968	968	968	968	968	968	968	968	968	968	968	968
May male -	man day	-	-	22	108	242	368	445	472	475	475	475	475	475	475	475	475	475	475	475	475
Aug male -	man day	-	-44	-160	-411	-579	-685	-691	-682	-680	-680	-680	-680	-680	-680	-680	-680	-680	-680	-680	-680
Sept male -	man day	-	-22	-5	94	266	426	524	558	564	564	564	564	564	564	564	564	564	564	564	564
Oct male -	man day	-	-	44	193	407	597	707	743	749	749	749	749	749	749	749	749	749	749	749	749
Nov male -	man day	-	-5	-1	58	206	344	440	471	474	475	475	475	475	475	475	475	475	475	475	475
Hired labour - bird scaring	person day	-	236	417	591	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630	630

Appendix 4 Table 15: Overall NOSP – Incremental Economic Budget

Republic of Uganda
National Oilseeds Project
Project Summary
ECONOMIC BUDGET (DETAILED)
(In UGX Million)

	Increments																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Main Production																				
Maize - traditional variety	-	-	-159	-672	-1,247	-1,682	-1,864	-1,890	-1,890	-1,890	-1,890	-1,890	-1,890	-1,890	-1,890	-1,890	-1,890	-1,890	-1,890	-1,890
Maize - improved variety	-	-	474	2,012	3,727	5,026	5,565	5,643	5,643	5,643	5,643	5,643	5,643	5,643	5,643	5,643	5,643	5,643	5,643	5,643
Beans - traditional variety	-	-	-662	-2,829	-5,272	-7,125	-7,905	-8,019	-8,019	-8,019	-8,019	-8,019	-8,019	-8,019	-8,019	-8,019	-8,019	-8,019	-8,019	-8,019
Sweet Potato - traditional variety	-	-	-455	-1,961	-3,637	-4,910	-5,437	-5,513	-5,513	-5,513	-5,513	-5,513	-5,513	-5,513	-5,513	-5,513	-5,513	-5,513	-5,513	-5,513
Cassava - traditional	-	-	1,335	5,278	9,830	13,217	14,682	14,904	14,904	14,904	14,904	14,904	14,904	14,904	14,904	14,904	14,904	14,904	14,904	14,904
Sorghum	-	-	-267	-1,153	-2,138	-2,886	-3,196	-3,240	-3,240	-3,240	-3,240	-3,240	-3,240	-3,240	-3,240	-3,240	-3,240	-3,240	-3,240	-3,240
Soy bean - HH saved old varieties	-	-	-307	-1,501	-3,420	-5,216	-6,314	-6,699	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750	-6,750
Soy bean - improved variety	-	-	3,824	20,263	50,293	84,006	108,746	120,826	124,085	124,431	124,431	124,431	124,431	124,431	124,431	124,431	124,431	124,431	124,431	124,431
Sunflower - hybrid	-	-	3,379	15,911	35,358	55,124	68,314	74,149	75,702	75,876	75,876	75,876	75,876	75,876	75,876	75,876	75,876	75,876	75,876	75,876
Groundnut - traditonal	-	-	-6,875	-16,115	-25,759	-31,011	-32,816	-33,076	-33,076	-33,076	-33,076	-33,076	-33,076	-33,076	-33,076	-33,076	-33,076	-33,076	-33,076	-33,076
Groundnut - improved	-	-	940	4,479	12,943	23,954	33,744	39,375	41,449	41,748	41,748	41,748	41,748	41,748	41,748	41,748	41,748	41,748	41,748	41,748
Sesame	-	-	4,857	23,345	59,426	100,591	131,822	147,619	152,184	152,710	152,710	152,710	152,710	152,710	152,710	152,710	152,710	152,710	152,710	152,710
Sub-total Main Production	-	-	6,082	47,057	130,105	229,088	305,342	344,080	355,480	356,823	356,823	356,823	356,823	356,823	356,823	356,823	356,823	356,823	356,823	356,823
On-Farm Use																				
Maize - traditional variety	-	-	-4	-17	-31	-42	-47	-47	-47	-47	-47	-47	-47	-47	-47	-47	-47	-47	-47	-47
Maize - improved variety	-	-	12	50	93	126	139	141	141	141	141	141	141	141	141	141	141	141	141	141
Beans - traditional variety	-	-	-144	-604	-1,122	-1,513	-1,677	-1,701	-1,701	-1,701	-1,701	-1,701	-1,701	-1,701	-1,701	-1,701	-1,701	-1,701	-1,701	-1,701
Sweet Potato - traditional variety	-	-	-195	-840	-1,559	-2,104	-2,330	-2,363	-2,363	-2,363	-2,363	-2,363	-2,363	-2,363	-2,363	-2,363	-2,363	-2,363	-2,363	-2,363
Cassava - traditional	-	1,755	3,749	7,098	9,715	11,468	12,204	12,312	12,312	12,312	12,312	12,312	12,312	12,312	12,312	12,312	12,312	12,312	12,312	12,312
Sorghum	-	-	-8	-35	-64	-87	-96	-97	-97	-97	-97	-97	-97	-97	-97	-97	-97	-97	-97	-97
Soy bean - HH saved old varieties	-	-	-31	-150	-342	-522	-631	-670	-675	-675	-675	-675	-675	-675	-675	-675	-675	-675	-675	-675
Groundnut - traditonal	-	-	-9	-21	-34	-41	-44	-44	-44	-44	-44	-44	-44	-44	-44	-44	-44	-44	-44	-44
Sesame	-	-	-148	-702	-1,532	-2,278	-2,710	-2,854	-2,873	-2,873	-2,873	-2,873	-2,873	-2,873	-2,873	-2,873	-2,873	-2,873	-2,873	-2,873
Sub-Total On-Farm Use	-	1,755	3,222	4,779	5,124	5,007	4,809	4,677	4,653	4,653	4,653	4,653	4,653	4,653	4,653	4,653	4,653	4,653	4,653	4,653
Net Value Of Production	-	-1,755	2,861	42,278	124,981	224,082	300,533	339,403	350,827	352,170	352,170	352,170	352,170	352,170	352,170	352,170	352,170	352,170	352,170	352,170
Production Cost																				
Investment																				
Equipment (sprayer etc)	-	6,548	5,020	4,802	1,091	-	6,548	5,020	4,802	1,091	-	6,548	5,020	4,802	1,091	-	-	-	-	-
Tarpaulins	-	1,637	1,255	2,837	1,528	2,837	1,528	2,837	1,528	2,837	1,528	2,837	1,528	2,837	1,528	2,837	1,528	2,837	1,528	2,837
Drying racks	-	-	278	770	1,466	2,208	2,950	3,413	3,664	3,710	3,710	3,710	3,710	3,710	3,710	3,710	3,710	3,710	3,710	3,710
Sub-total Investment Costs	-	8,185	6,553	8,409	4,085	5,045	11,025	11,271	9,993	7,639	5,238	13,095	10,258	11,349	6,329	6,548	5,238	6,548	5,238	6,548

Overall NOSP – Incremental Economic Budget (Continued)

Republic of Uganda
National Oilseeds Project
Project Summary

ECONOMIC BUDGET (DETAILED) (In UGX Million)	Increments																			
Operating																				
Purchased Inputs																				
Sesame seed - improved	-	-	101	453	970	1,434	1,702	1,790	1,801	1,801	1,801	1,801	1,801	1,801	1,801	1,801	1,801	1,801	1,801	1,801
Soy bean seed - improved	-	-	756	3,667	8,350	12,940	16,059	17,644	18,220	18,470	18,516	18,516	18,516	18,516	18,516	18,516	18,516	18,516	18,516	18,516
Sunflower seed - traditional	-	-	7	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunflower seed - hybrid	-	-	195	1,616	3,443	5,113	5,969	6,206	6,233	6,233	6,233	6,233	6,233	6,233	6,233	6,233	6,233	6,233	6,233	6,233
Ground nut seed - improved	-	-	36	178	512	896	1,218	1,381	1,435	1,443	1,443	1,443	1,443	1,443	1,443	1,443	1,443	1,443	1,443	1,443
NPK - top dressing	-	-	151	960	3,040	7,458	10,761	13,041	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505	13,505
NPK - Soy blend (11:29:23)	-	-	117	1,958	8,470	17,829	25,037	28,933	29,626	29,626	29,626	29,626	29,626	29,626	29,626	29,626	29,626	29,626	29,626	29,626
TSP	-	-	-	66	264	592	979	1,232	1,362	1,385	1,385	1,385	1,385	1,385	1,385	1,385	1,385	1,385	1,385	1,385
Pesticide	-	-	56	258	569	857	1,033	1,097	1,108	1,108	1,108	1,108	1,108	1,108	1,108	1,108	1,108	1,108	1,108	1,108
Fungicide	-	-	26	123	271	407	487	515	518	518	518	518	518	518	518	518	518	518	518	518
Bags	-	-	117	651	1,533	2,346	2,849	3,015	3,037	3,038	3,038	3,038	3,038	3,038	3,038	3,038	3,038	3,038	3,038	3,038
Tractor hire - ploughing	-	-	-788	-3,041	-1,555	-395	1,731	2,248	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240	2,240
Tractor hire - ripping	-	-	1,582	7,233	15,767	23,569	28,207	29,805	30,038	30,044	30,044	30,044	30,044	30,044	30,044	30,044	30,044	30,044	30,044	30,044
Tractor hire - harrowing	-	-	1,582	7,233	15,767	23,569	28,207	29,805	30,038	30,044	30,044	30,044	30,044	30,044	30,044	30,044	30,044	30,044	30,044	30,044
Power tiller - ploughing	-	-	115	476	879	1,183	1,309	1,327	1,327	1,327	1,327	1,327	1,327	1,327	1,327	1,327	1,327	1,327	1,327	1,327
Oxen hire - ploughing	-	-	562	2,537	2,027	1,639	351	-	-	-	-	-	-	-	-	-	-	-	-	-
Innoculant	-	-	29	133	292	438	525	555	559	559	559	559	559	559	559	559	559	559	559	559
Sub-Total Purchased Inputs	-	-	4,645	24,506	60,602	99,875	126,423	138,594	141,047	141,341	141,387	141,387	141,387	141,387	141,387	141,387	141,387	141,387	141,387	141,387
Labor																				
Apr female -	-	93	265	873	1,803	2,673	3,215	3,399	3,422	3,422	3,422	3,422	3,422	3,422	3,422	3,422	3,422	3,422	3,422	3,422
May female -	-	-	75	366	823	1,252	1,512	1,603	1,616	1,616	1,616	1,616	1,616	1,616	1,616	1,616	1,616	1,616	1,616	1,616
Aug female -	-	37	155	763	1,942	3,041	3,776	4,014	4,041	4,042	4,042	4,042	4,042	4,042	4,042	4,042	4,042	4,042	4,042	4,042
Sep female -	-	-75	-18	319	903	1,450	1,781	1,899	1,918	1,919	1,919	1,919	1,919	1,919	1,919	1,919	1,919	1,919	1,919	1,919
Oct female -	-	-	149	658	1,384	2,031	2,403	2,526	2,545	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546
Nov female -	-	-56	-13	357	1,151	1,893	2,388	2,551	2,572	2,573	2,573	2,573	2,573	2,573	2,573	2,573	2,573	2,573	2,573	2,573
Mar male -	-	149	-172	-1,207	-2,606	-3,739	-4,301	-4,452	-4,468	-4,468	-4,468	-4,468	-4,468	-4,468	-4,468	-4,468	-4,468	-4,468	-4,468	-4,468
Apr male -	-	75	226	797	1,700	2,551	3,085	3,268	3,291	3,291	3,291	3,291	3,291	3,291	3,291	3,291	3,291	3,291	3,291	3,291
May male -	-	-	75	366	823	1,252	1,512	1,603	1,616	1,616	1,616	1,616	1,616	1,616	1,616	1,616	1,616	1,616	1,616	1,616
Aug male -	-	-149	-546	-1,398	-1,970	-2,329	-2,349	-2,318	-2,313	-2,313	-2,313	-2,313	-2,313	-2,313	-2,313	-2,313	-2,313	-2,313	-2,313	-2,313
Sept male -	-	-75	-18	319	903	1,450	1,781	1,899	1,918	1,919	1,919	1,919	1,919	1,919	1,919	1,919	1,919	1,919	1,919	1,919
Oct male -	-	-	149	658	1,384	2,031	2,403	2,526	2,545	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546	2,546
Nov male -	-	-19	-4	198	699	1,168	1,497	1,601	1,613	1,613	1,613	1,613	1,613	1,613	1,613	1,613	1,613	1,613	1,613	1,613
Hired labour - bird scaring	-	201	355	502	536	536	536	536	536	536	536	536	536	536	536	536	536	536	536	536
Sub-Total Hired Labor	-	182	680	3,570	9,477	15,260	19,236	20,653	20,852	20,857	20,857	20,857	20,857	20,857	20,857	20,857	20,857	20,857	20,857	20,857
Sub-total Operating Costs	-	182	5,324	28,076	70,079	115,134	145,658	159,247	161,899	162,198	162,244	162,244	162,244	162,244	162,244	162,244	162,244	162,244	162,244	162,244
Sub-Total Production Cost	-	8,367	11,877	36,485	74,163	120,179	156,684	170,518	171,892	169,837	167,482	175,339	172,502	173,593	168,573	168,792	167,482	168,792	167,482	168,792
Other Costs																				
Other Costs	-	-	2,017	5,588	10,636	14,002	15,819	16,155	16,155	16,155	16,155	16,155	16,155	16,155	16,155	16,155	16,155	16,155	16,155	16,155
OUTFLOWS	-	8,367	13,895	42,073	84,799	134,182	172,503	186,673	188,048	185,992	183,637	191,495	188,657	189,749	184,729	184,947	183,637	184,947	183,637	184,947
Cash Flow	-	-10,122	-11,034	206	40,181	89,900	128,030	152,729	162,779	166,178	168,533	160,675	163,513	162,421	167,441	167,223	168,533	167,223	168,533	167,223

VII. APPENDIX 5 – NOSP ECONOMIC DISCOUNTED CASHFLOW

Cost Benefit Analysis - Cashflows and Indicators

UGX million

Selected years	Incremental benefits [\1]	Invest Costs	Recurrent Costs	Post Rural Roads [\2]	Total incremental costs	Net incremental benefits
1	-	26,861	1,488	-	28,349	(28,349)
2	(10,122)	58,644	5,746	-	64,391	(74,513)
3	(11,034)	60,593	5,939	-	66,532	(77,566)
4	206	124,354	5,866	-	130,220	(130,014)
5	40,181	118,258	5,939	-	124,197	(84,016)
6	89,900	63,696	5,866	-	69,562	20,337
7	128,030	15,434	5,754	-	21,188	106,842
8	152,729	-	-	42,805	42,805	109,924
9	162,779	-	-	42,805	42,805	119,974
10…	166,178	-	-	42,805	42,805	123,373
15…	167,441	-	-	42,805	42,805	125,727
20…	167,223	-	-	42,805	42,805	117,870
					ENPV @ 10% UGX million	220,740
					ENPV @ 10% USD million	60.07
					EIRR	17.9%
					BCR	1.44
					Switching value benefits	(31%)
					Switching value costs	44%

[\1] Source: Appendix 4 Table 15: Overall NOSP – Incremental Economic Budget
[\2] Provision to account for ongoing rural access maintenance.

VIII. APPENDIX 6 – OVERVIEW OF BENEFITS FROM RURAL ACCESS ROADS

Benefits	Resulting from
Changed patterns of production/increased area	Introduction/expansion of higher value crops which become financially viable due to improved market access and reduced losses
Increased agricultural productivity	Increased availability and reduced cost of inputs.
	Increased access to support services, including extension.
Increased marketed output	Better access to markets due to improved accessibility throughout the year.
Increased producer prices	(i) Reduced transport costs; and (ii) higher quality of produce due to timely transportation and reduced losses during transport.
Reduced losses (on-farm before transport and during transport)	Reduced transport time and accessibility throughout the year.
Increased profits for vehicle operators	Reduction in vehicle operation and maintenance costs. Time savings. Opportunities for increased business (volumes transported).
Social benefits	Increased access to health and other social services, and information.

IFAD
Investing in rural people

Uganda

National Oilseeds Project

Project Design Report

Annex 5: Social Environment and Climate Assessment (SECAP) Review Note

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Project No.	2000002260
Report No.	5155-UG

East and Southern Africa Division
Programme Management Department

PDR

ANNEX 5

SOCIAL ENVIRONMENT AND CLIMATE ASSESSMENT PROCEDURES (SECAP) REVIEW NOTE

Social, Environment and Climate Assessment Procedures (SECAP) Review Note

1. Introduction

The Social Environment and Climate Assessment Procedures (SECAP) Review Note presents the social and environmental and climate change context of NOSP, potential impacts of the activities and makes specific recommendations on how the risks can be minimized. It also includes optimization of the opportunities to improve environmental and natural resources management as well as build climate resilience and improve the social wellbeing of the target beneficiaries.

The SECAP Review Note was developed mainly from secondary data, mostly from surveys such as the Uganda National Household Survey (UNHS) 2016/2017, the Uganda Demographic and Health Surveys and other readily available studies including the WEAI prepared for some of the Feed the Future Programme Districts. The environmental and climate change analysis drew on the national commitments and targets from the multilateral conventions and national strategies.

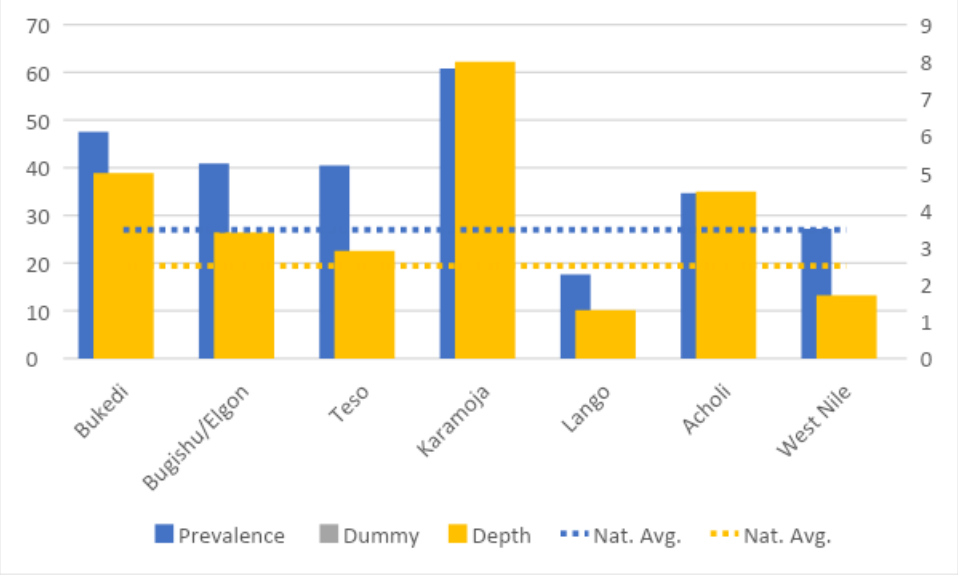
The analyses were complemented by meaningful consultation with communities and stakeholders during design. The stakeholder engagement will be continued throughout the project life cycle to ensure communities contribute to management plans that will be developed and implemented as part of NOSP. Social assessments will be undertaken in the initial stages of the project implementation as part of the cluster identification and validation.

2. Situational analysis and potential project impacts

2.1 Socio-economic assessment

a. Overall poverty situation

The poverty levels in the NOSP target areas are mostly higher than the national average in Uganda (UNHS 2016/17). Karamoja has the highest poverty rates both in terms of prevalence and depth. Prevalence counts how many people under the poverty line while depth weights the measure by how far under the line they are.



By activity status, the results show that the self-employed (39%) and those in subsistence agriculture only (28%) were more likely to be poor than would be the case for those involved in other activities. These two groups account for a combined 67 % of the total contribution to poverty considering activity status. Poverty among those involved in paid casual labour in agriculture was 42 % implying that a decline in agricultural activity would severely deprive such casual labourers of income. Considering educational attainment of the household head, high poverty incidence was noted among those with no formal education (43%) and some primary (35%) compared with those with degrees (1%), emphasising the importance of education in poverty reduction.

b. Gender

Agriculture is the main occupation of women in Uganda—72% of all employed women and 90% of all rural women work in agriculture, compared to 53% of rural men (Garcia 2006). Women play a prominent role in planting, weeding, harvesting, post-harvest processing, storage and food preparation, while men focus on land clearing and marketing of high value crops. Food crops (such as plantains and tubers) are typically controlled by women while men tend to have greater control over cash crops and income (Kasente et al. 2001; Garcia 2006). Other studies confirm that women are at a disadvantage in terms of crops sold in formal markets that generate higher revenues, while maintaining more control over lower-revenue crops (Njuki et al. 2011). Moreover, Peterman et al (2011) find persistent lower productivity on female-owned plots and among female-headed households, after controlling for a range of socio-economic variables, agricultural inputs and crop choices with important differences based on crop choice, agroecological zone, and biophysical characteristics. De la Ocampos et al. (2016) attribute differences in productivity largely to differences in crop choice and factors of production, including women's labour constraints, and lack of access to agricultural inputs and extension.

Promotion of non-traditional exports, such as oilseeds, is considered an important agricultural development strategy for the country, given risks of over-reliance on world markets for traditional cash crops like coffee, tea and cotton (Kasente et al. 2001). However, investments in value chains for non-traditional exports, like oilseeds, have important gender implications given women's more limited involvement in cash crop farming. In particular, there are inherent risks to women's empowerment with commercialization of traditional food crops that they control, like groundnut and sesame.

Constraints. While women are increasingly involved in the cash crop production, including in the oilseed sector, they lack control over income and benefits from it given men's control over marketing activities (Garcia 2006; Vorley et al. 2015). Other constraints to women benefiting from oilseed production relate to their lack of ownership of land, greater risk aversion, lack of access to inputs (like seed), and labour burden. Production of certain crops, such as soybean, and post-harvest processing practices using traditional methods are particularly labour intensive (Kasente et al. 2001; Vorley et al. 2015). Women's priorities to increase their participation in oilseed value chains include access to labour-saving technologies, access to finance, and group formation and strengthening (Vorley et al. 2015). Women also tend to lack access to agricultural information as well as information on climate change and climate-smart practices compared to men (Katungi et al. 2008; Kisauzi et al. 2012), which can limit their successful participation in commercial oilseed production.

Data shows that 31 % of households across the country are female-headed and the rate is only slightly lower in rural areas at 30 % (UNHS 2017). Female-headed household often have particular vulnerabilities related to lack of access to family labour for agricultural production, weaker social networks, and limited access to resources and information

(Katungi, et al. 2008). Widows in Uganda are considered to be particularly vulnerable due to social norms, which limit their control over physical and financial resources (UNHS 2017). Married women often have more access to resources and family labour but may be at a greater disadvantage in terms of other aspects of empowerment such as decision-making and mobility.

In terms of access to and decisions on credit, 66 % of women report having access to credit from any source, with the most common sources being friends or relatives (41.3 %) and group-based micro-finance (31.8 %). Most women have input into the decision to borrow (69.4 %) and how to use the loan funding (73.3 %) across all loan sources. Reasons for taking loans were similar across men and women, according to UNHS data (2017). Primary reasons for both men and women include: to smooth consumption (reported 25 % of women who borrowed), to pay education expenses (26 % of men and 23 % of women), and to purchase inputs/capital for non-farm enterprises (19 % of men and 18 % of women) (UNHS 2017).

Women Empowerment in Agriculture Index. The Feed the Future baseline survey, conducted in 2012, showed an overall WEAI score of 0.86. The measure of individual empowerment without considering the gap in scores between men and women (the 5DE) shows that 57.8 % of women achieve empowerment (5DE score of 0.80 or above). Among women who did not achieve empowerment, access to and control over productive and financial resources (credit), time burden, and community leadership appear as the domains where women have the lowest scores. Women are much more likely to achieve adequacy in the domains of production decision-making and control over income. Sixty-one percent of women achieve gender parity with the main adult male decision-maker in the household. Baseline WEAI data were analysed in relation to other development outcomes. Findings show that women in households with moderate to severe hunger are significantly less likely to achieve adequacy in autonomy in production, ownership or control of assets, control over the use of income, and satisfaction with leisure time, while women in households with moderate to severe hunger are significantly more likely to achieve adequacy with respect to access to and decisions on credit. The correlation between hunger and access to and decisions on credit is likely related to credit being used to smooth consumption among the most vulnerable agricultural households rather than for productive purposes. Women with higher decision-making scores have statistically lower levels of wasting of children under 5 years.

Similarly, with respect to decisions on the use of income from these activities, results show that women that participate in cash crop farming report having input into most or all decisions related to income from this activity (91.8 %). These results suggest that increasing women's involvement in cash crop farming would lead to other gains in terms of decision-making over production and income. DHS data from 2016 show similar results with 91 % of currently married women participating in decisions about the use of their earnings (53 % make decisions on their own, and 38 % make decisions jointly with their husband).

In terms of specific decisions related to agricultural production and expenditures, WEAI data show that the majority of women are involved to a medium or high extent in decisions related to getting inputs for agricultural production (79 %), the types of crops to grow (85 %), whether to take crops to market (75.8 %), minor household expenditures (90 %), major household expenditures (65.6 %), and own wage or salary employment (86.9 %). DHS data show that currently married women (age 15-49) participate in household decisions either alone or jointly with their husbands on their own health care their own health care (74%) and visits to their family or relatives (72%) than in decisions about making major household purchases (64%) (FtF FEEDBACK, 2015).

While the results for Uganda related to women's participation in production decision-making and income decisions are promising, women's actual influence in production and income decisions may vary by crop and the level of profitability. More disaggregated analyses at the crop level and at various stages of commercialization are needed to understand gender roles in and benefit from cash crop value chains, including oilseeds.

Given that there are various dimensions of women's empowerment in agriculture, interventions in the sector are likely to have different impacts on these various aspects. Commercialization of oilseeds is no exception. In particular, positive and negative impacts are expected to occur. Hypotheses include:

1) Commercialization of oilseeds traditionally controlled by women as food crops (i.e. groundnut and sesame) will reduce the share of household income and assets that women control.

2) Commercialization of oilseeds may reduce women's involvement in decisions related to production of and income received from these crops. The use of the Gender Action Learning System (GALS) should mitigate this negative impact to some extent.

3) New labour-saving technologies and services introduced by service providers will save women's time—particularly for those women already involved in oilseed production and processing. Women not previously involved in oilseed production may see their labour burden increase if they are adding new activities to their existing workload.

4) Incentives and capacity building to increase women's active participation in and leadership of farmer organizations and service provision (agronomists, machine operators etc.) will increase women's leadership roles in the community.

c. Youth

Agriculture and related jobs are likely to dominate the employment opportunities for rural youth for the foreseeable future, making the welfare of youth closely tied to trends in agricultural development. Environmental risks related to climate change, land fragmentation and degradation, therefore, pose considerable risk to young people whose livelihoods will depend on agriculture (Brooks et al. 2019). Investments in agricultural research and development and agricultural infrastructure are essential to mitigate these risks and protect rural livelihoods into the future (ibid). Wage labour in the agri-food system will also become an increasingly important source of employment for youth (Dolislager et al. 2019).

Young people under the age of 35 are also more likely to migrate for reasons including: following family, income, marriage, and education (UNHS 2017). Increasing land scarcity due to high population growth will likely drive employment and migration decisions of rural youth into the future (Yeboah et al. 2019). Therefore, policies are needed to increase youth access to land and security of tenure in order to sustain agricultural productivity growth and drive rural transformation (ibid).

Table 1: Status in Employment by Age

Age groups	Paid employee (not casual labourer in agriculture)	Paid employee (casual labourer in agriculture)	Self employed	Contributing family workers	Others	Total
14-17	17.5	9.7	40.3	30.4	2.2	100
18-30	36.8	8.1	46.5	8	0.7	100
31-59	26.4	7.7	62.1	3.4	0.4	100
60-64	15.6	11	69.9	3.1	0.4	100

15-24	34.6	9.1	41.3	13.9	1.1	100

Source: UNHS 2017.

Educational attainment is increasing over time, suggesting that young people are being educated at higher rates than in the past. Between 2012/13 and 2016/17, the percentage of persons aged 15 years and above that lacked any formal education dropped by 9 percentage points from 21% to 12% (UNHS 2017). The main reason for leaving school was lack of funding/not affordable (68% for boys and 65% for girls). Ten percent of both boys and girls left school because their parents decided to take them out or they had a calamity at home. Four percent of girls also left due to pregnancy. Overall, only 6% of both boys and girls left school because they reached their desired education level (UNHS 2017).

It is often argued that youth present opportunities for agricultural transformation given special characteristics, qualities, motivations, and abilities. While these claims are widely made, there is currently no research to support the notion that youth are more innovative, creative, and more likely to adopt new agricultural technology like improved seeds, fertilisers, irrigation and mechanisation; engage with value chains, integrate ICTs into their livelihood activities, or seize new business opportunities as service or input providers (Sumberg and Hunt, forthcoming).

Despite limited evidence about the economic or transformative benefits of investing in rural youth, addressing the needs of this large and growing demographic is essential from a social equity and long-term sustainability perspective. Agricultural value chains both on-farm and off-farm could offer promising career opportunities for young Ugandans, if appropriate information and start-up resources were available for rural youth.

Investment priorities for rural youth depend on the level of transformation of the country and the existing opportunity structure (Arslan et al. 2019). Opportunities for rural youth vary by local context depending on the natural resource base, market access, social norms, and preferences, as well as household characteristics (RDR 2019; Sumberg et al. 2019). In countries like Uganda, with low levels of rural transformation, investments should focus on building the capacities of rural youth through investments in infrastructure and education and on increasing the productivity, connectivity, and agency of youth in agriculture (Arslan et al. 2019; RDR 2019; Sumberg et al. 2019). Commercialization should increase the rural opportunity structure for youth to participate in and benefit from agricultural transformation.

Programmes targeted at increasing the opportunities for rural youth should consider gender differences in constraints and needs by young men and women. Young women and men experience the transition to adulthood differently depending on the level of structural and rural transformation of the country (Doss et al. 2019). Research using sex-disaggregated data across 42 countries shows young women are more likely to have transitioned into domestic and reproductive roles and less likely to be in school or employed, and less likely to own land (ibid).

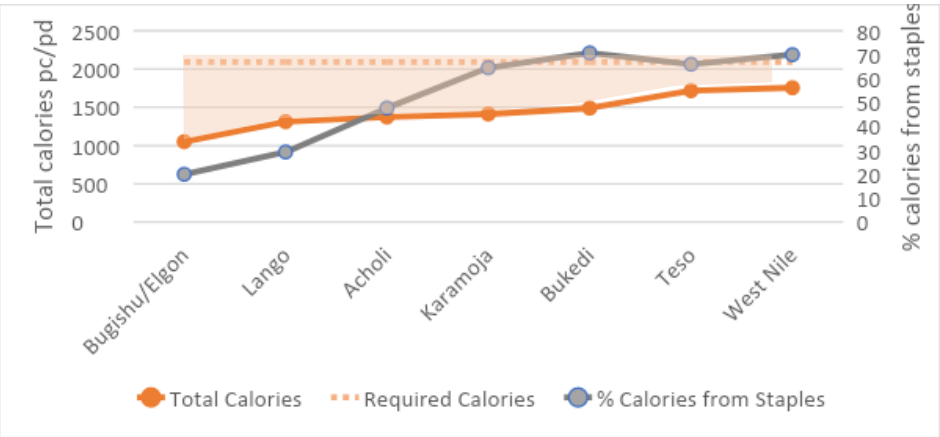
The NOSP offers an opportunity to assess youth opportunities and engagement in the process of commercialization. During field visits, smallholders in the NOSP areas described education as the most important thing for the youth and were concerned about consistent ability to pay school fees and disruptions to their education. Some youth groups visited were not explicitly or predominantly made up of youth and thus did not likely address their particular needs or priorities. The older generations were maintained as group members with the justification that they pass on knowledge and provide guidance to other members who are youth. Youth farmer groups have been formed at schools as part of GoU guidelines. These groups consisted of young girls and boys who were trained in agriculture and farming techniques and engaged in practical demonstrations and field work. VODP2 also conducted

trainings and field work as a pilot in two schools and reported generating positive results in informing young farmers about benefits and production/harvesting techniques of oilseeds and in increasing their interest in agriculture sector.

d. Nutrition

The UNHS 2016/17 Report provides per capita estimates of calorie consumption by food group based on household consumption estimates. Figure 2 shows that total calorie consumption and the shaded orange area of the figure shows the food energy gap for each sub-region, which is the gap between average population dietary energy requirement (ADER) for Uganda, which is 2091 calories per person per day, and per capita consumption in that sub-region. Most sub-regions face significant estimated food energy gaps. Only Teso and West Nile are just above the cut-off, though it is likely that some proportion of their populations do fall below. For those with higher calorie consumption, the share of calories from staples tends to be higher.

Figure 2: Calorie gap and share of calories from staple foods



Source: UNHS 2016/17 Report (UBOS, 2018). Required calorie estimate is from FAO's 2012 SOFI estimates of Adequate Dietary Energy Requirement (ADER) for Uganda.

Table 2 breaks down estimated per capita calorie consumption by food group within each sub-district. Overall, staple food consumption makes up a higher than optimal share of the diet, and nutrient rich foods are greatly under-consumed. The Uganda Nutrition Action Plan 2011 sets a target of 75% of calories coming from foods other than staples. Only Bugishu/Elgon meets this target, but it also has the lowest per capita calorie consumption across all food groups. Of interest to NOSP, the share of calories from nuts and pulses is very low. For most sub-regions considered, improving diets will require increasing the amounts of nutrient-rich foods while maintaining the quantities of staples consumed. While for Lango and Bugishu/Elgon, improving diets will require increasing consumption of all food groups. While increased production of nutritious foods like oilseeds may increase supply and decrease prices, participation on high-value supply chains can also disincentivize consumption as people prefer to sell for profit, such as in the example of quinoa among indigenous Peruvian communities (McDonell, 2016).

Table 2: Estimated per capita calorie consumption, share of calories by food group

	Staples	Nuts & Pulses	Vegetables	Meat, Fish &	Fruits	Milk	Oils	Sugar	Total
Bukedi	70.7	2.1	2.6	2.1	7.4	1.0	2.7	5.1	1489
Bugishu/Elgon	20.0	0.9	7.4	3.1	22.9	3.1	7.0	11.6	1051
Teso	66.0	1.7	3.7	2.2	5.4	1.9	3.9	4.3	1717
Karamoja	64.5	0.4	4.8	2.3	0.9	1.7	5.0	3.0	1412
Lango	29.3	1.7	2.1	2.4	10.0	2.3	15.6	6.3	1312
Acholi	47.7	1.4	3.4	2.0	5.4	0.8	11.2	3.7	1373
West Nile	70.0	1.7	3.5	1.7	2.6	0.2	3.5	3.7	1755

Source: Table created by author; data extracted from UNHS 2016/17 Report (UBOS, 2018).

The inadequacy of diets of children from six months to two years in Uganda is a major challenge. A low 15% of children overall received both sufficient diversity and meal frequency to yield a minimum acceptable diet in 2016 (UBOS & ICF, 2018). This rate falls to an alarmingly low 2.5% of children under 2 years receiving a minimum acceptable diet in Acholi, where stunting is also very high. Other sub-regions with high prevalence of stunting and wasting also have very low rates of adequate child feeding, except for West Nile which is above the national average for minimum diet adequacy but still suffers among the highest rates of stunting and wasting, suggesting that non-diet factors like health shocks may be exacerbating child nutrition outcomes.

Stunting and wasting. Based on the 2016 Uganda Demographic and Health Survey (2018) data collected in 2016, national stunting prevalence is 29% nationwide. In Uganda, stunting is associated with rural residence and low levels of mothers' education. In the target areas, Bugisu, Karamoja, Acholi and West Nile experience higher stunting rates than the national average by between 2 and 7%.

Wasting is higher than the national average in all NOSP targeted sub-regions except for Teso, by between 2 and 7%. In particular, Bugisu, Karamoja, Acholi, and West Nile all have wasting rates of 9-10%, which is extremely high. In Karamoja and West Nile the prevalence of severe wasting is nine times higher than what would be expected in a well-nourished population (UNICEF-Uganda, 2018). Furthermore, in West Nile, wasting increased from 6.2% to 10.4% from 2011 to 2016, while in Karamoja, wasting increased from 7.1% to 10% (UBOS & ICF, 2012, 2018; UNICEF-Uganda, 2018).These statistics suggest that these areas have experienced major population-wide health or income shocks, and national-wide analysis finds that wasting is correlated with poverty (UNICEF-Uganda, 2018). In Karamoja during this same time period (2011-2016), the proportion of the population relying on subsistence agriculture increased from 6% to 51%, highlighting the need to better understand the vulnerabilities associated with shifts in livelihoods approaches (UNICEF-Uganda, 2018).

Drivers of food and nutrition insecurity. Some national studies provide additional insights to the potential drivers of food security and nutrition problems in the North. In particular, the source of household income and women's role in food production and marketing play a role in nutrition outcomes (Azzari et al., 2015; Kirk et al., 2018; Whitney et al., 2018). For instance, women's control over which crops are produced supports them to deliver diverse diets for the family (through own consumption) and fulfil cash needs (through small-scale sales) (Whitney et al., 2018). While animal foods are an important part of a healthy diet, only ownership of small ruminants appears to influence nutrition outcomes in Uganda (Azzari et al., 2015). Finally, non-agricultural self-employment (in contrast to wage labour) seems to support better nutrition outcomes (Kirk et al., 2018).

2.2 Environment and climate context, trends and implications

a. Environmental assessment

The target sub-regions for the NOSP present significant potential for agricultural development, particularly for oil seeds production. The average land holdings vary from two acres in sub-regions such as West Nile to over 10 acres per household in Acholi compared to the national average of about 5 acres per household. The soils are relatively fertile and can sustain rain-fed agriculture. Fertilizer use is relatively low in most areas. The sub-regions have good average annual amounts of bi-modal rainfall. The mostly flat topology with gentle rolling hills provides potential for use of animal traction/mechanisation in land preparation, planting, harvesting and transportation. In some locations land is available for agricultural expansion and land holdings are not fully utilized. However, fallow periods are decreasing and in some cases the average size of land holdings is very limited. Natural Resources Management Officers at Sub-county level provide some guidance in the opening up of new areas though they are limited in number to serve the population effectively and have limitations with mobility. Community natural resources management plans can be useful tools with regard to opening up of new areas as well as land use planning from the sub-county level.

Vegetation and soils. The vegetation in the NOSP target areas is predominantly savannah woodland. The widespread use of fuel wood and need for timber is leading to degradation of soil cover in some sub-regions. This degradation will have an impact on soil fertility and retention of moisture. Although the soils in the area are considered fertile, there are already signs of moderate to severe erosion, and in some areas, soil compaction could prove a challenge to water infiltration (CIAT, 2013). The anticipated expansion in oilseed production, which may result in opening of new land, could result in accelerated depletion of soil fertility. Degradation is also notable in some wetlands, which are used for off-season production and increasingly as rainfall becomes more erratic. The encroachment on wetlands has adverse impacts on biodiversity and agro-biodiversity, as well as water filtration and aquifer replenishment in areas.

Farmers indicated they use various practices to maintain soil fertility such as mulching, crop rotation, cover crop, use of organic manure and timely planting. The practices were conveyed by the male farmers, who seem to have received training on good agricultural practices. In some locations the training was provided on soil and water conservation measures as part of the climate smart agricultural practices under VODP 2. Agroforestry was one of the practices that was promoted through the training though the tree species include eucalyptus and pine, which may not be the most appropriate.

The situation of low fertilizer use, which have helped maintain levels of agricultural pollution to a minimum, could change once oilseed productivity and production increases. Therefore, capacity building can be provided to the smallholders on appropriate agro-chemicals use. The capacity building should also include integrated pest management also encompassing crops grown by the smallholders in the context of ensuring food security at household level.

Fires. The opening of new land for oilseed production may also result in the increase of wildfires. Burning, though discouraged in most communities, is still common for land clearing with smallholders recognizing the short-term benefits of soil fertility and rapid re-growth that can be used for grazing animals. However, burning has negative impacts on long-term soil fertility. The practice of catching small rodents for food, as well as for

charcoal production are also causes of fires. Though communities do have by-laws on natural resources management including land clearing, the enforcement needs some regulatory structures to be effective. This is particularly important in the dispute and conflict resolution when issues escalate.

Water resources. Access to water for productive activities is limited in the dry seasons. Some farmers raised concerns on dealing with late rains and prolonged dry spells as they lacked irrigation infrastructure. Residual moisture in the soils is important for the agriculture production hence the need to focus more on soil and water conservation. Where available, streams, rivers and boreholes are accessed, including as sources of drinking water.

b. Climate trends and impacts

Uganda experiences relatively humid conditions and moderate temperatures throughout the year, with mean daily temperatures of 28 °C with the average monthly temperatures ranging from a minimum of 15 °C in July to a maximum of 30 °C in February. The highest temperatures are observed in the North, especially in the North-East, while lower temperatures occur in the South.

Historical data indicate that during the period the 1975 to 2009 average temperature during the two rainy seasons (March–June and June–September) has warmed more than 0.8 °C. This transition to an even warmer climate is likely to amplify the impact of decreasing rainfall and periodic droughts and will likely reduce crop harvests and pasture availability. A significant warming has been measured in Uganda for instance the Uganda's National Adaptation Programme of Action (NAPA) cites an average temperature increase of 0.28 °C per decade in the country between 1960 and 2010, being January and February the most affected by this warming trend, averaging an increase of 0.37 °C per decade. The frequency of hot days in the country has increased significantly while the frequency of cold days has decreased.

The annual rainfall totals vary from 500 mm to 2800 mm; mean annual rainfall ranges between less than 900 mm in the driest districts to an average of above 1,200 mm per year in the wettest districts located within the Lake Victoria Basin, eastern and the north-western parts of Uganda (37, 38). Precipitations have a bimodal distribution in the south to central parts of Uganda, with two rainy seasons (March–June and October–January), while northern-easterly region experiences one long rainy season. Floods and droughts are the most frequent weather hazards. For instance, the cattle corridor, located in the dry-land region, is prone to drought, while the northern region is especially vulnerable to both floods and droughts.

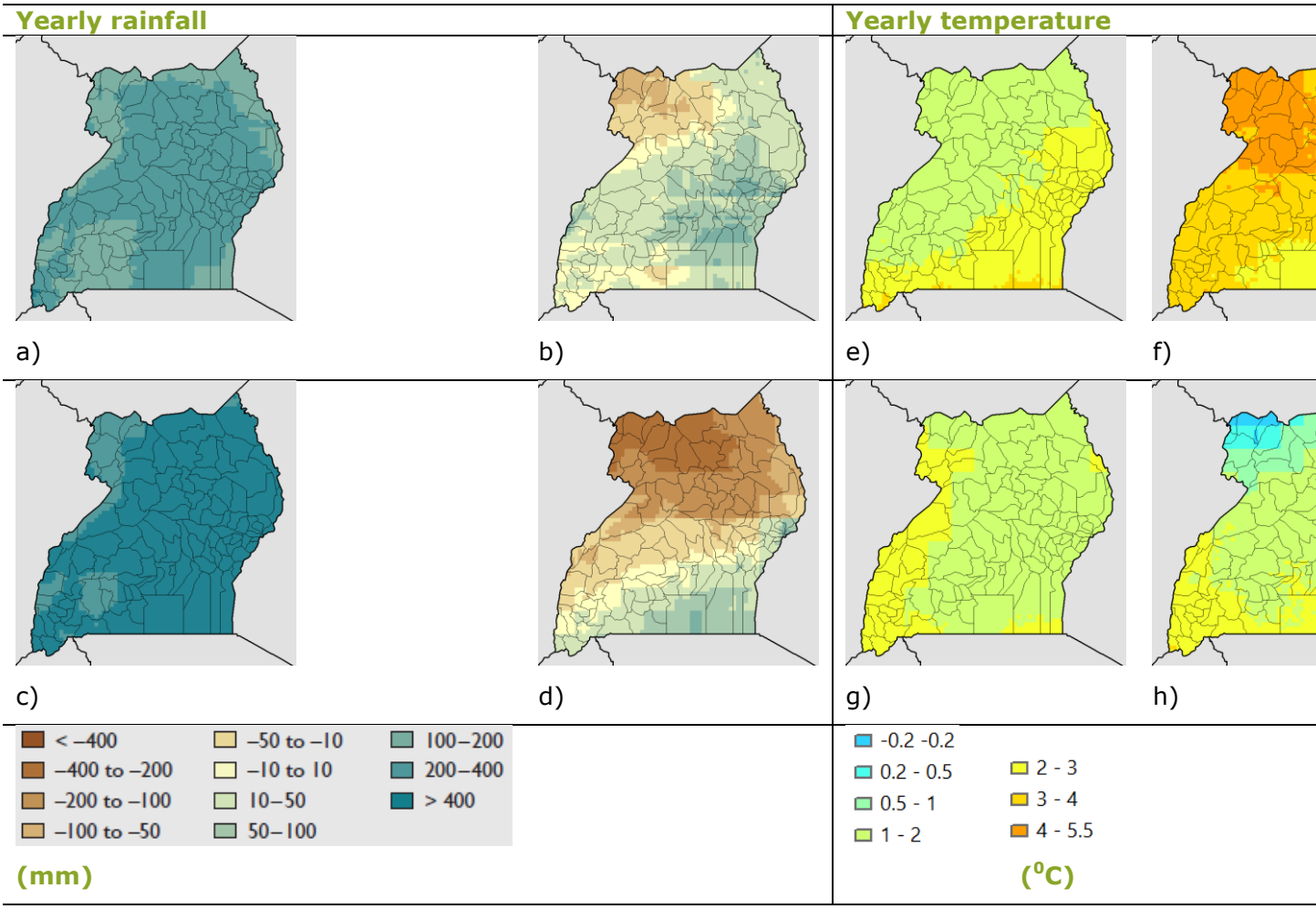
Time series indicate that rainfall, on average, has been decreasing. Several analyses find an overall decrease in average rainfall of about 12% during the past 34 years in Uganda, with the greatest decreases in the regions of central and western Uganda. Furthermore, during the period 2000–2009 rainfall has been, on average, about 8 percent lower than rainfall between 1920 and 1969.

Climate projections based on data from Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) using Representative Concentration Pathway (RCP) 8.5 scenarios indicate the possibility of an increase in the country's average temperature in the order of +2.5 °C in the next 50 years (Figure 3, panels e-h). Projections for the next 80 years point to a possible increase of 4.5 °C.

Many climate models predict an increase in short rains (September – November) as global temperatures rise (Figure 3, panels a-d). However, the Horn of Africa region has become observationally drier during the 20th century. This drying trend against the projected

increase in rainfall place East Africa into an apparent climate paradox which is generally considered as an indication that more accurate model simulations and an improved understanding of the geophysical processes governing the rainfall over East Africa is necessary. Given these inconsistencies and the errors in climate models' ability to simulate the current climate, whether or not the future climate in East Africa will become wetter as a result of climate change is an open question.

Figure 3. Predicted change in rainfall and temperature based on four climate models, 2000–2050

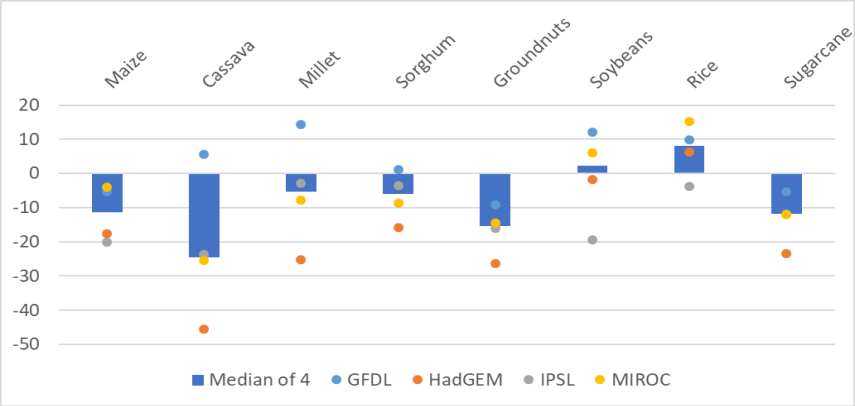


Source: Authors based on Müller and Robertson (2014).

Notes: a and e) GFDL = Geophysical Fluid Dynamics Labouratory; b and f) HadGEM = Hadley Centre Global Environmental Model; c and g) IPSL = L'Institut Pierre-Simon Laplace; d and h) MIROC = Model for Interdisciplinary Research on Climate. Simulations are based on Representative Concentration Pathway 8.5.

Keeping in mind the existing uncertainty in climate projections, we analyse the projected effects of climate change on some of Uganda's major crops. Figure 4 reports the projected changes in yields for eight crops and four different climate models. Even though we do not have projections for sesame, we can use the effects on millet and sorghum as rough proxies. According to GFDL projections sesame could be not negatively affected by climate change but all other climate models show a decrease in yields. Groundnut is negatively affected under all climate scenario while soybean fairs better than all other crops. Given the climate projections of GFDL and MIROC, yields appear to increase but using the other two climate models (HADGEM and IPSL) yields are expected to decrease.

Figure 4. Percentage change in yields due to climate change based on four climate models, 2000–2050



Source: Devised by authors based on Rosenzweig et al. (2014) using weights from MapSPAM harvested area (You et al. 2014).

Notes: GFDL = Geophysical Fluid Dynamics Labouratory; HadGEM = Hadley Centre Global Environmental Model; IPSL = L'Institut Pierre-Simon Laplace; MIROC = Model for Interdisciplinary Research on Climate. Simulations are based on Representative Concentration Pathway 8.5.

One of the main challenges being faced by the oilseed producers is the late on set of rains and late cessation of the first season that results in replanting in some cases or late planting and harvesting of the produce. The late harvesting results in drying challenges and thus increased post-harvest losses. Farmers also complained about the increasing risk of droughts and prolonged dry spells that adversely impact their yields. The rainfall variability is compounded by the low accuracy of the climate information being disseminated to the framers.

The priority reflected in Uganda's Nationally Determined Contribution (NDC) is adaptation. The country aims to reduce vulnerability and address adaptation in agriculture and livestock, infrastructure and water sectors, among others. The strategy to build climate change resilience includes the scaling-up of sustainable land management and climate smart agriculture.

Given the particularly uncertain climate outlook for this region of Africa, it is essential that farmers are given the necessary support and information to develop flexible adaptation and contingency plans. A range of technologies are already being promoted and implemented in the country. Among these are: integrated soil fertility management, agro-forestry, crop diversification, conservation agriculture (crop rotation, mulching, green cover crops and low- or no-till), intercropping legumes with other crops, water management practices and adaptable planting times. These practices, which are climate smart agriculture practices already indicated as viable adaptation option in the country's NDC, must be evaluated

considering crop specific performance given soil and other local conditions. Furthermore, to ensure crop performance and to protect farmers' livelihoods and the implementation of important instruments like crop insurance, the availability of climate information and early warning systems is necessary.

The priority actions that NOSP can contribute to in the agriculture sector include expanding climate information services and early warning systems, climate smart agriculture practices, expanding value addition and post-harvest handling and storage, encouraging agro-forestry and water use efficiency.

Uganda intends to follow a climate resilient and low carbon development pathway. The priorities for mitigation include the forestry and wetlands sectors.

2.3 Target group profiles

The commercialisation of the oilseed sector under NOSP will cover all actors along the value chain and the supporting infrastructure required to ensure its success and sustainability. NOSP will work directly with 120,000 households (HHs) across the six hubs.

The project's primary beneficiary group is smallholder farmers (women, men and youth) engaged in the production of oilseeds. Smallholder farmers include the farmers whose farm size is less than one hectare (58% of the total population of smallholder farmers) and those whose farm size is more than one hectare but less than five hectares (38% of the total population of smallholder farmers)[1]. Other characteristics of smallholder farmers include the following: using traditional farming methods/low levels of mechanization, mostly depend on family labour or may hire workers, produce relatively small volumes, low quality and productivity caused by low quality inputs, generally less well-resourced than commercial-scale farmers, limited business literacy skills and market orientation, may not be registered, have limited access to loans and credits, lack of knowledge on savings to build capital for investment purposes, may be excluded from social protection or labour legislation, have limited records, exposure to changing and unreliable rainfall patterns with poor or no mitigation measures, often the vulnerable groups in supply chain, lack aggregation/bulking of sufficient quantities of produce, and limited benefits for women and youth in the supply chain.

The project will also specifically target poor farmers who are generally associated with: living below the poverty line, landless or very small land holdings, female-headed households, illiterate, malnourished, lack access to credit due to lack of collateral security, lack access to basic services (electricity, medical services, and education), unemployed, do frequent labour work, socially disadvantaged, highly prone to diseases and vulnerable to climate change.

The project's targeting strategy will ensure the inclusion of smallholder farmers, poor HHs, women and youth. All the 120,000 HHs targeted under Component 1 will be smallholders, sharing some the characteristics defined above. It is expected that the percentage of rural poor[2] smallholder farmers will be at least proportional to the district poverty rate in each district. While all groups will undergo GALS, 40% of the high-risk households identified during the household profiling will be provided with Household Mentoring.

[1] Flower, Martin. "The smallholder/large-scale farmer conundrum: is a shift in focus required?" In Agriculture Finance Year Book 2013/14- new technologies in financial services new gains for agriculture, by Animal Industry and Fisheries Bank of Uganda and Ministry of Agriculture.

[2] who live under the poverty line. International poverty line as stated by the World Bank is $1.90 per day

NOSP will have a strong focus on inclusion of women and youth in all project interventions. Women farmers will constitute a direct target group in each component of the project. It is expected that at least 60% of the project beneficiaries will be women who will be targeted as individual farmers as well as part of HHs. Women-led, women-only groups and FHHs will be prioritized with at least 30% of the HHs expected to be FHHs. NOSP will also set clear group governance guidelines that ensures meaningful participation of women and youth members and a quota of at least 40% women in key decision-making positions in group committees through a voting system. Similarly, rural youth between the age of 18 to 35 will constitute a direct target group of NOSP comprising at least 40% of the beneficiaries in value chain development.

NOSP will also benefit processors, oil seeds sector input suppliers and service providers, agents, traders, transporters, financiers, scientific and academic research institutions and the rural unemployed who will benefit from employment opportunities at farm and processing units of oilseeds value chains as a result of project support. In addition, the NOSP support to the improvement of community access roads in and around the NOSP oilseed clusters is expected to benefit approximately 350,000 rural households.

Targeting strategies and targets for smallholder farmers, women and youth are further detailed in PIM section A.2 Target Groups.

3. Institutional analysis

Social. The Ministry of Gender, Labour and Social Development is responsible for the promotion of gender equality in the country based the notion of equality between men and women expressed by the constitution and the Gender Policy of 2007. The Directorate of Gender and Community Development within this Ministry has the mandate to empower communities in various domains through its representatives at District, County and Sub-county levels.

Nutrition. The multisector Nutrition Action Plan falls under the mandate of the Office of the Prime Minister. A Multisector Coordination Committee engages eight implementing line Ministries as well as other non-governmental, public and private sector stakeholders. Nutrition related activities are coordinated and implemented by different players within the various sectors in coordination with government and sector authorities at every level.

Environment. The National Environment Management Agency (NEMA) is the principle government regulatory agency in Uganda responsible for the environment, overseen by the Ministry of Water and Environment (MWE) but directed by a Policy Committee on the Environment, comprising the Prime Minister and 10 Ministers. Management of the environment is decentralized to district level, where environmental issues are under the Department of Natural Resources. The environment and natural resources sector appear to be a low priority for the Government based on the very low funding levels. As a consequence, mainstreaming of environmental issues across sectors is weak. In addition, political interference and corruption undermines local environmental management (World Bank review, 2012).

Climate change. A Climate Change Department under Ministry of Water and Environment was created to coordinate climate change action at central level. A Climate Change Policy Committee and an Inter-institutional Climate Change Technical Committee are in place for cross-sectoral policy setting and provision of technical guidance. The Ugandan Government also approved a Climate Change Policy in 2015. The Nationally Determined Contributions was also articulated in 2015. Implementation of climate change action at local government level however remains a challenge.

4. Environmental and social category

The environmental and social categorisation of NOSP is B. Agricultural activities, such as the oil seed production will have some adverse impacts on the environment. These impacts are expected to be as a result of land clearing and increased use of agro-chemicals in some locations. However, the impacts are expected to be site specific. The infrastructure development will also result in localized impacts, mostly reversible, which can be minimised through appropriate mitigation measures. The measures will be further defined in site specific Environmental and Social Management Plans (ESMPs) during implementation. An Environmental and Social Management Framework (ESMF) will be elaborated during design.

In line with the SECAP, the infrastructure development under NOSP will be limited to non-sensitive areas, road stretches of 10 km or less and not involving any resettlement of 20 people or more. The screening criteria for each of the projects will be articulated in the ESMF. The ESMPs will be developed as part of the environmental impact assessment or analysis that will be conducted during the feasibility studies for the infrastructure development. The assessments and analyses will have to be submitted to NEMA for approval prior to the detailed designs and commencement of any construction works.

5. Climate risk classification

The smallholders being targeted by NOSP are dependent on natural resources that are exposed and sensitive to climate change impacts. The smallholder practice predominantly rain-fed agriculture. Despite having sufficient overall rainfall amounts during the two rainy seasons (March–June and October–January) in the south to central parts and one long rainy season in the northern-easterly region, variability in distribution has been noted. The main climate risks being faced in the NOSP target areas are droughts, floods and increasing temperatures. Agricultural productivity is adversely impacted by late rains and late cessation that have been reported by smallholders. Climate variability also affects the post-harvest handling of the agricultural produce particularly the drying and storage practices.

Yield projections based on different scenarios illustrate decreases in yields for sesame (using sorghum and millet as proxies) and groundnut while soybean fairs better. Using the Climate Adaptation in Rural Development Assessment Tool, projected decreases in yield between 2021 and 2032 for groundnuts range from 0.93% to 5.12%, soybeans from 0.49% to 4.72% and for 1.54% to 5.57% in the sub-humid zones. Given the mixed projections and relative intensity of the extreme events, the NOSP climate risk classification is moderate. A climate vulnerability analysis is already being conducted for Uganda by the University of Cape Town with financing from the Adaptation for Smallholder Agriculture Programme (ASAP 2). The study includes the oil seeds crops targeted by NOSP and therefore, the implementation phase will benefit from recommendations for climate change adaptation measures that will be promoted under Component 1.

6. Recommendations for project design and implementation

- Conduct a social diagnostic assessment within each hub to identify social dynamics that should be addressed in the design and implementation of the project. Through this assessment high risk communities with a critical gender imbalance will be identified and intervention approaches will be tailored to mitigate these risks.

- Ensure social inclusion in farmer organizations as part of the stakeholder platforms as well as trainings, information/extension, and demonstrations to farmers. This may include specific targets for women-led groups in areas where women's active

participation in mixed groups is limited and where women prefer this approach. All facilitators/brokers should be trained in gender dynamics to solicit input from women and youth and other marginal groups in mixed groups to ensure that their priorities are reflected in investment plans and selection of services.

- Use of Household Methodologies (GALS and HH Mentoring) to ensure women's participation in household expenditure decisions. The GALS also includes nutrition and climate change. The methodologies will enable farmers to identify common areas of gender inequality limiting women's and youth's development specifically in value chains and household/community progression.

- Provide incentives to increase women's and young people's participation in and benefit from service provision, including mechanization. Increasing the participation of women in the provision of the services envisaged, either as auxiliary or technical, will build the capacity of women along the value chain to participate in and benefit from the commercialization effort.

- Promote good agricultural practices and technologies that are environmentally sustainable, and nutrition- and gender-sensitive. Promotion of renewable energy such as dryers that use crop residues instead of fuel wood to avoid deforestation, precision fertilizer application to increase resource efficiency, integrated soil fertility management and crop rotation and diversification.

- Provide equipment and training to support greater aflatoxin control and awareness. In field practices aflatoxin control measures include selection of drought tolerant seed varieties and good agriculture practices to reduce crop stress. Managing moisture levels post-harvest with appropriate drying technology, such as simple drying racks, and improved storage facilities would also limit further contamination.

- Improve access to nutrition knowledge and health food culture through nutrition trainings and other awareness raising activities. This can be done through partnerships with existing programmes to address challenges high levels of stunting, wasting and micro-nutrient deficiencies.

- Build capacity of facilitators/brokers in climate risk mapping/vulnerability assessments. Using downscaled future projections the existing adaptation strategies can be improved and options provided through the NOSP advisory services.

- Invest in the development of climate information services and R&D on drought tolerant varieties. The project can also promote different climate smart agriculture practices to contribute to the NDC priorities by scaling up practices such as minimum tillage, mulching and other soil and water conservation measures and improved water use efficiency and farm management.

- Ensure the design and construction of rural roads is informed by climate risk analyses. The downscaled climate risk models will be used in the risk mapping and integrate measures such as water harvesting structures and improved drainage.

- Incorporate sites for the land degradation surveillance framework and their operationalization to monitor the health of the soil and land use changes.

- Adhere to the SECAP and national environmental regulations in the development of the roads infrastructure. The impact assessments will have to be included in the budgets for the infrastructure development and approvals obtained from NEMA.

- Appoint dedicated staff for social inclusion and environment and climate change at management as well as implementation levels.

7. Further studies needed

NOSP includes infrastructure development for which all the sites are not known during design. Therefore, an Environmental and Social Management Framework will be developed as part of the design. The Framework will guide the environmental and social risk screening for the NOSP activities and propose specific measures to reduce the risks.

NOSP will also be informed by the recommendations from the climate risk analysis being done for selected value chains including the four oil seeds.

8. Monitoring and evaluation

- Gender and age disaggregated data. NOSP will ensure that all data collected will be disaggregated by gender, age and poverty and where possible by crops. The findings generated will be regularly analysed and used to inform project management and implementation teams to assess and develop CGYN mainstreaming strategies.

- Women's participation in oilseed value chains. WEAI data show that only 50 % of women participate in cash crop production. These results are not disaggregated by crop. Baseline participation rates for each oilseed crop can be established at the outset and targets (say a 10 % increase in participation rates) can be set. NOSP could collect data on input into production decisions and control over income related to each oilseed crop, in addition, but use participation in the value chain as the main indicator for the log frame.

- Women's labour burden. It would also be useful to track changes in women's labour burden as a result of oilseed commercialization. In order to do this, NOSP could track men's and women's labour allocation to different activities in the value chain for each crop. However, to get a sense for how women's participation in oilseed value chains affects women's overall time burden, NOSP could collect data on other time use categories (domestic work, food crop production etc.).

- Pro-WEAI or WEAI for Value Chains. These intra-household survey-based tools could be used as part of an impact assessment to capture changes in all aspects of women's empowerment (production decision-making, control over productive resources, control over income, community leadership, time use, mobility). Changes in overall pro-WEAI or WEAI4VC score can also be captured, however, the overall scores may obscure the positive and negative changes in the different aspects or indicators of empowerment.

- Land degradation. The inclusion of the land degradation framework sites in the NOSP target area will enable the monitoring of soil fertility, infiltration capacity and erosion prevalence. Some of these parameters can be included in the M&E system to monitor the natural resources management.

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Environment and Social Management Plan Matrix - NOSP

Environmental/Social Impacts	Potential Mitigation/Enhancement measures	Responsible	Means of Verification/ Indicators[3]	Frequency of Verification
Component 1 - Support to Oilseed Value Chain Development				
Over or inadequate application of agrochemicals	Conduct training in use and safe handling of agro-chemicals	PMU/ MAAIF Extension Services	Number of training sessions held Number of farmers using protective gear when handling agrochemicals	Bi-annually
Exposure to Agro-chemicals	Conduct training on use of agro-chemicals and individual protection equipment.	PMU/ MAAIF Extension Services/ Service Providers	Number of farmers affected by agro-chemicals	Annually
Land degradation due to clearing and opening up of new areas under expansive agriculture	Promote soil and water conservation measures including agro-forestry and use of cover crops; obtain necessary approvals for land clearing	PMU/ MAAIF Extension Services/ Environment Officers/ Natural Resources Officers	Adoption rate of soil and water conservation measures Area of land cultivated and deforested	Annually
Encroachment in wetlands	Ensure environmental screening is conducted and monitoring of areas of cultivation	Environment Officers/PMU	Size of area affected	Bi-annually
Land related disputes	Strengthen local conflict resolution and grievance redress mechanisms	District/ Sub-county Officials	Number of disputes reported and resolved	Annually
Bush fires	Ensure enforcement of by-laws; promote appropriate land clearing and preparation methods; include fire breaks in land use plans	Environment Officers/ Natural Resources Officers	Number of bush fires	Annually
Introduction of alien/invasive species	Promote use of indigenous species and certified varieties	PMU/ MAAIF Extension Services	Number of invasive species	Annually
Loss of fragile ecosystems and relevant biodiversity species	Obtain necessary approvals for land clearing and land use change, use expert knowledge of ecologists, introduction of ecosystem conservation activities	PMU/ Environment Officers/ Natural Resources Officers	Size of area and species affected	Annually
Component 2 Support to Market Linkage Infrastructure Serving Oilseed Sector				
Physical resettlement or economic displacement	Apply the principles of free, prior and informed consent; ensure appropriate alignment of roads infrastructure	PMU/ PICT/Contractors/ Environment Officers	Number of community consultation sessions effectively documented	Annually
Unattended borrow sites	Ensure careful selection of borrow pit locations; elaborate and monitor restoration/ safety measures required within the contractual arrangements; consider the use of borrow pits as alternative water harvesting infrastructures	PMU/ PICT/Contractors/ Environment Officers/ Natural resources management officers	Number of borrow sites rehabilitated Number of reported accidents	Annually
Poor drainage resulting in	Promote innovative solutions for water	PMU/ PICT/Contractors/	Number of sites and area of	Annually

[3] Monitoring and reporting

flooding/erosion of agricultural land	harvesting from roads; ensure good standards of feasibility studies and designs as well as impact assessments; promote vegetation of road sides to improve infiltration capacity	Environment Officers	land affected	
Water contamination due to the run-off of hazardous elements used for construction works	Controlled disposal of waste and effluent by use of appropriate disposal facilities, use of appropriate drainage structures, proper storage of materials, awareness campaigns; include contractual clauses for dealing with construction materials and avoiding spillages	PMU/ PICT/Contractors/ Environment Officers	Change in water quality Number of reported pollution events	Bi-annually Annually
Loss of soil	Stabilization of loose soil, controlled excavation, preservation of vegetation cover, appropriate landscaping.	PMU/ PICT/Contractors/ Environment Officers/ Natural resources management officers	Area and size of gullies formed Sedimentation levels in watercourses	Monthly
Loss of vegetation	Selective clearing of project sites, revegetation at sites, sensitization campaigns	PMU/ PICT/Contractors/ Environment Officers/ Natural resources management officers	Increase in area of land cultivated and deforested	Monthly
Waste generation	Conduct awareness campaigns, assignment of adequate sites and equipment for waste collection and temporary storage, promote the use of organic waste as compost	PMU/ PICT/Contractors/ Environment Officers/ Natural resources management officers	Number of campaigns Waste levels at sites	Quarterly
Spread of HIV/AIDS and STIs	Strengthen HIV/AIDS awareness, encouraging participation in voluntary counselling and testing	District health officers	Number of awareness sessions held Percentage increase in infections	Annually
Traffic accidents	Promote road safety during and after construction; install adequate road signs and speed regulation measures	PMU/ PICT/Contractors/Road Traffic Officers	Number of accidents reported	Annually
Potential land use conflicts	Avoid locating interventions on sites that may require resettlement and/or displacement of other important land uses and encroachment on historical, cultural, traditional use areas, or protected areas	PMU/PICT/ District/ Sub-county Officials	Number of reported conflicts Number of complaints	Bi-annually
Labour conditions; Work related accidents	Occupational and health training and awareness Codes of conduct for contractors	PMU/ PICT/Contractors	Number of reported accidents Number of incidents reported	Annually
Air pollution, dust, noise disturbance	Controlled operation times, use of appropriate equipment, proper orientation of lights, use of alternative materials, use water sprinklers to control dust, use of scrubbers	PMU/ PICT/Contractors/ Environment Officers/ Natural resources management officers	N° of reported pollution events Size of area affected N° of reported accidents	Annually
Sexual Harassment/ Sexual exploitation and Abuse[4]	Awareness raising and capacity building on the policy of no tolerance for SH/SEA	PMU/ PICT/Contractors/ District Health Officers	Number of reported incidents	Annually

[4] Refer to IFAD Policy on Preventing and Responding To Sexual Harassment, Sexual Exploitation and Abuse; 2018; www.ifad.org/en/document-detail/asset/40738506

IFAD
Investing in rural people

Uganda

National Oilseeds Project

Project Design Report

Annex 6: First Annual Work Plan and Budget (AWPB)

Document Date:	26/10/2019
Project No.	2000002260
Report No.	5155-UG

East and Southern Africa Division
Programme Management Department

A 1. 18 months Annual Work Plan and Budget

Project Name:	National Oil Seeds Project (NOSP)									
Principal Recipient:	Government of the Republic of Uganda									
Currency:	US$									
Period	From 01 July 2020 to 30 December 2021									

Detailed Tables for Component, Expenditure

Description

	# Budget line by Component, sub component and Activity	Unit	# of units	Unit rate	Total Costs	Budget Q1 FY 20/21	Budget Q2 FY 20/21	Budget Q3 FY 20/21	Budget Q4 FY 20/21	Budget Q1 FY 21/22	Budget Q2 FY 21/22	
	Activities					-	-	-	-	-	-	
A	**COMPONENT 1: Support to Oil Seed Value Chain Development**					**-**	**-**	**-**	**-**	**-**	**-**	
A.1	**Hub and cluster operations**					**-**	**-**	**-**	**-**	**-**	**-**	
	MSP Hub level meetings	meeting	18	2,500	45	-	-	-	-	23	23	
	MSP cluster level meetings	meeting	432	250	107 875	-	-	-	-	53 938	53 938	
	Pre-investment support, training and demonstration and B2B activities	cluster	75	1,000	75	-	-	-	-	38	38	
	Hub coordination and consultative meeting	meeting	3	1,000	3 000	0	0	0	1 000	1 000	1 000	
	B. Technical Assistance		-			-	-					
	International SC development specialist	pers-month	12	20,000	240			60	60	60	60	
	C. Oilseed Sector Development Facility		-		-	-	-	-	-	-	-	
	Public Fund to address specific bottlenecks to the SC development /k	lumpsum	1	95,000	95	-	-	-	-	95 000		
	Industry Contribution to the Public Fund 5%	lumpsum	1	5,000	5	-	-	-	-	5 000		
	D. Vehicles and Equipment		-			-	-	-	-	-	-	
	1. PMU - Vehicles and equipment		-			-	-	-	-	-	-	
	Office furniture for PMU SCT	set	3	400	1 200			1 200		-	-	
	Tablets for PMU for M&E entry	no	3	150	450			450		-	-	
	Laptop for PMU for M&E entry	no	3	1,500	5			4 500		-	-	
	2. Hub - Vehicles and equipment		-		-	-	-	-	-	-	-	
	4x4 Vehicles for Hubs Supply chain team (2 per hub)	no	10	42,000	420			420 000		-	-	
	Motorcycles for hubs supply chain team	no	20	3,000	60			60 000		-	-	
	Office furniture for Hub SCTs	set	30	400	12 000			12 000		-	-	
	Tablets for Hub SCTs - for M&E entry	no	33	150	4 950			4 950		-	-	
	Laptop for Hub SCTs - for M&E entry	no	30	1,500	45			45 000		-	-	
	Printer/Photocopier/Scanner for Hub (1 per hub)	no	5	6,000	30			30 000		-	-	
	LCD Projector & screen for hub (1 per each office)	no	5	2,000	10			10 000		-	-	
	Dig. camera with GPS for hub (1 per each office)	no	5	500	2 500			2 500		-	-	
	E. Hub Coordination Consultancies					**-**	**-**					
	Supply Chain Team Leader - Hub (1 per hub) - 5 hubs @ start, Karamoja from Yr 3 (small hub)	pers-month	90	2,500	225 000	37 500	37 500	37 500	37 500	37 500	37 500	
	Snr Supply Chain Specialists - Hub (2 per hub, 1 in Karamoja from Yr 3)	pers-month	180	2,000	360 000	60 000	60 000	60 000	60 000	60 000	60 000	
	Supply Chain Specialists - Hub (3 per hub, 1 in Karmoja from Yr 3)	pers-month	270	1,500	405 000	67 500	67 500	67 500	67 500	67 500	67 500	
	F. Supply Chain Logistics Training					-	-					
	Trainer	pers-day	3	300	750	-	-	-	-	375	375	
	Accommodation	day	3	120	300	-	-	-	-	150	150	
	DSA	day	3	50	125	-	-	-	-	63	63	
	A. Hub Expenses					-	-					
	Hub office expenses	office month	90	1,000	90 000	15 000	15 000	15 000	15 000	15 000	15 000	
	DSA fo SC PMU & Hub staff	pers-year	51	500	25 500	2 125	2 125	2 125	2 125	4 250	4 250	
	Producer Group Mentoring					**-**	**-**					
	B. Producer Group Mentoring					-	-					
	Economic Mobilisation (existing & new groups)	group	450	50	22 500	-	-	-	-	11 250	11 250	
	B2B interaction - Village level	meeting	1 800	50	90 000	-	-	-	-	45 000	45 000	
	C. Business Skills Training		-			-	-					
	Businss Skills Training (BST) course development	month	6	25,000	150 000	25 000	25 000	25 000	25 000	25 000	25 000	
	ToT Training to Business Skills Mentors (BSM)	event	12	10,000	120 000	-	-	-	-	60 000	60 000	
	BST related printing	per HH	22 500	5	112 500	-	-	-	-	56 250	56 250	
	BST course roll-out - group level	course	900	200	180 000	-	-	-	-	90 000	90 000	
	Fee to BSMs to teach BST courses	course	900	100	90 000	-	-	-	-	45 000	45 000	
	BSM partial renumeration	year	863	40	34 500	-	-	-	-	17 250	17 250	
	Tablets for BSMs	unit	300	120	36 000	-	-	-	-	36 000		
	E. Salaries - Economic Mobilizers					-	-					
	Economic Mobilizers	pers-month	450	100	45 000	-	-	-	-	22 500	22 500	
	EM Supervisors - salary	pers-month	45	400	18 000	-	-	-	-	9 000	9 000	
	EM Managers - salary	pers-month	14	600	8 100	-	-	-	-	4 050	4 050	
	F. VSLA mobilization		-		-	-	-	-	-	-	-	
	VSLA Facilitator	month	300	200	60 000			17 500	17 500	12 500	12 500	
	G. EM Capacity building					-	-					
	EM training on EMs and other PSP staff	event	4	20,000	70 000	-	-	-	-	35 000	35 000	
	Follow up EM training on EM, MIS, VC & MSP	event	-	7,500	-	-	-	-	-	-	-	
	H. EM Equipment		-			-	-					
	Tablets for EMs	unit	75	150	11 250	-	-	-	-	5 625	5 625	
	Tablets for EM Supervisors and Managers	unit	8	150	1 125	-	-	-	-	563	563	
	Laptop / Desktop for EM Supervisors / Managers	unit	10	1,500	15 000	-	-	-	-	7 500	7 500	
	I. EM Vehicles		-			-	-					
	4WD pickups - EM Hub Team	each	10	42,000	420			420 000		-	-	
	Motorcycles - EM field team	each	50	3,000	150			150 000		-	-	
	J. Office operating		-			-	-					
	Internet fees	pers-year	83	50	4 125	-	-	-	-	2 063	2 063	
	K. Allowances	pers-year	85	750	63 750	-	-	-	-	31 875	31 875	
	L. Other Hub operating costs	hub	3	10,000	30 000	-	-	-	-	15 000	15 000	
	2. HHs Methodology & Social Mentoring		-			-	-					
	ToT costs for HHM Mentoring Field Supervisors	event	8	10,000	80 000			40 000	40 000	-	-	
	Training costs for HHM Mentors	event	25	5,000	125 000			62 500	32 500	-	-	
	Bicycles for Mentors	each	2 400	120	288 000			288 000		-	-	
	Materials for HHM	set	2 400	50	120 000			60 000	60 000	-	-	
	Support to Young Farmer Groups	school	120	150	18 000	-	-	-	-	9 000	9 000	
	3. Study (Mapping, Assessments,)		-			-	-					
	HH Methodology Impact Study	study	1	100,000	100 000	-	-	-	-	50 000	50 000	

National level Knowledge Event/Workshop of HH methodology	w/shop	-	7,000	-	-	-	-	-	-	-
4. GALS salaries		-			-	-				
HHM Senior Supervisors	pers-year	12	6,000	72 000	-	-	-	-	36 000	36 000
HHM Field Supervisors	pers-year	120	3,600	432 000	-	-	-	-	216 000	216 000
HHM Mentors	pers-year	1 200	780	936 000	-	-	-	-	468 000	468 000
O. Improved climate information services		-		-	-	-	-	-	-	-
1. Climate data collection		-		-	-	-	-	-	-	-
b. Farmers Groups		-		-	-	-	-	-	-	-
Rain Gauges & Temperature Recording Micro Stations	unit	1 200	60	72 000				36 000	18 000	18 000
2. Capacity Building for Climate Change and Environmental Management		-		-	-	-	-	-	-	-
Awareness, Knowledge and Participation of Farmers on CC and Weather-related Info	session	75	5,000	375 000			125 000	125 000	62 500	62 500
Build capacity of Technical Staff on Mainstreaming Environmental Management and CC Risk	w/shop	8	20,000	150 000			50 000	50 000	25 000	25 000
Build capacity of UNMA staff on weather data analysis, interpretation and dissemination	w/shop	1	50,000	50 000			25 000	25 000	-	-
Annual Refresh 3-day Training on Environmental, Climate Change	w/shop	8	20,000	150 000			50 000	50 000	25 000	25 000
Build capacity of Communities in the use of rain gauges	w/shop	75	50	3 750			1 250	1 250	625	625
3. Climate risk and vulnerability assessment		-			-	-				
Climate Risk and Vulnerability Assessment (District level)	no	30	20,000	600			100 000	300 000	100	100
Service provision for the risk assessment	no	2	40,000	80 000			20 000	20 000	20 000	20 000
4. Social Impact Assessments		-		-	-	-	-	-	-	-
Data collection	survey	60	1,000	60 000			20 000	20 000	10 000	10 000
5. Soil health assessments		-		-	-	-	-	-	-	-
Land degradation surveillance framework sites	site	15	30,000	450 000			150 000	150 000	75 000	75 000
Capacity building for LDSF	w/shop	1	20,000	20 000			10 000	10 000	-	-
Monitoring of the soil fertility and health	site	8	200	1 500	-	-	-	-	750	750
6. Environmental awareness raising		-		-	-	-	-	-	-	-
Radio progarmmes (regional level)	sessions	23	400	9 000			3 000	3 000	1 500	1 500
7. Nutrition awareness raising		-		-	-	-	-	-	-	-
Nutrition Fairs	no	150	500	75 000			25 000	25 000	12 500	12 500
Training on aflatoxin reduction (group level)	session	900	500	450 000			150 000	150 000	75 000	75 000
Financial Services		-			-	-				
A. VSLA Training					-	-				
Training on VSLA governance, book keeping	batches	9	3,000	27 000				18 000	4 500	4 500
Training to VSLAs on governance,member responsibility, book keeping	days	6 650	20	133 000				130 000	1 500	1 500
B. VSLA level financial products for oil seed production		-			-	-				
Training of personnel in financial products at VSLA	batch	16	1,500	24 000				15 000	4 500	4 500
C. Training on Financial literacy including insurance literacy		0		-	-	-	-	-	-	-
Training of trainers on finanical literacy including insurance literacy	batch	26	3,000	78 000				48 000	15 000	15 000
Training of VSLA members on financial literacy including insurance literacy	day	11790	20	235 800				109 200	63 300	63 300
D. Training on VSLA linkage banking and other mainstream bank linkages		0		-	-	-	-	-	-	-
Training of trainers on VSLA linkage banking /VC financing	batch	15	2,000	30	-			20 000	5	5
Training of VSLA members on linkage banking/ VC financing	VSLA	910	10	9 100				5 200	1 950	1 950
E. Engagement with banks		0		-			-	-	-	-
High level meeting with Financial instiuttions, Insurance companies and Bank of Uganda	meeting	3	500	1 500				1 000	250	250
Planning and co ordination meeting at hub level with major financial institutions and insurance companies	meeting	15	200	3 000				1 000	1 000	1 000
Policy briefs and other KM products	per brief	1	1,000	1	-	-	-	-	0	0
F. Technical assistance to Financial institutions		0			-	-				
1. Tier 4 institutions		0			-	-				
a. Agri product development - SACCOs, Agriculture enterprise co operatives	SACCO	38	6,000	225 000				150 000	38 000	38 000
2. Tier 1, 2 & 3 Financial Institutions		0								
a. TA for product development/ product modifications	pers-day	150	400	60 000				24 000	18 000	18 000
b. Training of branch managers and credit officers on new products including crop insurance /n	batch	10	6,000	60 000				12 000	23 000	23 000
3. Training programme on oil seed value chain financing for bank staff including crop insurance	batch	1	7,500	7 500	-	-	-	-	3 250	3 250
4. Exposure visit for senior management banks and Government officials	batch	1	75,000	38 000	-	-	-	-	19 000	19 000
G. Support to Insurance Companies		0		-	-	-	-	-	-	-
1. Training of insurance company staff in branches, PSP agents,	batch	4	1,000	4 000				2 000	1 000	1 000
2. Piloting and scaling up of agriculture insurance products	annual contra	1	50,000	50 000	-	-	-	-	50 000	
H. Training on crop insurance for PSP and mobilisers	training	5	2,000	10 000	-	-	-	-	5 000	5 000
A. Farm Production Advisors Training										
Develop course curriculum	manual	4	15,000	60 000	-	-		60 000	-	-
Production of training material	units	5 000	10	50 000	-	-		50 000	-	-
Training of Trainers	trainers	12	5,000	60 000	-	-		60 000	-	-
Training of FPA on the field	persons	141.5	500	70 750	-	-		37 500	16 625	16 625
Training of FPA theory classes	persons	141.5	500	70 750	-	-		37 500	16 625	16 625
B. Demonstration Plots		0		-		-	-	-	-	-
Inputs - seed ,fert,CPP	input packs	141.5	100	14 150	-	-	3 750	3 750	3 325	3 325
Equipment and tools	pack	141.5	75	10 613			2 813	2 813	2 494	2 494
Signage	signs	141.5	25	3 538			938	938	831	831
Purchase of Mechanisation services	acres	141.5	60	8 490			2 250	2 250	1 995	1 995
M&E of Demo plot (inspections by PSP)	inspection	141.5	100	14 150			3 750	3 750	3 325	3 325
Field days for farmer groups in cluster	field days	565	50	28 250			7 500	7 500	6 625	6 625
Distribution and logistics	plots	565	200	113 000			30 000	30 000	26 500	26 500
C. FPA Extension program		0								
Development of audio visual extension material	programs	12	7,500	90 000			45 000	45 000	-	-
Portable Audio visual equipment for extension	kits	150	750	112 500			37 500	37 500	18 750	18 750
Tablet for M&E	unit	150	150	22 500			7 500	7 500	3 750	3 750
Soft ware for M&E	unit	300	50	15 000			5 000	5 000	2 500	2 500
IT tech support from systems service provider	day	730.5	100	73 050			27 400	27 400	9 125	9 125

Training of FPA's on extension service provision	each	141.5	250	35 375			9 375	9 375	8 313	8 313
Transport allowance for extension	days	5085	5	25 425			6 750	6 750	5 963	5 963
D. General Support to FPAS		0								
M&E : production and trade data from groups	farmers	84750	0.55	46 613			11 653	11 653	11 653	11 654
Logistics support	seasons	3	12,000	36 000			12 000	12 000	6 000	6 000
Program review	review	1.5	22,500	34 000			11 000	11 000	6 000	6 000
A. Scheme Design and Supervision										
1. Mechanization Business Training Course Set-up							-	-	-	-
Develop curriculum & materials for training program	module	6	10,000	60 000			30 000	30 000	-	-
ToT Mech Bus. training of hub implementers (PSP)	implementer	6	40,000	240 000			80 000	80 000	40 000	40 000
Monitoring & Mentoring of Hub Implementers	implementer	0	10,000	-			-	-	-	-
2. Machinery packages for Hub Implementers usage		0								
Small scale thresher package for Hub training	package	10	5,000	50 000			25 000	25 000	-	-
Small scale mechanization package for Hub training	package	5	8,400	42 000			21 000	21 000	-	-
Medium scale mechanization package for Hub training	package	5	38,800	194 000			97 000	97 000	-	-
Large scale mechanization package for Hub training	package	5	55,800	280 000			140 000	140 000	-	-
B. Mechanization Business Training										
Tractor operator training	each	105	1,250	131 250			-	-	66	66
Mechanic training course	man	9	2,400	21 600			7 000	7 000	3 800	3 800
Field Visits and mentoring of operators	each	53	500	26 500			-	-	13 125	13 125
Monitoring of extensions	session	53	100	5 300			-	-	2 625	2 625
		-					-	-	-	-
C. Mechanization Business Financing Round 1 - First movers		-		-			-	-	-	-
1. Small-scale mech package (USD 11,200 each)		-		-			-	-	-	-
Investment incentive - NOSP	package	25	5,600	140 000			-	-	70 000	70 000
Beneficary contribution	package	25	5,600	140 000			-	-	70 000	70 000
b. Investor - SME (incentive = 35% w/ women bonus)		-					-	-	-	-
Investment incentive - NOSP	package	13	3,920	50 960			-	-	25 000	25 960
Beneficary contribution	package	13	7,280	95 000			-	-	47 500	47 500
2. Medium-scale mech package (USD 44,310 each, incl taxes)		-		-			-	-	-	-
Investment incentive - NOSP	package	8	22,155	177 240			-	-	88 620	88 620
Beneficary contribution	package	8	22,155	177 240			-	-	88 620	88 620
b. Investor - SME (incentive = 35% w/ women bonus)		-		-			-	-	-	-
Investment incentive - NOSP	package	8	15,508	116 000			-	-	58 000	58 000
Beneficary contribution	package	8	28,802	216 000			-	-	108 000	#######
Quality Declared Seed Production Scheme										
A. Local Seed Business Training										
Develop and implement QMS documentation	manual	1	25,000	25 000			12 500	12 500	-	-
Production of training material and documentation	copies	500	25	12 500			6 250	6 250	-	-
PSP training LSB	pers-day	1 350	20	27 000			9 000	9 000	4 500	4 500
B. Local Seed Business Plots		-		-			-	-	-	-
Inputs - seed, fertilizer, crop protection products	packs	33	300	9 750			3 000	3 000	1 875	1 875
Equipment and tools	no	33	50	1 625			500	500	313	313
Signage /e	no	33	20	650			200	200	125	125
Purchase of mechanisation services	acres	65	85	5 525			1 700	1 700	1 063	1 063
Certification and inspection	no	163	20	3 250			1 000	1 000	625	625
Tablets for M&E	no	33	150	4 875			1 500	1 500	938	938
Software and reg	no	43	50	2 125			500	500	563	563
M&E : productionand trade data from groups	LSB	33	50	1 625			500	500	313	313
M&E: Data management and processing	pers-day	150	50	7 500			2 500	2 500	1 250	1 250
C. Supply Chain Development	no	5	1,500	8 000			-	-	4 000	4 000
D. Training of Seed Inspectors		-		-			-	-	-	-
Seed inspectors training by PSP	inspectors	19	1,000	19 000			-	-	10 000	9 000
Equiping seed inspectors	set	19	500	9 500			-	-	4 750	4 750
E. Supporting Seed Production Systems		-		-			-	-	-	-
1. Soy Seed- Increase Genetic yield potentail of local varieties	trial	1	25,000	25 000			-	-	25 000	
2. Build Capacity of plant breeders	scholarships	1	25,000	25 000			-	-	25 000	
3. Increasing capacity for foundation seed supply		-		-			-	-	-	-
Develop a sustainble business model and Supply chain to provide LSB with foundation seed	plan	1	10,000	10 000			-	-	10 000	
Irrigation system for foundation seed production	acres	5	5,000	25 000			-	-	12 500	12 500
Training on irrigation system operation and maintenance	session	1	2,500	2 500			-	-	2 500	
4. Support to National Soy Bean Seed Production		-		-			-	-	-	-
4WD Pickup	no	1	42,000	42 000				42 000	-	-
F. Innoculant Supply Chain		-		-			-	-	-	-
Develop capacity of private sector labs to produce innoculant	labs	1	120,000	120 000			-	-		#######
Innoculant storage /o	no	60	1,000	60 000				40 000	10 000	10 000
Capacity building - production of innoculant	course	1	10,000	5 000			-	-	2 500	2 500
G. Research and Development		-		-			-	-	-	-
Scholarships MSc	students	5	6,000	30 000			-	-	15 000	15 000
Scholarships PhD	students	3	12,000	36 000			-	-	18 000	18 000
Workshops	w/shop	1	10,000	5 000			-	-	2 500	2 500
Supporting institutons on oil seed research	programs	1	25,000	25 000			-	-	12 500	12 500
Component 2: Public Infrastructure Serving Oilseed Sector										
A. Vehicles							-	-	-	-
4WD Pickups	no	5	42,000	210 000			-	-	210 000	
Office car	no	1	50,000	50 000			-	-	50 000	
B. Office equipment		-								
Destop computers	no	15	1,000	15 000			-	-	15 000	
Laptops	no	15	1,500	30 000			-	-	30 000	
Printers	no	15	500	7 500			-	-	7 500	

Multifunctional Printer/Scanner	no	1	12,000	12 000			-	-	12 000	
Office furniture	set	11	2,000	22 000			-	-	22 000	
GPS and Tablet equiment	no	6	1,000	6 000			-	-	6 000	
Software	no	1	500	500			-	-	500	
C. Community awareness and social mobilisation	lumpsum	0	600,000	300 000			-	-	150 000	#######
D. Feasibility studies and engineering designs	kms	500	1,000	500 000			-	-	250 000	#######
E. Environmental and Social Impact Assessments	kms	500	600	300 000			-	-	150 000	#######
F. ESMP implementation - Restoration of water supply	lumpsum	-	269,400	-			-	-	-	-
Component 3: Project Coordination and Management										
A. MAAIF PCU							-	-	-	-
1. Technical Assistance							-	-	-	-
National M&E, KM and Communication Specialist	pers-month	6	8,000	48 000	8 000	8 000	8 000	8 000	8 000	8 000
2. Vehicles		-		-			-	-	-	-
4WD Pickups	no	-		-			-	-	-	-
Office car (Station wagon)	no	1	50,000	50 000				50 000	-	-
3. Office equipment		-		-			-	-	-	-
Desktop computer	unit	13	1,000	13			-	-	13 000	
Laptops	unit	12	1,500	18			-	-	18 000	
Mutifunctional printer/scanner	unit	1	12,000	12			-	-	12 000	
Office furniture	set	13	2,000	26			-	-	26 000	
GPS and tablet equipment	unit	6	1,000	6			-	-	6 000	
B. MoLG PCU		-		-			-	-	-	-
1. Vehicles		-		-			-	-	-	-
4WD Pickups										
Office car (Station wagon)	no									
2. Office equipment		-		-			-	-	-	
Desktop computer	unit	8	1,000	8			-	-	8 000	
Laptops	unit	6	1,500	9			-	-	9 000	
Mutifunctional printer/scanner	unit	1	12,000	12			-	-	12 000	
Office furniture	set	8	2,000	16			-	-	16 000	
GPS and tablet equipment	unit	6	1,000	6			-	-	6 000	
A. MAAIF PCU		-								
1. Staff Salaries		-								
Project Coordinator	pers-month	12	5,000	60 000			15 000	15 000	15 000	15 000
Supply Chain Team Leader	pers-month	12	4,000	48 000			12 000	12 000	12 000	12 000
Supply Chain Deputy Team Leader	pers-month	24	3,000	72 000			18 000	18 000	18 000	18 000
Financial Controller	pers-month	12	3,000	36 000			9 000	9 000	9 000	9 000
Procurement Specialist	pers-month	12	3,000	36 000			9 000	9 000	9 000	9 000
Social Inclusion Specialist	pers-month	6	3,000	18 000			-	-	9 000	9 000
Environment and Climate Specialist	pers-month	6	3,000	18 000			-	-	9 000	9 000
M&E and KM Specialist	pers-month	18	3,000	54 000	#####	9 000	9 000	9 000	9 000	9 000
Rural Finance Advisor	pers-month	6	3,000	18 000			-	-	9 000	9 000
Accountant	pers-month	12	2,000	24 000			6 000	6 000	6 000	6 000
Account Assistant	pers-month	12	1,500	18 000			4 500	4 500	4 500	4 500
Data Management Assistant	pers-month	6	1,000	6 000			-	-	3 000	3 000
Office Administrator	pers-month	6	1,000	6 000			-	-	3 000	3 000
Office Attendants	pers-month	12	500	6 000			-	-	3 000	3 000
Drivers	pers-month	54	500	27 000			-	-	13 500	13 500
3. Staff Allowances		-								
Per diem for national travel	day	150	50	7 500			-	-	3 750	3 750
Tele and internet subs	month	1 110	5	5 550			-	-	2 775	2 775
4. Operation and maintenance		-		-			-	-	-	-
Operation and maintenance - Bi Annual	bi-annual	-	20,000	-			-	-	-	-
Operation and maintenance - Regular	day	20	250	5 000			2 500	2 500	-	-
B. MoLG NOSP Implementation Support Team		-		-			-	-	-	-
1. Staff Salaries		-		-			-	-	-	-
Project Coordinator	pers-month	6	2,000	12 000			-	-	6 000	6 000
Infrastructure Engineering Advisor (from MoWT)	pers-month	6	1,500	9 000			-	-	4 500	4 500
Infrastructure Engineers	pers-month	30	3,000	90 000			-	-	45 000	45 000
Project Accountant	pers-month	12	2,000	24 000			6 000	6 000	6 000	6 000
Procurement Specialist	pers-month	12	3,000	36 000			9 000	9 000	9 000	9 000
Accounts Assistant	pers-month	12	1,500	18 000			4 500	4 500	4 500	4 500
Office Administrator	pers-month	6	1,000	6 000			-	-	3 000	3 000
Drivers	pers-month	42	500	21 000			-	-	10 500	10 500
Per diem for national travel	day	150	35	5 250			-	-	2 625	2 625
Tele and internet subs	month	1 110	5	5 550			-	-	2 775	2 775
Knowledge Management and Monitoring & Evaluation										
A. M&E System		0		-			-	-	-	-
Baseline survey	survey	1	150,000	150 000		75 000		75 000	-	-
SC annual tracking survey	survey	2	50,000	100 000		50 000		50 000		
C. Equipment		-		-			-	-	-	-
GSM-enabled tablet	unit	1 345	140	188 300			188 300		-	-
GPS units	unit	25	500	12 500			12 500		-	-
Desktop computer	unit	10	1,500	15 000			15 000		-	-
Digital Camera professional	unit	7	1,000	7 000			7 000		-	-
A. Staff allowances		-					-	-	-	-
M&E and KM Specialist	pers-day	45	40	1 800	300	300	300	300	300	300
PMU Data Management Assistant	pers-day	53	40	2 100			700	700	350	350
Hub M&E Assistant	pers-day	375	40	15 000			5 000	5 000	2 500	2 500
Total				**13 926 224**	**224 425**	**349 425**	**3 569 663**	**3 142 663**	**4 429 691**	**3 822 152**

IFAD
Investing in rural people

Uganda

National Oilseeds Project

Project Design Report

Annex 7: Procurement Plan for first 18 months

Document Date:	26/10/2019
Project No.	2000002260
Report No.	5155-UG

East and Southern Africa Division
Programme Management Department

GOODS
Country/Organization: Uganda
Project/Programme: National Oil Seed Project
Loan #:

Drafter of this PP: Mr. John XYZ, MORAP

Procurement Method
ICB and LIB (Goods): USD 200,000
ICB (Works): USD 700,000
ICB (Non-Consultancy Services): USD 100,000
NCB and LNB (Goods): USD 35,000-USD 200,000
NCB (Works): USD 100,000-USD 700,000
NCB (Non-Consultancy Services): USD 10,000-USD 100,000

IFAD prior review is required for Goods procurement value with more than USD 50,000

			BASIC DATA						Bid Documents		Bidding Period		Bid evaluation report		Contract finalization		
Description	AWPB Ref.	Lot Number	Issue # of invitation for bids	Procuring Entity	Estimated Amount in US$	Procurement Method	Pre- or post-review	Plan vs. Actual	Date Proposed	Date No-Objection	Bid invitation date	Bid closing/opening	Bid evaluation report	No-Objection	Contract amount in US$	Date Contract Award	Date Contract Signature
Procurement of 22 4WD Pickups Vehicles and 1 Station Wagon Vehicle		2		MAAIF-PCU	1 040 000	ICB	Prior	Plan	01-Oct-20	11-Oct-20	16-Oct-20	27-Nov-20	27-Dec-20	11-Jan-21		31-Jan-21	20-Feb-21
								Actual									
Procurement of 33 Office furniture sets for PCU and Hubs		1		MAAIF-PCU	13 200	NS	Prior	Plan	01-Aug-20	06-Aug-20	09-Aug-20	19-Aug-20	24-Aug-20	29-Aug-20		18-Sep-20	20-Sep-20
								Actual									
Procurement of Office equipment including desktops, laptops, tablets, Multifunctional Printer/Scanner, GPS and digital cameras		4		MAAIF-PCU	390 000	ICB	Prior	Plan	01-Nov-20	11-Nov-20	16-Nov-20	28-Dec-20	27-Jan-21	06-Feb-21		26-Feb-21	18-Mar-21
								Actual									
Procurement of 70 Motorcycles for hubs supply chain team and EM field team		1		MAAIF-PCU	210 000	ICB	Prior	Plan	01-Oct-20	11-Oct-20	16-Oct-20	27-Nov-20	27-Dec-20	11-Jan-21		31-Jan-21	20-Feb-21
								Actual									
Procurement of 2400 Bicycles for Mentors		1		MAAIF-PCU	288 000	ICB	Prior	Plan	01-Nov-20	11-Nov-20	16-Nov-20	28-Dec-20	27-Jan-21	11-Feb-21		03-Mar-21	23-Mar-21
								Actual									
Procurement of Rain Gauges & Temperature Recording Micro Stations		1		MAAIF-PCU	36 000	NCB	Prior	Plan	01-Dec-20	11-Dec-20	16-Dec-20	15-Jan-21	04-Feb-21	14-Feb-21		06-Mar-21	16-Mar-21
								Actual									
Procurement of Office equipment for EM field team including desktops, laptops, tablets		2		MAAIF-PCU	50 000	NCB	Prior	Plan	01-Aug-21	11-Aug-21	16-Aug-21	15-Sep-21	05-Oct-21	15-Oct-21		04-Nov-21	14-Nov-21
								Actual									
Procurement of 5 4WD Pickups Vehicles and 1 Station Wagon Vehicle		2		MAAIF-PCU	260 000	ICB	Prior	Plan	15-Jul-21	25-Jul-21	30-Jul-21	10-Sep-21	10-Oct-21	20-Oct-21		09-Nov-21	29-Nov-21
								Actual									
Non-Consultancy Services																	
Broadcasting of Radio Progarmmes (one contract for each region)		1		MAAIF-PCU	6 000	NS	Prior	Plan	01-Nov-20	06-Nov-20	09-Nov-20	19-Nov-20	24-Nov-20	29-Nov-20		19-Dec-20	21-Dec-20
								Actual									
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CONSULTANTS
Country/Organization: Uganda
Project/Programme: National Oil Seed Project
Loan #:

Assumptions:

It is expected that most of the TORs will be ready by the start-up of the project, otherwise a delay in the whole process for each transaction will happen.

For Consultancy Services Contracts with implementation period over one year, the contracts will be awarded and signed based on one-year contract with provision for possible extension for further years subject to performance satisfaction. The only exception will be the contracts for conducting Roads Construction Feasibility studies and engineering designs

Drafter of this PP:

Procurement Method
QCBS
QBS
FBS
LCS
CQS
SSS
SIC

ICB (Consultancy Services): USD 100,000

IFAD prior review is required for Consultancy Services procurement value with more than USD 50,000

								Request for expression of interest		Terms of Reference		Shortlist			Request for Proposal		Bid Proposal		Bid evaluations technical (T) and financial (F)						Contract Finalisation		
Description	AWPB Ref.	Procuring Entity	Selection method	Lump-sum or time-based	Estimated amount in US$	Pre/Post- review	Plan vs. Actual	Date published	Closing date	Date proposed	Date no-objection	Date proposed	Date no-objection	Plan vs. Actual	Date prepared	Date no-objection	Invitation date	Submission/opening date	Submission evaluation report (T)	no-objection evaluation report (T)	Opening Financial Proposal	Submission eval. Report (T) and (F)	no-objection eval. Report (T) and (F)	Plan vs. Actual	Contract amount in US$	Contract award	Contract signature
Recruitment of Indivadual Consultant to provide TA to strengthen the Procurement Functions		MAAIF-PCU	SIC	Lump-sum	15 000	Prior	Plan	01-Aug-20	11-Aug-20	01-Aug-20	06-Aug-20	16-Aug-20	21-Aug-20	Plan	NA	NA	NA	NA	NA	NA	NA	26-Aug-20	31-Aug-20	Plan		20-Sep-20	20-Sep-20
							Actual							Actual										Actual			
Recruitment of International SC development specialist		MAAIF-PCU	SIC	Lump-sum	120 000	Prior	Plan	01-Sep-20	21-Sep-20	01-Sep-20	11-Sep-20	01-Oct-20	11-Oct-20	Plan	NA	NA	NA	NA	NA	NA	NA	21-Oct-20	31-Oct-20	Plan		20-Nov-20	30-Nov-20
							Actual							Actual										Actual			
Recruitment of Consulting Firm to carry out Procurement Capacity Building Programme		MAAIF-PCU	CQS	Lump-sum	25 000	Prior	Plan	01-Oct-20	16-Oct-20	01-Oct-20	08-Oct-20	26-Oct-20	02-Nov-20	Plan	12-Nov-20	19-Nov-20	20-Nov-20	11-Dec-20	NA	NA	NA	21-Dec-20	28-Dec-20	Plan		17-Jan-21	27-Jan-21
							Actual							Actual										Actual			
Recruitment of Consulting Firms to carry out HHs Methodology & Social Mentoring (one contract per each Hub)		MAAIF-PCU	QCBS	Lump-sum	3 500 000	Prior	Plan	01-Sep-20	21-Sep-20	01-Sep-20	11-Sep-20	11-Oct-20	21-Oct-20	Plan	05-Nov-20	15-Nov-20	18-Nov-20	30-Dec-20	29-Jan-21	08-Feb-21	18-Feb-21	23-Feb-21	05-Mar-21	Plan		25-Mar-21	14-Apr-21
							Actual							Actual										Actual			
Recruitment of Consulting Firm to provide Capacity Building for Climate Change and Environmental Management		MAAIF-PCU	QCBS	Lump-sum	508 000	Prior	Plan	01-Aug-20	21-Aug-20	01-Aug-20	11-Aug-20	10-Sep-20	20-Sep-20	Plan	05-Oct-20	15-Oct-20	18-Oct-20	29-Nov-20	29-Dec-20	08-Jan-21	18-Jan-21	23-Jan-21	02-Feb-21	Plan		22-Feb-21	14-Mar-21
							Actual							Actual										Actual			
Recruitment of Consulting Firm to carry out Climate Risk and Vulnerability Assessment (District level)		MAAIF-PCU	QCBS	Lump-sum	440 000	Prior	Plan	15-Aug-20	04-Sep-20	15-Aug-20	25-Aug-20	24-Sep-20	04-Oct-20	Plan	19-Oct-20	29-Oct-20	01-Nov-20	13-Dec-20	12-Jan-21	22-Jan-21	01-Feb-21	06-Feb-21	16-Feb-21	Plan		08-Mar-21	28-Mar-21
							Actual							Actual										Actual			
Recruitment of Consulting Firm to carry out Social Impact Assessments		MAAIF-PCU	QCBS	Lump-sum	140 000	Prior	Plan	01-Sep-20	21-Sep-20	01-Sep-20	11-Sep-20	06-Oct-20	16-Oct-20	Plan	26-Oct-20	05-Nov-20	08-Nov-20	20-Dec-20	09-Jan-21	19-Jan-21	29-Jan-21	03-Feb-21	08-Feb-21	Plan		28-Feb-21	20-Mar-21
							Actual							Actual										Actual			
Recruitment of Consulting Firm Soil Health Assessments		MAAIF-PCU	QCBS	Lump-sum	320 000	Prior	Plan	15-Sep-20	05-Oct-20	15-Sep-20	25-Sep-20	20-Oct-20	30-Oct-20	Plan	14-Nov-20	24-Nov-20	27-Nov-20	08-Jan-21	02-Feb-21	12-Feb-21	22-Feb-21	27-Feb-21	04-Mar-21	Plan		24-Mar-21	13-Apr-21
							Actual							Actual										Actual			
Recruitment of Consulting Firms to provide Nutrition awareness raising (one Contract per each Hub)		MAAIF-PCU	QCBS	Lump-sum	350 000	Prior	Plan	15-Sep-20	30-Sep-20	15-Sep-20	22-Sep-20	15-Oct-20	25-Oct-20	Plan	04-Nov-20	11-Nov-20	14-Nov-20	14-Dec-20	13-Jan-21	23-Jan-21	30-Jan-21	04-Feb-21	09-Feb-21	Plan		01-Mar-21	11-Mar-21
							Actual							Actual										Actual			
Recruitment of Consulting Firm to provide VSLA Training		MAAIF-PCU	QCBS	Lump-sum	140 000	Prior	Plan	01-Oct-20	21-Oct-20	01-Oct-20	11-Oct-20	05-Nov-20	15-Nov-20	Plan	25-Nov-20	05-Dec-20	08-Dec-20	19-Jan-21	08-Feb-21	18-Feb-21	28-Feb-21	05-Mar-21	10-Mar-21	Plan		30-Mar-21	19-Apr-21
							Actual							Actual										Actual			
Recruitment of Consulting Firm to provide Training on Financial literacy including insurance literacy		MAAIF-PCU	QCBS	Lump-sum	159 000	Prior	Plan	01-Oct-20	21-Oct-20	01-Oct-20	11-Oct-20	05-Nov-20	15-Nov-20	Plan	25-Nov-20	05-Dec-20	08-Dec-20	19-Jan-21	08-Feb-21	18-Feb-21	28-Feb-21	05-Mar-21	10-Mar-21	Plan		30-Mar-21	19-Apr-21
							Actual							Actual										Actual			
Recruitment of Consulting Firms to provide Technical assistance to Financial institutions (one Contract per each Financial institution)		MAAIF-PCU	QCBS	Lump-sum	185 000	Prior	Plan	15-Oct-20	30-Oct-20	15-Oct-20	25-Oct-20	14-Nov-20	24-Nov-20	Plan	04-Dec-20	14-Dec-20	17-Dec-20	16-Jan-21	05-Feb-21	15-Feb-21	22-Feb-21	27-Feb-21	04-Mar-21	Plan		24-Mar-21	03-Apr-21
							Actual							Actual										Actual			
Recruitment of Consulting Firm to Develop course curriculum, Production of training material and carry outTraining of Trainers for Farm Production Advisors		MAAIF-PCU	QCBS	Lump-sum	170 000	Prior	Plan	01-Oct-20	21-Oct-20	01-Oct-20	11-Oct-20	05-Nov-20	15-Nov-20	Plan	25-Nov-20	05-Dec-20	08-Dec-20	19-Jan-21	08-Feb-21	18-Feb-21	28-Feb-21	05-Mar-21	10-Mar-21	Plan		30-Mar-21	19-Apr-21
							Actual							Actual										Actual			
Recruitment of Consulting Firms to carry out Training for Farm Production Advisors (one Contract per each Hub)		MAAIF-PCU	QCBS	Lump-sum	70 000	Prior	Plan	01-Sep-20	16-Sep-20	01-Sep-20	11-Sep-20	01-Oct-20	11-Oct-20	Plan	21-Oct-20	31-Oct-20	03-Nov-20	03-Dec-20	23-Dec-20	02-Jan-21	09-Jan-21	14-Jan-21	19-Jan-21	Plan		08-Feb-21	18-Feb-21
							Actual							Actual										Actual			
Recruitment of Consulting Firm to provide Mechanization Business Training Course Set-up		MAAIF-PCU	QCBS	Lump-sum	230 000	Prior	Plan	01-Oct-20	21-Oct-20	01-Oct-20	11-Oct-20	05-Nov-20	15-Nov-20	Plan	25-Nov-20	05-Dec-20	08-Dec-20	19-Jan-21	08-Feb-21	18-Feb-21	28-Feb-21	05-Mar-21	10-Mar-21	Plan		30-Mar-21	19-Apr-21
							Actual							Actual										Actual			
Recruitment of Consulting Firm to provide Farm Production Advisors Training		MAAIF-PCU	QCBS	Lump-sum	56 000	Prior	Plan	15-Sep-20	30-Sep-20	15-Sep-20	25-Sep-20	15-Oct-20	25-Oct-20	Plan	04-Nov-20	14-Nov-20	17-Nov-20	17-Dec-20	06-Jan-21	16-Jan-21	23-Jan-21	28-Jan-21	02-Feb-21	Plan		22-Feb-21	04-Mar-21
							Actual							Actual										Actual			
Recruitment of Consulting Firm to carry out Project Baseline survey		MAAIF-PCU	QCBS	Lump-sum	150 000	Prior	Plan	01-Aug-20	21-Aug-20	01-Aug-20	11-Aug-20	05-Sep-20	15-Sep-20	Plan	25-Sep-20	05-Oct-20	08-Oct-20	19-Nov-20	09-Dec-20	19-Dec-20	29-Dec-20	03-Jan-21	08-Jan-21	Plan		28-Jan-21	17-Feb-21
							Actual							Actual										Actual			
Recruitment of Consulting Firm to Establish MIS		MAAIF-PCU	QCBS	Lump-sum	100 000	Prior	Plan	01-Oct-20	21-Oct-20	01-Oct-20	11-Oct-20	05-Nov-20	15-Nov-20	Plan	25-Nov-20	05-Dec-20	08-Dec-20	19-Jan-21	08-Feb-21	18-Feb-21	28-Feb-21	05-Mar-21	10-Mar-21	Plan		30-Mar-21	19-Apr-21
							Actual							Actual										Actual			
Recruitment of Consulting Firms to carry out Roads Construction Feasibility studies and engineering designs (Contract for each Hub)		**MOLG-PICT**	QCBS	Lump-sum	2 500 000	Prior	Plan	01-Oct-20	21-Oct-20	01-Oct-20	11-Oct-20	10-Nov-20	20-Nov-20	Plan	10-Dec-20	20-Dec-20	23-Dec-20	03-Feb-21	15-Mar-21	25-Mar-21	04-Apr-21	14-Apr-21	24-Apr-21	Plan		14-May-21	03-Jun-21
							Actual							Actual										Actual			
Recruitment of Consulting Firms to carry out Roads Construction Environmental and Social Impact Assessments (Contract for each Hub)		**MOLG-PICT**	QCBS	Lump-sum	1 500 000	Prior	Plan	15-Jan-21	04-Feb-21	15-Jan-21	25-Jan-21	24-Feb-21	06-Mar-21	Plan	26-Mar-21	05-Apr-21	08-Apr-21	20-May-21	29-Jun-21	09-Jul-21	19-Jul-21	29-Jul-21	08-Aug-21	Plan		28-Aug-21	17-Sep-21
							Actual							Actual										Actual			
Recruitment of Consulting Firms to provide Business Skills Training (Contract for each Hub)		MAAIF-PCU	QCBS	Lump-sum	1 290 000	Prior	Plan	01-Apr-21	21-Apr-21	01-Apr-21	11-Apr-21	11-May-21	21-May-21	Plan	10-Jun-21	20-Jun-21	23-Jun-21	04-Aug-21	13-Sep-21	23-Sep-21	03-Oct-21	13-Oct-21	23-Oct-21	Plan		12-Nov-21	02-Dec-21
							Actual							Actual										Actual			
Recruitment of Consulting Firms to provide Economic Mobilization (Contract for each Hub)		MAAIF-PCU	QCBS	Lump-sum	140 000	Prior	Plan	01-May-21	16-May-21	01-May-21	11-May-21	31-May-21	10-Jun-21	Plan	20-Jun-21	30-Jun-21	03-Jul-21	02-Aug-21	22-Aug-21	01-Sep-21	08-Sep-21	13-Sep-21	18-Sep-21	Plan		08-Oct-21	18-Oct-21
							Actual							Actual										Actual			
Recruitment of Consulting Firms to provide Economic Mobilization Capacity building (Contract for each Hub)		MAAIF-PCU	QCBS	Lump-sum	140 000	Prior	Plan	01-May-21	16-May-21	01-May-21	11-May-21	31-May-21	10-Jun-21	Plan	20-Jun-21	30-Jun-21	03-Jul-21	02-Aug-21	22-Aug-21	01-Sep-21	08-Sep-21	13-Sep-21	18-Sep-21	Plan		08-Oct-21	18-Oct-21
							Actual							Actual										Actual			
Recruitment of Consulting Firms to provide Mechanization Business Training (Contract for each Hub)		MAAIF-PCU	QCBS	Lump-sum	165 000	Prior	Plan	01-Jun-21	16-Jun-21	01-Jun-21	11-Jun-21	01-Jul-21	11-Jul-21	Plan	21-Jul-21	31-Jul-21	03-Aug-21	02-Sep-21	22-Sep-21	02-Oct-21	09-Oct-21	14-Oct-21	19-Oct-21	Plan		08-Nov-21	18-Nov-21
							Actual							Actual										Actual			
Recruitment of Consulting Firm to provide Training of Seed Inspectors		MAAIF-PCU	QCBS	Lump-sum	55 000	Prior	Plan	15-Jul-21	30-Jul-21	15-Jul-21	25-Jul-21	14-Aug-21	24-Aug-21	Plan	03-Sep-21	13-Sep-21	16-Sep-21	16-Oct-21	05-Nov-21	15-Nov-21	22-Nov-21	27-Nov-21	02-Dec-21	Plan		22-Dec-21	01-Jan-22
							Actual							Actual										Actual			
Recruitment of Consulting Firm to provide TA for Foundation Seed Supply		MAAIF-PCU	QCBS	Lump-sum	60 000	Prior	Plan	15-Jul-21	30-Jul-21	15-Jul-21	25-Jul-21	14-Aug-21	24-Aug-21	Plan	03-Sep-21	13-Sep-21	16-Sep-21	16-Oct-21	05-Nov-21	15-Nov-21	22-Nov-21	27-Nov-21	02-Dec-21	Plan		22-Dec-21	01-Jan-22
							Actual							Actual										Actual			

IFAD
Investing in rural people

Uganda

National Oilseeds Project

Project Design Report

Annex 8: Project Implementation Manual (PIM)

Document Date:	26/10/2019
Project No.	2000002260
Report No.	5155-UG

East and Southern Africa Division
Programme Management Department

REPUBLIC OF UGANDA

NATIONAL OILSEEDS PROJECT (NOSP)

PROJECT IMPLEMENTATION MANUAL

TABLE OF CONTENTS

National Oilseeds Project

Project Implementation Manual

PROJECT PURPOSE, OPERATIONAL AREA AND TARGETING

A. NOSP Rationale, Objectives and Structure

1. **Project rationale.** Under NOSP, the previous IFAD support to the oilseeds sector will be scaled up and made more systematic and sustainable through a market-led approach. This approach is expected to capacitate and empower the farmers to collectively harness bargaining power that will bring the power parity to the sector. It is also expected that the supply chains will result in higher incomes to the smallholder farmers through the production, marketing and processing of the by-products of the sector, through the development of the animal feed industry. This selected NOSP approach is fully in line with the shared GoU national priorities and IFAD's strategic focus, both aiming to reduce economic disparity, promote food security and nutrition, and to commercialise the smallholder agriculture in the NOSP area which covers the poorest regions of the country.

2. **Goal and development objective.** The project goal of NOSP is *"inclusive rural transformation through sustainable development of the oilseeds sector"*. The Programme Development Objective is to *"to accelerate commercialisation in key oilseeds value chains and thereby improve the livelihoods and resilience of the smallholders engaged in oilseed production and marketing"*.

3. **Project Structure.** The activities of the proposed NOSP are organised in two mutually interdependent components: (a) Component 1: Support to Oilseed Value Chain Development and (b) Component 2: Support to Market Linkage Infrastructure Serving Oilseed Sector. The objective of Component 1 is to facilitate the growth of competitive, inclusive value chains for priority oilseeds and their associated support markets. NOSP will accelerate the growth of competitive clusters and value chains for oilseeds and pro-actively develop opportunities for further private sector investments in oilseed-related by-products, especially to establish a competitive animal feed industry in Uganda. Component 1 consists of two sub-components: (a) Sub-Component 1.1: Cluster Development – covering the primary supply chains through an inclusive cluster development approach in each of the hubs and (b) Sub-Component 1.2: Support Market Development – covering the supply of essential financial and technical services and inputs.

4. The objective of Component 2 is to improve market linkage infrastructure to facilitate the commercialisation of the oilseed sector. The implementation of activities under this component will facilitate private sector investments in the sector, promote the production and marketing of good quality oilseeds and reduce the time and cost of transport to the markets. The component will reduce transaction costs and increase farmers' income through improved community access road (CAR) networks. The target is to construct or rehabilitate approximately 2,500 km of CARs serving the NOSP clusters. The successful implementation of Component 2 is a key prerequisite for the reaching of the productivity, production, and household income growth targets of Component 1.

5. In addition to these two operational components, the NOSP budget includes allocations for the required investments in project management and coordination, monitoring and evaluation and knowledge management.

B. Operational Area

6. NOSP is implemented across six area-based hubs in the agro-ecological areas that are optimal to support the development of the oilseeds sector in Uganda. The direct field implementation of NOSP is planned to take place in four existing hubs and two new hubs: West Nile, Gulu, Lira, Eastern, Mid-Western, and Karamoja (four of these are part of VODP2).

7. The hub selection for NOSP was based on agro-ecological, social, demographic and economic factors including oilseeds production potential, existence of emerging processing facilities, entrepreneurial potential among the target groups, the share of the poor in the population and the earlier VODP2 activities and their results in the area. These hubs cover the poorest regions of Uganda. As per the 2017 data from the National Statistics Bureau, the average incidence of poverty[1] is highest in the Eastern region at 36%, followed by the northern region at 33%, which is considerably higher than the national average of 21.4%[2]. Similarly, households in Uganda's Northern, Eastern, and Western regions have much lower levels of human capital, fewer assets, and more limited access to services and infrastructure.

8. Within the selected Hubs, the project will be implemented in 53 districts, out of which 49 participated in VODP2 operations. The districts included in the operational area of the six NOSP hubs are listed in Table 1 below.

Table 1. NOSP Hubs and Districts

NOSP Hubs	**Districts**
Eastern Uganda	(19) Kapchorwa, Kween, Manafwa, Namisindwa, Mbale, Sironko, Tororo, Kamuli, Iganga, Jinja, Namutumba, Mayuge, Kaliro, Palisa, Kumi, Bukedea, Bugiri, Busia, Bukwo
Gulu	(8) Lamwo, Pader, Kitgum, Gulu, Amuru, Nwoya, Agago, Ajumani
Lira	(10) Oyam, Lira, Apac, Kaberamaido, Alebtong, Amolatar, Otuke, Kole, Dokolo, Ngora
Mid-Western Uganda	(6) Masindi, Amuria, Serere, Katakwi, Hoima, Kiryandongo

[1] People living below the poverty line of $1.25 (about UGX 4,500) a day.

[2] Uganda National Household Survey 2016/17.

West Nile	(7) Arua, Koboko, Maracha, Moyo, Nebbi, Yumbe, Zombo
Karamoja	(3) Nakapiripirit, Nabilatuk, Napak

C. Target Groups and Targeting Strategy

9. **Target Groups.** The commercialisation of the oilseed sector covers all actors along the value chain and the supporting infrastructure required to ensure its success and sustainability. NOSP will benefit farmers, processors, oilseeds sector input suppliers and service providers, agents, traders, transporters, financiers, and scientific and academic research institutions. Among these stakeholders of the sector, the project's primary target and beneficiary group is smallholder farmers (women, men and youth) engaged in the production of oilseeds. Smallholder farmers include the farmers whose farm size is less than one hectare (58% of the total population of smallholder farmers) and those whose farm size is more than one hectare but less than five hectares (38% of the total population of smallholder farmers).

10. NOSP will work directly with approximately 120,000 oilseed farming households across the six hubs. They can be generally characterised as follows:

- use traditional farming methods/low levels of mechanization
- mostly depend on family labour or may hire daily labour
- produce relatively small volumes for the market
- low quality and productivity caused by low quantity and quality inputs
- less well-resourced than commercial-scale farmers
- limited business literacy skills and market orientation
- have limited access to loans and credit
- lack knowledge on savings to build capital for investment purposes
- may be excluded from social protection or labour legislation
- keep limited records regarding their farms or the economy associated with it
- are exposed to changing and unreliable rainfall patterns with poor or no mitigation measures
- are often the most vulnerable stakeholder in the supply chain
- lack capacity for aggregation/bulking of larger quantities of produce.

11. The project will also specifically target poor farmers who share many of the following characteristics:

- live below the poverty line
- landless or very small land holdings
- female headed households
- illiterate
- malnourished
- lack access to credit due to lack of collateral security
- lack access to basic services (electricity, medical services, and education)
- unemployed

- earn additional money as casual labourers
- socially disadvantaged
- highly prone to diseases
- highly vulnerable to impacts of climate change.

12. Among smallholder farming populations, NOSP will, following the key development priorities of both the GoU and IFAD, have a strong focus on the inclusion of women and youth in all project interventions, and women and youth between 18 and 35 years of age will constitute a direct target group in each component of the project. Their active participation will be ensured through NOPS's targeting strategies.

13. **Targeting Strategies.** Within the six hubs, the selection and grouping of farmer groups to form the 200 NOSP clusters will be finalised during the participatory mapping at project inception, which will also define the sub-county and parish coverage within the districts. NOSP will also conduct a social diagnostic assessment as part of the mapping exercise at the cluster level before the development of the clusters and stakeholder platforms. This assessment will identify (i) opportunities for and constraints to women's and youth's engagement in commercialisation of oilseeds, (ii) potential negative impacts on women and other social groups due to commercialization, and (iii) approaches and interventions to mitigate these potential negative impacts. Through these assessments, high risk communities with a critical gender imbalance will be identified and interventions will be tailored to mitigate these risks.

The table below demonstrates the Targeting and Gender Matrix for NOSP:

TARGETING AND GENDER MATRIX FOR NOSP

Targeting Mechanism	**Elements**
Geographical targeting	• Districts and sub-counties selected for oilseed crop production based on agro-climatic suitability, geographical concentration and incidence of poverty.
Enabling measures	• Awareness raising about NOSP commitment to pro-poor growth and gender and youth mainstreaming amongst government elected representatives and civil society through national, district and sub-county project launches. • Understanding of the gender and youth issues in the context of oilseeds value chain development integrated into capacity building for staff at PCU, Hubs, Districts and service providers.
Empowering measures	• Empowering rural poor, specifically women and youth, to participate through community sensitisation and mobilisation activities and through a targeted communications strategy. • Forming and strengthening of farmer groups and clusters in e.g. business literacy skills; production; mechanization; access to finance and negotiation skills. • Household mentoring through the Gender Action Learning Systems methodology.
Self-targeting	• Extension and skills development in oilseed crop production. • Capacity building for farmer organizations.
Direct targeting	• Quotas for minimum levels of women and youth participation in all activities and representation in decision making bodies.
Procedural measures	• PCU responsible for overall NOSP targeting, gender and youth mainstreaming. • PCU, Hub staff and District administration and leadership

	oriented to poverty targeting and gender and youth mainstreaming. • Ensuring that service providers and contractors are committed to the NOSP poverty targeting, women's empowerment and youth inclusion.
M&E	• Collection and reporting on poverty, sex and age disaggregated indicators. • Poverty, gender and youth issues reflected in baseline, mid-term review, and all monitoring and impact assessment studies.

14. The clustering will be carried out with a set of criteria including:

- concentration and commitment of farmers engaged in the production and marketing of oilseeds
- proximity to each other for clustering to ensure they are not widely scattered across the districts
- proximity to installed oil seeds processing/value addition infrastructure
- potential for commercialisation and expansion of production of oilseeds
- poverty and inclusion targets set by the project.

15. The project's targeting strategy will ensure the inclusion of smallholder farmers, poor and marginalized HHs who meet the project selection criteria, sharing many of the characteristics listed above. It is expected that the percentage of rural poor households will be at least proportional to the district poverty rate in each district.

16. NOSP will specifically target women and youth farmers as key producers, entrepreneurs and small-scale processors by providing them with agricultural/business knowledge, skills, and facilitating their access to labour saving machinery. Likewise, they will also be encouraged to become facilitators in Business Skills and Household Mentoring, in gathering market intelligence and in the operation and maintenance of agricultural machinery. The NOSP gender and youth strategy will involve systematic identification of opportunities for their involvement in the supply chain. In each of the supported supply chain, the entry points and opportunities available for women and youth will be identified and priority will be given to support the women and young people to take advantage of these opportunities.

17. The inclusion of women and youth in the project will be further ensured through setting clear participation targets. Considering the pivotal role that women play in farming and household economy, at least 60% of the project beneficiaries are expected to be women, who will be targeted as individual farmers, active members of farmer groups and as processors. At least 30% of the project-supported HHs are expected to be FHHs. NOSP will also set clear group governance guidelines that aim to ensure meaningful participation of women and youth members in key decision-making positions in group committees. Similarly, in the light of the GoU's vision and strategy to attract, retain and support youth and their employment in the agriculture value chains, youth will be a core target group of NOSP comprising at least 40% of the beneficiaries in value chain development.

18. In Table 2 below, the various targets groups of NOSP are presented, together with the constraints they are facing in their operations and the support interventions included in NOPS to help them tackle their challenges and improve their positions in the oilseed values chains.

Table 2. NOSP Target Groups, Identified Constraints and NOSP Support Provided

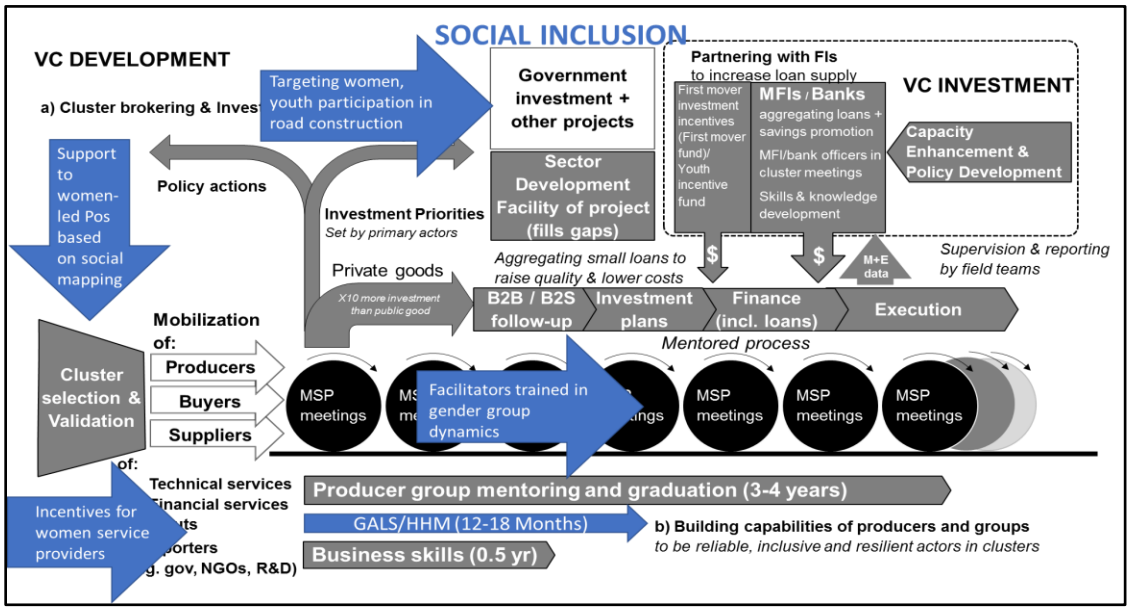
Target groups	Constraints	Project Support/Activities
Smallholder farmers growing oilseeds	• poor group organisation and self-governance • poor management in produce collection and bulking • limited land to grow oilseeds • low yield and quality • lack of modern/labour saving equipment and technologies • inadequate input supply, particularly quality seeds • lack of access to credit • lack of assets for collateral • lack of policy-related information • poor farm management, production and post-harvesting skills • lack of business development skills • lack of access to market channels • price fluctuations • production and harvest affected by climate change and environment risks	• 120,000 smallholder farmer HHs will be targeted for oilseeds supply chain development • the percentage of participating poor smallholder farmers living under the poverty line will be at least proportional to the district poverty rate in each district • formation of farmer groups • clustering of producer groups • establishment of linkages to traders, processors, buyers, FIs through facilitation of multi-stakeholder platforms • capacity-building trainings • investment facilitation for private and public goods investments • business skills training focusing on farming-as-a-business skills • financial literacy training • availability of avenues with input supply, especially quality seeds • crop insurance schemes will be in place with selected FIs. Approximately 30% of the farmers are expected to benefit from crop insurance. • training on nutritious diet and innovative uses of oilseeds in the diet • select farmer groups will be supported to become local seed businesses/LSBs • LSBs will be trained in seed production quality management systems • availability of farm mechanization and auxiliary farm service providers • development of a national curriculum for agricultural service provision that focuses on good agricultural practices including agronomic practices for production, post-harvest handling etc.

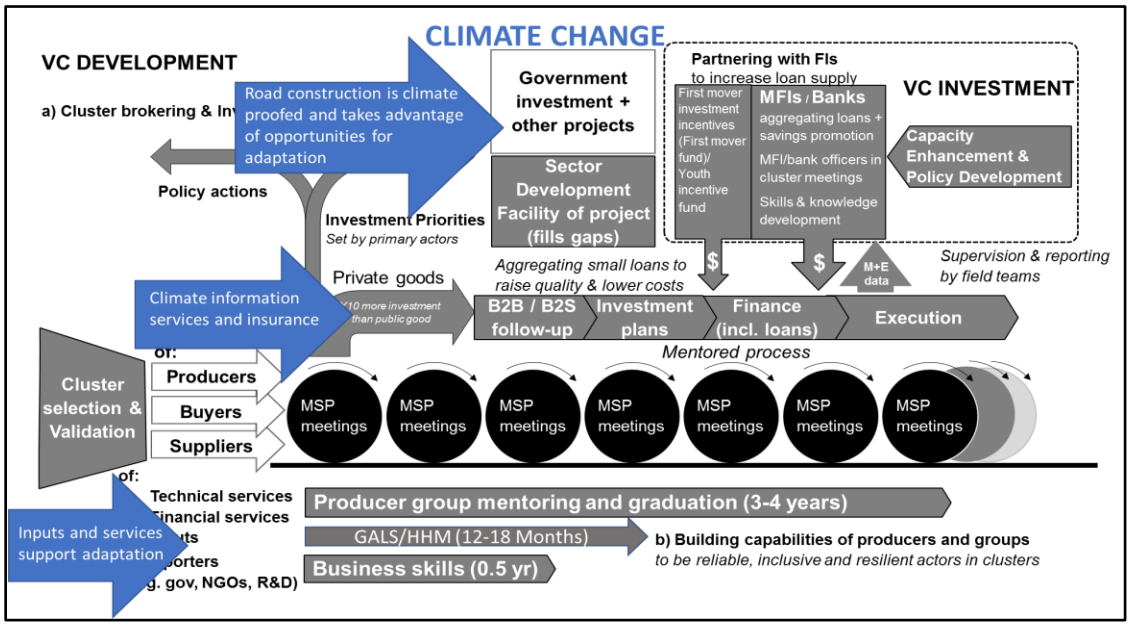
New entrant and more remote oilseeds smallholders	• **key characteristics:** Cash crops (cassava, maize, groundnuts), cultivate 0.6 - 2 acres, able to hire oxen and farm labour; • production – limited by lack of access to finance; mechanization; extension and quality inputs • post harvest handling and issues with aflatoxins • lack of transport and lack of roads as access to market infrastructure	• promotion of high-quality OPV seed • promotion of climate smart agricultural practices • promotion of mechanization and use of legume seed inoculants • clustering for improved market access, bulking and off-take services
Semi-commercial and commercial smallholders in oilseeds concentration areas (no more than 20% of the beneficiaries)	• **key characteristics:** Cash income from employment, pensions, remittances, crops (cassava, maize, groundnuts), cultivate more than 2 acres, own own 1-2 cows, 2-3 goats, several chicken; hire labour, own a bicycle • need for technical production and marketing knowledge; • limited by access to finance and mechanization	• promotion of high-quality OPV seed, with move to purchase of hybrid seed • clustering for improved market access, bulking and off-take services • explore potential of running the mechanisation services • can be part of farmer group but will receive no funds directly from NOSP
Women	• limited access to capacity building opportunities • lack of asset/properties for collateral • limited access to land and security of tenure • lack of access to credit • gender discrimination within and beyond household • use traditional methods are particularly labour intensive • disproportionate household and farm work burden • lack of control over income and benefits from cash crop production • lack of access to inputs, including quality seed • lack access to agricultural information and information on climate change and climate-smart practices • vulnerable to climate change and environmental risks • affected by agricultural	• at least 60% of the project beneficiaries are expected to be women • at least 30% of project supported HHs are expected to be FHHs • at least 40% women are expected to be in key decision-making positions in farmer group committees • implementation of Household Methodologies (HHMs) • training on nutritious diet and innovative uses of oilseeds in the diet • appointment of women Business Skills mentors • appointment of women HHM/GALS mentors (at least 80% women) • business skills training focusing on farming-as-a-business • financial literacy training • availability of labour saving and environmentally friendly technologies and equipment • participation in sessions on

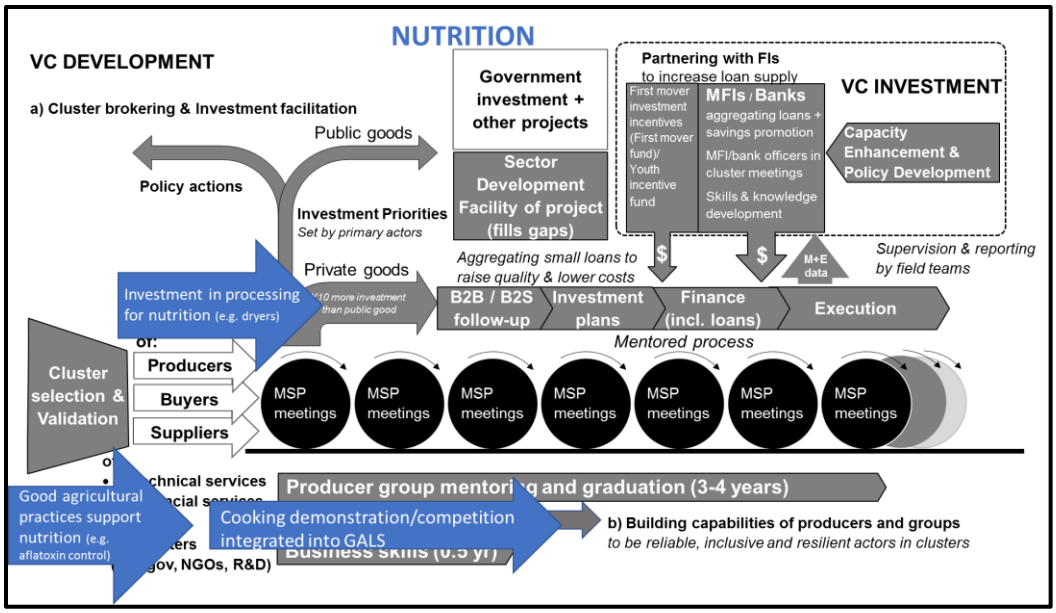
	expansion activities, increased use of agro-chemicals in some locations and the road infrastructure development	women's leadership and negotiation capacity • women will be encouraged and prioritised to become farm production advisors and local seed business owners (out of around 400 advisors, at least 50% are expected to be women) • NOSP-related information will be provided widely through various media including community radios and ensured that women in the community receive it • MSPs to voice concerns and interests of women farmers • ESMPs will be developed for the road infrastructure development
Rural youth	• lack of decent employment opportunities • low interest in agriculture • limited opportunities in oilseeds supply chains • lack of skills/qualifications • limited access to land and security of tenure • vulnerable to climate change and environmental risks (agricultural expansion activities, increased use of agro-chemicals in some locations and the road infrastructure development)	• at least 40% of the project beneficiaries are expected to be youth • jobs created in farming and processing units • scholarships will be awarded to 60 postgraduate students to support the capacity of existing oil seed research programmes • youth will be encouraged to become business skills mentors • youth will be prioritized to become farm production advisors and local seeds business owners. • GALS sessions will focus on specific issues of youth and their constraints in joining oilseeds supply chains • ESMPs will be developed for the road infrastructure development. • MSPs to voice concerns and interests of youth in oilseeds supply chains
Processors/ **traders/service providers**	• poor quality of produce (high aflatoxins) • poor linkages with oilseed producers • high transportation costs • lack of platforms to interact and maintain relationships with oilseeds producers • lack of modern equipment and	• MSPs for establishment of linkages to smallholder farmers and local agro-enterprises • community access roads will be constructed resulting in reduced transportation costs and time • investment incentives for auxiliary farm services and mechanisation

	technologies • lack of enabling policies	
Input Suppliers	• lack of knowledge of type and volume of inputs demanded by smallholders • poor linkages with oilseed producers • lack of platforms to interact and maintain relationships with oilseeds producers • Poor roads and high transportation costs	• NOSP-aggregated information of types and volumes of inputs demanded in project-supported clusters • MSPs for establishment of business linkages to smallholder farmers and local agro-enterprises • community access roads will be constructed resulting in reduced transportation costs and time
Transporters	• Poor roads and high transportation costs • Lack of linkages and platforms to interact with oilseeds sector actors	• community access roads will be constructed resulting in reduced transportation costs and time • MSPs for establishment of business linkages to smallholder farmers and local agro-enterprises
Scientific and Academic Institutions	• Poor linkages to smallholder producers in different oilseed crops • Lack of funds to conduct result-oriented research • Lack of cooperation with agro-companies on high quality seeds development	• Direct NOSP support to carry out focused, practical research on appropriate inputs, especially planting seeds • Opportunities to participate in hub and cluster-level MSPs for establishment of linkages to smallholder farmers and local agro-enterprises
Financial institutions	• limited schemes and services to attract smallholder farmers clientele • limited capacity to develop innovative products/schemes for agricultural development	• 60% of VSLAs are expected to be credit-linked with SACCOs and other FIs • technical assistance in product development • FIs are linked to insurance companies for crop insurance development schemes • training for FI and insurance company staff and agents on crop insurance and innovative products

Mainstreaming in NOSP






NUTRITION
VC DEVELOPMENT
a) Cluster brokering & Investment facilitation
Public goods
Policy actions
Investment Priorities
Set by primary actors
Private goods
Government investment + other projects
Sector Development Facility of project (fills gaps)
Partnering with FIs
to increase loan supply
First mover investment incentives (First mover fund)/ Youth incentive fund
MFIs / Banks
aggregating loans + savings promotion
MFI/bank officers in cluster meetings
Skills & knowledge development
VC INVESTMENT
Capacity Enhancement & Policy Development
Aggregating small loans to raise quality & lower costs
$
$
M+E data
Supervision & reporting by field teams
Investment in processing for nutrition (e.g. dryers)
B2B / B2S follow-up
Investment plans
Finance (incl. loans)
Execution
Mentored process
Cluster selection & Validation
Producers
Buyers
Suppliers
MSP meetings
MSP meetings
MSP meetings
MSP meetings
MSP meetings
MSP meetings
MSP meetings
Producer group mentoring and graduation (3-4 years)
Good agricultural practices support nutrition (e.g. aflatoxin control)
Cooking demonstration/competition integrated into GALS
b) Building capabilities of producers and groups
to be reliable, inclusive and resilient actors in clusters

NOSP INSTITUTIONAL ARRANGEMENTS AND RESPONSIBILITIES

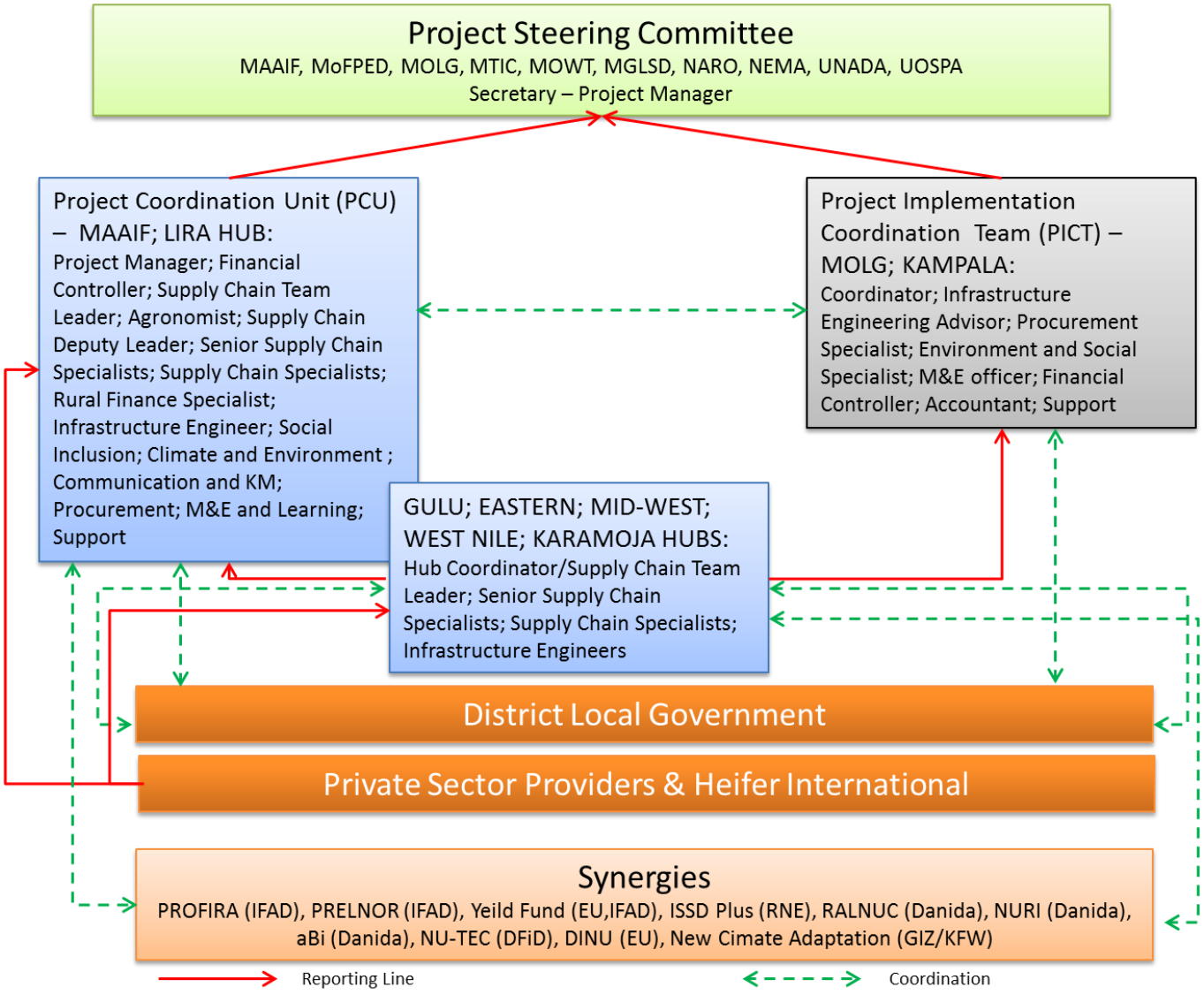
A. Project Governance Structures

19. The project management and implementation structures will cover the national, hub and local government levels. In line with their respective mandates, the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) will be responsible for overseeing Component 1 activities, i.e. Support to Oil Seeds Value Chain Development. The Ministry of Local Government (MoLG) will oversee activities under Complement 2, i.e. Support to Market Linkage Infrastructure Serving Oil Seed Sector, focusing on community access roads whose construction and or rehabilitation is undertaken by District Local Governments.

20. The Programme Steering Committee (PSC) will be constituted to provide strategic guidance to programme implementation, oversee programme planning, review the Annual Work Plans and Budgets (AWPB) prior to submission to IFAD, and review implementation progress and impact. It will also provide high level advice and address key issues raised by programme management on which it requires guidance. The PSC shall meet two times in a year and on an ad-hoc basis as required.

21. The PSC, which will be chaired by the PS MAAIF, will be comprised of representatives of public sector and other selected agencies that are actively engaged in the development of the oilseeds sector. These will include: MAAIF, MoFPED, MoLG, Ministry of Trade, Industry and Cooperatives (MTIC); Ministry of Works and Transport (MoWT), Ministry of Gender, Labour and Social Development (MGLSD); National Agricultural Research Organisation (NARO); National Environment Management Authority (NEMA); Uganda National Agro-input Dealers Association (UNADA) and Uganda Oil Seeds Producers and Processors Association (UOSPA). In addition, IFAD as the lead funding agency will be invited to attend the PSC meetings as an observer, when needed. The Projector Coordinator in the PCU (in MAAIF), will be the Secretary of the PSC. Figure 1 below presents the organisational structure of NOSP.

Figure 1: NOSP Organisational Structure



B. Lead Agencies and Project Coordination and Management Arrangements

22. The lead agencies at national level will be MAAIF and MoLG. MAAIF will establish a Project Coordination Unit (PCU), to be responsible for managing the implementation of the Project, with emphasis on Component 1. The PCU will be based in Lira Municipality as it's located centrally in the project area and is an existing hub, to facilitate closer supervision, coordination, technical support and collaboration with other development interventions in the project area. The PCU will be comprised of the following positions (the draft TOR for all core NOSP positions are presented at the end of this Section): a Project Manager; a Financial Controller; a Monitoring, Evaluation and Learning Specialist; a Rural Finance Manager; a Supply Chain Team Leader and two deputies; a Social Inclusion Specialist; a Communications and Knowledge Management Specialist; a Climate

Change/Environment Specialist; and a Procurement Specialist. Support staff will include a Secretary, an Administrative Assistant, an M&E assistant, an Assistant Accountant, and drivers.

23. The PCU in MAAIF will have the following responsibilities: (i) liaise with line ministries and other agencies to ensure smooth project implementation; (ii) manage project activities and IFAD loan funds; (iii) procure, contract, manage and supervise performance-based contracts with service providers as required for the different activities; (iv) prepare project AWPBs for PSC and IFAD approval; (v) disburse and control the flow of funds; (vi) develop and implement a knowledge management and communication strategy; (vii) manage for performance all activities under the project Component 1; (viii) report through a participatory M&E system; and, (ix) submit required project implementation progress and financial reports to GoU, IFAD and other stakeholders.

24. MoLG will establish a small NOSP Project Implementation Coordination Team (PICT) to coordinate the market linkage infrastructure component of the project. As this component largely is about delivery of public goods (i.e. community access roads) with implementation involving many and different DLG staff, MoLG is best positioned to coordinate its implementation. The PICT will be comprised of a Coordinator (seconded by MoLG), an Infrastructure Engineering Advisor (seconded by MoWT), a Financial Controller; an Environment and Social Specialist; an M&E officer; a Procurement Specialist and an Accountant. The support staff will include an Accounts Assistant, an Office Attendant and two drivers. In addition, five Infrastructure Engineers (one for each hub) and five drivers will be recruited and be based in selected hubs, sharing same office premises with the ones under the PCU in MAAIF, to support DLG technical teams. Specific responsibilities of the PICT in MoLG will be: (i) manage project activities under Component 2 and IFAD and OFID loan funds; (ii) procure, contract, manage and supervise design contracts for CARs in liaison with DLGs; (iii) support DLGs in procurement and management of contractors of CAR; (iv) liaise with the MAAIF PCU to prepare project AWPBs for PSC and IFAD approval; (v) disburse and control the flow of funds for Component 2 activities; (vi) manage for performance all activities under the project Component 2; (vii) contribute to reporting through a participatory M&E system; and, (viii) work with the MAAIF PCU to consolidate and submit required project implementation progress and financial reports to GoU, IFAD and other stakeholders.

25. The PCU in MAAIF and PICT in MoLG will be conducting joint planning and review sessions to ensure clear harmonisation of their respective components' activities.

26. **Hub-level**. In each hub, a technical implementation team of consultants will be hired to lead front-line implementation of project activities, especially under Component 1.The team will be comprised of the following consultants: (i) Hub Coordinator who will be a supply chain team leader, (ii) two Senior Supply Chain Specialists; (iii) three Supply Chain Specialists, plus support staff. The responsibilities of the hub-team will, among other activities, include the following key operations: supply chain brokering, investment facilitation, producer group mentoring including business skills training, farm production advisory services and auxiliary farm services. The MSPs in different clusters and hubs will be the platform facilitating NOSP activity selection and in the selection process of CARs for construction/rehabilitation, together with local governments.

C. Implementing Agencies

27. Local Governments. At the district level, the DLGs will ensure that NOSP activities are coordinated within the District Development Plans (DDPs) through the District Technical Planning Committees (DTPC). For Component 2, implementation will take place simultaneously at the District and Sub-County Local Governments under the guidance of the PICT. Each district will assign a Programme Support Officer (PSO) who will coordinate the implementation and technical

supervision of the project, including gender sensitization, training and monitoring and evaluation in the respective districts. It will also assign a Financial Officer who will ensure that ledgers are kept up to date at district level, reconciliations are regularly done for audit purposes and funds are properly accounted for.

28. The district local governments will: (i) work with MSPs to select locations and beneficiaries of projects activities in accordance with the set criteria, with the PCU and PICT assistance; (ii) prepare district AWPBs, linked to district development plans (DDP), for consolidation by the PCU and PICT; (iii) implement project activities included in the AWPBs; (iv) evaluate bidding documents for CARs and submit to the PICT for review and consolidation;(v) prepare district quarterly progress reports and consolidated annual progress reports and financial statements (where necessary) for the PICT and PCU; and, (vi) monitor project performance and participate in the mid-term and project completion reviews.

29. Private service providers (PSPs), which play a key role in NOSP field implementation, will be contracted to perform, among other activities, the following tasks: producer group mentoring and graduation (including VSLA development); business skills training, social mentoring, farm production advisory services, and auxiliary farm services. Their procurement guidelines are included in the draft NOSP Procurement Manual included in this PIM.

D. Partnerships

30. NOSP will develop synergies with the other programmes in Uganda to avoid duplications and enhance the overall impact of the portfolio. It will link with PROFIRA to improve access to financial services for NOSP beneficiaries and builds on the PROFIRA's results to develop the VSLA model to better serve the needs of the smallholder oilseed producers. Furthermore, the community access roads operations of NOSP benefit from the models and results of PRELNOR on infrastructure development in the northern areas of Uganda. With some overlap between PRELNOR and NOSP, the two projects will work together to have ensure that there is clear targeting, and approaches to the way the development of CARs are done. IFAD/EU-supported Yield Uganda Investment Fund activities target, among other agro-firms, companies investing in processing facilities in then oilseeds industry and the related animal feed industry with its equity and semi-equity financing products. Key private sector players are considering expansion to the oilseeds sector and NOSP will continue discussions with them in this respect.NOSP will build strategic and operational partnerships with other on-going and pipeline projects funded by GoU and other development partners such GIZ/KfW, Danida, DfID, the EU and USAID in the oilseeds sub-sector, especially in overlapping geographic location (see the list a key potential partnership in Table 3 below). The PCU and PICT, together with the hub implementation teams (including local governments), will identify the potential partners in the respective hubs and establish linkages and modalities of how to complement each other. Where necessary, Memoranda of Understanding will be entered into, or some of these partners will be incorporated in the MSPs activities at the hub and cluster levels.

Table 3: Potential Partners for NOSP

Funding Agency	Project	Main Objectives/ Areas of focus	Implementing partners	Total project budget (US$)	Annual estimated budget (2019) in US$	Districts/Regions Covered	Project period
RNE	Integrated Seed Sector Development Plus (ISSD Plus)	Contribute to increased food, nutrition security - development of a vibrant, pluralistic and market-oriented seed sector.	WUR-CDI	12.4M	4.8M	National wide (except Northeast, central)	Oct 2016 – Dec 2020
Danida	Recovery and Development in Northern Uganda Component of U-Growth II (RALNUC)	To increase resilience and create equitable participation of Northern Uganda in the economic development of the country • *To increase agricultural production and marketing for small-scale farmers.* • *To improve the agriculturally related rural infrastructure using a labour-intensive approach.* • *To build the capacity of District Local Governments to improve service delivery*.	• Arua District Farmers Association (DFA); • Zombo District Farmers Association (DFA) • Agency for Accelerated Regional Development (AFARD); • RALNUC Agricultural Unit Agago; • RALNUC Agricultural Unit Kitgum-Lamwo; • Uganda National Agro-input Dealers Association (UNADA); • Danish Refugee Council (DRC)	$25.4 million		Arua, Zombo, Nebbi, **Kitgum**, **Lamwo, Agago**	
Danida	Northern Uganda Resilience Initiative (NURI)	*To enhance resilience and equitable economic development in supported areas of Northern Uganda, including for refugees and host communities*	• Arua District Farmers Association (DFA), • Agency for	$43.2 million	$7.1 million	Arua, Nebbi, Zombo, Packwach, Moyo, Adjumani,	January 2018 – December 2022

		• *Promote climate smart agriculture (increase agric. output for small scale farmers),* • *Construct/rehabilitate agriculturally related rural infrastructure,* • *Construct/rehabilitate agriculturally related physical and natural water infrastructure (i.e. integrated water resources management for climate change resilience).* • *Support Uganda's progressive refugee policy and the nexus between development and humanitarian action.*	Accelerated Regional Development (AFARD), • CARE International, • Resilience Agricultural Units (RAUs), • Danish Refugee Council (DRC)			Kitgum, Lamwo and Agago (i.e. West Nile and Acholi sub regions)	
Danida	Support to the business plan of Agricultural Business Initiative (aBi)	*Improved profitability, income and employment of Ugandan farmers and agribusinesses* • *Smallholder farmers' sustainable production, productivity and market integration increased* • *Beneficiary agribusinesses business performance and sustainability improved* • *Smallholder farmers and agribusiness access to serviceable financial services increased*	• Partners in Value Chain Development (VCD) • Partners in Financial Services Development (FSD) • Financial Institutions • Non-Financial Institutions	$34.9 million	$6.2 million	Whole of Uganda, with a special focus on Northern Uganda	2019 - 2022
UKAID	NU-TEC	To increase the incomes and climate resilience of poor men and women in northern Uganda by: • stimulating sustainable, pro-poor growth in selected agricultural markets and • improving the position of poor men and women within these market systems, to make them more inclusive for poor people. ***Focus areas:*** • Commodity markets (sunflower, soya beans and sesame)	Palladium	£44.85 million	-	Northern Uganda	May 2015 – April 2019

		• Agricultural inputs (seeds and fertiliser) • Storage and post- harvest handling • Mechanisation					
EU	DINU	Infrastructure development • Food security, Nutrition and livelihoods; • Infrastructures (transport, logistics, water and energy) • Good governance.	UNCDF	€150 million	-	Northern Uganda	2018-2024
GIZ/KfW	Climate Adaptation Project (pipeline)	Infrastructure development	tbc	tbc	tbc	Northern Uganda	tbc

TERMS OF REFERENCE FOR KEY NOSP STAFF (in MAAIF)

Appendix 1: Project Manager

Reporting to the Permanent Secretary, MAAIF, the Programme Coordinator, will have overall responsibility for ensuring that the Project achieves its expected outcomes and development objective, with focus on Component 1. He/she will lead the management team and staff of the PCU, and will be responsible for the effective planning, management, reporting and communication of all Project activities. He/she will also ensure compliance with all fiduciary requirements of the Project. These include Work Plans and Budgets, Disbursement of Funds, Progress Reports, Project Audit Reports, and Withdrawal Applications.

Specific responsibilities will include the following:

a) Lead all key processes of (a) project planning, both through the Annual Work Plan and Budget (AWPB) process and on a day-to-do basis; (b) the management of Project implementation; and (c) monitoring and reporting on physical and financial progress.

b) Directly supervise and support the work of section managers/specialists, ensure that they are effectively leading their respective teams, and carry out their annual performance evaluations.

c) Ensure that (i) the Project is implemented in accordance with the AWPBs and the Project Implementation and Financial Management Manuals; (ii) Project funds flow efficiently and are properly utilized; (iii) goods and services are procured quickly and in conformity with all GoU/IFAD requirements; and (iv) progress reports and audit reports are prepared and submitted to GoU/IFAD in accordance with the prescribed timeliness.

d) Identify and guide implementation of training programmes for PCU staff, including technical and management aspects and equipment/technology packages;

e) Liaise with the Human Resource Department of MAAIF to coordinate the recruitment of Project administrative and support staff in accordance with procedures detailed in the Project guidelines.

f) Facilitate Project evaluations, supervision and reviews in accordance with the Loan Agreement, and ensure that all recommendations from supervision and implementation support missions are effected and adhered to as agreed.

g) Act as the principal spokesperson for the Project and disseminate its objectives, activities and achievements, as authorized by MAAIF.

h) Collaborate and network with relevant organizations for effective Project implementation.

i) Coordinate and facilitate networking and liaison with other stakeholders that provide complementarity and synergy to the Project activities, aims and objectives.

j) Act as the link between the private sector partners and Government/MAAIF.

k) Act as the Secretary to the Project Steering Committee and ensure implementation of the recommendations of the committees.

Specific Qualifications

The candidate should have a solid understanding and experience of the oilseed subsector and be able to provide visionary leadership to stakeholders and PCU staff. In addition to these general qualifications, the following specific qualifications are required:

a) A Bachelor's degree in Agriculture, Rural Development, or related field, a Master's degree in Business Administration, Agribusiness, Agricultural Economics or related field from a recognized University.

b) A minimum of 15 years' experience, five of which should have been in the management, administration and implementation of public-donor financed agricultural and rural development projects and five years of experience working with the private sector.

c) Experience of at least five years working on linkages between small-scale farmers and private sector actors and practice.

d) Demonstrable knowledge of participatory approaches to community development.

e) A professional of high standing with strong leadership and management skills.
f) Strong negotiation skills
g) Knowledge and experience of Government planning and reporting procedures

h) Demonstrated experience in networking and policy development.

Other Essential Attributes:

a) Knowledge and experience of Government planning and reporting procedures

b) Ability to communicate efficiently and effectively

c) Lead teams and demonstrated experience in working with persons of varying professions and backgrounds

d) Computer literate with very good reporting and presentation skills
e) Excellent spoken and written English skills.

Appendix 2: Financial Controller

The Financial Controller reports directly to the Project Manager and is responsible for financial management of the project and for maintaining all project accounts in good order. As head of the finance unit, the financial controller will be in charge of all matters in the project accounting cycle. The project accounting cycle to be overseen by the Financial Controller starts from financial-related inputs in AWPB preparation and budget control, committing funds, disbursements and cash flow management in an effective and efficient manner, financial reporting to ensuring smooth audits and facilitation for supervision missions on all financial management aspects. The position is based in the Lira project office, with frequent travels to the field.

The Financial controller will be responsible for expediting all loan management and disbursement activities through MAAIF systems. Specific responsibilities include but are not limited to the following:

- Installation of appropriate accounting/reporting systems to ensure that the PCU and especially the Project Manager are regularly informed of on-going financial status and transactions.
- Ensure timely capture of NOSP in the GoU budget IFMS as required by the GoU budgeting processes and calendars to be able to access counterpart funding.
- Communicate to all implementing partner institutions, service providers and districts their financial responsibilities, the funds available and how to access them, and the requirements of reporting and record keeping in accordance with prevailing government practices which are acceptable to IFAD.
- Ensure that all project funds are used in accordance with the conditions of the financing agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided.
- Ensure that all necessary supporting documents, records and accounts are kept in respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers.
- Ensure that designated account and operational accounts are maintained in accordance with the provisions of the financing agreement and in accordance with the financier's rules and procedures.
- Contribute to the preparation of the Project Implementation and Financial Manuals.
- Ensure the Project's Financial Procedures as detailed in the Project Implementation and Financial Manuals are strictly adhered to by all Project staff and executing agencies at the national and local levels.
- Ensure that the financial statements are prepared in accordance with International Public Sector Accounting Standards as adopted in Uganda.
- Liaise with external auditors to audit the project accounts to meet the required submission dates by both GoU and IFAD.
- Liaise with the District Accountants from the Project districts and the lead Project agency to ensure that SOEs are prepared in timely manner and forwarded to Ministry of Finance, Economic Planning and Development.
- Process documentation and follow up on disbursements from the government and IFAD to ensure that releases are not delayed. Ensure that funds for project implementation are disbursed in a timely manner to enable project interventions to be carried out on time.

Qualifications and Experience: The candidate should have a Master's degree in economics, finance, or accounting, and must be a certified public accountant, duly registered with the Institute of Certified Public Accountants of Uganda (ICPAU). In addition, he/she should have:

- At least eight years of relevant work experience, including at least four years as a financial manager or accountant in government/donor programmes or large institutions;
- Strong managerial skills and demonstrated capacity to manage people and interact with a wide range of private sector partners and government representatives;
- Knowledge of work planning, budgeting and reporting;
- Knowledge of IFMS desired;
- Excellent quantitative and analytical skills;
- Computer-literate including accounting packages and well-versed in the use of Excel, Word and basic data base set-ups.

Contract: Two-year contract, with six months' probation period, renewable based on performance against agreed targets and deliverables.

Appendix 3: Project Accountant

The **Project Accountant** will report to the Project Financial Controller.

Specific responsibilities include but are not limited to the following:

- Follow-up the districts and other implementing agencies for expenditure justifications
- Review eligibility of expenditure in accordance with the financing agreement
- Report on the operation of internal control including budget controls and report any deviations
- Prepare project reports to enable the withdrawal of funds from financers and manage the overall treasury/ cash flow planning aspects of the project.
- Assess compliance with Uganda laws and regulations governing the operation of the implementing institutions including accountancy standards and the requirements for audits and financial reporting.
- Review external auditor's reports (Audit Opinions and Management Letters), including any qualifications and whether any concerns raised by auditors have been adequately addressed.
- Review reports of IFAD/GoU supervision or review missions and follow-up on the implementation of agreed to actions.
- Examine the financial management information provided to Project Manager, MAAIF and IFAD, in terms of its adequacy and timeliness.
- Evaluate programme/project accounting procedures including the adequacy of financial reports in terms of accountability to multiple funding sources.
- Evaluate systems for asset management, provision for asset maintenance and replacement.
- Review documented accounting procedures and accounting manuals in terms of their adequacy, and correspondence between actual and documented procedures.
- Evaluate annual work plan and budgeting procedures, and budgetary control systems applied to monitor actual expenditures versus budget including commitment controls to avoid commitments beyond available resources.
- Review other aspects of the accounting and financial control systems including: cash management and banking; procurement of goods and services; advances and acquittals; authorisation of expenditure and budget/actual comparisons.

Qualifications and Experience: The candidate should have a Bachelor's degree in accounting and at least Part II of CPA-U or its equivalent or be a qualified accountant. Other skills and experience should include:

- At least five years of relevant work experience;
- Knowledge of work planning, budgeting and reporting;
- Excellent quantitative and analytical skills;
- Computer-literate including accounting packages and well-versed in the use of Excel, Word and basic data base set-ups;
- Knowledge of IFMS and mapping of the system desirable.

Appendix 4: Assistant Accountant

The assistant accountant reports to the Financial Controller and is responsible for ensuring a proper accounting filing system for NOSP. He/she will follow up of accountabilities from districts, staff and other implementers, as well as appropriate data entry and reconciliations.

Specific responsibilities include but are not limited to the following:

- Preparation of source documents, e.g. payment vouchers, journal vouchers;
- Chronological filing of documents with adequate cross reference to ensure ease of retrieval;
- Follow up of accountabilities, maintaining a detailed log of outstanding accountabilities;
- Data entry into the accounting system;
- Preparation of reconciliations for review by the financial controller;
- Facilitate both internal and external audits on project's financial transactions and oversee that reports meet the required submission dates by IFAD;
- Provide support to the Financial Controller in preparation of reports to enable the withdrawal of funds from IFAD and GoU;
- Proactive support to the district designated project support accountants;
- Maintain key registers such as fixed assets, inputs into the contracts register, and contract monitoring forms;
- Support the Financial Controller in the preparation of informative management accounts in the form of monthly, quarterly, semi-annual and annual reports regarding aspects of project financial monitoring, bringing out variances and advising implementers as to the limits of expenditure;
- Carry out any other activities that are assigned by the Financial Controller.

Qualifications and experience: The candidate should have a Bachelor's degree in accounting and at least Part II of CPA-U or its equivalent. Other skills and experience should include:

- At least two years of relevant work experience
- Excellent quantitative and analytical skills;
- Computer-literate including accounting packages and well-versed in the use of Excel, Word and basic data base set-ups.

Contract: Two-year contract, with six months' probation period, renewable based on performance against agreed targets and deliverables

Appendix 5: Rural Finance Manager

Scope of Work

The Rural Finance Manager (RFM) is responsible for the Rural Financial Services activities of NOSP. The scope of works includes technical assistance for product innovation for VSLA linkage banking for agriculture, value chain financing and loan risk management for financial institutions, technical assistance to SACCOs and other co-operatives, and working with insurance companies for piloting and scaling-up crop insurance and facilitate bundled crop insurance products access to the project target groups. The RFM needs to work closely with the formal financial institutions, insurance companies and the Agriculture Insurance Consortium at the national, regional and hub level as well as with Tier 4 financial institutions from the project area particularly focussing on the linking of VSLAs with the formal financial institutions, insurance companies and other service providers in the oil seed crop value chain.

The RFM Specialist works closely with all the Project staff, service providers and related institutions, and reports directly to the Project Manager.

Main tasks and Responsibilities;

- To take overall responsibility and leadership on the planning, implementation and monitoring of the Rural Financial Services activities of NOSP. This involves the preparation and monitoring of Annual Work Plans and Budgets (AWPB), progress reports and analytical reports;
- Manage the rural finance activities in accordance with the approved annual work plans, coordinate and ensure complementarities with Oil Seed Value Chain Development activities;
- Participate in multi-stakeholder platforms and address issues related to credit and agriculture crop insurance;
- Develop TORs and selection criteria for contracting national technical assistance consultants, ensuring quality of their work and providing advisory support as required;
- Carry out due diligence of interested financing institutions, prepare the ToRs for technical assistance and develop partnership with the Bank of Uganda, Agricultural Credit Facility, financing banks and project to facilitate affordable credit for target groups.
- Develop MOUs with the Agriculture Insurance Consortium (AIC), individual insurance companies, financing institutions, other significant players in the oil seed value chain and the project to facilitate crop insurance services.
- Ensure an assessment of seasonal credit requirement plans for the VSLA members and agri businesses and facilitate and monitor flow of credit for financing production;
- Participate in evaluation committees for selection of co-financing applicants for mechanisation and post harvest cleaning equipment and ensure financial services for co financing;
- Maintain close coordination with implementation partners (banking and financial institutions, insurance companies, private service providers, NGOs and other stakeholders) and ensure satisfactory results;
- In close coordination with hub-level agriculture finance consultants, ensure that all policy and operational issues are sorted out in a timely manner for flow of financial services;
- Plan, supervise and monitor the trainings on financial literacy trainings for effective results;
- Assume a lead responsibility for the organisation of rural finance-related trainings, study tours, conferences and workshops;
- Provide support and guidance for the gathering of data and information needed to undertake an effective monitoring and evaluation of all the rural finance activities;
- Oversee the design and establishment of channels for regular information dissemination, sharing, and networking among stakeholders including VC members.

Qualification, Experience and Competence

Education: University degree in economics, business administration, agri business, or in a related field. Masters' degree will be preferred. A certificate in insurance would be an added advantage.

Experience:

- Work experience in banking for 15 years out of which at least seven years in agri-banking and small farmer and agri-business credit;
- Experience on implementation of internationally financed projects will be an added advantage;
- Good knowledge of the different national banking and financial institutions, insurance companies, concerned with agriculture finance and insurance strong ability and readiness to communicate, and work with them;

Competence

- Strong communication skills, especially written communications; group facilitation skills;
- Gender sensitivity in working with both men and women understanding and addressing their needs;
- Team player with ability to work with different stakeholders and programme team;
- Fluent written and spoken English and national local language.
- Creative and pragmatic approach to problem solving; well-organised and well oriented to details.

Appendix 6: Supply Chain Team Leader

Reporting to the Project Manager, the Supply Chain Team Leader (SCTL) will lead the delivery of all aspects of Component 1 and ensure close coordination between Component 1 and 2 teams and activities. The SCTL will manage the Component 1 teams within scope, budget and timeline along the commitments specified in the contract signed with IFAD, under the guidance of the Project Manager, to achieve high quality and timely results and deliverables agreed for the project.

Main responsibilities

- Overall management, facilitation and supervision of Component 1 implementation, under the guidance of the Project Steering Committee (PSC) through the Project Manager
- Ensure full integration of Components 1 and 2 activities
- Provide guidance and leadership to establish and setting up the PCU in MAAIF and respective Hub Offices, putting in place the appropriate management, financial and operational procedures for project implementation
- Coordinate and supervise the selection/hiring of competent key project personnel
- Provide overall guidance and support to PCU in periodically ensuring that the relevant aspects of the Project Implementation Manual are adhered to
- Organise the coordination of IFAD Supervision and Implementation Support missions on Project progress and ensure timely submission of AWPBs and withdrawal applications for timely disbursement
- Supervise and monitor all Component 1 activities and the timely reporting on Component 1 performance and impact to MAAIF, MoLG, MoFPED and IFAD.

Inclusions aspects

- Take overall responsibility of project performance on raising smallholder incomes, by including poor and near-poor farmers in the NOSP activities.
- Develop a relevant corporate approach into which both the inclusion and market aspects of the Project are integrated.
- Inform about the project's approach to social and economic inclusion in the Ugandan policy and development arena.

Ensure that evidence-based analysis from Project interventions inform IFAD policy and support and extend the agenda for inclusive market development for oilseeds in Uganda.

Experience & qualifications

At least 10 years work experience in both developmental and private sectors, with emphasis on the oilseeds sector, of which at least six years of experience in promotion of supply chain and private sector development with demonstrable evidence of the results achieved.

- Knowledge and experience in building capacity of stakeholders and in facilitation of multi-stakeholder consultation processes.

- Experiences that demonstrate creativeness, innovativeness and entrepreneurial skills;
- Possesses high quality attributes on leadership, facilitations and coaching.
- Excellent spoken and written English.
- Proven skills in staff and budget management, networking and external communication.
- Good interpersonal skills and capacity to work effectively as part of a team.
- Master's Degree in Business Administration, Agribusiness Development, Marketing or equivalent field.

Appendix 7: International Supply Chain Specialist

Position:	International Supply Chain Specialist (ISCS) – 1 position (phases out in Year 3)
Reports to:	Project Manager
Duty station:	PCU
Summary of role:	The ISCS is the overall technical lead in planning, implementation, monitoring and reporting of activities under Component 1 (Support to Oilseed Value Chain Development) and ensure effective coordination, management and capacity building of project staff for effective planning and timely implementation of activities within Component 1. The ISCS is also responsible for the professional development and coaching of the national team so that they can run all project activities without external support by MTR. The ISCS will also act as a senior advisor to the Project Director and Supply Chain Team Leader in the overall direction of the project.
Mode of contract:	Rolling annual contract with a probation period of six months. The annual contract will be extendable up to end Year 3 based on satisfactory performance in the preceding contract assessed by the Project Manager and the Steering Committee.
Main responsibilities	• Coordinate, coach and mentor the PCU and Hub Supply Chain Senior Specialists, Hub Supply Chain Specialists and other project staff/consultants on supply chain development (SCD) practices and processes identifying constraints/opportunities, developing visions and strategies, critical interventions for investments, relationships enhancement, development of enabling institutions/services and stimulating actual scaling up activities as part of a focused facilitation for specific supply chains in continuous multi-stakeholder platform process (MSP). • Develop, with the Management Team, specific training modules/manuals on SCD and MSPs and conduct training and capacity building activities on supply chain development and market system facilitation to project staff at various level. • Support staff to identify specific potential investment areas within specific supply chains and facilitate farmers, farmers' organisations, processors, aggregators and service providers in jointly developing concept notes and investment/business plans addressing critical SC constraints/opportunities. • Strengthen capacities of project staff in enhancing service capacities of agribusiness/traders, producer groups and service providers, within informal and formal contract arrangements.

- Support staff for brokering "win-win", trust-based business or service relationships among supply chain actors.
- Support project Monitoring and Evaluation (M&E) team to establish supply chain baselines for the M&E system and result measurement.
- Provide strategic support to hub teams for the inclusion of poorer households in developing supply chains investment proposals.
- Contribute to the knowledge development by generating lessons learnt/cases in respective supply chains and facilitate knowledge exchanges between regions and value chains.

Inclusion aspects

- Develop the results chain for each supply chain and advise on early indications and implications for inclusion objectives.
- Facilitate communication between regional hubs on inclusion and social mobilisation.
- Lead an induction workshop with key project management staff to support the development of a corporate approach to inclusive market development.

Experience & qualifications

- At least 15 years work experience in development and private sectors, of which at least seven years of experience in promotion of supply chain and private sector development with demonstrable evidence of the results achieved
- Knowledge and experience in building capacity of stakeholders and facilitation of multi-stakeholder consultation processes.
- Performance record that demonstrate creativeness, innovativeness and entrepreneurial skills.
- High quality skills on leadership, process facilitation and coaching.
- Excellent spoken and written English.
- Proven skills in staff and budget management, networking and external communication.
- Good interpersonal skills and capacity to work effectively as part of a team.
- Master's Degree in Business Administration, Agribusiness Development, Marketing or equivalent.

Appendix 8: Supply Chain Deputy Team Leader (SCDTL)

Based at PCU Lira

Position:	Supply Chain Deputy Team Leader (SCDTL) – 2 positions
Reports to:	NOSP Supply Chain Team Leader
Duty station:	NOSP Hubs
Summary of role:	The SCDTL will assist the Supply Chain Team Leader and the ISCS in the overall technical leadership in planning, implementation, monitoring and reporting of activities under Component 1 (Support to Oilseed Value Chain Development) and ensure effective coordination, management and capacity building of project staff for effective planning and timely implementation of activities within Component 1. The SCDTL is also responsible for the professional development and coaching of the project team so that they can run all Component 1 activities without external support by MTR. A critical part of the his/her work is to ensure full and active participation of the hub team members from the different implementing partners and to build and maintain strong relationships with the parent implementing agencies.
Mode of contract:	Rolling annual contract with a probation period of six months. The annual contract will be extendable up to end of project based on satisfactory performance against agreed performance targets.
Experience & qualifications	• At least 10 years work experience in the development and/or private sectors, including a minimum of: i. five years' experience in promotion of supply chains and private sector development with demonstrable evidence of the results achieved ii. five years management experience leading small teams • Knowledge and experience in building capacity of stakeholders in value chains. • Experiences with MSME investment proposal/plan development, appraisal, monitoring and evaluation, and feasibility analysis. • Work record that demonstrates creativeness, innovativeness and entrepreneurial skills. • Demonstrated skills in leadership, facilitations and coaching. • Proven skills in staff and budget management, networking and external communication. • Good interpersonal skills and capacity to work effectively as part of a team. • Good spoken and written English.

- Master’s Degree in Business Administration, Agribusiness Development, Marketing or equivalent.

Appendix 9: Monitoring, Evaluation and Learning Specialist

Reporting to the Project Manager, the M&E and Learning Specialist will have overall responsibility for the coordination of the timely establishment, operation and maintenance of the Project M&E system; for the generation of knowledge and evidence of the NOSP performance and results; and for the communication of Project activities, achievements and lessons learned. Specific tasks of the M&E and Learning Manager will include:

a) Consolidate the learnings from prior interventions in oil seeds development towards the actions that enhance policy development within the sector, specifically assisting the GoU to establish enabling conditions for the long-term sectoral development

b) Ensure the building of a monitoring and evaluation system that lends towards efficient and effective management of the project

c) Working in collaboration with other PCU members, oversee the design and development of the Project M&E system, its knowledge management agenda, and its communication strategy; and ensure that these are coherent and synergistic and support the objectives of the Project, and that they are effectively planned and implemented.

d) Guide, support, supervise and monitor the work of the M&E Officer, KM and Communication Officer and M&E Assistant.

e) Be in charge of designing of the central M&E system that will serve the NOSP needs during the Project implementation.

f) Work in close coordination with all stakeholders to assess the data and information needs for the national oilseeds sector database, for Project management and for IFAD's requirements, ensuring that the M&E system is designed in a way that responds to these needs and that makes it possible to produce reliable M&E data in timely manner.

g) Plan and execute and Monitoring and Evaluation Surveys with a view of informing NOSP management on the progress and areas that require improvement to ensure achievement of project objectives

h) Planning and the execution of Baselines Studies, Impact and Outcome Studies and Project Completion Studies in line with the timelines of the project. Ensure that these facilitate management decision making and progress tracking for the project.

i) Work closely with the Finance Unit to ensure that project outputs and outcomes are closely linked with project financials to ensure value for money.

j) Support the KM and Communication Officer to develop an approach for prioritizing and implementing Knowledge Management activities, and developing and disseminating knowledge tools and products.

k) Support the KM and Communication Officer to develop a Project communication strategy, geared towards Project implementers, the target group and stakeholders, and others, both within Uganda and outside.

l) Lead, through interactions with different stakeholders, in the establishment of a conducive framework for sustainable scaling–up of oilseed investments.

m) Lead, guide and coordinate the Project AWPB and budgeting process.

n) Oversee timely preparation of quarterly, bi-annual and annual project progress reports, their analysis and identification of lessons learned and potential bottlenecks for Project implementation, if/when relevant, and inform the Project management accordingly.

Qualifications and experience

(a) Bachelor's degree in Agriculture, Economics, Statistics, Development Studies, Rural Development, Planning or related field
(b) Master's degree in Agriculture, Agricultural Economics, Economics, or equivalent field.
(c) Minimum of 10 years' experience of working at a Senior Position in the field of development, planning and ME&L
(d) A post graduate diploma in M&E will be an added advantage
(e) Solid knowledge of participatory M&E approaches and techniques.
(f) Good knowledge in the development of performance-based indicators.
(g) Evidence of hands–on experience in data management and analysis
(h) Demonstrated experience in the techniques of data collection, data entry, data analysis and design of management information systems to facilitate the planning and decision-making processes within the institutions
(i) Evidence of reporting and report writing skills will be an added advantage
(j) Good knowledge of computer applications (particularly MS Excel, Word, Access and Power point, STATA) will be an added advantage.

Appendix 10: Communication and Knowledge Management Officer

Reporting to the M&E and Learning Specialist and working closely with the Monitoring and Evaluation Officer, the Communications and Knowledge Management Officer will lead the development, implementation, evaluation and continued improvement of communication and knowledge management initiatives during the implementation of the Project.

The Communication and Knowledge Management Officer's duties and responsibilities will include the following:

a) Conduct the research, including stakeholder analysis and needs assessment, and use the survey results to develop and implement creative communication strategy for NOSP.
b) Prepare the Knowledge Management Strategy for NOSP.
c) Continuously review and improve the Project communication strategies and materials to ensure effectiveness.
d) Develop and manage an annual production cycle of communication materials including campaigns and information materials to support awareness raising, sensitization and key messages (stories, videos, photos etc.) about the Project and articulate them in ways appropriate to the key stakeholders' target audiences.
e) Provide functional direction to special events in particular with reference to activities in the oilseeds sector, such as product launch, the commissioning of works with special emphasis on effective use of the media.
f) Prepare user-friendly information sheets that detail key facts and figures about oil seeds development.
g) Liaise with MAAIF communication unit staff and advise PCU staff on media engagement.
h) Synthesize reports and write thematic case studies, lessons learned and stories about successes emerging from NOSP implementation; package them and ensure that they are shared within the country, with Government and other development partners in and outside Uganda.
i) Support the oil seeds policy development process, develop and package targeted policy products as required, and ensure that key stakeholders at different levels are fully informed as to the issues in question.
j) Ensure that systematic learning and knowledge management are fully embedded in Project management and implementation.
k) Design and implement training activities for Project staff, government partners and other project stakeholders, as required, on KM and communication approaches, methods and tools.
l) Develop and implement mechanisms to encourage individuals, organizations and functional networks to share their experiences for mutual learning.
m) Carry out other duties related to the Project's activities, as may be assigned by the M&E and Learning Specialist.

Qualifications and experience

a) University degree in mass communication, marketing, journalism or a related discipline. Experience in agriculture and rural development an advantage.

b) Minimum of five years of experience in communications in the rural development sector.
c) Proven experience in designing and implementing successful communication for sustainable development;
d) Experience in the sphere of rural development project management and implementation, in particular a good basic knowledge of project M&E systems, will be a distinct advantage;
e) Experience in, or solid understanding of, use of modern information and communication technology; print, broadcast media/interactive digital media in agriculture and rural development;
f) Experience in building relationships with journalists, handling enquiries, pitching features and conducting interviews;
g) Ability to translate agriculture and rural development work into compelling stories using excellent editing and copyright skills;
h) Ability to draft clear and concise ideas and concepts in written and verbal form with special skills in writing press releases, articles, stories for traditional and electronic media;
i) Excellent design and production skills;
j) Knowledge of current practices in communication research and role of mass media.

Appendix 11: Procurement and Contracts Manager

Reporting to the Project Manager, the Procurement and Contracts Manager will have responsibility for coordinating and supervising procurement of goods and services for the Project.

The Procurement and Contracts Manager's duties and responsibilities will include the following:

a) Ensuring the timely planning, controlling and delivery of procurement activities of the Project.
b) Liaising with other staff of the PCU and compile all procurement requirements of the Project.
c) Preparing periodic reports to Contracts Committee, PPDA and other stakeholders, as required.
d) Ensuring compliance and conformity with legal and regulatory framework governing public procurements.
e) Providing timely advice to the Project, contracts committee and other stakeholders on matters relating to procurement and disposal.
f) Preparing and updating the procurement plan and ensuring availability of funds for procurements and timely payment for procurement commitments.
g) Preparing solicitation/bidding documents for procurements and participation in evaluations.
h) Providing secretariat services for the contracts committee.
i) Guiding suppliers on procurement procedures.
j) Give technical backstopping to Project implementers at different levels on procurement matters.
k) Prepare advertisements for Project procurements.
l) Carry out any other duties related to the Project's activities as may be assigned.

Specific Qualifications

In addition to the general qualifications detailed above, the following specific qualifications are required.

a) A University degree in procurement and supply chain or procurement and logistics management or commerce or business administration or economics or an equivalent
b) Professional qualifications in purchasing and supply chain management from MCIPS/ISM.
c) A Master's Degree in related field is an added advantage
d) 10 years' procurement management experience in a donor-funded projects
e) Demonstrated knowledge of the Public Procurement and Disposal processes a requirement.
f) Good knowledge of computer applications (particularly MS Excel, Word, Access and Power point, STATA) will be an added advantage.

Appendix 12: Environment and Climate Change Specialist

The Environment and Climate Change (ECC) Specialist will lead the work on environmental management, compliance with the Social, Environment and Climate assessment Procedure (SECAP) and the climate change adaptation-related activities in the project. The Specialist will also support policy dialogue, institutional coordination and local level capacity building. S/he will work in close collaboration with the other members of the PCU, the designated field officers at district and sub-county level and any technical assistants recruited to support the implementation of the relevant activities in NOSP.

Duties and Responsibilities

The ECC Specialist will be responsible for providing technical expertise in environment and natural resources management and climate change adaptation within the context of NOSP. More specifically, the ECC Specialist will perform the following tasks:

a) Provide technical inputs and guidance in the implementation of the environment and natural resources management and climate change adaptation activities under NOSP;
b) Provide inputs for measuring climate change resilience and improved natural resources management among the target beneficiaries of NOSP within the project's Monitoring and Evaluation system, in close consultation with the M&E staff;
c) Ensure the inclusion of climate resilience and environmental management data collection in the baseline studies to be undertaken as part of NOSP;
d) Coordinate the SECAP related studies particularly for the infrastructure development and agricultural activities and ensure the reviews and approval by NEMA;
e) Coordinate the development and implementation of the Environmental and Social Management Plans;
f) Liaise with the Ministry of Water and Environment counterparts and with the Project Manager, engage in ongoing national and regional level policy dialogue;
g) Undertake the technical review of environmental management and climate change adaptation case studies, maps and technical papers being produced under NOSP;
h) Identify the appropriate dissemination channels for the case studies, vulnerability maps and other publications to be produced as part of the NOSP;
i) Provide training to fill the knowledge and capacity gaps of the various project stakeholders including service providers and the project team in the understanding, planning and implementation of environmental management and climate change adaptation measures;
j) Provide strategic orientation in planning, implementation and monitoring stages through periodic field visits to project intervention areas;
k) Contribute to the preparation of the AWPB;
l) Contribute to reporting structures as laid out in the NOSP documentation;
m) In collaboration with the other Project Management Team members, ensure the recruitment for all the national and international technical assistance required for the studies and implementation of the environmental management and climate change adaptation related activities, including the development of specific terms of reference, preparation of detailed work plans, as well as defining and agreeing on the exact nature and timing of the deliverables with each technical assistant;
n) Undertake any other duties (related to NOSP activities) as may be assigned by the Project Coordinator.

Qualifications and Experience

- A Master's degree in natural resource or environmental management, agriculture or rural development.

- At least six years of experience in the field of Climate Change Adaptation or Environment and Natural Resource Management with strong knowledge of climate change adaptation.
- Thorough knowledge of the institutional setting in Uganda with a specific reference to climate change adaptation and environmental management as well as familiarity with all the governmental and non-governmental actors and stakeholders involved in the policy dialogue on climate change adaptation at the national level.
- Thorough knowledge of the legislative and regulatory framework on climate change, environmental management and agriculture as well as ongoing projects and initiatives focusing on climate change adaptation in Uganda.
- Good knowledge of GIS systems with relevant spatial skills for mapping project areas.
- Excellent and proven presentation, facilitation and negotiation skills.
- Good knowledge of communication tools and technologies (internet, Microsoft office packages etc).
- Fluency in oral and written English is essential.

Appendix 13: Social Inclusion Specialist

Reporting to the Project Coordinator, specific duties of the Social Inclusion Specialist include:

a) Under the guidance of the Project Manager, serve as focal point and advocate for mainstreaming of poverty, gender and youth targeting throughout project activities
b) Ensure that the project activities are implemented in an integrated manner and take into account the needs of the local communities and the poor households
c) Support local governments and other implementing partners to integrate cross cutting issues into project activities to ensure that correct targeting is done
d) Assist the DCDOs in each district to plan and undertake community mobilization, sensitization, community entry, situation analysis, social and institutional mapping, wealth ranking, and assessment of existing community groups as a basis for beneficiary selection
e) Take responsibility for identification and overseeing the contracting of ToT for roll-out of training for implementing partners and farmer groups in Gender Action Learning Systems (GALS) for oil seeds value chains
f) Take responsibility for overseeing and back-stopping the task of Poor Households' (HH) Support, including but not limited to technical support for contracting of a service provider for update of the HH mentoring guide and trainer's manual including mainstreaming of GALs visioning and PRA tools and direct training of district CDO staff and HH mentors.
g) Monitor the implementation of the services and the outcomes achieved by the service providers with regard to farmer group composition, social inclusiveness, internal cohesion and reciprocal trust
h) Maintain working relationships with the GoU ministry(s) responsible for gender, community development and youth affairs
i) Assist the MEL specialist to monitor the effectiveness of poverty, gender, youth and vulnerable group targeting and to draw lessons
j) Any other relevant duties as may be assigned by the project coordinator.

Qualifications and experience:

He/she should have at least a Master's degree in social science or a field related to rural community development. A minimum of 10 years of experience in community development and applied gender mainstreaming at project or institutional level. Experience with poverty, gender and youth targeting in agriculture-based rural development programmes. Mastery of Participatory Rural Appraisal, experience in designing and implementing successful communication and knowledge management strategies for sustainable development. An additional desirable qualification is the familiarity with household mentoring approaches and GALS. Other qualifications and experience should include:

- Rural development project management and implementation
- Good computer skills
- Strong inter-personal skills
- Strong analytical skills
- Self-motivated and creative thinker
- Proven ability to work in teams
- Strong social skills and open-minded personality
- Ability to work independently and with limited supervision and to deliver work under pressure.

Appendix 14: Terms of Reference NOSP Agronomist

The agronomist will work in close collaboration with the Supply Chain Leader, the Climate Change/Environmental Specialist and the Monitoring, Evaluation and Learning Specialist to provide advice and support to NOSP implementation, to ensure that market-led interventions to enhance crop production and productivity are implemented and monitored.

The Agronomist will provide leadership and technical guidance to support the Farm Production Advisor, the Auxiliary Farm Services Promotion and the Quality Declared Seed Production schemes under Sub-component 1.2. The Agronomist will coordinate the recruitment of national and hub-based PSPs and the identification and management of frontline Farmer Production Advisors.

S/he will coordinate and build strong working relationships between the National Agricultural Research Organisation (NARO), the Zonal Agricultural Research and Development Institutes (ZARDIs), financial institutions, market actors and PSPs, as well as with the decentralized structures of MoA in the hubs. She/he will contribute to building the capacity of the Service Providers (SPs) to deliver better quality services to farmers more efficiently and effectively.

The agronomist will be based in Lira and reporting directly to the Project Manager. Specific duties of the Agronomist include, but are not limited to the following:

Project Implementation

- Provide overall strategic guidance on agronomic, farming systems, seed systems, mechanization and demonstration practices to achieve the market development objectives
- Assist in the preparation of the Annual Work Plan and Budget (AWPB)
- In collaboration with NARO, ZARDIs and the Climate Change/Environmental Specialist evaluate new varieties and climate resilient agricultural practices
- Support NARO, ZARDI and Makerere university seed support activities
- Develop the MoU, recruit and supervise the National and Hub based PSPs in achieving their agreed results-based activities
- Participate in the coordination workshops and meetings at PMU and hub levels
- Work closely with relevant staff and promote nutrition, gender, HIV/AIDS and environment mainstreaming in extension approaches;

Capacity Strengthening

- Supervise the National PSP in the development of a training curriculum to ensure it is relevant and appropriately written for oilseed producing smallholder farmers.
- Supervise training of the Farm Production Advisors (FPA) in required extension methodologies and technical innovations.
- Coordinate capacity building initiatives between the financial services, mechanization, seed services and FPA schemes.
- Provide support for the harmonization of the various existing participatory extension delivery services being used in the target hubs;
- Assist MoA staff in improving their capacity of information and knowledge sharing and documentation;

Monitoring, Evaluation and Learning:

- In coordination with the PMU Monitoring, Evaluation and Learning specialist, provide guidance to NOSP and partners in the design and/or enhancement of participatory M&E tools and protocols to strengthen data collection, analysis and reporting.
- Assist in the design and implementation of baseline, mid-term and final evaluations and ensure follow-up of findings/recommendations to improve program quality
- Prepare contributions to progress reports;

Qualifications and experience: She/he should hold at least a Master's degree in agricultural sciences with particular emphasis on extension, agronomy and/or soil science. Other attributes / experience should include:

- Innovative, energetic individual with demonstrated contributions to the field of agriculture and committed to seeing measurable impacts at farm level.
- 5 to 10 years of working experience with participatory extension approaches in technology transfer in the Ugandan context.
- Demonstrated capacity to take on a leadership position with strong managerial skills and capacity to manage people and interact with a wide range of private sector partners and public sector representatives, as well as managers and implementers of large-scale rural / community / SME development programmes.
- Competency in field data collection, monitoring, analysis and reporting.
- Working experience in private sector engagement.
- Excellent communication skills - including fluency in English.

The position is based in Lira with frequent technical support and supervision visits to other hubs in Lira, Gulu, Eastern, Mid-western Uganda, Bunyoro and Karamoja

Contract: Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables

Appendix 15: Office Administrator

Reporting to the Financial Controller, the Office Administrator will provide administrative support to the project.

Duties and responsibilities of the Office Administrator will include;

a) Manage the front office and operate the telephone exchange of the PCU
b) Project a good image of the project by courteously and expeditiously responding to inquiries and queries from visitors.
c) Ensure appropriate faxing, mailing, filing, compiling, transcribing and making project meeting appointments with relevant stakeholders.
d) Maintain hard copy and electronic filing system for the Project.
e) Coordinate and maintain records for PCU staff, office space, phones and office keys.
f) Maintain and distribute PCU staff weekly travel schedules and coordinate travel itineraries for visitors to the project including those of mission members.
g) Be responsible for logistics including booking of accommodation in Kampala and in the Project area and allocation of the travel vehicles and drivers.
h) Schedule meetings/events and remind the relevant persons on the meetings.
i) Open, sort and distribute incoming correspondence, including faxes and emails.
j) File and retrieve organizational documents, records and reports.
k) Arrange for the repair and maintenance of office equipment.
l) In liaison with Communications Department, assist in special events, commissioning of works, product launch, and annual review workshops etc.
m) Oversee all aspects of general office coordination and guide visitors and interns to responsible offices.
n) Supervise the project drivers and Office Attendants.
o) Carry out other duties as may be assigned by the NOSP management.

Specific Qualifications

The following specific qualifications are required:

a) An honours degree in Business Administration, Administration Studies or a related field
b) Demonstrated training and/or experience in performing secretarial and administration work is required
c) At least five (5) years' experience in general office responsibilities and procedures
d) Knowledge of principles and practices of organizing, planning, records management and general administration
e) Ability to operate standard office equipment, including but not limited to, computers, telephone systems, copiers and facsimile machines.

TERMS OF REFERENCE FOR KEY STAFF OF PROJECT IMPLEMENTATION COORDINATION TEAM (PICT) IN MOLG

Appendix 16: Project Coordinator

Reporting to the Permanent Secretary, MoLG, the Project Coordinator (seconded by MoLG) in the PICT will have overall responsibility for ensuring that the Project achieves its expected outcomes and development objective, with focus on Component 2. He/she will lead the management team in PICT, and will be responsible for the effective planning, management, reporting and communication of all Component 2 project activities. He/she will also ensure compliance with all fiduciary requirements of the Project. These include AWPBs, Disbursement of Funds, Progress Reports, Project Audit Reports, and Withdrawal Applications.

Specific responsibilities will include the following:

l) Lead all key processes of project planning, both through the AWPB process and on a day-to-do basis; management of Project implementation; and monitoring and reporting on physical and financial progress.

m) Ensure that (i) the Project is implemented in accordance with the Annual Work Plan and Budgets (AWPBs) and the Project Implementation and Financial Management Manuals; (ii) Project funds flow efficiently and are properly utilized; (iii) goods, works and services are procured quickly and in conformity with all GoU/IFAD requirements; and (iv) progress reports and audit reports are prepared and submitted to GoU/IFAD in accordance with the prescribed timeliness.

n) Liaise with the Human Resource Department of MoLG to coordinate the recruitment of PICT technical and support staff in accordance with procedures detailed in the Project Guidelines.

o) Facilitate project evaluations, supervision and reviews in accordance with the Loan Agreement, and ensure that all recommendations (pertaining to Component 2) from supervision and implementation support missions are effected and adhered to as agreed.

p) Collaborate and liaise regularly with his/her counterpart in PCU in MAAIF to ensure harmonisation of both project components and consolidation of the AWPBs and periodic reports.

q) Coordinate and facilitate networking and liaison with other stakeholders/ projects that provide complementarity and synergy to the Project activities, aims and objectives.

Other requirements: At least 7 years' experience in practical project management, in the managing and or supervising similar donor-funded projects.

Appendix 17: Infrastructure Adviser

Reporting to the Programme Coordinator in the PICT, the Infrastructure Adviser will be a senior civil engineer, nominated by MoWT to support implementation of CARs under NOSP. He/she will be responsible for all technical aspects of the programme infrastructures. He will be responsible for technical assurance during the design, construction and early operational phase (defects liability period), field supervision during execution phase and ongoing support to the beneficiary districts and other project needs. The main duties and responsibilities will include:

a) Oversee and lead the production of engineering designs, including the verification and checking of calculations, specifications, scheme designs and Project Reports for CARs from beneficiary Local Government and ensure that they are carried out as per Ministry of Works and Transport Standards.

b) Lead the supervision of the team of Infrastructure Engineers and District Technical Staff for the successful delivery of sub-projects to meet the targets and time deadlines.

c) Provide technical backstopping and advice to District Works Departments through out the planning, budgeting and implementation phases of infrastructure developments.

d) Support the districts in the supervision of contractors involved in the rehabilitation/construction of selected rural infrastructures sponsored under the programme.

e) Provide technical backstopping to Districts in the procurement of contractors for rehabilitation/ construction of CARs, ensuring adherance to established donor procurement guidelines and the PPDA Act.

f) Any other duties as assigned from time to time by the Project Coordinator in the PICT.

Other requirements: At least seven years' experience in managing and or supervising donor-funded infrastructure works.

Appendix 18: Civil Engineers (5 vacancies, 1 for each hub)

Under the direct supervision of the Infrastructure Advisor, the Engineers (to be based in each hub office) will be responsible for overall guidance and management of the community access roads investment-related activities under NOSP in accordance with GoU regulations and approved procedures for supervision of design and civil works. The civil engineers will be responsible for supervising and guiding activities of contractors that due regard is given to the quality and quantity of works to be implemented throughout project operations. Within this overall role, the following tasks will be the specific responsibility of the Civil Engineers:

- In cooperation with the PICT and PCU (in MAAIF) relevant staff, review and assess proposals from the local governments for community access roads (CAR) works with regard to their technical feasibility and preliminary cost estimation, and agreed selection criteria;
- Assist the LGs to set up and train road and market construction committees in their roles and responsibilities;
- Assess the appropriateness of proposed structures;
- Develop ToR for design works for selected access roads and for independent reviewers of design documents;
- Participate in MoLG/DLG bid opening and evaluation committees for evaluation of all bids for design services and construction contracts;
- Review and comment on Evaluation Reports provided by the District Contracts Committees for civil works implementation and develop consolidated Bid Evaluation Reports and recommendations for contracts award for IFAD review and no-objection;
- Supervise design works and review detailed design solutions in terms of sound technical solutions, quality and identified scope and volumes of works;
- Participate and contribute in discussions with District Engineers, Design Contractors and other interested parties in decision making during design stage and review detailed design solutions in terms of feasibility;
- Supervise the implementation of civil works to ensure quality and timeliness, and accordingly endorse certificates of satisfactory work completed, for payment.
- Participate in the development of AWPBs, provide reports and information on infrastructure investment operations as necessary to the PICT and PCU M&E specialist and project coordinators, and contribute to progress reports.

Qualifications and experience:

(a) A higher degree or an equivalent qualification in Civil Engineering with sound knowledge of contemporary issues in the rural infrastructure of Uganda.
(b) A minimum of seven years working experience with projects for infrastructure rehabilitation including design and construction supervision with proven ability to work in a multidisciplinary team and with rural population. Familiarity with engineering design requirements and construction supervision procedures of Uganda, as well as with the procurement procedures applicable under the legislation of Uganda and foreign donors' funded programmes. Computer literate.
(c) A pragmatic, creative and energetic approach to problem solving and decision-making and the capacity to operate effectively with contractors and rural populations.

Contract: Two years contract, with six months' probation period, renewable based on agreed performance targets and deliverables.

Appendix 19: Project Accountant

The Project Accountant in the PCIT reports directly to the Project Coordinator of the PICT and is responsible for financial management of Component 2 and for maintaining all project accounts in good order. As head of the finance unit, the financial controller will take charge of all matters in the project accounting cycle, related to Component 2. The project accounting cycle to be overseen by the financial controller starts from finance-related inputs in AWPB preparation and budget control, committing funds, disbursements and cash flow management in an effective and efficient manner, financial reporting to ensuring smooth audits and facilitation for supervision missions on all financial management aspects.

The Project Accountant will be responsible for expediting all loan management and disbursement activities through GoU systems. Specific responsibilities include but are not limited to the following:

- Installation of appropriate accounting/reporting systems to ensure that the PICT and especially the Project Coordinator are regularly informed of on-going financial status and transactions.
- Ensure timely capture of NOSP's Component 2 in the GoU budget IFMS as required by the GoU budgeting processes and calendars to be able to access counterpart funding.
- Communicate to DLGs their financial responsibilities, the funds available and how to access these funds, and the requirements of reporting and record keeping in accordance with prevailing government practices which are acceptable to IFAD.
- Ensure that all project funds are used in accordance with the conditions of the financing agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided;
- Ensure that all necessary supporting documents, records and accounts are kept in respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers;
- Ensure that designated account and operational accounts are maintained in accordance with the provisions of the financing agreement and in accordance with the financier's rules and procedures;
- Contribute to the preparation of the Project Implementation and Financial Manuals;
- Ensure the Project's Financial Procedures as detailed in the Project Implementation and Financial Manuals are strictly adhered to by all Project staff and executing agencies at the national and local levels;
- Ensure that the financial statements are prepared in accordance with International Public Sector Accounting Standards as adopted in Uganda;
- Follow-up the districts and other implementing agencies for expenditure justifications
- Review eligibility of expenditure in accordance with the financing agreement
- Report on the operation of internal control including budget controls and report any deviations
- Prepare project reports to enable the withdrawal of funds from financers and manage the overall treasury/cash flow planning aspects of the project.
- Assess compliance with the Uganda laws and regulations governing the operation of the implementing institutions including accountancy standards and the requirements for audits and financial reporting.

- Review external auditor's reports (Audit Opinions and Management Letters), and ensure that any qualifications and concerns raised by auditors have been adequately addressed.
- Review reports of IFAD/GoU supervision or review missions and follow-up on the implementation of agreed actions.
- Liaise with external auditors to audit the project accounts to meet the required submission dates by both GoU and IFAD;
- Liaise with the District Accountants from the Project districts to ensure that SOEs are prepared in timely manner and forwarded to Ministry of Finance, Economic Planning and Development;
- Process documentation and follow up on disbursements from the government and IFAD/OFID to ensure that releases are not delayed. Ensure that funds for project implementation are disbursed in a timely manner to enable project interventions to be carried out on time:

Qualifications and Experience: The candidate should have a Master's degree in economics, finance, or accounting, and must be a certified public accountant, duly registered with the Institute of Certified Public Accountants of Uganda (ICPAU).

- At least eight years of relevant work experience, including at least four as a Financial Manager or Accountant in government/donor programmes or large institutions.
- Strong managerial skills and demonstrated capacity to manage people and interact with a wide range of private sector partners and government representatives;
- Knowledge of work planning, budgeting and reporting;
- Knowledge of IFMS is an advantage;
- Excellent quantitative and analytical skills;
- Computer-literate including accounting packages and well-versed in the use of Excel, Word and basic data base set-ups.

Contract: Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables

Appendix 20: Environment and Social Specialist

The Environment and Social (ESS) Specialist will lead the work on environmental and social management, compliance with the Social, Environment and Climate assessment Procedure (SECAP) and the climate change adaptation-related activities in the project. The Specialist will also support policy dialogue, institutional coordination and local level capacity building. S/he will work in close collaboration with the other members of the PICT and PCU, the designated field officers at district and sub-county level and any technical assistants recruited to support the implementation of the relevant activities in NOSP.

Duties and Responsibilities

The ESS will be responsible for providing supportive technical expertise in environment and natural resources management and climate change adaptation within the context of NOSP. He/she will also be responsible for establishment and compliance of the social safeguards as prescribed for NOSP interventions: More specifically, the ESS will perform the following tasks specific to Component 2:

a) Support technical inputs and guidance in the implementation of the environment and natural resources management and climate change adaptation activities under NOSP;
b) Support in providing inputs for measuring climate change resilience and improved natural resources management for Component 2, in close consultation with the M&E staff;
c) Ensure the inclusion of climate resilience and environmental management data collection in the baseline studies to be undertaken as part of NOSP;
d) Coordinate the SECAP related studies particularly for the infrastructure development and agricultural activities and ensure the reviews and approval by NEMA;
e) Coordinate the development and implementation of the Environmental and Social Management Plans;
f) Liaise with the Ministry of Water and Environment counterparts and with the Project Manager, engage in ongoing national and regional level policy dialogue;
g) Identify the appropriate dissemination channels for the case studies, vulnerability maps and other publications to be produced as part of the NOSP;
h) Contribute to the preparation of the AWPB; Under the guidance of the Project Manager, serve as focal point and advocate for mainstreaming of poverty, gender and youth targeting throughout project activities
i) Ensure that the project activities are implemented in an integrated manner and take into account the needs of the local communities and the poor households
j) Assist the DCDOs in each district to plan and undertake community mobilization, sensitization, community entry, situation analysis, social and institutional mapping, wealth ranking, and assessment of existing community groups as a basis for beneficiary selection
k) Assist the MEL specialist to monitor the effectiveness of poverty, gender, youth and vulnerable group targeting and to draw lessons
l) Facilitate measures to ensure the role of women as decision makers, implementers and leaders in infrastructure development in addressing local content in the Oil seed production is realised.
m) Supporting community-based initiatives for sustainable rehabilitation, management and operation of basic Community access roads infrastructure;
n) Faciliate the implementation of the project and Support community development Officers, environment officers in implementing their functions through out the project life cycle;
o) Preparing reference materials for training of the community based Project Management Committees such as the Infrastructure Management Committees, and other stakeholders involved in implementation of programme activities at District, Sub-county and community level.

p) Monitor prepararions and implementation of contracts social management Plan including among others prevention of Gender based violence against children, compliance t labour laws, STDs and HIV Prevention and mitigation Plans.
q) Facilitate the district Local Governmets in developing and supervising the community developent Action plans and review prgress reports by Local Governments.
r) Sensitize staff and other stakeholders including cotractors and communities on safeguards requirements for NOSP infrastructure projects including rights and Obligations of all parties involved.
s) Prepare regular and adhoc social reports for management action.
t) Undertake any other duties (related to NOSP activities) as may be assigned by the Project Coordinator.

Qualifications and Experience

- A Master's degree in environmental and community development.
- At least three years of experience in the field of Climate Change Adaptation or Environment and Natural Resource Management with strong knowledge of climate change adaptation, and at least five years of community development experience.
- Experience with poverty, gender and youth targeting in agriculture-based rural development programmes is preferred.
- Good computer skills
- Strong inter-personal skills
- Strong analytical skills
- Self-motivated and creative thinker
- Proven ability to work in teams
- Strong social skills and open-minded personality
- Ability to work independently and with limited supervision and to deliver work under pressure.
- High degree of honesty and integrity with no criminal record, result oriented and proactive.
- Experience and skills in undertaking social assessments, developing plans and supporting social action plan implementation.
- Thorough knowledge of the institutional setting in Uganda with a specific reference to climate change adaptation and environmental management as well as familiarity with all the governmental and non-governmental actors and stakeholders involved in the policy dialogue on climate change adaptation at the national level.
- Basic knowledge of GIS systems with relevant spatial skills for mapping project areas.
- Excellent and proven presentation, facilitation and negotiation skills.
- Good knowledge of communication tools and technologies (internet, Microsoft office packages etc).
- Knowledge and experience in stakeholder analysis, engagement and managing conflicts.
- Fluency in oral and written English is essential.

Appendix 21: Monitoring and Evaluation Officer

Reporting to the Project Coordinator in PICT and assisting the M&E and Learning Specialist in the coordination of the timely establishment, operation and maintenance of the Project M&E system under the Infrastructure development Component in generation of knowledge and evidence of the NOSP performance and results; and for the communication of Project activities, achievements and lessons learned. Specific tasks of the M&E Officer will include:

a) Consolidate the learnings from prior interventions in oil seeds development towards the actions that enhance policy development within the sector and draw lessons from previous project that linked Agricultural Value chain to road access and marketability of agricultural produce for the long-term sectoral development

b) Identify and formulate lessons learned from NOSP, document and share best practices for scaling up, replication or integration into future projects

c) Ensure the building of a monitoring and evaluation system that lends towards efficient and effective management of the project

d) Working in collaboration with other PCU members, oversee the design and development of the Project M&E system, its knowledge management agenda, and its communication strategy; and ensure that these are coherent and synergistic and support the objectives of the Project, and that they are effectively planned and implemented.

e) Work in close coordination with all stakeholders to assess the data and information needs for the national oilseeds sector database, for Project management and for IFAD's requirements, ensuring that the M&E system is designed in a way that responds to these needs and that makes it possible to produce reliable M&E data in timely manner.

f) Plan and execute and Monitoring and Evaluation Surveys with a view of informing NOSP management on the progress and areas that require improvement to ensure achievement of project objectives

g) Coordinate with the Monitoring, Evaluation and Learning specialist in the Planning and the execution of Baselines Studies, Impact and Outcome Studies and Project Completion Studies in line with the timelines of the project. Ensure that these facilitate management decision making and progress tracking for the project.

h) Work closely with the Finance Unit at PICT and PCU to ensure that project outputs and outcomes are closely linked with project financials to ensure value for money.

i) Participate in the coordination of the Project AWPB and budgeting process.

j) Oversee timely preparation of quarterly, bi-annual and annual project progress reports, their analysis and identification of lessons learned and potential bottlenecks for Project implementation, if/when relevant, at PICT and inform the Project management accordingly.

k) Organise and coordinate project/component reviews and periodic meeting,

l) Coordinate Project Mission activities

Specific Qualifications and Experience

- A minimum of a Master's degree in Economics,social Sciences, development studies, project management or related discipline and extensive training, and solid experience in Monitoring and Evaluation functions;

- Minimum of 6 Years experience of working in the fied of Monitring and Evaluation of Government Projects/Programs.
- A post graduate diploma in M&E will be an added advantage
- Solid knowledge of participatory M&E approaches and techniques.
- Good knowledge in the development of performance-based indicators.
- Evidence of hands–on experience in data management and analysis
- Demonstrated experience in the techniques of data collection, data entry, data analysis and design of management information systems to facilitate the planning and decision-making processes within the institutions.
- Evidence of reporting and report writing skills will be an added advantage
- Good knowledge of computer applications (particularly MS Excel Advanced, Word, Access and Power point,) will be an added advantage.

Appendix 22: Accounts Assistant

The Account Assistant reports to the Financial Controller in the PICT and is responsible for ensuring that a proper accounting and filing system operates for Component 2. He/she will follow up of accountabilities from districts, staff, and other implementers, as well as data entry and reconciliations.

Specific responsibilities include but are not limited to the following:

- Preparation of source documents, e.g. payment vouchers, journal vouchers
- Chronological filing of documents with adequate cross reference to ensure ease of retrieval
- Follow up of accountabilities, maintaining a detailed log of outstanding accountabilities
- Data entry into the accounting system
- Preparation of reconciliations for review by the Financial Controller
- Facilitate both internal and external auditors to audit the project's financial transactions and reports to meet the required submission dates by IFAD
- Support the Financial Controller in preparation of reports to enable the withdrawal of funds from IFAD/OFID and GoU
- Proactive support to the district designated project support accountants;
- Maintain key registers such as fixed assets, inputs into the contracts register, and contract monitoring forms
- Support the Financial Controller in the preparation of informative management accounts in the form of monthly, quarterly, semi-annual and annual reports regarding aspects of project financial monitoring bringing out variances and advising implementers as to the limits of expenditure
- Carry out any other activities that are assigned by the Financial Controller.

Qualifications and experience: The candidate should have a Bachelor's degree in accounting and at least Part II of CPA-U or its equivalent. Other skills and experience should include:

- At least two years of relevant work experience
- Excellent quantitative and analytical skills
- Computer-literate including accounting packages and well-versed in the use of Excel, Word and basic data base set-ups.

Contract: Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables

Appendix 23: Procurement Specialist

Reporting to the Project Coordinator in the PCIT, he/she will have responsibility for coordinating and guiding DLGs in procurement of contractors for community access roads.

The Procurement Specialist's duties and responsibilities will include the following:

a) Ensuring the timely planning, controlling and delivery of procurement activities of the Project.
b) Liaising with other staff of the PICT and consolidating all DLG works procurement requirements of the Project.
c) Preparing periodic reports to Contracts Committee, PPDA and other stakeholders, as required.
d) Ensuring compliance and conformity with legal and regulatory framework governing public procurements.
e) Providing timely advice to the PICT, DLGs, contracts committees on matters relating to procurement and disposal.
f) Preparing and updating the Procurement Plan and ensuring availability of funds for procurements and timely payment for procurement commitments.
g) Preparing solicitation/bidding documents for procurements and participation in evaluations.
h) Guiding potential bidders for civil works and suppliers on procurement procedures.
i) Prepare advertisements for NOSP procurements under Component 2.
j) Carry out any other duties related to the project's activities as may be assigned.

Specific Qualifications

In addition to the general qualifications detailed above, the following specific qualifications are required.

g) A University degree in procurement and supply chain or procurement and logistics management or an equivalent
h) Professional qualifications in purchasing and supply chain management from MCIPS/ISM
i) A Master's Degree in related field is an added advantage
j) 10 years' procurement management experience in a donor-funded projects
k) Demonstrated knowledge of the Public Procurement and Disposal processes a requirement.
l) Good knowledge of computer applications (particularly MS Excel, Word, Access and Power point, STATA) will be an added advantage.

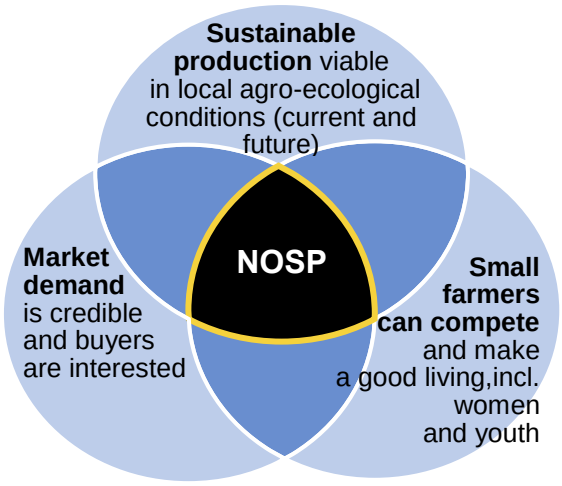
DETAILED IMPLEMENTATION MODALITIES

COMPONENT 1: OILSEED VALUED CHAIN DEVELOPMENT

A. Component Objective and Overall Implementation Approach

31. The objective of Component 1 is to facilitate the growth of competitive, inclusive value chains for priority oilseeds and their associated support markets. NOSP will accelerate the growth of competitive clusters and value chains for oilseeds and pro-actively develop opportunities for further private sector investments in oilseed-related by-products, especially to establish a competitive animal feed industry in Uganda. To be truly sustainable, the commodities and production practices must be well-suited to local agro-climatic condition, both now and in the future as the climate changes (see Figure 1). The clusters for NOSP support will be selected based on the criteria outlined in this PIM. A critical part of the selection process is the detailed analysis of each of the proposed commodities and associated small-scale production systems to establish that there are viable and affordable investment pathways that are accessible to the target group.

Figure 1: NOSP's Nexus of Opportunity



32. In addition, NOSP will support a small number of 'demonstration' clusters in downstream supply chains that add value to the primary supply chain, especially related to soy, such as animal feed and smallholder commercial livestock. Performance of these demonstration clusters will be reviewed at MTR to assess if they are an effective mechanism for further contributing to the development objectives or can be scaled up in a subsequent investment.

33. This component consists of two sub-components designed to invest in the pro-active development of mutually beneficial commercial linkages of smallholders in NOSP-supported oilseeds value chains, in the enhancement of the market-orientation and business skills in the producer groups, and in the development of the productive potential and resilience of farming households in oilseed producing areas. The two sub-components are (i) Cluster Development, covering the primary supply chains through an inclusive cluster development approach in each of the hubs and (ii) Support Market Development, covering supply of essential financial and technical

services and inputs. The activities of Component 1 will be implemented jointly by the NOSP supply chain staff and experts, contracted private service providers and the key stakeholders in the oilseed industry.

B. Cluster Development

34. The NOSP activities under Sub-component 1.1 fall into two categories: (a) supply chain brokering and investment facilitation and (b) producer group mentoring.

(a) Supply Chain Brokering and Investment Facilitation

Cluster selection and verification

35. Cluster selection and validation. For each supported commodity, the potential for local cluster development will be re-confirmed by an initial rapid scan in Year 1. This will evaluate buyers' demand, analysis of the cluster primary actors and supporters, and attractiveness of opportunities to smallholders, especially the next generation of younger farmers and to women and men – each of whom may have differing interests and constraints. The agro-climatic suitability of the crop to the local area will also be reconfirmed, given future climate projections. An opportunity verification workshop will be held for each oilseed crop in each cluster. The findings and evidence from the rapid scans will be presented to representatives of the primary actors (producers, buyers, suppliers) to validate the conclusions and confirm if there are credible opportunities and commitments sufficient to justify the programme proceeding with the specific commodity or cluster.

36. Social Diagnostic Assessment. NOSP will appoint social inclusion and climate/adaptation specialists at PCU to ensure social inclusion and climate related issues are taken into consideration and associated strategies are thoroughly implemented. For mainstreaming purposes, their inputs in group and cluster formation and member selection is critically important. As part of the mapping exercise at the cluster level before the development of the clusters and stakeholder platforms, NOSP will conduct a social diagnostic assessment within each hub at the cluster level to identify social dynamics that should be addressed in the design and implementation of the project. Through this assessment high risk communities with a critical gender imbalance will be identified and intervention approaches will be tailored to mitigate these risks. The assessment will analyse important gender differences in agricultural roles in the production, processing, marketing and sale of oilseeds across the hubs in a systematic way to identify: i) opportunities for and constraints to women's and youth engagement in commercialization of oilseeds, ii) potential negative impacts on women and other social groups due to commercialization, and iii) approaches and interventions to mitigate these potential negative impacts. Based on this assessment intervention approaches will be tailored to mitigate these risks. The assessment will be conducted by the service providers in each Hub, accessing any additional expertise for the analytical aspects as may be required.

37. Gender and youth mainstreaming during producer group and cluster development. Social norms and practices may limit women's ability to substantively participate in and benefit from male-led clusters. Cluster facilitators who are not cognisant of these limitations may not know how to support their inclusion. Therefore, during the cluster development stage, mobilization of new producer groups will include hub staff trained in social inclusion and gender dynamics who will support women to form women's groups (which could be women-only or women-led, i.e., all leadership are women) and facilitate their formation. Discussion about the implications of gendered decisions about membership and leadership will also be facilitated with producers. Depending on the prevalence of women's producer groups in a locality focusing on the same crop, women-led clusters will also be formed. Similarly, discussions about the youth-focused or youth-led producer groups will be held. For all producer groups (new and existing), support for creation of women's VSLAs as part of group activities will be offered.

38. Given the group-based approach and facilitated stakeholder dialogues, special consideration will be given to gender and other social dynamics, particularly age, in the organization and management of farmer groups to ensure the active participation of women and other marginal groups so that their priorities and concerns are reflected in the development of the cluster and hub plans. This will include specific targets for women-led groups in areas where women's active participation in mixed groups is limited and where women prefer this approach. Such groups do not necessarily need to exclude men as members, but membership should be majority women with women leadership. All facilitators/brokers will be trained in gender dynamics to solicit input from women and youth and other marginal groups in mixed groups to ensure that their priorities are reflected in investment plans and selection of services.

Multi-stakeholder platforms (MSP)

39. Clusters and MSPs. The core of the supply chain and cluster development approach is a rolling process of action-oriented brokering, dialogue and investment facilitation among the key actors in each cluster/hub to catalyse investments and remove bottlenecks to increase trading and profits and make the most of practical opportunities for growth. MSPs will be conducted by commodity at two levels, cluster and hub.

40. MSP meetings will be held regularly (initially at least 2 times per year) at the cluster and hub level in each cluster, initially facilitated by the programme team but later jointly by the producers and businesses themselves. NOSP will invite interested stakeholders from commercial service providers and suppliers (of technical or financial services or inputs), government departments, research institutions, insurance companies etc to be members of the MSP and to attend the meetings. As the supply chain and cluster growth becomes more mature the frequency of MSP may be adjusted as required but should be at least once per year in all cases. The MSP meetings will identify practical opportunities and bottlenecks for developing their cluster and corresponding priorities for individual or joint actions. The meetings foster trust among the different stakeholders and creates greater common understanding of the opportunities and challenges. MSPs are the perfect conduit for an enhancing a sense of ownership, developing knowledge, creating linkages between different governance levels and a wide variety of actors (including policymakers and scientists), and, most significantly, improved policy formulation. Therefore, NOSP MSPs are expected to enhance an enabling policy environment at the national and regional levels by the use of the evidence that is being derived from and driven by the stakeholders. Policy related issues emerging from the MSPs will be captured by supply chain specialists and the M&E&L specialist to feed into enhancement of exisitng policies supporting the oilseeds sub-sector (responsibility of the Project Coordinator).

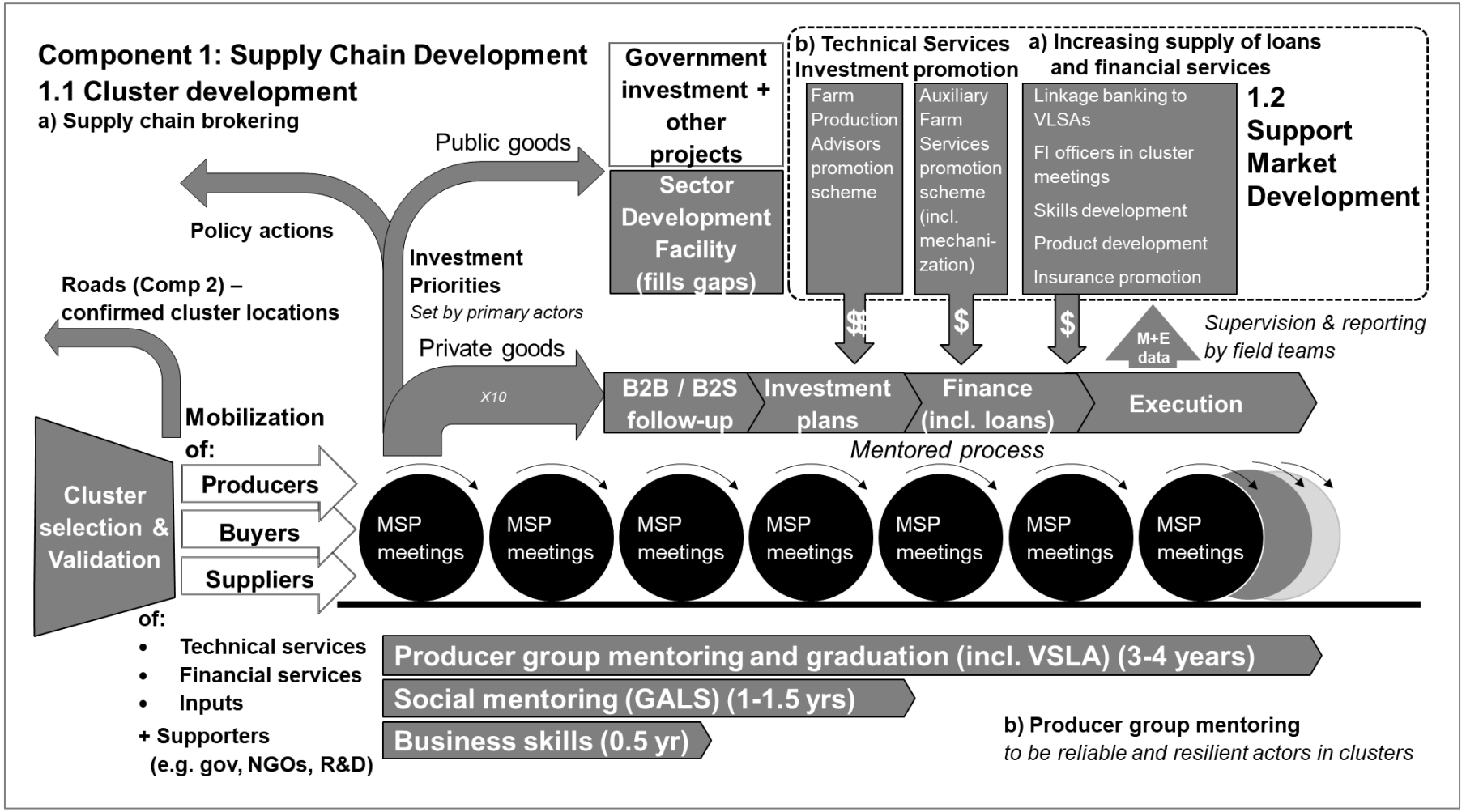
41. Investment planning. The result of the MSP meeting is a non-binding cluster action plan that identifies investment priorities for private and public investments[3] and follow-up actions by the programme and other stakeholders. The rolling cycle of MSP meetings creates a practical mechanism to locally coordinate the support of the various government and non-government initiatives that are relevant and active in the local area.

42. Business-to-business (B2B) follow-up. Shortly after the MSPs (normally within 1-2 weeks), bilateral follow-up meetings should take place, typically between a business (either a buyer or supplier) and a set of producers who met during the MSP and who have identified specific opportunities to do business together. The B2B follow-up meetings will focus on developing and negotiating practical trading plans between producers and buyers/businesses. Experience suggests that it may take three or more follow-up meetings before a final agreement is negotiated depending of the scale and complexity of the proposed deal/arrangement. In turn, the agreed trading plans will often lead to the need for specific actions or investments to be made by the

[3] Including investment for community access roads in Component 2

producers, buyer/business or both. The investments and actions may be taken individually or jointly, depending on what has been agreed. Similarly, follow up meetings/interactions will also take place between service providers (financial, technical, business) and producers/traders in utilizing the available services and products.

43. The diagram on the next page presents the key features of the cluster/MSP-based processes of NOSP and identifies the participants in this market-based value chain development process.


Component 1: Supply Chain Development
1.1 Cluster development
a) Supply chain brokering
Public goods
Government investment + other projects
Sector Development Facility (fills gaps)
b) Technical Services Investment promotion
a) Increasing supply of loans and financial services
Farm Production Advisors promotion scheme
Auxiliary Farm Services promotion scheme (incl. mechani-zation)
Linkage banking to VLSAs
FI officers in cluster meetings
Skills development
Product development
Insurance promotion
1.2 Support Market Development
Policy actions
Investment Priorities
Set by primary actors
Roads (Comp 2) – confirmed cluster locations
Private goods
X10
M+E data
Supervision & reporting by field teams
B2B / B2S follow-up
Investment plans
Finance (incl. loans)
Execution
Mentored process
Mobilization of:
Producers
Buyers
Suppliers
Cluster selection & Validation
MSP meetings
of:
Technical services
Financial services
Inputs
+ Supporters (e.g. gov, NGOs, R&D)
Producer group mentoring and graduation (incl. VSLA) (3-4 years)
Social mentoring (GALS) (1-1.5 yrs)
Business skills (0.5 yr)
b) Producer group mentoring
to be reliable and resilient actors in clusters

Investment facilitation

44. Private investment facilitation. The MSP and B2B meetings will identify areas where investment plans are needed. These should be prepared by the producers and SMEs. It is important that such plans are well informed, credible, realistic and based on sound technical and business analysis without being unduly complicated. In many cases, small producers and SMEs may require specific technical support to prepare well-informed investment plans that can be presented to financial institutions for financing. NOSP will facilitate those requiring support to acquire it from suitably experienced service providers, with a strong preference for commercial service providers. Businesses requiring additional technical support in developing their detailed investment plans will also be supported by NOSP to identify and buy-in the necessary advice. Where the investments are expected to require additional technical or business advice during implementation, the costs of such advice must be included in the investment plans themselves. Such advice may be in terms of better understanding climate risks to the proposed investment, but also to identify technologies or strategies that can help mitigate those risks.

45. Loan financing**.** Where required, the programme will facilitate cluster participants to link to partner FIs to apply for loan finance if needed for their investments. Bank, MFI and savings and credit co-operative officers are expected to already be participating in the MSPs and cluster process, and therefore should be increasingly familiar with the market opportunities and risks by the time the loans application begin to be received. The expected sources of finance for different types if investment is outlined in Sub-comp 1.2, but can be summarized below:

Loan size	**Investor**	**Likely source of loan finance (if required)**
<US$1,000	individual farmers/ individual service provider	VSLAs – either from its own lending capital or with additional funds via linkage banking
$1,000 - $15,000	individual farmers or producer groups	Mature VSLA - either from its own lending capital or with additional funds via linkage banking
	SME	Commercial banks, including project partner banks
$15,000 - $100,000	SME/mature producer group	Commercial banks, including project partner banks

46. Public investment facilitation. A variety of public goods investments are anticipated to be needed to help grow competitive and inclusive clusters. These may include hardware (e.g. upgrading of testing facilities, infrastructure) and software investments (e.g. market research of new markets or action research on improved varieties or production technologies to improve resilience in specific AEZs. There are already numerous ongoing government and non-government support initiatives that need to be linked to NOSP. NOSP will actively encourage them to participate in the MSP processes at either hub or cluster level and help develop a more coordinated support response. The MSP process will create a common understanding of the opportunities and constraints in the clusters and the relative roles that each can play in addressing these with their resources.

47. For the NOSP-supported six MSPs operating at the hub level in the main oilseed production regions, a key target is to pro-actively facilitate private sector investments in value addition operations with the oilseed cake. It is expected that as a result of NOSP activities, the volumes of oilseed procured by the processors from smallholders will rapidly increase. This will create a basis for the establishment of viable large-scale processing facilities for animal feeds. NOSP-supported hub-level MSPs will be used as platforms to inform agro-enterprises of improved business opportunities in this sub-sector as the volume of available seed cake grows. For the interested firms, NOSP will provide projections of future oilseed processing levels and offer targeted support for feasibility studies aiming at

the establishment of animal feed plants. NOSP will also liaise with the EU/IFAD-supported Yield Uganda Investment Fund to link companies interested in animal feed production to the financing and business development services of this Kampala-based development-oriented equity fund.

(b) Producer Group Mentoring

48. **Group formation and mobilisation**. The NOSP target is that all producer groups (whether formally registered or not) should graduate to being fully independent, financially robust and self-managing within four years of project engagement, with a majority of group members and their households having the skills and confidence to grow their farm enterprise, managing climate risks and with fewer social barriers to their development. Mobilization of individuals and households into clusters and programme activities will be led by a team of market-oriented Economic Mobilizers (EM) in each hub, with support from the hub Supply Chain teams. In working with small producers in supply chains, including smallholder farmers, the programme will be free to work with existing producer groups and organizations, and mobilize new producer groups to create a critical mass of 500-600 households in a cluster, who can engage with input and output market service providers. As a general guide, based on past experience, existing groups should only be used as the entry point if a majority of their members want to join the specific commodity cluster concerned. If not, new producer groups should be mobilized.

49. It is expected that the starting point for each commodity in each community may fall into one of three categories and the detailed mobilization process may be fine-tuned to accommodate these different starting points:

- Existing active producer group focused on the target commodity, many of whom will have been supported by VODP2
- Existing production of the target commodity by many farmers but not organized in a producer group
- Minimal current production of target commodity by farmers and no organized producer groups

50. Where production of the commodity is new to the local area or only very traditional production practice are applied, the mobilization process is expected to include additional steps to either demonstrate the intended production system in the local setting or exposure visits to other producers in similar conditions for the producers interested.

51. Activities under the sub-component will focus on three areas:

a) Producer groups mentoring and graduation, including operation of a VLSA in all groups

b) Business skills training to all group members

c) Social mentoring of group members and their households, based on the GALS approach

52. Related to NOSP group formations and selection, women and youth often lack access to information on agriculture, climate change and other development opportunities. Many factors, including women's time burden and social norms around who gets invited to trainings and limited mobility, may hinder women's participation in trainings, meetings, and agricultural demonstrations. Understanding and addressing the constraints to women's participation in group trainings or demonstrations at the local level can help identify

strategies for increasing women's involvement. Therefore, with the aim to reduce gender-based barriers to participation, NOSP will schedule meetings at safe and convenient times and locations, providing childcare or allowing children to participate wherever possible.

53. Similarly, group composition also matters—whether husbands and wives attend meetings jointly or women attend in single sex groups depends on the social context. When women-only groups or events are initiated it may be necessary to provide men and/or community leaders with information about the purpose of these groups so that they support women's attendance. In addition, the call for bids for various services/training as outlined in the cluster investment plans will require applicants to provide a description of their approach to ensure social inclusion and mitigate social and environmental risks.

54. **Producer groups mentoring and graduation.** This will be delivered through coaching of the group in-line with the natural stage of development of the group itself and its next target level of development given its own plans in the cluster and beyond. This coaching also involves the use of self-diagnostic and self-improvements tools, so each group can "own" its development process and regularly benchmark its strengths and weakness against objective measures. Mentoring is expected to be provided for approximately 4 years for newly mobilized groups, on a reducing basis. For more mature groups, such as some from VODP2, approximately 2-3 years of mentoring under NOSP are envisaged while they increasingly commercialize.

55. Where sufficient numbers of women are motivated to do so, NOSP will support them to mobilize their own producer groups, not to the exclusion of men as members but, where women want to ensure they hold the leadership roles in their own group. All supported producer groups will be offered the opportunity to set-up and run their own VLSA if they wish to (see VSLA section below).

56. **Business skills training.** Skills training for farmers are vital if they are to succeed in the supported clusters. Being better able to assess the likely cost and benefits of investing in their farming enterprise will equip rural households to make more informed choices as to the real affordability of finance and loans to support their farm investments. It is especially important that young women and men gain these business skills and so will be prioritized for these activities.

57. Business skills training, focused on farming as a business, will be provided to all interested individuals in a cluster through a peer-to-peer process. Business Skills Mentors (BSMs) will be nominated by each group from among their peers and will then be trained to provide business skills in their local community. They will be paid by the programme for delivering training sessions and are expected to gain high levels of skill and confidence, contributing increasingly to supporting the preparation of farm investment plans and helping with collective negotiations between their group and traders / buyers. As residents in their community, these skills will remain after the programme and continue to be available to support their peers in the future in preparing investment plans, loan applications or joint negotiations with new buyers and so enabling easy replication and scaling-up of successful models. The scope of the business skills training will focus on:

(a) Financial literacy and household economy;
(b) The importance of saving and how to do it;
(c) Farming as a household business, including record keeping and climate resilience considerations (similarly for other non-farm household enterprises);
(d) The changing climate and how to factor it in to your business decisions;
(e) Group management and governance for business purposes;
(f) Commercialization, marketing and negotiation – becoming a reliable player in the market.

58. On climate resilience, the producers will be guided through a facilitated process to re-confirm that the product for the cluster they have chosen to join is a sensible choice for them individually given the local agro-ecological conditions and expected local impact of climate change. The process will also help farmers to consider if there are specific 'no regrets' adaptation or investments to their intended production practices and investment plans that would increase the climate resilience of their farm investments, thereby reducing the chances of failure.

59. A lead technical service provider will be procured to upgrade/design the business skills training materials to be used by the Business Skills Trainer as we as the ToT for the cascade training down via the Economic Mobilization teams in each hub. The lead technical service provider will work closely with the PCU M&E team and Supply Chain teams to design appropriate farm business diaries to be used in the business skills training and integrated into the MIS system. The lead service provider will deliver ToT to the Master trainers working for the Private Service Providers (PSP) in each hub. They will also provide ongoing supervision and quality assurance of the delivery of the training by the different PSP. Teams of Economic Mobilizers in each hub, contracted by the PSPs, will deliver ToT training to the Business Skills Mentors and provide on-going backstopping and follow-up. They will also administer all payments and support to the BSMs for their activities.

60. **Social Mentoring.** To improve the chances of reaching its development and impact targets, NOSP activities will include the implementation of Household Methodologies (HHM) that encourage participatory household visioning, livelihood planning, and promote gender-sensitive farm business development to ensure that households are able to maximize their socio-economic progress. The HHMs are participatory methodologies that enable family members to work together to improve relations and decision-making, and to achieve more equitable workloads.

61. NOSP will roll out HHMs through group-based implementation and individual household mentoring by trained mentors. The methodologies will enable farmers to identify common areas of gender inequality limiting women's and youth's development specifically in value chains and household/community progression. The roll-out of HHMs will be coordinated by the Social Inclusion Specialist in the PCU.

62. At group level mentoring, Gender Action Learning System (GALS) participatory visioning and action planning tools such as road journeys/calendars, concept trees, circle maps and diamonds will be introduced. These tools have strong gender-justice focus and activities are supported by peer learning structures for group development and business planning, discussing opportunities to assist women and youth in effectively engaging in oil seeds value chains, identifying and improving common areas of gender inequalities, gender-equitable representation in group leadership and decision-making, and opportunities for improving food security and nutrition.

63. The issues to be focused during group discussions will be confirmed at the start of the project and together with group members. However, the key issues identified during VODP2 and during project design field visits include the following:

i. development of group and household vision to achieve increased benefits along oilseeds value chains
ii. women's and youth's meaningful representation in group leadership and decision making
iii. women's and youth's access to and control over resources and benefits/expenditure
iv. joint decision making of group and household resources and opportunities at all levels of value chain- planning, production, harvesting, marketing and investment of profits

v. understanding of requirements for nutritious diets for children and adults and innovative uses of oilseeds in the diet
vi. equitable workload distribution and use of labour-saving technologies to reduce women's drudgery
vii. gender-based violence and alcoholism.

64. High risk families within the groups will be identified based on lower income, lower levels of production, poor nutrition, prevalence of gender discrimination, lack of saving and borrowing practices and high vulnerability to economic and environmental shocks. All household members (women and men, youth, the elderly and children) from these select families will receive individual household mentoring to address specific gender equality issues such as household decision-making and control over productive resources, domestic violence and poor nutrition. The household members will go through a four-step process (see diagram below) to ensure that the collective vision reflects their different interests and priorities, and identifies their roles in implementing the action plan. Detailed processes within each step is given in Toolkit: household methodologies. The revised manuals for the GALS that incorporate nutrition and climate change will be utilised for the NOSP.

65. For about 1200 farmer groups with 20,000 households identified as high-risk families, approximately 2600 mentors will be trained in HHMs, two for each farmer group. The two mentors can work together to conduct group sessions and to divide households for individual household mentoring (but focusing on the same households they decide to choose throughout the process). At group level, 2-3-hour sessions will be conducted every week for each group over a period of 1 year. Similarly, each mentor can be responsible for mentoring eight to ten households with one visit every two to four weeks over a period of 1 to 2 years. The frequency of these visits may be reduced over time as the households become accustomed to the methodology and show positive changes. Many household members from the graduate households also share the methodologies with others and become peer trainers. HH mentors will receive training from equally trained Field Supervisors contracted by the service provider responsible for this activity. One Field Supervisor will provide technical support and oversight to 10 mentors. Mentors will also receive a bicycle to support their daily commute to groups and individual households for mentoring. The project will complete the implementation of HHMs by mid-term of the project cycle.

66. Monitoring progress towards the group and household vision through the HHMs is necessary to maintain momentum among group and household members and to keep activities on track. Group and household members will be oriented to hold regular meetings to review, reflect and document their progress. Meetings will also be held with other groups and households undergoing the same process, together with facilitators and peer supporters. This will help farmers to learn from one another. Reporting will be on indicators identified by group and household members gathered during discussions, group and household profiling, situational analysis. The indicators will also be in line with project logframe. Special attention will be paid to key issues identified above, particularly with regard to decision-making processes in the group and household, workload distribution, group governance, benefits sharing etc.

67. Farmer groups and households will be oriented to document their progress in a standard format in their record books. In addition, NOSP will set up periodic follow ups by mentors and field supervisors to check on the status of both groups and ongoing and graduate households. A short survey will be developed by the Social Inclusion Specialist together with M&E Specialist to help the mentors and field supervisors capture information on uptake of the methodology.

68. Overall in NOPS activities, women and youth will be prioritised for leadership roles in groups and clusters. In HHM, for both group and individual mentoring, having a female mentor can be more comfortable for women and girls to open up, particularly in a society where there is high prevalence of gender discrimination and persistent patriarchal attitudes. Therefore, NOSP will hire at least 80% female mentors and ensure female mentors are assigned to proportionately match female headed households and groups that are women-led and have more women members. Similar to mentors for HHMs/GALS, female and youth Business Skills Mentors (BSMs) will also be prioritized. BSMs are residents of the communities they work in, nominated by each group from among their peers and then trained to provide business skills in their local community. Incentives will encourage groups to identify female and young group members through additional financial support via a subsidy to the service provider. In addition, access courses that provide basic knowledge such as numeric literacy will be provided to women and youth who are motivated to become BSMs but lack some basic skills.

69. **Environmental Approach in NOSP Group Training.** In all its capacity building activities with oilseed producers, NOSP will pro-actively promote climate smart and otherwise environmentally healthy agricultural practices and investments To increase environmental sustainability, the project will select and promote renewable or other environmentally-friendly technologies, such as dryers that use crop residues instead of fuel wood, to avoid deforestation. Agricultural machinery, such as minimum tillage planters will be subsidized. Environmental assessments need will be conducted before the development of practices that have environmental implications such as small-scale irrigation so that these interventions are rolled out in areas with good potential for irrigation. Water saving irrigation technologies, like drip or micro-jet irrigation, will be used where feasible. Other technologies like irrigation scheduling tools that monitor soil moisture levels to prevent over-watering may also be used. Other precision agriculture practices, such as precision fertilizer application, will be promoted to increase resource efficiency. In general, integrated soil fertility management (the combination of organic and inorganic fertilizers), will be needed to sustainably intensify agricultural production and increase resilience to climate changes. Such practices may also relieve pressure to expand agricultural lands by increasing the intensity if agricultural production.

70. While the focus of NOSP is on commercialization of selected oilseed crops, the project will promote diversification of production to mitigate climate risks, improve nutrition, and ensure women retain control over and benefit from crop production after commercialization. Agroforestry will also be promoted as a practice for diversification and soil fertility management. The species promoted will be carefully selected with the priority given to indigenous and fertility enhancing species and fruit trees that have economic and nutrition benefits for the smallholders.

71. NOSP Groups will be trained on the use of climate information, how to deal with climate risk and the design of contingency plans. Climate change generates significant risks to a reliable supply of oilseeds and sufficient information will be made available to calibrate appropriate responses and contingency plans. There is a significant amount of uncertainty on the effects of climate change on oilseed production in Uganda. It is essential that as the new climate regime for this area takes hold farmers have sufficient information to choose the most appropriate responses. Smallholders in the NOSP target area expressed concern regarding the accuracy and reliability of the weather information they receive, which hinders effective planning at the farm level.

72. NOSP will provide extensive training and technical support to targeted smallholders through SPs and the hub-level project staff to better interpret weather/climate information and integrate it with indigenous practices to strengthen their adaptive practices. This will, in essence, promote the use of the weather and agricultural advisories in farming decisions to strengthen resilience. Climate risk vulnerability assessments, downscaled to sub-county level, will be undertaken by a service provider. The SP will apply the Participatory Integrated Climate Services for Agriculture (PICSA) approach, or another similar method, once they have received training of trainers (ToTs). PICSA uses historic climate trends to develop tailored farmer groups support and to improve their capacity to use such data for improved risk management in cropping activities

73. The sub-county level assessments will involve several steps:

(i) map the historic climate trends based on experiences of the smallholders (representatives from the clusters) within the sub-county and compare these with existing records;
(ii) identify impacts of previous climatic events on livelihoods;
(iii) analyse existing coping strategies and factors that lead to smallholder vulnerability;
(iv) use climate projections based on the downscaled models to develop scenarios and identify options to reduce smallholder's vulnerability and to manage climate risks; and
(v) prioritise the risk management options and inform the farm level investment decisions, cluster plans and Hub plans.

74. These activities will support monitoring and modelling of current and changing conditions related to crops and water management, and develop tailored advisories drawing on weather and seasonal forecasts, crop modelling, fertilizer application and irrigation scheduling for target sub-counties. The climate information system will be based on Earth Observation and existing weather stations if data is available. NOSP will promote the dissemination and use of client-tailored weather/climate-based agricultural advisories to ensure smallholders receive the information they need for planning and decision-making. The information will be disseminated in local languages through voice messages or SMS based on the preference of the smallholders in each cluster.

75. The availability and use of locally specific climate information will reduce uncertainty and support farmers to make better informed decisions, e.g. on which crop to plant depending on the coming season, which variety to plant, if and when to invest in fertiliser applications etc.

76. NOSP will provide all targeted clusters with rain gauges and temperature recording equipment to collect accurate field data. In addition, train the farmers to analyse and use this data for adaptation in their farming practices within the context of the participatory approach to climate information services.

77. Access to improved crop varieties with characteristics suitable for different locations and new growing conditions (including prolonged droughts, heatwaves, and even more frequent and longer flooding) is essential to the long-term engagement with oilseed markets. NOSP will promote different climate smart agriculture practices to contribute to the Nationally Determined Contribution priorities by scaling up practices such as minimum tillage, mulching and other soil and water conservation measures and improved water use efficiency and farm management. New and promising genome editing techniques are producing genetic material that address new and adverse growing conditions.

78. Drought tolerant varieties particularly for soya beans can also be promoted through NOSP using existing varieties demonstrated at the local level. This would involve

adaptive trials to inform the sub-county specific varieties to be promoted. Most smallholders conveyed the performance of sunflower during dry spells was relatively better than soya beans.

79. Building on the ongoing (and continuing) mapping of agro-ecological conditions, soil characteristics and climate risks, facilitators/brokers will be briefed on the findings and trained to solicit additional input from farmers through the farmer organizations and other actors within the stakeholder platforms on local environmental changes and challenges as well as ongoing coping and adaptation strategies and desired interventions to address climate and environmental risks. Further, NOSP will build capacity of MAAIF and UNMA technical staff in the interpretation and use of available downscaled climate models and earth observation systems generated information. Training activities will include: climate data interpretation and use of historical climate trends and future climate change projections, seasonal and short term forecasts, in decision making and planning at sub-county level; dissemination of information for use by sub-county staff and SPs; processes to incorporate climate information and environmental management into farm-level planning; participatory vulnerability assessments and monitoring approaches on environment and climate change.

80. Finally, NOSP will also promote natural resources management through the network of land health sites that will be established in select locations. The sites will enable the spatially explicit monitoring and modelling of land health and agronomic suitability. Land health surveys will be undertaken to establish baseline conditions of soil constraints (including soil fertility assessments), as well as land use and land cover, assessment of farming practices, assessment of tree and shrub densities, infiltration capacity and erosion prevalence. Data from these surveys will be used to conduct spatially explicit crop modelling exercises and trade-off analysis. The data will also enable the analysis of proper current and future land management actions in the catchment areas in order to reduce runoff and erosion in the farming areas.

C. Support Market Development: Objective and Activity Structure

81. Service market development forms a vital part of the supply chains development process. Vibrant support markets, including commercial supply of inputs and services are essential for sustaining competitive clusters and also for enabling other clusters to emerge to copy the initial successes. Within profitable clusters and supply chains, the costs of such services and inputs should be an affordable standard business cost for producers and businesses and should not require external subsidy. NOSP will therefore focus on facilitating investments that develop, in a broadly harmonised manner, the demand and supply of these market-based services and inputs in the clusters. The objective of Sub-component 1.2 is therefore that there are active and vibrant market-based providers for these critical services in all project-supported clusters. The approach to achieve this will be to promote both supply and demand for these services in tandem. NOSP will focus on two critical type of services markets: (a) financial services and (b) technical support services, which will include three main interventions: Farm Production Advisors Scheme, Auxiliary Farm Services Promotion Scheme and Quality Declared Seed Production Scheme.

D. NOSP Support to Financial Services

NOSP Rural Finance Approach

82. NOSP investments in rural financial services aim at increasing the investments by financial institutions (FI) in the oil seed value chains. They will largely focus on improving the access of smallholder farmers to financial services as other value chain actors (processors, traders) have easier access to these services. The project's strategy of de-risking smallholder production and building resilience in farming households will improve farmers' negotiation position with FIs. At the same time business and financial literacy training and crop insurance will facilitate greater flow of financial services to the producers. All TOR for rural finance-related posts and tasks are at the end of this Chapter of the PIM.

83. The project will adopt a three-pronged approach aiming to ensure access to timely and adequate financial services of the oilseed farmers and other actors in the value chain. It will consist of the following interventions:

a) Strengthen and build capacity of the Village Savings and Loan Associations operating within the oilseed farmers' groups and clusters and proactively link them to financial cooperatives (SACCOs) and regulated financial institutions

b) Build capacity of well established SACCOs and producer co-operatives that offer production and marketing credit to farmers either individually or through the VSLAs

c) Co-operate with and build capacity of regulated financial institutions in developing innovative and appropriate financial products for actors in the oilseed supply chains, from linkage banking with smallholders to more develop value chain financing products.

Implementation of Rural Finance Activities Supported under NOSP

(a) VSLA Support

Identification and Mobilisation of VSLAs

84. The contracted PSPs will first map and ascertain within the selected clusters the presence and position of the VSLAs in the producer groups. Working with existing producer groups without VSLA, the PSPs will sensitise the farmers to the VSLA concept and the benefits that belonging to a VSLA can bring to the farming households. The interested farmers will then be grouped into VSLAs of an average 25 members.

85. Working with farmer groups with existing VSLAs, the PSPs will need ascertain whether the members want to continue with their existing VSLAs or join a new one consisting solely of oilseed farmers. Some producers are likely to be members of two different VSLA, if that serves best the economic needs of their household economy.

86. Because of the positive economic and social impact of the VSLAs on their members and because of their importance to the financing of the smallholder oilseed activities, all the active participants in the NOSP clusters and farmer groups are by the mid-term of the project expected to be members of a VSLA. The target is that NOSP supports at the end of PY1 around 2,600 VSLAs. This number would grow to 3,800 by the end of PY2 and to the final target of 4,600 VSLA by the end of PY3. This number would in practice cover all the 100,000 smallholder households that NOSP aims to reach with the Component 1 support.

Basic Training of VSLAs

87. With NOSP support, the key staff of the contracted PSPs (EM managers, EM supervisors and VSLA facilitators) will undergo a five-day training on VSLA concept, governance, duties of members, basic savings and credit operations and bookkeeping. These trainings will be arranged at the hub level by the PCU through trainers from VODP2/PROFIRA. The trained VSLA facilitators in turn will train new VSLAs and also those old VSLAs that need refresher trainings. The trainings to VSLAs will be conducted as a part of VSLA group meetings using the standard participatory VSLA training methods.

Financial Product Development in VSLAs

88. There are clear opportunities to develop VSLA products to better fit the needs of the oilseed farmers. VSLA Facilitators and Economic Mobilisers (EM) will facilitate discussions on savings, credit and insurance needs of VSLA members as part of their business plans and support the development of new products for the VSLAs. NOSP will support the groups to operationalise the products after they are approved in the VSLA meetings. Particularly promising new products and innovations VSLA method include partial rolling over of savings capital to the cycle to allow bigger loans; specific "agricultural savings accounts" to ensure capital for next season's inputs especially planting seeds; innovative interest rate structures to allow lower rates and growing season-related repayment schedules for agricultural loans; and insurance premium saving funds. The NOSP target is that by the end of project period, 60% of supported VSLAs roll over savings to the next cycle and 90% of them have introduced innovative savings and loans products.

Financial and Insurance Literacy Training

89. Training material modifications. The project will identify a reputed and experienced trainer/training agency which has capability to study and modify the existing financial literacy training materials being used for training VSLA members. Service providers of PROFIRA and VODP have been using financial literacy modules developed by the Bank of Uganda and making suitable modifications as per beneficiaries' needs. The BoU has developed financial literacy module for smallholder farmers with support from GIZ. The contracted training agency will fine tune the materials to suit the needs of the oilseed farmers. Insurance literacy materials, especially crop insurance, will also be developed/modified. The insurance section will look at (i) agriculture as a business, (ii) risks involved in crop production, (iii) risk transfer mechanisms and (iv) agricultural insurance product literacy. The modules will include responsible financing practices and customer protection aspects to ensure that target groups understand the terms and benefits of the products as well as know the right questions to ask before purchasing the products.

90. The materials developed will be vetted and finalised by a small advisory group to be constituted by the PCU (the advisory group will be 2 to 3 members who will have

virtual meetings when necessary and also vet the material electronically). INSURED, working to develop crop insurance products for Uganda, with a grant facility implemented by IFAD, will be part of the advisory group to improve the insurance content in the insurance literacy material. Where necessary the materials will be translated in local languages. The training materials will be oilseed farmer-friendly, following adult learning principles and participatory training methodologies and will have short case studies, role plays and stories for discussions for easy absorption of lessons.

91. Training of trainers on financial literacy. EM Managers, EM Supervisors, Economic Mobilisers and VSLA Facilitators will undergo training of trainers programme for 5 days with hands on training on the financial literacy materials developed. The training will be conducted by the trainer/training agency which modified the training materials, with support from other trainers where necessary. For example, for insurance related training, trainers from agri-insurance consortium can be invited. Some of the PSPs will have in-house trainers and depending on area of expertise, will also be involved in delivery of the training.

92. Training of VSLAs on financial literacy. VSLA Facilitators will primarily be responsible for delivery of the trainings on financial and insurance literacy to VSLAs. The trainers will carry out an assessment of how many on which type of modules each VSLA needs since some of them might have undergone such trainings under VODP/PROFIRA or other projects. A schedule will be prepared for each VSLA Facilitator for delivery of training. During group meetings, after the financial transactions are completed, the VSLA Facilitator will deliver one to two-hour modules of financial literacy training. Following adult learning principles, participatory training methods will be used.

93. VSLA Facilitator will deliver two to three trainings per day as part of group meetings. S/he will be supported by EM Mobiliser but also EM Manager/Supervisor, where needed. The NOSP target is that 70% of old and new VSLAs will under the project undergo complete financial and insurance literacy modules and 100% of VSLAs will undergo the insurance literacy modules.

VSLA – Financial Institution Linkage Banking

94. VSLAs will be savings and credit-linked with SACCOs and financial institutions based on the need in each VSLA. Some banks offer special savings accounts to VSLAs like Post Bank, Centenary Bank and Opportunity Bank. Very few banks have robust credit portfolios of the VSLAs.

95. Savings linkages. For safekeeping of VSLA savings, special products will be developed by which VSLAs that will earn interest on the savings. These savings products can be offered through nearby agent banking outlets for easy operations or by using mobile applications.

96. Credit linkages. Based on individual credit needs and limited funds available with VSLAs, the credit gap will be assessed that can be met through well designed credit linkage products. The PCU will sign an MoU with few interested banks and also SACCOs and provide them technical assistance to design new product or modify their existing VSLA loan products, to suit production credit and equipment and irrigation financing needs of the VSLA members.

97. Since the branches of financial institutions are at regional level or at best at district headquarters, the Hub Coordinators will negotiate with the branch managers

regarding the loan application and disbursement processes to ensure low transaction costs to the VSLA members. To ensure adequate business for the bank branch and also optimising the transaction costs, the loan applications in a cluster covering a number of VSLAs will be submitted at least two months before the season to ensure timely disbursement of loans. The following two options will be explored based on location of branch and location of VSLAs:

- VSLAs submit papers to an agent of the financial institution locally. Credit Officer visits the VSLAs, completes loan appraisal and the loan is sanctioned and disbursed through the branch. The repayments are made through the agent.
- VSLAs in a cluster, facilitated by VSLA Facilitator, approach the bank branch. Loans are appraised, sanctioned and disbursed through the branch and the repayments are to be made to the branch through the account or through mobile wallets.

98. Training of hub and PSP staff in VSLA bank linkages. Training will be organised at the hub level for key hub staff and PSP EM Managers, EM Supervisors, Economic Mobilisers, VSLA Facilitators on VSLA–SACCO/bank linkages. Resource persons from the banks' Head Offices, bank branches, Rural Finance Manager of NOSP (see TOR of Rural Finance Manager above under the PCU) and technical assistance provider to the product development will provide two-day trainings. The topics to be covered include the key features of the VSLA savings product, VSLA credit linkage product, documentation requirements, loan processing and disbursement procedures and the monitoring of the loans. Bundled insurance with credit product will also be detailed during training in cases this product is offered.

99. Training to VSLAs. VSLA Facilitators, with support from EM Supervisors, will provide training to VSLAs on the VSLA savings and credit linkage aspects. Such training will be given to those VSLAs that are to be savings/credit linked. The NOSP target is that 3,000 VSLAs are expected to have a VSLA savings account and that 2,600 VSLAs (60%) are expected to be credit-linked at least once with formal financial institutions/SACCOs.

100. Monitoring of VSLA level interventions. Hub Coordinators will be responsible to ensure that VSLAs are formed and capacitated well. The PSP EM Supervisors and Managers will oversee the work of VSLA Facilitators to ensure all the trainings are well delivered. VSLA reports on membership, savings, loans (internal and external) and portfolio quality will be collected and analysed every month by PSPs and Hub Coordinators to take corrective action. The EM Supervisors and Managers will ensure that cluster-wise credit need assessments are carried out at least two months before each season so that credit linkages with financial institutions will be forged to bridge gaps.

(b) Support to SACCOs and Other Cooperatives

101. Selection of SACOs/cooperatives. As a first step in this activity, the project will coordinate with PROFIRA to identify the SACCOs working in the project area. Discussions with service providers of PROFIRA reveal that SACCOs do not have specific products for agri lending. Two kind of cooperative organisation can benefit from NOSP rural finance support:

- A and B-graded SACCOs, being strengthened by PROFIRA, based on their interest, will be provided technical assistance to develop products for agriculture lending in the oilseeds sector.
- Agricultural cooperatives in the project area, being formed by VODP2 and already operating financial services as their function, can qualify for technical assistance after due diligence, if they fulfil the following criteria: (i) good governance with Board meeting attendance of more than 80%; (ii) 65% members saving regularly; (iii) at least 40% members have availed loans in the last year; (iv) repayment rate of more than 85% during last year; and (v) operate a functional MIS system with data accuracy.

102. Technical Service Provider. Technical Service Provider (TSP), based on past proven record of developing agri-lending products for cooperatives and other financial institutions, will be chosen one each for each hub. The Hub Coordinators will oversee this technical assistance. The TSP will work with on an average 20 SACCOs/other cooperatives (see TOR at the end of this Section). The project and each SACCO/cooperative would enter into an MoU specifying the nature of the project support and its expected outputs.

103. TSPs will study the demand for different agri-ending with the oilseed farmers. The risk profiling of the farmers in the area will be carried out and the measures to de-risk agri-lending products will be defined. The loan products would include loans for crop production costs, tools and equipment and small-scale irrigation.

104. TSPs will work with the management/Credit Officers to define the product features and make suggestions for any changes in loan appraisal and monitoring systems. TSP will train the Board and management on the proposed products, facilitate roll out of the products, mentor the Credit Officers in appraisal and monitoring of the loans and assess the results of the products before facilitating a full roll out. TSPs will also aim to facilitate wholesale loans to the cooperatives from lenders such as MFSC and aBiTrust to expand the outreach and portfolios of cooperative financiers among oilseed farmers. Each SACCO/cooperative will be supported by NOSP for about 30 technical assistance days, spread over 18 months.

105. The target of NOSP is that about 75 SACCOs/other cooperatives will receive TA during the initial four years of implementation. Furthermore, on an average some 300 smallholder farmers either individually or through their VSLAs are expected to avail agri-loans from each of the supported cooperative.

106. Monitoring. Rural Finance Manager of NOSP and the Hub Coordinator will directly monitor the progress in this technical assistance to ensure smooth implementation. TA providers will submit a detailed report on the specific inputs provided to each SACCO/cooperative and the outcome achieved by the end of the support period. SACCO/cooperatives will provide monthly progress reports to Hub Coordinator on the performance of developed loan products.

(c) **Engagement with Formal Financial Institutions**

Pro-active Advocacy to Engage Banks and Insurance Companies

107. The NOSP Project Director (PD), supported by Rural Finance Manager, will arrange high level meetings with the senior management of the BoU and those formal financial institutions that show interest in the provision of financial services to the oilseed value chain. Representatives of senior management of insurance companies offering crop insurance will also invited to these discussions. The main objective will be to make these services available to smallholder farmers and other actors of the value chains, preferably at affordable interest rates with the support of the Agricultural Credit Facility (ACF) of the BoU. These discussions will be held bi- annually in Kampala, in the initial two years to build understanding on the needs of the project and to facilitate formal agreements between the ACF, the BoU and the participating banks. IFAD will field an Implementation Support Mission once the project management team, especially the Rural Finance Manager, has been recruited, to facilitate a better understanding of the project design among the banks and to participate with the PD and RFM in first round of discussions with the BoU, the ACF and key financial institutions.

108. These initial meetings will be followed up with one-to-one meetings with senior management of the interested financial institutions with the aim of signing a Memorandum of Understanding (MoU) for the co-operation between NOSP, the ACF and the financial institution. The MoU would include the description of the NOSP support to each financing partnership. Similarly, the project will sign MOUs with insurance companies offering crop insurance in the project area as well as tri-partite agreements between insurance companies, financing institutions and NOSP to offer bundled insurance products.

Hub-Level Planning and Coordination Meetings

109. Hub Coordinators will convene quarterly meeting between the project, local bank branches and SACCOs interested in lending to the oil seed value chain. Institutions receiving technical assistance will attend. PSPs will inform the meetings about the credit needs of different VSLAs and discuss the plan on financial linkages for the next quarter. Any operational issues can also be discussed and sorted out. Quarterly meetings will be convened in the initial three years, after which the frequency will be reduced to semi-annual meetings.

Policy and Knowledge Management Briefs

110. The project will produce policy and knowledge management briefs based on its experiences in rural finance product development and implementation, especially on innovative credit instruments and crop insurance piloting with oilseed producers. Technical assistance providers will prepare briefs based on their field experiences which will then be edited by contracted professionals and disseminated to a wider public. The NOSP aims at signing MoUs with at least four financial institutions for financial services to oilseed farmers under innovative financing instruments, including equipment financing for entrepreneurs. Further, it aims at signing MoUs with at least two insurance companies and four financial institutions to offer crop insurance. From these partnerships, NOSP would produce at least five knowledge management products and share them in Agriculture Finance Platforms and other rural finance channels.

Technical Assistance to Formal Financial Institutions

111. **Technical Assistance, partnerships and the ACF.** At the NOSP start-up, Hubb Coordinators will carry out mapping of bank branches and their agent network. Based on this mapping, the Rural Finance Manager (RFM) of NOSP will hold discussions with senior

management of financial institutions, to support the selection of appropriate FIs for the NOSP technical support. Key criteria for this support will include (a) strategic intent to finance agriculture especially in the oilseed value chain, (b) appropriate branch and agent network for easy access, (c) availability of products for agriculture lending and readiness to modify/develop new innovative products, and (d) credit staff with skills in agri- lending. The NOSP design findings indicate that a substantial number of BoU-regulated FIs are interested in cooperation with NOSP in rural finance operations, including banks, insurance companies and regulated deposit-taking MFIs.

112. The Rural Finance Manager, with the support of agri-finance consultants, will conduct a quick due diligence on the candidate financial institution's strategy, capacities and performance in agricultural financing. Based on an adequate strategic fit to project's requirements, the NOSP management will agree with Board of Directors/Senior management of the financial institution on the required scope of technical assistance needed by the bank to achieve the agreed performance targets in the oilseed value chain. Thereafter the PCU will enter into an MoU with the participating banks, which includes the details of the NOSP support and specifies the outcomes to be achieved from each partnership.

113. If the oilseed production loans are developed by the bank into a separate, clearly defined loan product, the financial institution can apply for refinancing from the Agricultural Credit Fund (ACF) of the BoU. The RFM will work with financial institutions and ACF to achieve this result. That would be beneficial for all partners in this type of co-operation: (a) smallholder farmers will be able to get loans at 12 % rate of interest declining balance, (b) banks will be able to source loans at 0 % from ACF and lend at 12%, and (c) ACF will increase its currently low disbursement rate and will have access to large numbers of smallholder farmers.

VSLA Linkage Banking for Agriculture

114. Few banks, mainly Post Bank and Opportunity Bank, offer wholesale lending products to VSLAs for the VSLAs to on-lend to their members. Other banks tend to offer individual group members, using the VSLA as a guarantor for individual loans. There is substantial potential develop the wholesale linkage model through the VSLA mechanism, adapted to the production and marketing cycles of the oilseed crops. Based on individual member demand for credit, availability of funds at VSLA and assessment of the credit gap, NOSP-supported VSLAs could be financed in much larger numbers through wholesale loans by the financial institutions. NOSP will support the wider application of this lending model in the project hubs. Crop insurance bundling with these credits will also be piloted and scaled up.

Support to Value Chain Financing in Oilseed Sector

115. The Project's a multi stakeholder platform for each oil seed cluster consisting of major stakeholders including input suppliers, producers, research/extension service providers, aggregators, millers and financial institutions. This would help develop a common understanding among the stakeholders on the financial requirements of each value chain. Through the MSPs and the related NOSP interventions, value chain agreements would be forged between agribusinesses and farmers with clearly established relationships, contracts and formal agreements. These would form the basis of value chain financing. The likely value chain financing arrangements for producers include: (i) agro supplier input financing

(for seeds and inputs); (ii) processor/miller financing; and (iii) trader financing. Possibilities of bundling crop insurance with credit will be explored, piloted and rolled out.

116. The NOSP rural finance experts and TA would study the existing relationships and value chain mechanisms between farmers and agri businesses. The TA along with Hub Coordinators and Agri-Finance Consultants would identify agribusinesses with clear intention of increasing their business through VCF arrangements. Various options of financing including requirements of farmers would be initially discussed with agribusinesses. Joint consultations among agri-businesses, farmer groups and FIs would be held to work out the terms of partnerships. Thereafter, Tripartite Agreement between banks, agribusinesses and farmers organisations would be entered spelling out the detailed terms of financing. TA from NOSP would seek to design repayment mechanisms around value chain cash flows to ensure full recovery of loans provided to the value chain actors.

117. Once the Agreement with an FI are signed, NOSP would provide the bank staff in-depth training on the relevant aspects of financing in the oilseed value chain. Senior managers, Branch Managers, Credit managers and other key staff of branches would be trained by the project. The TA will be primarily responsible for the training and where necessary, additional trainers will be hired. Technical assistance will be provided to about four to five financing institutions with strategic fit to the project. At least six to eight agri-financing products would be modified/developed, piloted and rolled out with NOSP support in the project. At least ten value chain financing agreements would be reached serving the NOSP clusters.

Exposure Visits

118. The project will facilitate three study tours to visit financial institutions in countries where value chain financing and other innovative financing mechanisms have been adopted in large scale. These countries can include Ghana, Kenya, India and Netherlands. Relevant senior officials of MFPED, MAAIF, BoU and participating financial institutions will take part in these exposure visits.

Course for Bank Staff of Value Chain Financing

119. The Uganda Institute of Banking and Financial Services has developed 3-month certificate course for value chain financing for the frontline staff of the financing institutions. The certificate course has been developed with technical assistance from GIZ and a group of 15 certified trainers in VC financing in the institute offer the course which, in addition to classroom work, will include field-based working assignments.

120. NOSP will work with the Institute to offer a 3-week training course in oilseed value chain financing to the key agricultural staff of banks participating in NOSP and offering services to the NOSP clusters. Out of 15 days of training, 6 days will be classroom-based and the rest will be field-based. An agricultural insurance training module, already developed by AIC, will be updated and delivered by the AIC as a part of this course targeting the key branch staff and Credit Officers of the banks.

(d)Agricultural Insurance-Specific Interventions

121. **Training on crop insurance for hubs and PSPs.** The PCU will arrange hub level trainings for key hub staff and PSP staff including VSLA Facilitators. AIC resource persons will carry out the trainings covering topics such as the importance of agriculture insurance as a risk management tool in agriculture production, product literacy, marketing

of products, and ways to get product feedback from the farmers for product modification to increase the benefits of insurance for producers in the oilseed value chain.

122. **Training to front line staff in branches of insurance companies.** The PCU, in partnership with AIC and Insurance Institute of Uganda (IIU), will provide training to the staff and claims agents at the branches of insurance companies within the NOSP hubs to improve their communications with smallholder farmers on awareness on available products, product features, claim lodging and settlement processes. The training will also focus on collection of information from the targeted farmers on what other risks/needs may be insured for developing or improving products.

123. **Technical assistance for product development.** A specialised service provider (ToR in Appendix 6 below) will be recruited by the PCU for Technical Assistance for product and/or scheme development to build on the work of the SIDA-financed, IFAD-implemented INSURED programme. The TA will carry out FGDs with oilseed crop smallholder farmers and interviews with various stakeholders along the oilseed value chain to determine opportunities and needs.[4] The focus of the TA will be on developing digital or non-digital delivery channels and bundling for existing products, making product adjustments where necessary and improving speed of claims processing. TA will aim to create a sustainable market and to keep products affordable and reliable for the future.

[4] Until October 2021, INSURED is supporting assessment and implementation of a new agricultural insurance product and/or efficient delivery mechanisms to help scale-up coverage for oilseed smallholder farming. This will be done in collaboration with the insurance sector.

Appendix 1: TOR of Agriculture Finance Consultants

Location: Five hub offices in the NOSP project area

Number of posts: Five

Term: Part-time consultants; 10 days a month per hub for first 3 years and 5 days a month thereafter.

Educational Background: University degree in economics, business administration, agri-business, or similar field.

Job Requirements & Experience:

The candidate should have the following experience, skills and knowledge mix:

- Work experience in banking for 10 years out of which at least 5 years in agri banking and smallholder and agribusiness credit;
- Good working knowledge of the different national banking and financial institutions, insurance companies, concerned with agriculture finance and insurance, strong ability and readiness to communicate, and work with them;
- Gender sensitivity in working with rural men and women understanding and addressing their needs;
- Strong communication skills, especially group facilitation skills and communication skills with farmers;
- Team player with ability to work with different stakeholders and programme team;
- Fluent written and spoken English and one of the languages spoken in the hub;
- Creative and pragmatic approach to problem solving.

Duties and Responsibilities;

- Responsible for the planning, implementation and monitoring of the rural finance activities in the hub. This involves providing inputs on the preparation and monitoring of Annual Work Plans and Budgets (AWPB), data collection for progress reports and analytical reports;
- Implement the rural finance activities in accordance with the approved annual work plans, coordinate and ensure complementarities with Value Chain Development activities in the field;
- Work with contracted national consultants, providing implementation support as required especially in field level data collection;
- Work with agreed partners in the field (banking and financial institutions, insurance companies, technical assistance providers and training institutions) to ensure that need based financial services are provided to the value chain members;
- Carry out an assessment, with the support of VSLA facilitators and Economic social mobilisers, of the seasonal/annual credit requirement plans for the VSLAs, agri businesses and facilitate and monitor flow of credit in the field;
- Sort out policy and operational issues in flow of credit. Smoothen the processes for credit and insurance and ensure these financial services; co-ordinate with insurance companies for timely settlement of insurance claims;
- Maintain close coordination with implementation partners at field level (banking and financial institutions, insurance companies, private service providers, and other stakeholders) and ensure satisfactory results;
- Participate in multi-stakeholder platforms and address issues related to credit and agriculture crop insurance;

- Supervise and monitor the trainings on business and financial literacy trainings at field level for effective results;
- Provide support for the gathering of data and information needed to undertake an effective monitoring and evaluation of all the activities included in the rural finance activities.

Appendix 2: TOR of VSLA Facilitator

1. Hiring Terms: Local Youths, preferably women
2. Location: Respective District/sub county

Experience and qualification:

- Upper Secondary Certificate. Preference would be given to women, and those with Undergraduate Degree (preferably in Social Work or Rural Development).
- At least 5 years' experience in social mobilisation/VSLA promotion/Cooperative promotion or other rural development work requiring extensive mobilization and organization of village communities. Prior experience in gender development and household nutrition would be an advantage.
- gender sensitivity in working with rural men and women understanding and addressing their needs.

Duties and Responsibilities:

- Mobilisation of oilseed farmers especially women and youth, organizing farmers into VSLAs, facilitating group meetings, facilitating restructuring and consolidation of groups.
- Attend the weekly meetings of VSLAs.
- Train new VSLAs on group governance, member and leader responsibilities, bookkeeping etc.
- Attend training of trainers' programme on financial and insurance literacy and deliver effective trainings to VSLA members during groups meetings.
- Facilitating savings products within VSLA for production inputs and crop insurance.
- Facilitate production credit for oil seeds within VSLAs at affordable rates of interest.
- Facilitate partial accumulation of funds to enable VSLAs to lend larger loans needed by members.
- Enable the management committee to develop production plan of individual members, asses credit gaps and facilitate VSLA linkage banking with SACCOs/financial institutions.
- Enable uptake of crop insurance products by VSLA members.
- Provide feedback to EM supervisors and manager on any policy and operational issues in adequate and timely flow of credit and insurance.
- Assist the EM manager and supervisor in collecting data regarding VSLAs, member level data etc.
- Assisting the EM and supervisors to collect periodic data about VSLAs and their functioning.
- Assist in all baseline and impact assessment studies.

Annex 3: TOR of Technical Assistance to Financial Institutions for Financial Product Development/Modifications for Oilseed Production/Marketing Finance

Hiring terms: Technical assistance will include national experts and where necessary, international TA. The TA will be need-based and hiring on monthly or daily basis.

Location: Kampala, to work with head offices of banking and financial institutions and also select branches in project area.

Job Requirements and Experience

The candidate should have following experience, skills and knowledge mix:

- work experience in rural financial services for at least 10 years in small farmer and agri business credit in Uganda/ east Africa region;
- sound knowledge and prior experience in value chain financing – VSLA linkage banking for agriculture, agri-equipment financing, receivable financing, agri-dealer/processor financing for input credit, innovative collaterals etc. is critical for TA;
- good working knowledge of the different national banking and financial institutions, insurance companies, concerned with agriculture finance and insurance in Uganda and strong ability and readiness to communicate, and work with them;
- gender sensitivity in working with rural men and women understanding and addressing their needs;
- strong group facilitation skills and communication skills with farmers;
- fluent written and spoken English and one of the national languages;
- creative approach to problem solving.

Duties and Responsibilities

- responsibility for development, roll out and scaling up of innovative financial products including value chain financing products by financial institutions; One or more of the following products as well as other need-based products will be developed:

a) VSLA Linkage banking for agriculture;

- Based on the credit gaps at VSLA level, for seasonal credit, estimate marketing period and facilitate VSLA linkage banking with appropriate production cum marketing credit and crop insurance.
- Evaluate existing products and make suitable modifications in the features. Develop new products where necessary. Facilitate risk assessment and improve loan appraisal, early warning systems and monitoring systems to ensure excellent portfolio quality.
- Train the branch staff in new products/product modifications.

b) Value chain financing:

- work in close co-ordination with partner banks in developing Value Chain financing instruments;
- study the existing relationships and internal value chain mechanisms between farmers and agri businesses;
- select potential clusters and oilseed crops;

- in consultation with interested banks, ensure adequate data collection on producers. Devise data formats along with PSPs, train VSLA facilitators in data collection, supervise data collection on sample basis;
- identify agri businesses with good reputation in dealing with farmers;
- select agribusinesses with clear intention of increasing their business through VCF arrangement;
- carry out a risk assessment of the VCF along with the banking personnel in understanding the VCF risks and devising the product;
- hold joint consultations among agri businesses, farmer groups and bank to work out the contours of financing and ensuring repayments of bank loans;
- discuss with the banks on cash flow-based lending mechanisms and new forms of collaterals such as first loss default guarantee (to be provided by the client and producers);
- devise tri partite agreement among bank, agri business and farmers spelling out the terms of financing – amount, rate of interest, repayment period etc.;
- facilitate bundling of crop insurance with credit;
- facilitate development of banks' credit policies towards VCF including risk assessment tools, due diligence exercise, loan monitoring and early warning systems;
- draw up the protocols of pilot to scaling up;
- facilitate monitoring formats and tools for the banks and programme management to monitor the roll out of the VCF;
- make necessary adjustments for the product for scaling up;
- facilitate development of training material for training bank staff in VCF;
- Train the branch staff in new products/product modifications.

c) Other products such as equipment financing

- Financing of both producers and equipment contractors and monitoring usage through digital means.
- "Uberisation" of tractor hiring services.

Appendix 4: TOR of Technical Assistance to SACCOs for Financial Product Development/Modifications for Oilseed Production/Marketing Finance

Technical assistance will include national experts. Each hub will select SACCOs/other cooperatives to be supported. The TA providing institution/individual consultant will work with all SACCOs in a hub. The TA will be need-based and hiring on monthly or daily basis.

Location – On site and off-site support to each SACCO selected.

Job Requirements & Experience

The institution/candidate should have following experience, skills and knowledge mix:

- work experience in rural financial services for at least 10 years in small farmer and agri business credit in Uganda/East Africa region;
- sound knowledge and prior experience in agri financing – VSLA linkage banking for agriculture, agri equipment financing, receivable financing, agri dealer/processor financing for input credit, innovative collaterals etc. is critical for TA;
- good working knowledge of the SACCOs, and financial institutions, insurance companies, concerned with agriculture finance and insurance in Uganda and strong ability and readiness to communicate, and work with SACCOs;
- gender sensitivity in working with rural men and women understanding and addressing their needs;
- strong group facilitation skills and communication skills with farmers;
- fluent written and spoken English and one of the national languages;
- creative approach to problem solving.

Duties and Responsibilities

- responsibility for development, roll out and scaling-up of agri-financial products including value chain financing products; One or more of the following products and also other need-based products will be developed.

a) Financing farmers VSLA Linkage banking for agriculture either individually or VSLA wholesale lending;

- Estimate credit need for individual farmers.
- Based on the credit gaps at VSLA level, for seasonal credit, estimate marketing period and facilitate VSLA linkage banking with appropriate production cum marketing credit and crop insurance.
- Evaluate existing products and make suitable modifications in the features. Develop new products where necessary. Facilitate risk assessment and improve loan appraisal, early warning systems and monitoring systems to ensure excellent portfolio quality.
- Train the SACCO Head office and branch staff in new products/product modifications.

b) Value chain financing:

- work in close co-ordination with SACCOs in developing Value Chain financing instruments;
- study the existing relationships and internal value chain mechanisms between farmers and agri businesses;

- select potential clusters and oilseeds;
- ensure adequate data collection on producers. Devise data formats along with PSPs, train VSLA facilitators in data collection, supervise data collection on sample basis;
- identify agri businesses with good reputation in dealing with farmers;
- select agribusinesses with clear intention of increasing their business through VCF arrangement;
- carry out a risk assessment of the VCF along with the banking personnel in understanding the VCF risks and devising the product;
- hold joint consultations among agri businesses, farmer groups and bank to work out the contours of financing and ensuring repayments of bank loans;
- discuss with the banks on cash flow-based lending mechanisms and new forms of collaterals such as first loss default guarantee (to be provided by the client and producers);
- devise tri partite agreement among bank, agri business and farmers spelling out the terms of financing – amount, rate of interest, repayment period etc.;
- facilitate bundling of crop insurance with credit;
- facilitate development of SACCO's credit policies towards VCF including risk assessment tools, due diligence exercise, loan monitoring and early warning systems;
- draw up the protocols of pilot to scaling up;
- facilitate monitoring formats and tools for the banks and programme management to monitor the roll out of the VCF;
- make necessary adjustments for the product for scaling up;
- facilitate development of training material for training SACCO staff in VCF; and
- Train the SACCO staff in new products/product modifications.

Appendix 5: TOR of Service Provider for Technical Assistance for Oilseed Insurance Scheme Development

1. Background to the assignment

1.1 National Oil Seeds Project background

The goal of the National Oil Seeds Project (NOSP) is inclusive rural transformation through sustainable development of the oilseeds sector. Specifically, the development objective of the project seeks to facilitate the growth of competitive inclusive supply chains for priority oil seeds and their associated support markets in project locations.

The project operates in 6 hubs located in Northern and Eastern Uganda. NOSP expects to reach at least 120,000 households. The main direct beneficiary group will be located in the poorest sub-counties and parishes in the target districts. Of this, 30% should be reached with agricultural insurance activities supported by NOSP.

One of the activities of the project is to pilot and scale-up insurance amongst the smallholder oilseed agricultural sector.

1.2 Overview of the assignment

The service provider will provide technical assistance to relevant institution(s) in order to increase access of smallholders to crop insurance for oilseeds across NOSP hubs within Northern and Eastern Uganda. The oilseed crop of focus within NOSP are sunflower, groundnut, soybean, and sesame.

Whilst there are existing insurance products on the market, not all of them are reaching smallholder oilseed farmers within NOSP. Working with aggregators such as MFIs, banks, VSLAs, input providers, and digital service providers could help improve access to insurance and scale-up the market in order to become more sustainable. It can also help the aggregators improve the services offered to smallholders.

The service provider would be expected to build on the work of the Sida-financed, IFAD-implemented INSURED programme and other sector developments, particularly of the Ugandan Agricultural Insurance Scheme (UAIS). The particular focus of the assignment is on developing new or existing delivery channels for improving access to existing oilseed insurance products for smallholders. In case there is a need identified, but no suitable products exist, the service provider may choose to focus on product development/adjustments instead.

It is within this context that a specialized service provider or consultants is sought to implement technical assistance activities relating to scaling-up of oilseed crop insurance for NOSP beneficiaries in Northern and Eastern Uganda.

There are two main activities underpinning the technical assistance:

1. Feasibility study; and
2. Implementation support

The work will seek to collaborate with and build on that of others working to improve agricultural insurance products and services for oilseed smallholders, in particular that of

the INSURED technical assistance programme which is financed by the Swedish International Development Cooperation Agency (Sida) and implemented by IFAD, in addition to work undertaken by the Ugandan Agricultural Insurance Scheme (UAIS) by the Agricultural Insurance Consortium (AIC).

It is expected that as a result of this technical assistance, existing product(s) will be scaled-up within hubs where agricultural insurance penetration is lower than average amongst oilseed smallholder farmers. At least one aggregator/delivery channel and one insurer would receive technical assistance, on a cost-share basis.

2. Scope of work

The service provider shall carry out the following key activities:

2.1 Feasibility assessment

The objectives of the feasibility assessment will be to determine which NOSP hubs to target with implementation support, and what is required to improve access to oil seed agricultural insurance for smallholders in those hubs, in terms of delivery channels, bundling of insurance with other products/services, or if necessary, product development/adjustments.

It should be comprised of desk research, and field visits to conduct focused group and in-depth interviews within the project areas with target farmers, value chain operators, financial institutions, and partner organizations, as well as interviews with project staff and partners. The studies will focus on supply and demand opportunities and constraints relative to improving access to agricultural insurance for oilseed smallholder farmers targeted by NOSP. Particular consideration should be given to sustainability and scalability of agricultural insurance within the market and governmental context. It should be carried about in consultation with NOSP, AIC, the identified individual insurance company, and the INSURED-programme.

The study should analyse aspects including:

- **Production characteristics, including:**
  - Risks: main production risks and constraints within the relevant value chain(s), relevant geographical areas, and amongst target groups/partners of the project/programme
  - Production features: type of production, average level of production, inputs (what, where purchased, how financed, level of quality)
- **Demand and need of different target group(s) and partners, including:**
  - Farmers and their cooperatives/groups, financial service providers, value chain actors like input suppliers, buyers etc. Include analysis of digital and non-digital services.
  - Access to finance: access to formal financial institutions (MFIs, banks, SACCOs); membership of informal financial service providers (VSLAs); Include analysis of digital and non-digital services.
  - Access to agricultural insurance: whether or not they have access, where purchased, or what is preventing access
  - Trusted rural service providers used for production and/or financing needs
  - Income characteristics and cycles of the target group(s)/value chain(s) and any links to markets etc.

- **Supply side, including:**
    - Analysis of the existing agricultural insurance provision in Uganda. Identify potential insurers for technical assistance during the implementation support step;
    - Intermediaries and distribution channels: the links different intermediaries/distribution channels have with the target group and potential interest and capacity in playing a role in insurance scheme delivery; possible opportunities for bundling of insurance with other services. Identify potential delivery channel(s) for technical assistance during the implementation support step;
    - Government: relevant enabling/restrictive policies; legal and regulatory frameworks; role and needs of UAIS and AIC in terms of delivery mechanisms
    - Development initiatives: other relevant existing or upcoming development initiatives, including the Sida-financed, IFAD-implemented INSURED programme

The study should highlight conclusions and proposed next steps for implementation support, including identification of partner(s) invested in receiving technical assistance to support their implementation.

2.2 Implementation support

Based on the needs identified in the feasibility assessment, alternative bundling and delivery of products, and if needed, product adjustments will be carried out by the service provider. Technical assistance shall be provided to one or more delivery channels in with relevant insurer(s). The purpose is to scale-up existing product(s) within hubs where agricultural insurance penetration is lower than average amongst oilseed smallholder farmers.

The focus of NOSP's support is on developing digital or non-digital delivery channels and bundling for existing products, such as with credit, input providers, or VSLAs. Particular emphasis should be on partnering with financial or non-financial service providers already reaching the NOSP target group. Alternatively, if necessary for scaling-up, product adjustments may be carried out to cover farmers in additional sub-counties or improve level of coverage, or speed of claims processing. This will improve access to agricultural insurance products on the market, but not currently reaching people in need, and will increase the value clients get from insurance by improving access to other useful products and services. These are important aspects to help create a sustainable market and to keep products affordable and reliable for the future.

The focus for implementation support should be agreed in consultation with AIC, NOSP and the INSURED programme.

The key implementation support steps should include:

- **Seek partner insurer(s).** Determine interest and cost-sharing of insurer(s) wanting to scale-up an existing product through alternative delivery channels. Create a tripartite Memorandum of Understanding;
- **Technical assistance to delivery channel development.** Activities should include support to the delivery channel(s) and the insurer(s) in:
    - Designing improvement(s) in the distribution and administration model for the project target group(s) to lower costs and improve access, describing the consumer journey;

- Set-up administrative processes and procedures to implement the new delivery aspect(s) of the insurance scheme;
- Build capacity of insurer(s) and delivery channels in specific skills as required
- Build awareness and capacity of farmers to access insurance through the new distribution channel
- After the first year of implementation, based on client feedback and data, analyse results and adjust insurance scheme and processes as necessary;
- Work closely with the Ugandan insurance sector and other relevant stakeholders in Uganda;
- Liaise and cooperate closely with NOSP, INSURED, the AIC;
- Document, report and disseminate information and lessons.

In the event product development/adjustments are to be prioritized over developing delivery mechanisms to reach NOSP smallholder farmers, the following activities are required for technical assistance to product development/adjustments:

- Collect and analysing data/information and create loss functions
- Model the impact of risk on household income and expenditures, analyse ability of smallholders to withstand smaller and larger shocks, and derive protection needs of oilseed smallholder farmers
- Develop a business case for an oilseed insurance scheme linked to the project target group(s), develop market projections and financials, and design growth strategy for insurance scheme;
- Design (or adapting existing) insurance products, outlining terms and premiums of the insurance policy;
- Support reinsurance negotiation
- Analyse product performance after one-year, providing support to product adjustments as needed
- Liaise with the Ugandan insurance sector and other relevant stakeholders in Uganda and involve key partners in the product development process;
- Liaise and cooperate closely with NOSP, INSURED, the AIC;
- Document, report and disseminate information and lessons.

Timeline and Deliverables

DELIVERABLE	**DEADLINE**	**ESTIMATED TOTAL DAYS *(Dependent on available budget, location of expertise etc.)***
Feasibility study		
To include: o Study outline o Mission ToR o Draft feasibility study o Final feasibility study incorporating comments and feedback	Project Year 2	30 days over 2 months
Implementation support		
Seek partner insurer(s) and delivery channel(s)	Project Year 2	5

Technical assistance to delivery channel development, including: • Designing improvement(s) in the distribution and administration model for the project target group(s) to lower costs and improve access, describing the consumer journey; • Set-up administrative processes and procedures to implement the new delivery aspect(s) of the insurance scheme; • Build capacity of insurer(s) and delivery channels in specific skills as required • Build awareness and capacity of farmers to access insurance through the new distribution channel • After the first year of implementation, based on client feedback and data, analyse results and adjust insurance scheme and processes as necessary; • Work closely with the Ugandan insurance sector and other relevant stakeholders in Uganda; • Liaise and cooperate closely with NOSP, INSURED, the AIC; • Document, report and disseminate information and lessons	Project Year 2 and 3	65 over 2 years

Service provider profile

The service provider or consultants shall propose a team of at least two experts. The Team Leader should be a specialist in agricultural insurance. The team should further be composed of relevant expertise which should include one or more of the following specialisms: agricultural insurance; consumer technology; rural/agricultural finance; value chain development.

The Team Leader should possess the following expertise:

- At least eight-years working in agricultural insurance in oil seeds, or similar smallholder crops
- Based in or experience working in Uganda, or a similar context
- Previous experience with agricultural insurance assessments

- Experience in formulation, operation and management of agricultural insurance systems;
- Ability to develop sustainable business cases for agricultural insurance;
- Demonstrated capacity to develop insurance schemes based on clients' needs and demands;
- Capacity to design customer journeys suited to rural settings and the living circumstances of smallholder farmers;
- Ability to form partnerships with insurance, reinsurance companies, and distribution channels, and to create a collaborative working environment in partnerships.
- Professional knowledge of English.

E. Farm Production Advisors Scheme

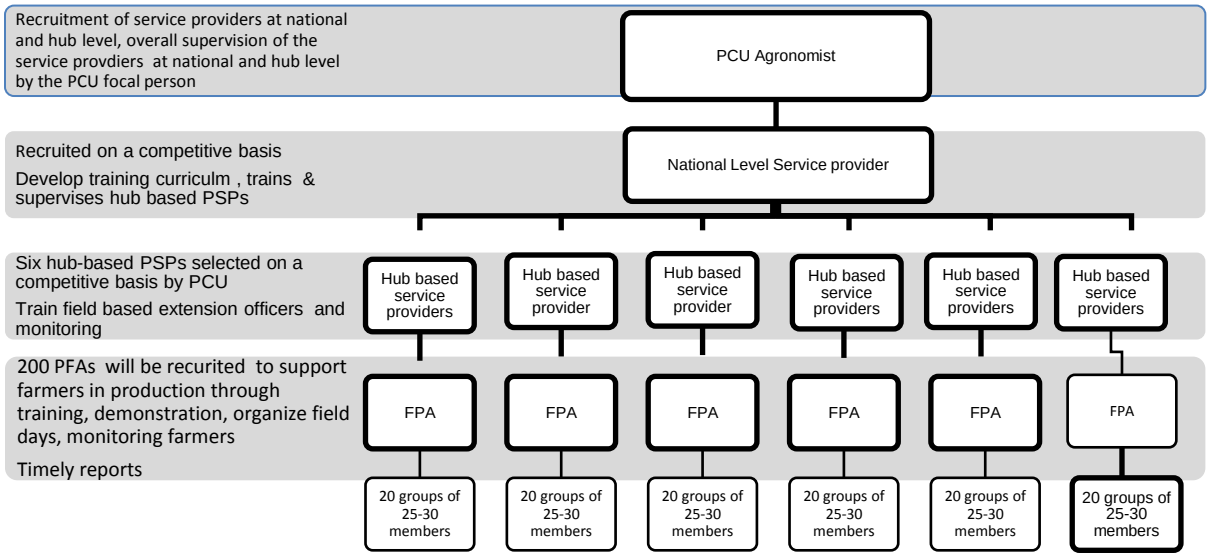
124. To provide appropriate technical advice and support to oilseed smallholder producers, NOSP will develop an FPA scheme. The objective is within the first three years to train 400 FPAs, and recruit 200 of them to support 200 clusters across project hubs. These FPAs will be embedded in the NOSP clusters and sponsored by farmers groups, clusters, agro-dealers, agents and/or millers. FPAs will be expected to:

- Provide essential production and business advice to farmers in the clusters in which they are based to enable farmers to adopt the improved production practices necessary for smallholder commercialisation of their oil seed crops.

- Set-up and operate demonstrations displaying best practice production techniques for oilseed crops, along with the use of small-scale mechanization and equipment.

- Complete an approved training programme covering both technical and business aspects of approximately 12 months, covering two seasons. This will include an initial 2-week residential training, three contact sessions per season (planting, mid-season and harvesting) plus on-the-job coaching by the training provider.

125. The extension services will be structured as follows:



126. Contracting of service providers will be done in the first year of the project whilst actual farm advisory services will commence in the second year when all relevant stakeholders have been recruited and received training. Contracts for National and Hub-based PSPs will be initially for 3 years while the FPAs are expected to support farmers for two years after which sponsoring organizations will fund the FPAs completely.

127. NOSP will procure through competitive tender (see Procurement Plan for process) one lead national PSP for extension service provision. They will be responsible for the overall leadership and performance of the scheme. They will design and set-up all aspects of the scheme, including design of the ToT training and materials to be used for farm training. The lead service provider will also be responsible for supervising and quality assurance of the performance of the scheme implementers.

128. The lead service provider will be identified through a competitive bidding method that will be advertised in national newspapers. The lead PSP should meet the following criteria:

- 10 years' experience in providing agricultural extension/community development services
- Experience in curriculum development for agriculture projects
- Experience working in the oilseed sector
- Knowledge of the project area.

129. Key activities of the lead service provider are:

- Review existing extension curricula used in VODP2 and other projects, and develop a curriculum for agricultural service provision that focuses on promoting sustainable, climate smart good agricultural practices and farming as a business for profitable oilseeds production. Suggested topics are:

Production and post-harvest management	**Agriculture extension**
Oilseed crop specific agronomic practices	Group dynamics
Integrated soil fertility management	Participatory extension methods
Integrated pest management	How to set up demonstration plots
Climate smart technologies such as minimum tillage, intercropping, improved crop varieties	How to conduct field days
Post-harvest handling and processing	
Farming as a business	

- Produce simple technical guides and videos on good agronomic practices, cost benefit analysis and farming as a business for the target oilseed crops in English and translated into local languages. Technical guides should be pictorial to cater for illiterate farmers.
- Conduct a ToT for the six hub-based PSPs using the developed curriculum. The first training will be a residential two-week course covering all the topics in the curriculum. Three follow-up 3-day training workshops will be run at the hub level to further build the capacity of the hub-based officers.
- Provide within season mentoring to the hub-based PSPs
- Develop the FPA scheme to provide sustainable and private sector-led extension services (see full details below).

130. An expression of interest will be advertised for interested organizations, individuals and groups to identify and co-finance FPAs. The sponsoring organization can either be an input supplier, farmer group, HLFO, or a miller. Sponsoring organizations will

nominate at least three candidates (<35 years old) based on a set of criteria (described in the contracting section), from which the two best will be accepted to the training programme. The position will be appointed to the highest performing candidate from the training, with the second trainee acting as a stand-by FPA, in case the first FPA leaves the position or fails to do perform well. Co-financing of the FPA will be on a reducing scale. If the sponsor is an individual, FG or HLFO, it will have to pay 20% in Year 1 towards a female FPA and 30% towards a male FPA. In Year 2, this increases to 40% and 60%, respectively. Traders, off-takers and millers will have pay 30% in Year 1 30% towards a female FPA and 50% towards a male FPA. In Year 2 this increases to 50% and 70% respectively. The programme ends after two years (four seasons). After that, if the sponsoring organisation sees value in the services of the FPA, they will have to cover 100% of their costs.

131. The following characteristics are expected of the FPAs:

- Should be resident in the community
- Should have access to at least one acre of farming land (which should be verified by the sponsoring organization and hub-based PSP) to carry out demonstrations of improved technologies
- Should demonstrate an interest in farming
- Good relationship with and accepted by the local community
- Honest, dependable and committed
- Willing to participate in training within and outside the community
- Must be literate.

The FPA activities include:

- Participate in the training programmes conducted by the hub-based PSPs on extension approaches and farming as a business
- Train the cluster of 500-600 farmers organized into groups of 25 to 30 on farming as a business, agronomic practices, post-harvest management and marketing for the oilseed crops grown by farmers. Farmer training should be done in a field and should coincide with the cropping calendar to allow demonstration of activities such as planting, fertilizer application, weed management and harvesting.
- In existing hubs, the FPA should work with existing groups instead of forming new ones and identify contact farmers for ease of mobilization
- Establish a demonstration field to demonstrate techniques on e.g. drought tolerant varieties, efficient use of fertilizers (organic and inorganic), pest/disease resistant crops, mechanisation, and use of inoculant for soybean.
- Organize field days and exchange visits. Field days and exchange visits are meant to share experiences and show-case the performance of new technologies to wider group of farmers and can be organized at planting, at the vegetative stage of the crop or at harvesting.
- Support farmers in input and output marketing by linking farmers to off takers
- Produce periodic reports on activities done, including uptake of new technologies by farmers and farmer successes and challenges faced during the cropping season

132. To be able to establish a demonstration field, the FPA will be supplied with an extension kit containing vouchers for purchasing of inputs from local agro-dealers for conducting demonstration plots, a soil test kit, knapsack sprayer, printed and audio-visual communication materials. The voucher inputs will include seed for an acre (25kg for soybean, 3kg for sesame, 2kg for sunflower), 50kg of fertilizer, and a pack of rhizobia

inoculant per season. The supply of inputs will be done for four seasons. The FPA will also receive a travel allowance to enable them to move to and between farmers groups within the cluster.

133. In addition, links will be made by the PCU agronomist with other agricultural productivity activities such as the GoU PlantWise program, the International Fertiliser Development Corporation (IFDC) managed CATALIST project and the Integrated Seed Sector Development (ISSD) project which all work in the programme area. Where seed companies are interested in demonstrating their varieties, they will fund their demos established at the FPA's field. In areas where farmer groups are dispersed and it is not feasible to have one demo, two demonstration fields should be established and inputs supplied by the project.

Expected outputs of the FPAs work include:

- At least 500 farmers receive training on agriculture and farming as a business
- 50 farmer field visits per year (farm visits once a week)
- One demonstration field established per season per FPO
- Two field days are held per season per FPO (either for showing land preparation, crop establishment or harvesting)
- Two exchange visits to best performing farmers per season per FPA.

134. Hub based PSPs will be allowed to bid for more than one hub but can only be selected for not more than two hubs. If one bidder scores highest in more than two hubs, two winning contracts will be awarded for those two sub-regions in which the bidder wins by the largest scoring point margin. If the same bidder scores highest also in other hubs, the contracts in these hubs will be awarded to the bidder that scores the second highest points by the evaluation committee. They should meet the following criteria:

- Have experience in agriculture extension and the oilseed sector in particular
- Experience in capacity building
- Knowledgeable of the project area
- Preference will be given to locally based PSP.

135. Key activities of the hub-based service provider are:

- Receive training from the National PSP
- Implement the FPA scheme to select and train 400 FPAs (200 are needed by NOSP but training more allows for dropouts and for selection of the best FPA candidate).
- Conduct an FPA training programme consisting of an initial residential two-week course covering all the topics in the curriculum. Three follow-up three-day training workshops per season will be run to further build the capacity of the FPAs.
- Training will be complemented by field-based mentoring with practical demonstrations of farm activities such as planting, land preparation, fertilizer application, etc. Post-harvest training will be done towards the end of the cropping season.
- Attend at least three training sessions conducted by the FPAs in the first season to support and identify gaps. In subsequent years, follow up could be reduced to attending one training in a season. Hub-based PSPs will organize end of season meetings to review implementation and to address any challenges faced by FPOs

136. The farm advisory services scheme will be coordinated by the PCU agronomist working together with the National and Hub-based PSPs. The agronomist will also coordinate FPA activities with seed and mechanization schemes. End of season Sub-County field days to review activities and share experiences will be organized by hub-based PSPs with participation of National PSP and the Agronomist. This will be complemented by Annual Outcome Surveys done by M&E. Experiences from successful interventions will then be built into the planned activities for the following season.

Sequencing of activities for the farm advisory services scheme

Tasks	Task lead	Year 1	Year 2	Year 3	Year 4
Recruitment of an agronomist	PCU	X			
Identification of national PSP	PCU Agronomist	X			
Identification of hub-based PSPs	PCU Agronomist	X			
Development and technical review of a curriculum	National PSP + 2 technical reviewers	X			
Training of hub level PSPs	Lead National PSP	X			
Identification of FPOs	Sponsoring organisations	X			
Training of FPO	hub based PSP		X	X	
Farmer training	FPA		X	X	
Setting up of demonstration field	FPA		X	X	
Conduct field days	FPA		X	X	
Monitoring and evaluation	FPA, Hub and National PSP		X	X	X

F. Auxiliary Farm Services Promotion Scheme

137. NOSP will establish an Auxiliary Farm Services Promotion scheme to increase the availability of powered tillage, spraying, planting, harvesting and threshing services. To stimulate investment, the scheme will provide partial subsidies and assist in arranging affordable financing for the purchase of tractors and implements. The scheme will be promoted through the MSP's and be open to cooperatives, commercial tillage service providers and other actors embedded in the oilseed value chain such as PGs or input suppliers. The scheme will provide training for the operators of the tractors and implements and will demonstrate the advantages of the equipment to smallholder farmers on the FPA's demo plots and at the ZARDIs. Through the MSP's, NOSP will link up the new providers of these services with clustered groups of smallholder farmers. All equipment will be fitted with telematics to allow the owners of the equipment to optimise the deployment of the tractors and enable them to manage the service and operators. The scheme will train up mechanics in each of the hubs to ensure the expertise for routine maintenance and repairs is available to the keep the tractors and implements in good running condition. Once these services are established, they are expected to run on a fully commercial basis without any ongoing public subsidy.

138. The scheme aims to facilitate the private sector investment into 450 twenty HP two-wheel tractors, 150 Sixty HP 2wd tractors and 55 eighty HP 4wd tractors. This will create a phased in seasonal tillage capacity of just under 20,000 acres in PY 2, ending with a capacity for 120,000 acres in PY 7 if the scheme is fully utilized.

139. **Recruitment of lead service provider.** A lead technical service provider will be competitively procured and be responsible for the overall leadership and performance of the scheme. They will design and set-up all aspects of the scheme, including design of the graduated equipment packages and associated business models as well as ToT training materials and operations and maintenance guides to be used by the auxiliary service providers.

140. The lead service provider will be identified through a competitive bidding method that will be advertised in national newspapers. The lead PSP is be expected to drive and lead the set-up of the scheme. For this the PSP must be able to demonstrate their capacity for the following capabilities:

- Demonstrated capacity to supply the equipment specified in the scheme for the small, medium and large size mechanisation packages. They should have an official agency for reputable brands of all tractors and implements as specified in Table 1. This must be verified by an official agreement with the manufacturers of the tractors and implements
- Access to a fully equipped workshop
- A permanent workshop and parts store in one of the hubs so that major repairs can be undertaken
- A field service team and vehicle
- Truck for the delivery of assembled tractors and implements to the beneficiaries
- An established presence in Uganda and registered company in operation for no less than 10 years.
- Relationships with financial institutions and banks in Uganda that qualify to co finance the incentive scheme
- 3 years audited accounts.

Table 1: Key Tractor and Equipment Types and Related Training Modules

Module	Sections	Content
Walk behind tractor20 hp	Introduction	I. Uses of a tractor and its implements
	Safety	I. Tractor and Implement Safety II. Safety Symbols III. PPE
	Instruments and Controls	I. Instrument Panel – comprehension of gauges, lights, switches and levers II. Operating Controls –function and use
	Operations	I. Engine run in II. Starting the engine III. Trouble shooting and jump starting
	Operating The tractor	I. Gear change II. Using the clutch III. Brakes

		IV. Power Take off shaft V. Control lever settings VI. Attaching an implement VII. Detaching and implement VIII. Towing the tractor IX. Draw bar
	Maintenance and Adjustments	I. Maintenance chart II. Lubricants III. General maintenance IV. Service and access V. Grease lubrication VI. Engine VII. Clutch VIII. Brakes IX. Transmission and hydraulics X. Tires XI. Electrical components
	Fuel handling and Storage	I. Fuel quality II. Contamination III. Hazards
	Service Records	I. General
Two-wheel drive 60 hp and 4-wheel 80 hp tractor	Introduction	Uses of a tractor and its implements
	Safety	IV. Tractor and Implement Safety V. Safety Symbols PPE
	Instruments and Controls	III. Instrument Panel – comprehension of gauges, lights, switches and levers Operating Controls –function and use
	Operations	IV. Engine run in V. Starting the engine Trouble shooting and jump starting
	Operating The tractor	X. Gear change, Ranges and drive options XI. Using the clutch XII. Brakes XIII. Power Take off shaft XIV. Hydraulic system XV. Control lever settings XVI. Auxiliary Hydraulic system XVII. Attaching an implement XVIII. Detaching and implement XIX. Towing the tractor XX. Differential lock XXI. Draw bar XXII. PTO XXIII. Speed charts
	Maintenance and	XII. Maintenance chart XIII. Lubricants

	Adjustments	XIV. General maintenance XV. Service and access XVI. Grease lubrication XVII. Engine VIII. Clutch XIX. Brakes XX. Transmission and hydraulics XXI. Hydrostatic steering XXII. Front Wheel Hub alignments XIII. Tires Electrical components
	Fuel handling and Storage	IV. Fuel quality V. Contamination Hazards
	Service Records	General
		Components and their function
Chisel Plow	Introduction	Use and purpose
	Safety	General and field use
	Operation	I. Hitching the chisel plow II. Setting the chisel plow depth
	Maintenance and repairs	I. General maintenance II. Changing, shoes, shanks and shear bolts
Disc harrow	Introduction	Use and purpose
	Safety	I. General safety during use
	Operation	I. Hitching the disc harrow II. Setting the harrow geometry III. Transporting the Disc Harrow
	Maintenance and repairs	I. General maintenance II. Changing discs III. Oiling and greasing gangs
Trailer	Introduction	I. Parts and function
	Operating with a trailer	I. Hitching II. Load distribution and securing loads III. Tire pressures IV. Control under load V. Hydraulics (if fitted) VI. Reversing
	Maintenance	I. Wheels II. Hydraulics (if fitted) III. Jack
Boom Sprayers	Introduction	I. Use of the boom sprayer
	Safety	II. PPE III. Pesticides and labels IV. Mixing V. Drift VI. Tank rinsing VII. Cardan Shaft
	Components	I. Pump

	and controls	II. III. IV.	Boom Nozzles Pressure gauges
	Operation	I. II. III. IV. V. VI. VII. VIII. IX.	Adjuvants, surfactants and buffers Water quality Filling Tank mixes Calibration Nozzles types and pressure (Fan, cone, induction) PTO RPM Fitting Cardan Shaft Transporting the sprayer
	Maintenance	I. II. III. IV.	Flushing and cleaning Filters and nozzles Pump Cardan Shaft
Row Planters and seed drills	Introduction	I. II.	Parts of the planter How a planter works
	Safety	I. II.	General safety guidelines when using the planter Transporting the implement
	Components and controls	I. II. III. IV. V. VI.	Cardan Shaft (if fitted) Mechanical drives Hoppers Metering devices Coulter wheels Press wheels
	Operation	I. II. III. IV. V. VI. VII.	Calibration Planting depth Pressure and depth on coulters Pressure on press wheels Filling with seed and fertilizer Transporting the planter Trouble shooting
	Maintenance	I. II.	Greasing and lubrication Cleaning and off-season maintenance
Tractor mounted Harvesters	Introduction	I. II.	Parts of a harvester How a harvester works
	Safety	I. II.	General Safety Guidelines when using a tractor mounted harvester
	Components and controls	I. II. III. IV. V. VI. VII. VIII.	PTO and cardan drive Gearbox Belts and pulleys Augers Cutter bar Drum rotor and concave Sieves Leavers and hydraulics

	Operation	I. II. III.	Setting the concave and sieves Trouble shooting
	Maintenance	I. II. III. IV. V. VI. VII. VIII.	Greasing and lubrication Adjusting and replacing pulleys and belts Gathering chains, sprockets, Adjustment of width of stripper plates. Adjust drive chains. Sickle blades and guards Chains and bearings for wear; Cleaning and off-season maintenance
Tractor powered Threshers	Introduction	I. II.	Parts of a thresher How a thresher works
	Safety	I.	General safety when using the thresher (feeding crop into thresher NB)
	Components and controls	II. III. IV.	Gearbox and pulleys Concave and drum Sieves
	Operation	I. II. III. IV. V. VI. VII.	Fitting the cardan shaft Setting the RPM on the PTO Adjusting the concave and sieves Tensioning the belts and pulleys Un jamming the thresher Fan speed and airflow Feeding the thresher
	Maintenance	I. II. III. IV.	Greasing Tensioning belts Tire's and wheels (if equipped) Basic repairs

141. Key activities of the lead service provider are:

- Development of a curriculum for the training on operation and maintenance of the selected equipment within the scheme. There should be one module for each piece of equipment as per the table below. Each module must cover all aspects of operating and maintain the equipment for efficient use without damage and breakage. An emphasis must be placed on delivering a good service to the farmers and adjusting the use of the machinery to suite the local conditions.
- Support PCU procurement for the selection of appropriate tractors, implements and equipment.
- Advise the PCU on the selection and procurement of the equipment so that suitable equipment is selected. It is important that the tractors and implements are compatible and specified for the local soil conditions.
- The PSP will conduct a technical due diligence on all applicants to the scheme to assess their requirements for equipment and make a recommendation to the PCU.
- Verify that the trainees that have been on the training course with the hub-based PSP's have passed the course and that they be issued with a certificate of competency for the respective course

- Provide comprehensive operator training to the six hub-based service providers for this scheme on the tractors and implements covered by the scheme, and covering the following modules:

Module	Days required	Machine hours required under training	Content
1 Theory	10 days	0	Theory of all tractors and equipment
2 Tractors (2-wheel walking and 4-wheel)	6 days	48 hrs.	Driving Tractor, hill start, reversing, emergency braking, steep decent and ascent, river crossings
3 Trailer	6 days	48hrs.	Hitching and maneuvering tractor with trailer
4 Tillage	6 days 6 days	8 hrs. 40hrs. 8 hrs. 40hrs.	Hitching, setting & maintenance of chisel plow Using the chisel plow in the field Hitching, setting & maintenance of disc harrow Using the disc harrow in the field
5 Planting	2 days 6 days	4 hrs. 8 hrs. 4 hrs. 48 hrs.	Hitching and Cardan Shaft Calibration of planter/drill (Seed and fertilizer) Maintaining the planter Using the planter/drill in the fields
6 Spraying	2 days 6 day	4hrs. 8 hrs. 4 hrs. 48 hrs.	Hitching and Cardan Shaft Filling and calibration of sprayer Maintaining and cleaning the sprayer Using the sprayer in the fields
7 harvesting	2 day 6 days	2 hrs. 6 hrs. 2 hrs. 48 hrs.	Hitching and Cardan Shaft Setting the harvester – cutter bar Maintaining and cleaning the combine Using the combine in the fields
8 threshing	2 days 6 days	4 hrs. 8 hrs. 4 hrs. 48 hrs.	Hitching and Cardan Shaft Setting the thresher - drum speed and concave Maintaining and cleaning the combine Using the combine in the fields
Total	60 days	480 hrs.	

- Organise trainers' course on an annual basis for a period of three years.
- Carry out maintenance and repairs of the tractors and implements on an ongoing basis
- Determine that the operators have successfully completed the training program at the Hub level PSP and are able to use the equipment.

Table 2: Performance-based milestones and payment schedules

Auxilary Services Scheme Design and Supervision		Mile Stone and payments											
Training Course Set-up		Yr1		Yr2		Yr3		Yr4		Yr5		Yr6	
curriculum & materials for ToT Mech Bus. training of hub implementers (PSP)	modules	training modules 4 trainers complete course	$60,000	- 4 trainers complete course	$160,000	-		-		-		-	$0
	implementer		$160,000			-		-		-		-	$0
Mentoring of Hub Implementers /b	implementer			-		8 site visits to all hubs	$80,000	8 site visits to all hubs	$80,000	8 site visits to all hubs	$80,000	8 site visits to all hubs	$80,000
Total Mechanization Business Training Course Set-up	$700,000		$220,000		$160,000		$80,000		$80,000		$80,000		$80,000

142. **Recruitment of hub-based PSPs.** NOSP will procure through competitive tender (see Procurement Plan for process) six hub-based PSPs for delivery of the commercial Auxiliary Farm Services provider scheme. They will be responsible for the overall delivery and implementation of the scheme. They will be trained and supported by the lead service provider. The qualifications for the hub-based PSP for Auxiliary Farmer Services include:

I. A registered entity in Uganda
II. 2 years audited accounts and tax clearance certificate
III. Demonstrated experience of operating with agricultural equipment
IV. A premise that is equipped with a basic workshop and tools for service and repairs. The workshop should have a roof and concrete floor with a service bay for at least 1 tractor
V. Full time access to a field of a minimum of 5 acres for training purposes
VI. A room with desks, chairs and white board/chalk board for training
VII. Ability to provide a minimum of a 4-year work contract to trainers that have been trained under NOSP program.

143. Following training by the national service provider, the key activities of the hub-based service provider are:

- Review and approve the candidates put forward and assure they have the following minimum criteria:
  I. Must be Ugandan
  II. Less than 35 years old
  III. Present a medical certificate
  IV. Able and willing to work away from home.
  V. Completed primary education
  VI. Have a work contract with the PSP for a minimum of a 2-year period
- Provide comprehensive operator training (Table 3) to the recipients of the scheme on the use of the tractors and implements provided for as per the modules below.
- Report monthly on progress to the PCU.

Table 3: Training Course Schedule

Module	Days	Machine hours required under training	Content
1 Theory	3 days	0	Theory of all tractors and equipment
2 Tractor	2 days	16 hrs.	Driving Tractor, hill start, reversing, emergency braking, steep decent and ascent, river crossings
3 Trailer	2 days	12hrs.	Hitching and maneuvering tractor with trailer
4 Tillage	1 day 1 day	2 hrs. 6 hrs. 2 hrs. 6 hrs.	Hitching, setting & maintenance of chisel plow Using the chisel plow in the field Hitching, setting & maintenance of disc harrow Using the disc harrow in the field
5 Planting	1 day 1 day	2 hrs. 4 hrs. 2 hrs. 8 hrs.	Hitching and Cardan Shaft Calibration of planter/drill (Seed and fertilizer) Maintaining the planter Using the planter/drill in the fields
6 Spraying	1 day 1 day	2 hrs. 2 hrs. 2 hrs. 8 hrs.	Hitching and Cardan Shaft Filling and calibration of sprayer Maintaining and cleaning the sprayer Using the sprayer in the fields
7 Harvesting	1 day 1 day	2 hrs. 6 hrs. 2 hrs. 8 hrs.	Hitching and Cardan Shaft Setting the harvester – cutter bar Maintaining and cleaning the combine Using the combine in the fields
8 Threshing	1 day 1 day	2 hrs. 6 hrs. 2 hrs. 8 hrs.	Hitching and Cardan Shaft Setting the thresher - drum speed and concave Maintaining and cleaning the combine Using the combine in the fields

144. **Custody of training equipment.** The hub-based PSP will be supplied with a full set of equipment by the PCU for carrying out the above duties. The equipment will be under the jurisdiction of the National PSP who will allocate it to the hub-based PSP's but will remain the property of the PCU. If these hub-based PSP's do not fulfil the contractual obligations and deliverables, the equipment will be withdrawn and kept at the NOSP hub office or at the National PSP premises until another hub PSP is identified.

Table 4: Performance-based Milestones and Payment Schedules

B. Mechanization Business Training		Mile Stone and Payments for Hub PSP's											
		Yr1	Yr2		Yr3		Yr4		Yr5		Yr6		
Tractor operator training	modules		44 training modules	$22,000	44 training modules	$22,000	44 training modules	$22,000	44 training modules	$22,000	44 training modules	$22,000	
follow up trainig and mentoring of trained operators	implementer		21 sessions	$10,500	21 sessions	$10,500	21 sessions	$10,500	21 sessions	$10,500	21 sessions	$10,500	
Monitoring of implementation on FPA's demo	implementer		21 site visits	$2,100	21 site visits	$2,100	21 site visits	$2,100	21 site visits	$2,100	21 site visits	$2,100	
Total Mechanization Business Training Course Set-up	$173,000	$0		$34,600		$34,600		$34,600		$34,600		$34,600	
Total for 5 hubs	$865,000			$173,000		$173,000		$173,000		$173,000		$173,000	

145. Application process will be open to PGs, private companies and other organizations involved in the value chain. The scheme is thus open to commercial farmers, input providers, aggregators and processors in the value chain. The key objective is that the scheme supports service providers that have a link to the farmers within the cluster under NOSP. Recipients and their affiliated businesses may apply for a maximum of one complete package in each round of the scheme. Applicants should apply to the scheme through the PCU offices or at MSP meetings. The processing for pre-approval of all applications must be done at the PCU. Once applicants have become beneficiaries of the scheme they will be referred to as mechanization service providers.

146. Below, the guidelines for selecting beneficiaries and allocation of the mechanization packages across the hubs are presented:

- NOSP should strive towards an equitable distribution of the mechanization packages across the hubs, but still be led by the market
- In principal, no hub should receive more than 50% of the pro rata allocated packages
- If not all the packages were taken up in the allocated time, these will be made available in the following year at the same incentive level
- The targeting of the scheme will be done by the PCU at the hub level MSP meetings. For effective implementation, the allocation of equipment will be targeted at the clusters. It is vital that service providers of these mechanization services are linked to the farm clusters
- The Supervision Missions should review the scheme on an annual basis. Any bottlenecks identified should be dealt with by the PCU as efficiently as possible. The PCU should supply timely and accurate information from the telematics data base to the team for an accurate analysis.

147. The PCU must ensure that a legally binding "investment incentive agreement/contract for mechanization" agreement is set up between NOSP and beneficiaries of the investment incentive to ensure entities do not take advantage of the scheme and that the scheme fulfils its purpose to increase the availability of farm

mechanization services to the oil seed sector in Uganda. The following principals should be included in the contract

I. Beneficiaries of the scheme must be made explicitly aware that they should make their services available to the farmers in the hubs.
II. This will be enforced in the in agreement and monitored through the telematics.
III. The telematics system may not be removed, and the beneficiary grants the NOSP full access to the information from the system
IV. The tractors and implements may be moved to another hub under the NOSP.
V. The tractors and implements may not be moved out of the hubs for the first three years.
VI. If the beneficiary wishes to relocate the equipment, then 100% of the investment subsidy must be refunded to NOSP.
VII. In the event there is a default in payments to the financial institution, the equipment will be re possessed and made available at cost to other applicants in the scheme.

148. Financing to the Scheme will be made available through commercial banks and other financial institutions. Financial institutions will be supported with technical assistance to develop/modify their products to manage their risks and lend on affordable terms to finance the Scheme-related investments. Post Bank and Opportunity Bank have linkages with Mascor (John Deer) and Engineering Solutions (Tafe), to offer loans for equipment financing. Its foreseen that through the Agricultural Credit Facility of the Bank of Uganda the banks will be able to offer credit with an interest rate of 12% per annum on terms that match the seasonal income flows of farmers and service providers.

149. The project will offer partial investment incentives to absorb some of the risk for the early adopters and then gradually reduce these incentives in subsequent rounds to return to market-based financing. In the initial rounds of the scheme, loan financing of at least 30% from a partner bank will be mandatory. The prospective Auxiliary Farm Service Providers must contribute at least 30% from own resources. The rest will be from the project contribution and credit from financial institutions. The scheme offers investment incentives ranging from 25-40% in round one (PY 2-3), 15-25% in round two (PY 4-5) and 10% in round three (PY 6-7). The scheme aims to incentivise more women to become involved in the Scheme, and an additional 10 % subsidy is available on all packages and in all rounds if the applicant or the institution majority owned by females, or uses female operators.

150. The Rural Finance Manager in the NOSP PCU and hub-based technical service providers will assist VSLAs, producer groups and other applicants of the scheme to arrange finance with the financial institutions participating in the scheme. The MSPs will be used to facilitate the engagement between the banks and scheme applicants.

151. **Type of Equipment.** There will be three types of equipment packages available in the Scheme. The small package, based around a 20hp walk-behind tractor, is targeted at producer groups. The medium and large-scale packages are for 2wd 60hp and 4wd 80 hp tractors is aimed at cooperatives and commercial service providers. The larger package is aimed at contractors. All packages are open to any applicant within the value chain. The National PSP will assist applicants in determining the most feasible option. The scheme should be driven by and be adaptive to private sector demands. There will be annual reviews to assess the needs of the private sector and adjust the scheme to cater for these if necessary.

Round 1 – first movers Yr2-3

Auxilary Farm Service Scheme Schedule	Units	allocation guidelines for hubs	Contributions	Total Value
C. Mechanization Business Financing Round 1 - First movers Yr 2-3				
1. Small-scale mech package (US$8400 each, incl taxes)				
a. Investor = Producer group (incentive = 50% w/ women bonus)				
Investment incentive - NOSP	100	20-25	4,200	420,000
Beneficary contribution			4,200	420,000
Subtotal Investor = Producer group (incentive = 50% w/ women bonus)				
b. Investor = SME (incentive = 35% w/ women bonus)				
Investment incentive - NOSP	50	10-15	2,940	147,000
Beneficary contribution			5,460	273,000
Total units	150			
2. Medium-scale mech package (US$38800 each, incl taxes)				
a. Investor = Producer group (incentive = 50% w/ women bonus)				
Investment incentive - NOSP	30	6-8	19,400	582,000
Beneficary contribution			19,400	582,000
Subtotal Investor = Producer group (incentive = 50% w/ women bonus)				
b. Investor = SME (incentive = 35% w/ women bonus)				
Investment incentive - NOSP	30	6-8	13,580	407,400
Beneficary contribution			25,220	756,600
Total units	60			

Round 2 – early expanders Yr3-4

Auxilary Farm Service Scheme Schedule	Units	allocation guidelines for hubs	Contributions	Total Value
D. Mechanization Business Financing Round 2 - Early expanders Yr 4-5				
1. Small-scale mech package (US$8400 each, incl taxes)				
a. Investor = Producer group (incentive = 35% w/ women bonus)				
Investment incentive - NOSP	100	20-30	3,360	336,000
Beneficary contribution			5,040	504,000
Subtotal Investor = Producer group (incentive = 35% w/ women bonus)				
b. Investor = SME (incentive = 25% w/ women bonus)				
Investment incentive - NOSP	50	8-12	2,100	105,000
Beneficary contribution			6,300	315,000
Total units	150			
2. Medium-scale mech package (US$38800 each, incl taxes)				
a. Investor = Producer group (incentive = 35% w/ women bonus)				
Investment incentive - NOSP	25	4-6	15,520	388,000
Beneficary contribution			23,280	582,000
Subtotal Investor = Producer group (incentive = 35% w/ women bonus)				
b. Investor = SME (incentive = 25% w/ women bonus)				
Investment incentive - NOSP	25	4-6	9,700	242,500
Beneficary contribution			29,100	727,500
Total units	50			
3. Large-scale mech package (US$473300 each, incl taxes)				
a. Investor = Producer group (incentive = 35% w/ women bonus)				
Investment incentive - NOSP	10	2-3	18,932	189,320
Beneficary contribution			28,398	283,980
Subtotal Investor = Producer group (incentive = 35% w/ women bonus)				
b. Investor = SME (incentive = 25% w/ women bonus)				
Investment incentive - NOSP	15	3-4	13,950	209,250
Beneficary contribution			41,850	627,750
Total units	25			

Round 3 Main Adopters Yr6-7

Auxilary Farm Service Scheme Schedule	Units	allocation guidelines for hubs	Contributions	Total Value
Mechanization Business Financing Round 3 - Main adopters Yr 6-7				
1. Small-scale mech package (US$8400 each, incl taxes)				
a. Investor = Producer group (incentive = 20% w/ women bonus)				
Investment incentive - NOSP	100	20-30	2,520	252,000
Beneficary contribution			5,880	588,000
Subtotal Investor = Producer group (incentive = 20% w/ women bonus)				
b. Investor = SME (incentive = 20% w/ women bonus)				
Investment incentive - NOSP	50	10-15	1,680	84,000
Business contribution			6,720	336,000
Total units	150			
2. Medium-scale mech package (US$38800 each, incl taxes)				
a. Investor = Producer group (incentive = 20% w/ women bonus)				
Investment incentive - NOSP	20	3-5	11,640	232,800
Beneficary contribution			27,160	543,200
Subtotal Investor = Producer group (incentive = 20% w/ women bonus)				
b. Investor = SME (incentive = 20% w/ women bonus)				
Investment incentive - NOSP	20	3-5	7,760	155,200
Business contribution			31,040	620,800
Total units	40		-	1,552,000
3. Large-scale mech package (US$473300 each, incl taxes)				
a. Investor = Producer group (incentive = 20% w/ women bonus)				
Investment incentive - NOSP	10	2-3	14,199	141,990
Beneficary contribution			33,131	331,310
Subtotal Investor = Producer group (incentive = 20% w/ women bonus)				
b. Investor = SME (incentive = 20% w/ women bonus)				
Investment incentive - NOSP	20	3-5	11,160	223,200
Business contribution			44,640	892,800
Total units	30		-	696,500

152. **Telematics System.** To develop the demand and supply linkages in the supply chain an "uber-type" telematics platform will be piloted. The system connects farmers, tractor operators and intermediaries and allows farmers to order and pay for the services on a mobile app. This platform also allows tractor owners to monitor movement and work progress of their equipment. The data from the system must be made available to the PCU so that NOSP can analyse the when and where the tractors are working. This will help identify bottlenecks and areas of low uptake within the hubs so that the team can take timely action to address these issues and refocus resources as required. It will also allow the PCU to verify that the tractors are being used in accordance with the terms laid out in the beneficiary contracts.

153. **Management and Implementation.** In NOSP, the Scheme will be coordinated by the PCU Agronomist working together with the National and Hub-based PSPs. End of season hub meetings to review activities and share the experiences will be organized with participation of National PSP and the PCU Agronomist. This will be complemented by Annual Outcome Surveys done by M&E team and using the telematics data. The experiences from successful interventions will then be built into the planned activities for the following season.

Table 4: Tractors and Equipment in the Farm Mechanization Packages to Be Supplied by the PSP under the Auxiliary Farm Services Scheme

Small scale mechanization package (PG with minimum 50 acres per season	Specification	Price (USD)
2-wheel walk-behind tractor 20hp	20hp diesel	4,000
Tillage Implement attachments	Two tine chisel plow and power tiller	2,000
Trailer	Pay load 1 ton	2,000
Threshers – multi crop*	Powered by tractor	3,000
Harvester*	Powered by tractor - mounted	3000
Fleet management system	Telematics	200
Total		**11,200**
Medium Size mechanization package for Coops with minimum of 300 acres/season		
Tractor	2-wheel drive 60hp	18,700
Sub soiler three tines		1,980
Disc harrow	Offset mounted disc harrow (LD) 20-disc x 22”	3,710
Boom Sprayer	600L 12m boom	1,590
Planter or Drill	Mounted Mechanical 4 row planter or Mounted 21 row disc drill	8,000
Tractor drawn and powered thresher *	NA	6,000
Tractor mounted and powered harvester*	NA	
Trailer for implements	5-ton multipurpose flat bed	4,130
Fleet management system	Telematics	200
Total		**44,310**
Large size mechanization package for minimum of 400 acres per season (commercial contractors)		
Tractors	80 Hp 4x4	25,500
Rippers/Subsoiler for 80Hp Tractor or similar	5 tine 400mm working depth	2,360
Offset mounted disc harrow	26 x 22” discs	5,550
Boom Sprayers	600L 12 m boom	1,590
Planters or Drill	Mounted Mechanical 6 row or Mounted 29 row disc drill	8,000
Tractor drawn & powered	na	

thresher*		
Tractor mounted and powered harvester*	na	9,000
Fleet management system	Telematics	200
Trailer for implements	5-ton multipurpose flat bed	4,130
Total		**56,330**

G. Quality Declared Seed Production Scheme

154. **Support to NARI in-breeder and foundation seed production.** The production of sufficient quantity and quality breeder seed to meet the demand for production of subsequent seed classes (foundation and certified seeds) is critical for seed value chain development. The National Agricultural Research Institutes (NARIs, i.e. six national commodity-based research institutes under the NARO secretariat) have the mandate to produce breeder seed of public varieties. NOSP will support these NARIs for breeder seed production and the ZARDIs for foundation seed production to ensure a consistent supply of early generation seed of public varieties for groundnut, sesame and sunflower. Makerere University will be supported to develop new varieties of soybean, along with increased innoculant production and innoculant supply chain development. Options for sub-contracting the foundation seed production by ZARDIs to local seed businesses will also be pursued. NOSP activities will include:

- Year 1: conduct an inventory of existing NARI and Makerere University breeder and foundation seed production capacity
- Year 1: conduct a seed demand survey for breeder and foundation seed by local seed businesses (LSBs)
- Years 1-4: develop an annual groundnut, sesame and sunflower seed production plan and budget for NARI
- Years 1-4: develop a soybean breeding program and budget for Makerere University
- Years 1-4: develop an annual soybean seed production plan and budget for Makerere University
- Year 3: develop an exit strategy for NARIs and Makerere University for sustainable seed production on a commercial basis.

155. **Zonal agro-ecological testing by ZARDIs.** The sustainability and resilience of local seed systems has been shown to be directly linked to timely supply of quality foundation seed and access to new varieties that suit smallholder farming systems. NOSP will work with the ZARDIs to evaluate new crop varieties that are pest/disease resistant, drought tolerant and market preferred and asses the associated production technologies. These evaluations will be conducted in all six hubs. Promising interventions will be tested on-farm, technically supervised by ZARDI staff and the FPAs. The technologies to be demonstrated/evaluated will be determined during the hub MSP meetings and during cluster planning. Each demonstration will continue for four seasons to capture any impact due to

seasonal variations in rainfall, temperature and pest attack. The ZARDIs and FPAs will organise field days at planting, mid-season and at harvest. New demonstrations should be added if new varieties or production technologies become available.

156. NOSP-supported activities will include:

- Each ZARDI should host production demonstration trials of new seed varieties released by NARO and/or commercial seed companies or imported varieties by commercial seed companies
- Each ZARDI should establish each season demonstrations of mechanisation and climate smart production technologies
- For Years 2-6: develop an annual multi-locational district level trial workplan and budget
- Collect, collate, analyse and publish seasonal data in reports, technical papers and extension leaflets.

157. **Local seed business development.** Farmer group seed production and delivery activities will be linked to the LSB programme operated through ZARDIs. The LSB programme has been working successfully with farmer groups in the northern region for the last 10 years. NOSP will build on this scheme and avoid duplication of efforts between different programmes. NOSP-supported activities will include:

- Conduct a capacity needs assessment of existing LSBs detailing, among other things, the years of experience, location, farm group size, seed production capacity, seed crops grown, and the capacity development needed
- Conduct an assessment of seed demand from existing FGs and map to existing LSB capacity
- Produce an inventory of registered LSBs, their QDS varieties and volumes and publish via FPAs, DLG etc
- Develop, where needed, new LSBs, build their capacity and link to clusters where there is demand for QDS
- Develop a certification verification plan with NSCI to ensure that only QDS is produced for the NOSP clusters.

DETAILED IMPLEMENTATION MODALITIES: COMPONENT 2: MARKET LINKAGE INFRASTRUCTURE SERVING OILSEEDS SECTOR

158. The objective of Component 2 is to improve local level market linkage transportation infrastructure services to facilitate the commercialisation of the oilseed sector in selected sub-counties and districts.

159. The implementation of activities under this component will facilitate the private sector to increase investments that promote the production and marketing of good quality oilseeds in the selected sub-counties and reduce the time and cost of transport to the market. The component will improve access to markets, reduce transaction costs and increase farmers' income through improved community access road networks.

160. The component will be implemented lead by the Ministry of Local Government (MoLG) and their District and Sub-county local governments, in close collaboration with MAAIF, building on the lessons learned from CAAIP1, CAAIP2, CAAIP3, PRELNOR and other projects financed under the two ministries.

161. **Implementation arrangements.** The implementation arrangements for the construction and rehabilitation of all CARs under the project will follow the already successfully used processes and procedures by MoLG. The lead implementing agency for the component is MoLG. MoLG will establish a small NOSP Project Implementation Coordination Team (PICT) to coordinate the rural infrastructure component of the project (Component 2). The PICT will comprise of a Coordinator; Infrastructure Engineering Advisor (seconded by MoWT); Financial Controller; Procurement Officer and Accountant. In addition, five Infrastructure Engineers will be recruited and based in selected hubs. Specific responsibilities of the PICT in MoLG will be: (i) manage project activities under Component 2 and the related IFAD and OFID loan funds; (ii) procure, contract, manage and supervise design contracts for CARs in liaison with DLGs; (iii) support DLGs in procurement and management of contractors of CARs; (iv) liaise with the MAAIF PCU to prepare project AWPBs for PSC and IFAD approval; (v) disburse and control the flow of funds for Component 2 activities; and (vi) work with the MAAIF PCU to submit and consolidate required project implementation progress and financial reports to GoU, IFAD and other stakeholders.

162. The roads to be developed with the support of Component 2 will be identified through a process led by Component 1 activities, prioritising CARs that serve the oilseed clusters. The oilseed sector players will agree on the location of clusters of oilseed production and priority roads for improvement. The PCU will submit a list of the priority CARs to the Component2 PICT for the feasibility studies. After completion of the feasibility studies, the PCU will make the final selection of the roads to be developed. The CARS selected will proceed to have ESIAs and detailed engineering designs prepared, and construction undertaken as described below.

Implementation schedule

	Quantity	Yr1	Yr2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
Community awareness and social mobilisation		-						
Procurement of consultants								
Feasibility studies and engineering designs	1,000 km	-	-	1,000	1,500		-	-
Environmental and Social Impact Assessments		-	-	1,000	1,500		-	-
ESMP implementation								
Procurement of contractors								
Road construction works					1,000	1,500		
Construction supervision	1,000				1,000	1,500		

163. **Tripartite Implementation agreements***.* During the first year of implementation, the selected district local governments, MoLG and MAAIF will sign an MoU that outlines the roles and responsibilities for each party. The articles of the MoU will include : a) district confirms that it has adequate staff, with the requisite competency to undertake the work as required; b) the need for the district to conduct the procurement process in an impartial and transparent manner; c) the role of MoLG PIU in quality assurance of all work done at district level; d) training to be provided to district and sub-county staff; e) commitment of the district and sub-county to allocate resources for maintenance of the roads; and f) the support to be expected from the project and to be provided by the district and sub-county to facilitate the execution of all activities.

164. **Identification and Selection of community access roads**. The selection of roads will be carried out through a consultative and participatory process at the sub-county and multiple stakeholder platforms at the cluster levels. The selection will be initiated by mapping of priority oilseed production areas (current and potential) and status of CARs in these areas by the MSPs, during the first year of implementation. Community access road improvement efforts will rehabilitate and open new roads serving priority oilseed production areas. The criteria for selection of the CAR would be: (i) high concentration of poverty; (ii) the district and main roads connecting to the CAR are in good condition and there is no need for major investments for their upstream improvements; (iii) high production levels for oilseeds in the target areas; (iv) there are no major social and environmental problems that require mitigation by the project; (v) there is willingness by farmers served by the road to participate in the project; and vi) the area is not served by CARs improved by another in the last 10 years. Annex 1 presents a detailed flowchart for the CARs selection process under NOSP.

165. Districts with selected sub-counties will prepare a map of the sub-counties growing oilseed that includes the following: a) indicating areas growing oilseeds by crop; b) acreage of oilseeds by type; and c) network of CARs serving the area and their condition, clearly indicating the main bottleneck. Using the map, the district road engineers and crop production officers, assisted by the MSPs, will compile a list of priority roads for each sub-county to be submitted to the PCU. The PCU will further prioritise CARs across the districts and allocate funding per district to undertake feasibility studies. The final list of roads

selected for feasibility studies will be submitted to the PICT and each district will be notified of the selected CARS. An estimated 2,500 km of CARs will be upgraded or developed, benefiting about 350,000 households.

166. **Community awareness and social mobilization.** When the road to be improved are identified, the district and sub-county local governments, supported by the PICT, will hold community meetings in all villages where the road will pass through make the population aware of the upcoming project, get their consent on land acquisition through the area (as necessary), make them aware of possible negative and positive impacts of the road and get acceptance of the road.

167. **Establishment and strengthening of road committees.** The project will facilitate the establishment of road committees to facilitate interaction with the communities during road design and construction activities. The committee will assist in community consultation process during feasibility studies and construction, monitoring construction activities and their impacts, advising on mitigation measures and organizing road maintenance groups. The committee will also assist in mobilizing labour during construction. The members of the road committees will be drawn from the villages through which the road passes.

168. The road committee will participate in the site meetings and endorse the payment certificates for contractors, to express satisfaction with the way the contractor worked with the community.

169. **Feasibility studies and detailed designs of CARs**. Feasibility studies and detailed designs will be done by contracted consulting companies. The consultants will be selected through a competitive procurement process by the PICT. Work packages will be organised for efficiency and cost effectiveness in procurement. The procurement process will be managed by the Component 2 PICT in MoLG and the contracts signed by the PS of MoLG. It is expected that the procurement process may take up to 12 months to be finalised, hence special attention needs to be made to facilitate this process. The tripartite agreement will include a requirement for the Component 2 PICT to give a no objection on the selection of contractors for road construction by the district local government.

170. A socio-economic baseline study will be undertaken in the road zone of influence (2 km each side of the road). The baseline survey will identify areas opened for agriculture and types and quantities of crops being grown, estimate usage of the exiting road/track by type of vehicles, and estimate the time and cost to get produce to the market. This data will be used to estimate the cost effectiveness of the selected option of road construction.

171. Detailed engineering designs will be carried out for roads that have been selected after feasibility studies and approval by NEMA. The detailed studies will be done by the same consultants that will have undertaken the feasibility studies. The contracts for the consultants will include a condition for possible termination, if the road is not found to be feasible for the NOSP support.

172. **Specification of CARs.** Existing community access roads to be upgraded or new roads constructed in underserviced areas will be constructed with standards consistent with climate change resilient norms, including all the required ancillary structures as per the

requirements of the District Class III roads standard of the Ministry of Works and Transport (MoWT).

173. **Climate resilience.** Projections based on Global Climate Models indicate potential 10-20% increase in run-off for the whole country, hence the use of District Class III road specifications for the CARs is a way to ensure that the roads are climate proofed. However, the road design shall use hydrological models that consider the future climate scenarios to confirm the adequacy of hydraulic structures to extreme climate events, commensurate with the expected life of the road.

174. **Road water harvesting.** In addition to integrating emerging climate parameters and projections into road design, the design of roads will incorporate road water harvesting in all roads where the opportunities are available and does not lead to excessive increase in construction costs. The water harvested can be used for livestock watering and irrigating small gardens. The placement of the ponds to harvest the water should be either in sub-county-owned land (if for communal use by communities) or as consented by a landowner for private use. The water harvesting structures for community use will be fully financed by the project and those for private use will be financed by the landowners. The project will learn from the experience of PRELNOR on incorporating rainwater harvesting in road designs. The terms of reference of the road design consultancy will include investigating opportunities for rainwater harvesting at the design stage.

175. Road designs will be specific to the specific conditions of each road. While it is expected that the project will target pre-existing CARs, where routes and alignments are already established, it may also develop new roads from tracks, as may be required to improve access to oilseed producing areas. The cost of feasibility and design studies is estimated to cost about USD 1000/km of road surveyed.

176. **Environmental and social impact assessments.** Environmental and social impact assessments will be carried out for all roads that are selected as feasible, in accordance with national laws and regulations. The district environment officers will lead the preparation of all environment studies for all selected roads. The environment impact assessments will be carried out by independent consultants registered under NEMA. The consultants will be procured through a competitive process by the Component 2 PICT.

177. **Construction of roads.** Road construction will be carried out by competitively recruited private contractors. The procurement processes for the contractors will be managed by the District Local Governments with support and supervision by the Component 2 PICT in MoLG. Work packages will be organised in a way that will be adequate to attract competition from contractors and provide value for money. It is expected that the procurement process for the contractor may take up to 12 months to be finalised, hence special attention needs to be made to facilitate this process. The DAO will sign the contracts for CAR construction. During construction, the contractor will prepare progress reports, and organize regular site meetings.

178. The employment of workers will follow national construction industry standards, paying attention to the work conditions, such as provision of safety clothes, adequate resting breaks, adequate clean water supply and ablution facilities.

179. **Use of local labour during construction.** The contractor will be required to prioritise recruitment of both skilled and unskilled labour from the local communities as much as is practical. The contractor will work together with the road committees to identify

available skilled and unskilled labour from the villages where the road is passing through. Attention will be paid to identify work that can be done by women and facilitate their employment in a way convenient for them. This may be through half day employment opportunities or provision of catering services for workers.

180. The estimated construction cost per kilometre of CAR is USD 20,000. The cost is an average cost that includes all drainage ancillary works that may be required for each road.

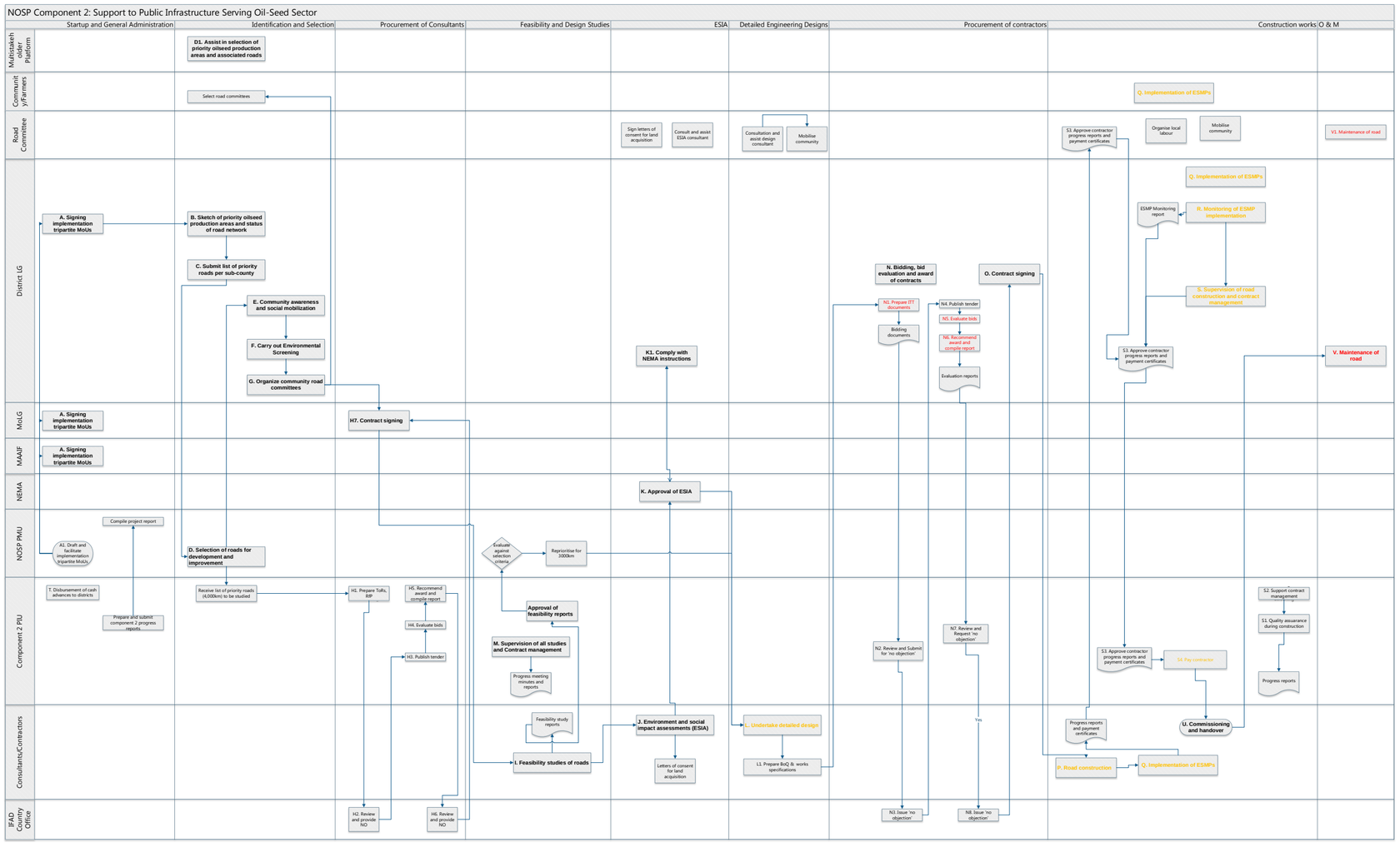
181. **Construction supervision.** The District and Sub-County Local Government engineers will be responsible for the supervision of construction works. The Component 2 PIU engineers will provide quality assurance during the construction by making periodic site inspections, attending site meetings and reviewing proposed construction methodologies, test results, progress reports and payment certificates. The PIU can reject a payment certificate that it considers inadequate.

182. As part of monitoring and evaluation activities, the construction supervision reporting will be digitalised to have the construction supervisor and their clerk of works create and upload progress reports, pictures and any site instructions given on a frequent basis to be available for review by the PICT. The digital platform will also work as a collaborative platform among the project staff to help each other in sharing experiences and solutions in real-time across the project.

183. **Commissioning and handover.** At the completion of construction, each road will be commissioned and handed over to the district authorities by the contractors. The road committee will also sign the handover certificate to indicate that participated in the construction and are satisfied with the way the contractor conducted work.

184. **Road maintenance.** The district and sub-county local governments will be responsible for the maintenance of all roads developed under the project. The tripartite agreement will include an undertaking by each district that adequate resources will be made available for the maintenance of the roads. It is also preferred that that priority CARs selected are potential candidates for upgrading to district roads, so that they can benefit from allocation of funding from the road fund.

Component 2 Implementation flowchart



KEY PROJECT PROCEDURES

A. Planning and AWPB Process

185. The logframe of NOSP (see Annex 1 of PDR) will be the key guide in the development of work plans and budgets. Planning and budgeting will be integrated in the GoU processes and cycles and will be based on Annual Work Plans and Budgets (AWPBs). These, together with the logframe's quantified results-based indicators and NOSP MIS database, will provide the primary basis for monitoring the NOSP progress.

186. The planning process will start at hub-level taking into consideration the priorities identified through MSPs. Under the guidance of the PCU and PICT, hub plans and budgets will be consolidated into a comprehensive NOSP AWPB that will be submitted to the PSC for review and approval and then to IFAD for review and the issuing of no objection. The AWPB will clearly indicate which activities and budget lines fall under the Budget Framework Papers of MAAIF and MoLG, respectively.

187. The PCU and PICT will jointly provide overall guidance in the planning and budgeting processes. The PCU M&E Specialist will work in close liaison with Financial Controllers in both ministries to ensure the budgeting is adequate and conforms to the right categories and components. Subsequent AWPB processes will offer the opportunities to the PCU and PICT to reflect on lessons from the implementation experience of the previous years, and to propose activities and expenditures required to achieve the intended programme outcomes. The Programme will have the possibility of revising the AWPB at any time of the year, and any proposed adjustments will require approvals by both the GoU and IFAD.

B. M&E, Knowledge Management and Communications

188. NOSP will develop a robust M&E system in compliance with IFAD and GoU requirements, to (i) collect, analyse and update information on project results and impact; (ii) support the PCU and the Steering Committee in planning and making informed decisions on strategies and actions; (iii) maintain and strengthen strategic partnerships with stakeholders; and (iv) create opportunities for learning and sharing results, good practices and lessons learned. The project M&E will be linked to the management information system (MIS) that provides project management team and supply chain (SC) teams with timely and reliable data on developments against the logframe indicator targets at individual, household, cluster and buyer/supplier level. The project M&E processes will integrate IFAD's RIMS/ Operational Results Management System (ORMS)[5], the project logical framework, principles of the Donor Committee for Enterprise Development Standard (DCED Standard)[6] and the National Agriculture Sector Strategic Plan for Uganda[7]. In the Project Coordination Unit (PCU), the Monitoring and Evaluation Specialist will lead all internal M&E activities and together with the component leads and M&E and data management officers, design the M&E plan, MIS and progress reporting templates. NOSP will submit quarterly, semi-annual and annual progress reports to Government of Uganda and IFAD as per the requirements.

[5] Taking IFAD's Results and Impact Management System (RIMS) to the Next Level

[6] The DECD Standard for Measuring Results in Private Sector Development

[7] https://www.agriculture.go.ug/agriculture-sector-strategic-plan-assp/

189. NOSP will have a qualified M&E and KM team which will consist of an M&E and KM Specialist (see TOR in the Project Management section of the PIM) and a Data Management Assistant at PCU and an M&E Assistant at each HCU (TORs in Appendix 1 and 2 below). The team will ensure that the M&E data is up-to-date, verified and analysed to inform project planning and decision making and that relevant information in produced into knowledge products for sharing with a wider audience. The M&E team will work in close coordination with the supply chain team, engineers, management team and implementing partners to ensure the M&E system collects, analyses and reports on all required indicators. Below, the key features of planned NOSP M&E system are described.

Annual Work Plan and Budgets (AWPB)

190. The PCU will prepare the AWPBs following evidence-based performance review during the final quarter of each fiscal year to serve as the basis for project planning, implementation and progress monitoring for the following year. Hub Coordination Units (HCU) will consolidate the annual plan from the implementing partner organisations and submit the consolidated one to the PCU. Upon finalization, the PCU will share the final version with the Project Steering Committee for approval and then submit to IFAD for 'no objection' approval no later than 60 days prior to the start of the next fiscal year. The Table below shows the key reporting responsibilities and frequencies for NOSP.

Institution	Reports	Frequency
IFAD	AWPB (IFAD template)	Last quarter of the year
	Narrative, Physical Progress and Financial Reports against AWPB (IFAD templates)	Semi-annual, Annual
Agriculture Planning Department in MAAIF	Narrative, Physical Progress and Financial Reports against AWPB (Performance Based Budgeting System templates provided by MAAIF)	Quarterly, Semi-annual, Annual
Office of the Prime Minister (OPM)	Narrative, Physical Progress and Financial Reports against AWPB (templates provided by OPM)	Quarterly and Annual

M&E Plan

191. Once the project staff is recruited, the PCU will prepare an M&E Plan that will encompass the following:

i. Preparation of M&E matrix with details on how all indicators will be collected, by who and at what frequencies;

ii. Procedures, tools and templates for data collection, entry and analysis including MIS;

iii. Details of how the indicators will be measured;

iv. Flow of communication and reporting along with timelines;

v. Assessment of the capacity of staff (PCU, Hub and field staff- both M&E and others) in undertaking M&E responsibilities;

vi. Capacity building on M&E data collection and analysis for staff based on the needs assessment.

192. In the process of designing the NOSP M&E system, the M&E team will:

a) Finalise the design of project M&E processes that integrate IFAD's RIMS/ Operational Results Management System (ORMS)[8], project Logical Framework, principles of the Donor Committee for Enterprise Development Standard (DCED Standard)[9] and the National Agriculture Sector Strategic Plan for Uganda. The M&E system will include the use of regularly updated results chains and M&E frameworks for each priority cluster to compliment the overall M&E and project logframe. The use of results chains for each cluster and commodity will enable the identification and tracking of intermediate change indicators and allow the cluster stakeholders to have an evidence-based understanding of the opportunities and challenges in the sector.
b) Develop survey tools and formats for tracking of data to monitor and analyse the overall performance at household, group and cluster level.
c) Design of a Management Information System (MIS) which will be an important element in improving the efficiency and reliability of the M&E of NOSP. The project will develop a robust online web-based MIS system hosted in the PCU, linked to online/offline tablet-based direct data entry in the field.
d) Ensure the financial management system is able to tag all expenditures by commodity/cluster/district and the type of activity to allow for segmented analysis of the costs and benefits for the different clusters, commodities and locations.
e) Design and deliver capacity building trainings on M&E system, data collection tools and formats and use of tablets to PCU and Hub staff. The Hub M&E assistant will further train the Mentors to use tablets for data collection.

Data Collection Tools

193. NOSP will build on IFAD's growing experience of mainstreaming household and group tracking as part of the self-learning process for supported farmer households and producer groups. This will be achieved through the business skills training activities and follow-up which will encourage the majority of project supported households to maintain household record books of their farm/non-farm enterprises. The experience to date is that the individuals and households themselves place a very high value on the insights they gain from their own enterprise records and a large majority are keen to keep their records books up to date once they are given the skills and support to do so. A similar process of self-assessment and data gathering will be used to track key indicators from the HHM activities. All project data will be collected through tablets and linked to the MIS. All M&E data will be disaggregated by gender, age and poverty and assessed against project's targets in logframe[10] and checklists[11].

[8] Taking IFAD's Results and Impact Management System (RIMS) to the Next Level

[9] https://www.enterprise-development.org/wp-content/uploads/DCED_Standard_versionVII_Apr15_bluecover.pdf

[10] See NOSP Logframe in Annex 1 of the PDR

[11] See Gender and Targeting Checklist in the targeting section of the PIM

194. **Cluster and industry tracking** data will be used to monitor and assess the overall performance, issues and challenges in the clusters supported by the project as well as the whole sector. The cluster data will be collected every season and more frequently as needed and entered into MIS, which will provide a detailed overview of the performance and growth patterns in the clusters. The project will follow a system of 'rolling baselines' in which baseline data on each cluster is collected at the time that interventions begin in the particular supply chain in each cluster. This will include households, groups and trader/agri-business surveys as well as the use of secondary data sources. Data for the cluster tracking surveys will come from multiple independent sources:

i. Household and group data tracking;
ii. Buyers and supplier data tracking;
iii. Secondary sources

195. **Household and Group Tracking** will be an integral part of the project M&E to ensure that household and group level data tracking on seasonal basis is embedded into the everyday operation of the project. The data will be VC specific and focus on production, post-harvest and marketing, sources of financing and loans obtained and household relations. The data collection and tracking will be done through business skills and HHM mentors and overseen by the Economic Mobilization and HHM teams contracted to each Hub under Private Service Provider contracts. All households participating in project-supported groups will be given a unique identification number in the MIS so that activities and results can be traced back to the specific household.

196. In order to record the data, **Farm Business Diaries** will be provided to all households participating in business skills training to maintain the records of the main commodities supported by the project. The Diaries will also have a section to report results generated from HHM session. The baseline and seasonal data will be entered into the MIS system and will form part of the cluster data. The diaries will be pre-printed with relevant indicators for both farm business and HHM in user-friendly template to guide the farmers along the process. Farmers will be oriented and supported to keep the records up-to-date by the mentors and peers. Besides informing the project MIS, this will also allow the farmers to record their starting position against which to compare progress over time so they can better understand the cost and benefits of their investments in the oilseeds supply chain and have a better knowledge of their margins to negotiate with buyers and suppliers. Further, the business skills mentors will organise seasonal review meetings within each producer group to review individual and collective results from the season and discuss opportunities to improve for the next season. As part of these group review meetings, the mentors will collect key information from the farm diaries for each household and enter the data into the forms on their tablets using the household specific ID. These MIS data will be cross referenced with relevant sources including loan data provided by the financial institutions and utilization capacities of processors for triangulation and analysis of results.

197. Likewise, group tracking data will be used to assess the maturity of the groups to graduate as independent and self-sustaining. The **maturity assessment** will be done after two to three years of group formation/support and will have a combination of both self-assessment checklists and external assessment tools. Set of criteria for group maturity will be agreed by the project upon participatory discussions with farmers and key stakeholders. Some key criteria include the following:

- linkage to input/output markets and financial services for commercialisation,
- access to quality seeds of improved varieties

- VLSAs linked to FIs (SACCOs/MFI/Banks)
- Group saving regularity at 80%
- Group meeting attendance at 80%
- Loan repayment at 95%
- active participation in MSP
- inclusive and well-functioning group governance
- complete and up-to-date records.

198. The group maturity assessment data will be verified by the Economic Mobilizers and HHM Field Supervisors and entered into the MIS system for further analysis by M&E team at Hub and PCU.

199. **Buyer and supplier tracking** surveys will be conducted seasonally by supply chain teams at the Hubs with support from PSPs and entered into the MIS in a similar process used for the individual/household data. The survey results will be part of the rolling cluster baselines and annual cluster tracking and will include basic data on volumes, prices, timing, origin and destination of purchases and sales. Information sharing will be based on the mutual understanding of getting a better overview of the growth, challenges and opportunities in the industry. In addition, buyers and suppliers will be expected to share the data on a *quid pro quo* basis in exchange for being able to participate in cluster development activities, including the MSP and B2B processes.

200. For **roads construction**, NOSP will conduct feasibility studies and environment and social impact assessment for each stretch of the road as per the GoU's guidelines and FAD's Social, Environmental and Climate Assessment Procedures (SECAP)[12]. Separate reports of road construction committee meetings will also be recorded.

201. Other reports for the project will include field visit reports (farmer groups/processors/road construction sites etc.), monthly meeting minutes of the different implementation units, MSP meeting minutes, specific reports and information generated during supervision missions, and joint reviews by IFAD and the GoU.

Data Collection and Entry

202. Business Skills Mentors and HHM Mentors will be provided with tablet computers with project MIS data entry forms and tools installed. They will be provided with a data allowance and paid a small fee for data collection and entry into the MIS. Tablet-based data entry forms will be geo-referenced and will include data screening and built-in data validation prompts to reduce data entry errors at source. For areas with no cellular network, data entry will be done either off-line or with a live connection to the internet via mobile networks. Data will then be sent automatically from the tablets to the centralized MIS database once a network connection is established. Data received at the central MIS will reviewed and verified before it is uploaded into the main MIS database. In case of errors and anomalies, the relevant mentor will be required to recheck and resubmit the data. Payments for data collection will be released only when the records are cleared and accepted into the central MIS. In addition, the PCU, Hub and field staff will be encouraged to use social media tools (project website, twitter etc.) to improve communication and information sharing within the project and among stakeholders.

Baseline Surveys, Impact Evaluations, MTR and PCR

203. **Project Baseline**. A baseline survey will be conducted before project intervention in project areas with the objective to establish benchmarks for time-series comparisons between project direct beneficiaries, flow-on beneficiary and non-

[12] IFAD's Social, Environmental and Climate Assessment Procedures

beneficiary control population. Separate socio-economic baseline surveys will also be conducted for each stretch of roads.

204. In addition, at each cluster level, NOSP will follow a system of 'rolling baselines' in which baseline data on each cluster is collected at the time that interventions begin in the particular supply chain in each cluster. This will include households, groups, cluster and trader/agri-business surveys as well as the use of secondary data sources. While the project baseline will be outsourced to a consulting firm, the rolling baselines will be conducted by Business Skills and HHM mentors.

205. **Mid-Term Review.** (MTR) will be carried out towards the end of the project's third year. The MTR will cover physical and financial progress as measured against AWPB, performance and financial management of implementing partners and assessment of the technical assistance, training programmes and delivery of project benefits to the target groups. In addition, it is expected that the MTR would look at the effectiveness of HHM to high risk families and assess in detail the socio-economic status of women and youth. The findings and recommendations from MTR will inform the project on decision-making on any required adjustments, scaling up and further expansion of project interventions.

206. **Annual Outcome Surveys.** The project will commission annual outcome surveys to track the progress of project supported supply chains against the overall baseline and the rolling baseline data. Survey data will be mutually supplemented as appropriate through regular exchange with government statistics and other relevant sources of information such as the Living Standards Measurement Surveys. The outcome surveys will also compare the impact of the project on NOSP beneficiaries versus other non-NOSP beneficiaries. Two potential control groups for household level outcomes could be: (a) other commercially-oriented oilseed producers that do not benefit directly from NOSP but may benefit indirectly from investments in market infrastructure and processing and storage facilities and (b) other oilseed producers who are not commercially oriented and who are not direct beneficiaries of the program. These producers may be affected negatively by the project if system-wide effects drive down prices for oilseeds. Comparison of the treatment group with this control group would likely overestimate the true impact of the program.

207. **Project Completion Report/Impact Assessment (PCR).** PCR will be conducted during the final year of project implementation. The M&E data collected over the project implementation period will be used as part of the PCR to assess the changes in the livelihoods of the target groups and for sharing of lessons learned and good practices. The project completion process will include reflection workshops where stakeholders have the opportunity to evaluate the performance of the project, identify success factors and areas of further interventions and discuss the way forward for sustainability. Key outcome indicators for impact assessment, in addition to productivity/profitability of specific oilseeds, household income and assets, will also include resilience to climatic shocks and women's empowerment, particularly the impact of HHM/GALS).

Knowledge Management and Communications

208. After the NOSP start-up, the project will, with support from IFAD experts, develop an effective NOSP Knowledge Management (KM) Strategy and Action Plan that is linked to the M&E and MIS systems to ensure knowledge products are generated and used to improve project performance and results.. Lessons learnt in implementation will be actively shared between clusters and hubs. Quarterly review meetings with implementing partners will be organised by project management to discuss progress towards results in relation to each quarterly progress report, the format of which will explicitly include a focus on lessons learnt in terms of challenges, good practices, etc. Study tours, exchange visits and learning routes will be organised for lateral knowledge transfer. An effective downward and upward flow of information about project progress

to beneficiaries and implementing partners in the field is of utmost relevance in fostering ownership and participation.

209. The KM Strategy will have a strong focus on documenting best practices as well as positive and negative lessons from NOSP implementation experience, supported by reliable evidence and analysis. The wider adoption of NOSP's documented best practices will be an important measure of its success in knowledge management. Key elements of the NOSP approach to be documented in KM products and promoted for wider adoption by other organizations are expected to include, inter alia: improved business skills and financial literacy; multi-stakeholder cluster meetings and associated processes for inclusive cluster development; producer groups and member mentoring; market-based service market development; social mentoring and household methodologies; and promotion of private smallholder investment via savings and credit rather than grants.

Appendix 1: TOR for Monitoring and Evaluation Assistant at HCU

The M&E assistant will be based at the Hub and under the supervision of the PCU M&E and KM Specialist, S/he will take responsibility for data and database management, and assist the Business Skills and HHM mentors in data collection and entry into MIS. The M&E Assistant will perform data and reporting support functions and will overall be in charge of ensuring the project databases are regularly updated.

Duties and Responsibilities

The Hub Monitoring & Evaluation Assistant's duties and responsibilities include the following:

- Populate and maintain the project databases and MIS
- Support Business Skills Mentors and HHM Mentors in data entry into MIS on tablets
- Carry out data collection activities
- Produce summaries of the data entered to inform management
- Produce project maps
- Support other Hub staff and implementing partners in ensuring completeness of their routine reports
- Provide technical backstopping to in preparation of activity-based annual work plans and budgets to ensure compliance with the project's implementation approach and objectives

Specific Qualifications

The following specific qualifications are required:

- Bachelor's degree in Economics, Statistics, Agricultural Economics, Development Economics, Business Administration, Social Sciences or a related field
- Post graduate Diploma/Training in M&E is an added advantage
- At least 2 years' experience in data collection, data entry and data analysis is a must
- Post graduate training in Statistics is an added advantage
- Training and/ or demonstrated evidence in the use of Geo-spatial technologies (GIS) is an added advantage
- Demonstrated evidence design of data entry and analysis screens is an added advantage
- Good reporting and report writing skills
- Good knowledge of computer applications (particularly MS Excel, Word, Access and Powerpoint, STATA) will be an added advantage
- Working knowledge of written and spoken English

Appendix 2: TOR for Data Management Assistant at PCU

As a part of NOSP M&E team in PCU and reporting to the M&E and KM Specialist, the Data Management Assistant will support design and implementation of information systems intended to facilitate the flow of programme-related data for improved information management, reporting and progress tracking purposes.

The Data Management Assistant's duties and responsibilities include the following:

- Data Management:
- Assist in developing online and offline survey
- Assist in troubleshooting data submission errors and data error issues
- Provide support to the project team in analysis data for reports sand knowledge products
- Assist in performing and documenting procedures for data preparation including data cleaning, standardization and analysis
- Assist in producing weekly, monthly, annual data reports
- Assist in developing and update project's dashboard
- Assist in defining and/or creating data listings, summary table validation, data specifications and/or process data transfers in preparation for statistical review and/or data management audit
- Design maps using GIS
- Orienting implementing partners and Hub staff in data collection and entry in MIS via tablets
- Support in maintenance and repair of tablets

Specific Qualifications

- BA in Information Technology, computer science or a related field
- At least 2 years of relevant work experience in data management
- Experience with IT, particularly database design and management and web application
- Excellent knowledge of computer applications including programming, Microsoft Excel and Access
- Familiarity with digital data gathering platforms and software
- Good communication skills (written and spoken), good writing skills in English.

Appendix 3: TERMS OF REFERENCE FOR THE BASELINE SURVEY

1.0 INTRODUCTION

1.1. Objectives of the Terms of Reference

The purpose of these Terms of Reference is to enter into a contractual agreement with a successful bidder and select a suitable Consultant to undertake the baseline survey for the National Oilseeds Project (NOSP).

Consultants are requested to propose the best and most cost-effective solution to meet the requirements, while ensuring a high level of service. The expected procurement method will be Quality Cost-Based Selection i.e. QCBS (80 technical/20 financial). The evaluation is weighted in favor of quality over price. The Evaluation criteria will include: proven experience with implementation of similar assignments, technical and financial capacity to execute the assignment.

2.0OBJECTIVE AND SCOPE OF THE ASSIGNMENT

2.1 Objective of the Assignment

The main objective of the baseline survey is to establish impact level indicators (including RIMS, as per the logical framework) as well as a limited number of basic production and market access indicators. The existing social economic characteristics of the households in the project targeted areas, and their current income, food security and vulnerability status will provide a benchmark for measuring the effects and impacts of the project interventions in future.

The consultants will establish the first round of a panel data-set, to be used for impact assessment.

2.2 Scope of the Assignment

This study will establish baseline data/information at the individual/household level. The proposed specific objectives of the baseline study are:

1. To understand the household demographics.
2. To establish the households' asset ownership index and food security in the sample area i.e.
    - Financial assets (e.g. incomes, savings, capital, etc.);
    - Agricultural production assets (e.g. land/farm size, machinery and equipment, farm structures);
    - Physical assets (housing conditions, household items, transport facilities, etc.);
    - Human assets (i.e. education levels, food security, and sanitation facilities);
    - Food security (length of hunger months, and frequency of meals per day)
3. To establish the anthropometry characteristics of the households. This will be through finding out the following;
    - Name of the child (0-5yrs)
    - Sex of the child(0-5yrs)
    - Date of birth of the child(0-5yrs)

- Age in months of the child(0-5yrs)
- Height(centimeters) for the child(0-5yrs)
- Weight (kilograms) for the child(0-5yrs)

4. Calculate the indices for measuring malnutrition, namely:
    - under weight,
    - stuntedness, and
    - wasting
5. To establish the Women's Empowerment in Agriculture Index i.e. by measuring the role of women in:
    - decisions about agricultural production;
    - access to, and decision making power over production resources;
    - control over use of income (including credit);
    - leadership in the community; and
    - time use
6. To establish the ability of households to adopt to shocks
    - Resilience questions on ability to adopt to shocks
    - Include an indicator from biophysical monitoring assessment by CIAT/ICRAF (we better identify it at this stage as we can't send out the ToR for RFPs when we have not decided)
7. To establish the current levels of household crop production, productivity, and market access
    - access and use of mechanization
    - area planted
    - volumes harvested per unit area
    - volumes of crop produce

NOSP's primary target and beneficiary group are smallholder farmers (women, men and youth) engaged in the production of oilseeds. Smallholder farmers include the farmers whose farm size is less than one hectare (58% of the total population of smallholder farmers) and those whose farm size is more than one hectare but less than five hectares (38% of the total population of smallholder farmers)

2.3 **Expected Outputs and Deliverables**

The following outputs are expected from the consultant undertaking the assignment.

1. An inception report describing the consultants' understanding of the TORs, study design/ methodology and processes for undertaking the baseline survey. More specifically, it should also incorporate draft tools/data capture instruments and the proposed sampling framework.

2. Brief field report on challenges/difficulties or expected shortcomings related to the study and overall data capture exercise.
3. Draft report shared with the PCU.
4. Draft report incorporating comments from the PCU presented to key stakeholders.
5. Final Baseline Report incorporating comments from the stakeholders including the PCU.
6. A soft copy and five copies of final NOSP Baseline Report;
7. A DVD with pictures and some video recordings of the data collection exercise and the entire dataset (soft and hard).
8. Present a map showing the GIS coordinates of the survey participants.

3.0 METHODOLOGY AND ACTIVITIES

3.1 **Methodology and Approach**

The methodology and sampling design will be proposed by the consultant in the technical proposal and further detailed in the inception report. Primary data collection is required, with rigorous statistical frameworks for sampling and analysis. The consultancy team will familiarize itself with the project log frame and results framework. Secondary and qualitative information can be included if deemed relevant by the consultant. Data must be disaggregated by sex and age.

The purpose of the baseline will be to establish baseline indicators in the project area and to establish the first round of a panel dataset. Careful documentation of data collection methods and GPS coordinates of each household visited will be required, to establish a second panel at mid-term and/or impact assessment stage.

An expected 500 households will be randomly sampled throughout the 25 project sub-counties. Pre-existing questionnaire modules from IFAD and others will be used to the extent possible, as well as computation of indexes for easy evaluation and communication. The team will finalize and agree on the sample design in an inception meeting with the Project Coordination team (PCU).

Anthropometry characteristics will be determined on the children between the ages of 0-5 years living in the sampled households.

3.2 Specific Activities

The consultant(s) should conduct the following activities under each of the following phases:

A. Inception Phase

- Review the project literature to familiarize with project goals, objectives, strategies, activities and status.
- Develop sampling design, study methods and tools.
- Expound on the measurable indicators based in the broad project objectives
- Hold an inception meeting to agree on the indicators, sampling design, tools, and approach, with the project team.
- Prepare and submit a refined inception report.

B. Study phase

- Hire the services of and train experienced enumerators to collect data from primary and secondary sources.
- Data collection through conducting interviews, administering questionnaires and other tools, and holding focus group discussions where applicable.

C. Reporting Phase

- The analysis should be deepened not to provide only descriptive statistics, but also analytical statistics. The various indices mentioned (asset ownership & WEIE) should be calculated and results interpreted in writing.

- Prepare a brief report within a week from the end of fieldwork presenting challenges in the data collection process, as well as preliminary findings on key indicators and key lessons for future. The report will be presented to the project PCU.
- Prepare a comprehensive draft report incorporating the feedback from the PCU. The revised draft report should be presented to the PCU and other stakeholders.
- Prepare and submit the final report based on the comments from the PCU.

NB: All information, data and datasets compiled as part of this study will be the sole property of the Government of Uganda and the consultant will not use it for any other private or official use, any publication, or claim any right to it. Soft-copies will be handed over to the PCU.

3.3Schedule of Deliverables

The timing and duration for the assignment will be 90 days effective from the date of signing of the contract. The timetable for the evaluation, including when different deliverables or products – such as inception report, briefs, draft report, final report is provided in the table below:

	Deliverable	**Time (Days After Signing of Contract)**
1.	Inception Report	
2	Meeting to discuss, refine and approve the tools	
3	Orientation of Enumerators and pre-testing of the tools	
4	Final refining of data collection tools (after pre-test)	
5	Data collection	
6.	Brief Field Report immediately after field exercise	
7.	Draft Report submission to PMU	
8.	Presentation of draft report to stakeholders	
9.	Final Baseline Report	

4.0 SUPERVISION

The Consultant will be supervised by the Project Coordinator and shall work closely with NOSP M&E team. This will help in ensuring that the consultant maintains the technical expectations of the project, the Ministry of Agriculture, Animal Industries and Fisheries and Ministry of Local Government. The project coordinator will help in linking the Consultant to the project Districts and providing any organization information that may be required by the consultant.

5.0 SERVICES TO BE PROVIDED BY THE PROJECT COORDINATION UNIT

NOSP shall provide introductory letters for the Consultant to the key respondents, as well as relevant literature on the project.

The equipment for measuring anthropometry characteristics of children in the sampled households can be obtained on hire.

REQUIRED SKILLS, QUALIFICATIONS AND COMPETENCES

The following Table summarizes the key skills, qualifications and levels of experience required from the core consultancy team:

No.	Specialization	Role	Minimum Qualification	Experience
1.	Agricultural/ Development/ Economist/ Rural Development Specialist/Economist	Team Leader	Masters Level	> 5 years of experience in quantitative survey and qualitative research related to increasing incomes through development projects; baseline research studies, and evaluation studies
2.	Social Scientist/ Development Scientist	Community Development dynamics	Masters Level	> 5 years' experience in community development work, studies/surveys and evaluation of projects
3.	Data Analyst	Survey design, coding of questionnaire, modeling and analysis	Statistical training at Post Graduate Level. Training in econometrics is an added advantage.	> 5 years demonstrated experience in design, research/ information compiling, modeling and analysis.
4.	GIS Expert	Digital Data Collection including use of GPS	Digital data collection training at any level.	> 3 years demonstrated experience in design of electronic data collection instruments, assembling and transmission of data/information.

6.0PAYMENT TERMS

The total contract price (i.e. fees) of this study will be paid in the following manner:

- 30% of the contract price will be paid after submission of an acceptable inception report, and agreed data collection process and tools/instruments.
- 40% of the contract price will be paid after submission of the first draft report to the PMU.

- 30% of the contract price will be paid after submission of the final report in the required number of copies along with the entire raw data and the soft copy of the report.

C. Financial Management

210. Financial management arrangements of NOSP follow the Government of Uganda financial management system with some enhancements proposed to mitigate on identified risks. A Financial Management Assessment (FMA) for NOSP has been carried out in accordance with IFAD's Guidance Note on Undertaking Financial Management Assessment as part of NOSP design. The objective of FMA is to provide assurance that NOSP will be implemented within sound financial management practices (timely and efficient accounting systems), and punctual professional reviews; both internally (internal audit) and externally (external audit). The assessment was based at the PCU of VODP2 because NOSP will be adopting similar processes and procedures. The PCU-based assessment was combined with reviews at MoLG, the proposed implementing agency for Component 2 of NOSO. It also included a discussion and review of IFMIS and other MoFPED processes and further reviews of district level disbursements and financial reporting arrangements.

211. The Government of Uganda (the Borrower) will be required to maintain acceptable financial management systems including accounting, financial reporting and auditing systems for NOSP Some project specific additional measures have been incorporated into these to enhance financial management of the project.

212. Overall, the financial management risk is rated as 'high' and 'substantial' before and after mitigation respectively. The project faces a major risk in discrepancies in budgeting due to the strict timelines (10 months of the preceding year), omission of project budgets in printed estimates approved by the Parliament especially for district level activities, MoFPED requirements for project financial reporting using IFMIS which has not been tested comprehensively on capability for project financial reporting, and delays in financial reporting by districts that will handle some funds for supervision and monitoring for infrastructure development and other agricultural and environmental activities.

213. To minimize the risk, it has been agreed that key payments for infrastructure works will be budgeted and paid from the parent ministry (MoLG), hence reducing funds to be disbursed or required to be budgeted by districts. There will also be close collaboration between PCU and planning officers at the ministry and district levels to ensure appropriate budget is included in the printed estimates. To mitigate on challenges of IFMIS not able to handle project reporting appropriately, a simple off-shelf accounting system (pastel) will run concurrently with IFMIS for the first 18 months which will serve as a pilot phase, after which a review will be made. IFMIS also will be mapped accordingly as per the developed demo so that the review after testing period will be appropriate.

Implementing and participating organizations with fiduciary responsibilities

214. **Lead Agencies.** The co-lead agencies for NOSP at national level will be MAAIF and MoLG. MAAIF will establish a Project Coordination Unit (PCU), to be responsible for managing the implementation of the Project, with emphasis on Component 1. The PCU will be based in Lira Municipality, located centrally in the project area, to facilitate close supervision, coordination and technical support of the NOSP field activities. The PCU would have a small Liaison Office in MAAIF, Kampala. MoLG will establish a small NOSP Project Implementation Coordination Team (PICT) to coordinate the rural infrastructure component of the project (Component 2). The PCU in MAAIF and the PICT in MoLG will conduct regular joint planning and review sessions to ensure full harmonisation of their respective components' activities (see more on tasks of PCU and

PICT in Project Management section of the PIM). The Permanent Secretaries of MAAIF and MoLG will be the Accounting Officers for the NOSP funds implemented under their ministries and are accountable to the Parliament of the Republic of Uganda.

215. **Districts.** Participating districts participate in some NOSP activities related to districts operations that will be paid at districts levels, mainly related to the supervision and monitoring of infrastructure development and community development and agricultural activities. All consultants and road contractors will directly be paid by the PICT/PCU. The basic role of the participating districts will be to receive and to account for activity-earmarked advances in line with instructions from PCU/PICT. PCU/PICT will provide suitable templates to enable the districts to provide acceptable accountabilities of advances received.

216. **Heifer International** is a co-financier to the project. It has a Memorandum of Understanding with IFAD (reference number EB 2017/122/INF.3, dated 17 September 2017) with a view to strengthening collaborations and leveraging investments in support of agricultural development and improved food security. The organization has previous implemented IFAD funded projects in neighbouring countries. It has a country office in Uganda, which manages projects implemented in the country. Heifer will receive matching funds from MAAIF as performance-based contract payments with specific deliverables upon which the payments are made. Heifer uses ERP accounting system called Aggreso that is able to provide financial reports per components and categories as may be required by PCU.

217. **Project Coordination Unit (PCU).** The PCU under MAAIF will be the overall accounting hub for the project, including consolidation of the combined project financial statements, while the PICT in MoLG will manage payments linked to Component 2. The PCU, as the overall accounting hub for NOSP, will in financial management be responsible for:

a) Budget consolidation ensuring a bottom-up approach and timely submissions for inclusions in GoU overall approved budget estimates of the components under MAAIF;

b) Procurement planning, execution and support service;

c) Disbursement of funds through IFMS (including advances to other implementing centres),

d) Management of withdrawal applications from IFAD;

e) Financial reporting and consolidation of financial statements for audits under the two ministries (MAAIF & MoLG);

f) Requests for No Objection to IFAD.

218. **Project Implementation Coordination Team.** PICT under MoLG will be the accounting hub for Component 2, "Support to Market Linkage Infrastructure Serving Oilseed Sector". PICT, as the accounting hub for Component 2, will be responsible for:

a) Budget consolidation for Component 2 activities ensuring a bottom-up approach and timely submissions for inclusions in the GoU (MoLG) overall budget estimates;

b) Procurement planning, execution and support service;

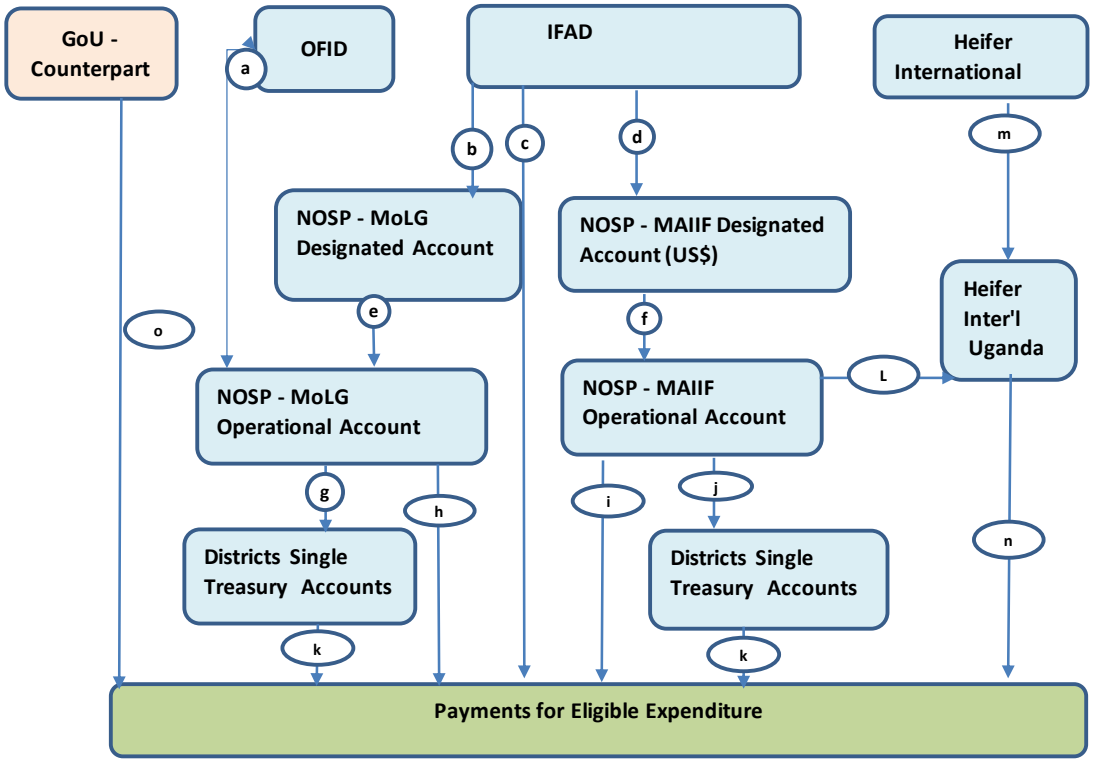
c) Disbursement of funds through IFMS (including advances to other implementing centres) under component 2.

d) Management of withdrawal applications from IFAD for Component 2, which will be submitted to IFAD through the PCU;

e) Regular financial reporting, through PCU, of the project's financial progress.

Disbursement Arrangements and Flow of Funds

219. Disbursements from IFAD will be made by way of an advance to the Designated Account and subsequent replenishments based on expenditure incurred as supported with Statement of Expenditure (SoE). For efficient project management, there will be two designated accounts: one for Component 2 under MoLG, handling infrastructure-related activities and the other for other components which will be under the PCU/MAAIF. The modalities of the designated account for the IFAD resources will be detailed in the Letter to the Borrower, which would be issued by IFAD. The IFAD loan will be disbursed in accordance with IFAD Loan Disbursement Handbook. Details of the specific names, titles and signature(s) of the persons authorized to operate these accounts will be submitted by the GoU/MoFPED, and must reach IFAD before withdrawals are initiated. Below, a diagram illustrates the flow of funds from IFAD to various points of expenditure payments, followed by descriptions of the individual cash flow items.



(a) OFID funds on infrastructure transferred to IFAD for management together with IFAD financing on pari-passu basis.
(b) Transfer of Component 2 funds by IFAD to NOSP-MoLG special account managed by the PICT.
(c) Direct payment to suppliers or partners by IFAD. This will be on exceptional basis and for payments of more than USD 100,000.
(d) Transfer of Component 1, 3 & 4 funds by IFAD to NOSP-MAAIF special account managed by MAAIF PCU.
(e) Transfer of Component 2 funds to project operational account in local currency for payments at MoLG PICT

(f) Transfer of Component 1,3&4 financing to NOSP-MAAIF project operational account in local currency for payments at MAAIF PCU
(g) Transfer of earmarked funds to Districts Single Treasury Accounts for payments of supervisions and other oversight functions to be carried out by the districts. Rural roads contractors will be paid from NOSP/MoLG operational account and not at the districts.
(h) Payments of eligible expenditure from NOSP - MoLG operational account related to Component 2. This relates to contractors and other rural infrastructure related activities under component 2.
(i) Payments of eligible expenditure related to other components from PCU/MAAIF operational account
(j) Transfer of earmarked funds to Districts Single Treasury Accounts for activities to be carried out by districts under component 1 and 3. As noted above, these would only be for operational activities carried out by districts staff.
(k) Payments of eligible expenditure for activities to be carried out by the districts. The funds will be send as earmarked advance for specific activities approved by PCU and accounted for on quarterly basis. As noted above, all key payments will be made from PCU.
(l) Transfer of any advances to Heifer International for implementation of activities.
(m) Transfer of Heifer International co-financing to Heifer Uganda office
(n) Payments of eligible expenditure by Heifer International in Uganda
(o) Payments of any Government of Uganda counterpart financing. This relates to VAT and other taxes that will be paid under the project.

220. At the districts level, the GoU has implemented the Treasury Single Accounts, which was meant to phase out the conventional separate project accounts. Under the NOSP project, the transfers to the districts will not be significant. The earmarked advances for specific activities agreed with PCU will be disbursed through Districts Treasury Single Accounts through IFMIS and accounted on quarterly basis, by 15 of the month following the quarter end.

221. At the PCU/PICT level (MAAIF and MoLG), specific project Special Account and operational accounts will be used as demonstrated in the figure above. This will be linked to IFMIS, and online payments will be made from the Bank of Uganda where the bank accounts will be held.

222. **Withdrawal Applications** for Advance Withdrawal and Reimbursements may be submitted once ninety 90 days (quarterly basis) have lapsed from the submission of the previous withdrawal application. However, if the requested withdrawal amount is at least twenty per cent (20%) of the initial advanced amounts, a withdrawal application may be submitted even if ninety (90) days have not lapsed. This will be included in the letter to the borrower (LTB).

223. The Designated Account limit for NOSP-MoLG will be set at the total 18 months of AWPB for Component 2 while that for NOSP-MAAIF will be the total of 18 months AWPB for other components. In PY 5 and 6, the payments from NOSP-MOLG are expected to rise significantly as indicated in the cost tables. The DA limit will be adjusted upward to accommodate the increased payments.

Planning and Budgeting

224. NOSP budget will, as required by the Public Finance Act, be part of the GoU overall printed national budget estimates as part of the parliamentary approvals and appropriations. There are two parent ministries involved under the project: MoLG for activities under Component 2 and MAAIF for all other NOSP activities. The annual budget

for components/activities under each ministry will be included in the printed estimates of their parent ministry's budgets.

225. The approved budget will be uploaded into the Integrated Financial Management System (IFMS). IFMS is the system used by the entire Government of Uganda for budgeting and financial management. The Financial Controller of the PCU will coordinate the budget preparation processes with close coordination with project coordinator and the lead person for each component. At the district levels, the activities to be carried out at the districts will also need to be included in their budget for approval by the district's council. This will be done by project focal person under the guidance of the project's Financial Controller. Payments cannot be made if the budget provisions have not been made and approved by the Parliament at the Ministry level and the District Council for the district activities.

226. The budget preparation activities start by August of the preceding year (10 months before the related financial year) as summarized below. It will be critical for the project to ensure the proposed budget for the coming year is well established early enough as per the timelines below.

Activity	**Timelines**
• Issuance of 1st budget circular • Budget consultations	August to September
• Submission of budget framework papers and draft budget estimates to Ministry of Finance, Planning and Economic Development	Not later than 15 November
• Submission of Budget Framework paper to Parliament	By 31 December
• Presentation of Ministerial Policy Statements to Parliament	By March 15
• Annual budget presented to the Parliament	By April 1
• Approval of annual budget	By May 31
• Presentation of budget speech	By June 15

227. The GoU planning calendar requires the elaboration of the budget estimates each year by August, 10 months before the implementation period which early as compared to many other countries. Due to the timing difference, there can be significant differences between the AWPB for which IFAD eventually expresses its 'no objection' and the budget that had been appropriated for posting in the IFMIS. This creates disbursement challenges given that IFMS does not allow any payments that are not in the approved appropriated budgets. The appropriated amounts in IFMIS is a block limit, from which implementing entities have a window in June/July, to provide the breakdowns for the AWPB signed–off by the Accounting Officer of the Ministry. The Financial Controller will ensure the breakdowns provided for in IFMIS are in line with the AWPB for which IFAD has provided no-objection and the spending is in line with this. He/she will seek to have any unreconciled totals provided for the supplementary budget that is usually done within 3 months after commencement of financial year.

228. In some cases by the time the budget is appropriated by the Parliament, there can be unexplained cuts/reductions in expenditure estimates to fit within the Medium-Term Expenditure Framework (MTEF) for the line Ministry. This element of

uncertainty sometimes results in discrepancies between the AWPB on which IFAD has expressed "No Objection" and that appropriated by the Parliament and loaded into the IFMS system. The Financial Controller will closely work with planning officers at MoLG, MAAIF and MoFPED to ensure that the project is not affected by these regular budget cuts which are usually based on estimated and actual revenue collections by the government. The budgeting area is therefore considered high risk area that require keen monitoring. PCU's Financial Controller should ensure there is close collaborations with Planning and Budget Officers at MoLG, MAAIF, MoFPED and the participating districts to ensure that part of the NOSP budget are not omitted in the printed estimates. While there are supplementary budget processes which ensure what may have been omitted is rectified, this takes time, hence it is critical to ensure that there is adequate budget for the project at the start of the year.

Accounting Systems, Policies and Procedures

229. The Accountant General's Office of the Government of Uganda indicated that they have enhanced IFMIS to have capabilities to carry out project accounting requirements. There is, however, no IFAD project that is fully using IFMIS for project reporting. PROFIRA, an IFAD funded project implemented by MoFPED, is under IFMIS but does project financial reporting through a simple off-the-shelf accounting system, since project financial reporting was not set up in IFMIS at the project commencement. The key financial reporting parameter for IFAD projects is a financial system that will be able to (i) extract SoE for withdrawal applications, (ii) report expenditure per category and comparing budget vs actual for the same for the current year and cumulatively, (iii) report expenditure per category and comparing budget vs actual for the current year and cumulatively and (iv) report of expenditure per financier. IFMIS requires special coding and mapping to enable it to handle these key financial reporting and monitoring requirements and they have to be done at commencement of the project. The training on use and installation of the software will be a part of the start-up advance described below, to ensure that all will be set by the time project implementation commences.

230. To mitigate on risks and also to monitor the use of IFMIS for IFAD project financial reporting, a simple off-the-shelf accounting system (Pastel) will be installed at PCU and PICT that will run parallel with IFMIS. This will be integrated so that PICT at MoLG and PCU at MAAIF will use the same system for automatic consolidation of project's financial statements. After the first two years of operations, based on results of monitoring of IFMIS for project reporting, the project will consider whether to report using IFMIS alone. Pastel has been noted IFAD-supported PROFIRA to be adequate for these financial reporting requirements. It is proposed to be the off-the-shelf accounting system for use by NOSP. It will be installed at PCU and PICT at the project start-up. Installation and training on use of Pastel will be done by the software vendor.

231. Disbursement to the districts will be made as advances. Recording of expenditure to the project accounting system will be done by PCU/PICT based on expenditure reports submitted by the districts.

232. The project expenditure initiation, authorization and payments will be in line with Public Finance Act of GoU. The PSs, MAAIF/MoLG (and all ministry officials under their delegation) play a key role in sanctioning all withdrawals from the project special accounts, local accounts and the GoU counterpart fund account under their components as described above.

233. The Permanent Secretary/Secretary to the Treasury at MoFPED and all ministry officials under his delegation play a key role of approving all financial documents for onward submission to IFAD on financial and other project implementation matters (under the Loan Agreement, MoFPED represent the GoU as the borrower).

Financial Reporting

234. Financial Controller at the PCU will be responsible for all financial reporting for the project and will produce a consolidated financial statement for all the components (all activities under MAAIF and MoLG). The financial reporting will comply with International Public-Sector Accounting Standards (IPSAS) -Cash Basis.

235. While in IFMIS, Component 2 under MoLG and other components under MAAIF are considered separate budget entities, at the project reporting level a consolidated financial statement will be produced by the PCU. The consolidated financial statements for the project will on an annual basis be audited by Office of the Auditor General, and audited financial statements submitted to IFAD within six months after the period end in accordance with IFAD guidelines. IFAD will, in addition to the annual audited financial statements, require interim financial reports on a six-monthly interval. For management decision-making and control, detailed monthly and quarterly management accounts will be produced.

Financial Management Organization and Staffing

236. As noted above, NOSP financial management arrangements follow the Government of Uganda financial management system. The PSs (MAAIF and MoLG) are the accounting officer for MAAIF and MoLG, respectively that are the implementing entities for the project. The project expenditure initiation, authorization and payments will be in line with Public Finance Act of GoU. The following staff positions have been provided for to ensure (i) adequate coordination of payments for project expenditure, (ii) appropriate accounting entries and (iii) appropriate financial reporting.

Implementation level	**Project Staff Position and Numbers**	**Remarks**
PCU – MAAIF	– Finance Controller (1) – Project Accountant (1) – Project Assistant Accountant (1)	– The staffing is based on the structure of VODP2, which has similar types of activities and implementation arrangements. – The staff will be hired on two years contracts, renewable based on performance. – The staff will be hired as part of start-up activities.
PICT – MoLG	– Project Accountant (1) – Project Assistant Accountant (1)	– The staff will be hired on two years contracts, renewable based on performance. – The staff will be hired as part of start-up activities.
Districts	Designated Project Accountant (1)	– This will be a staff member of the district, designated to handle financial reporting and coordinating processing of transactions. – It will be one of the conditions in the MoU with districts to have a designated accountant for the project. – He/she will handle and report on transfers from both MoLG and MAAIF.

Internal Controls

237. In order to effectively safeguard project resources, internal controls have been instituted at the PCU in the whole framework of financial and administrative procedures. The identified controls include proper record keeping and posting; authorization of accounting, procurement and administrative documents; balancing and checking; physical security of assets; double signing (approval) arrangements and financial reporting and monitoring. These are prescribed in PFM act and will be further detailed in the Finance and Operation Manual for the project. There will be internal audit functions, as discussed below, to check overall compliance to internal controls and provide support towards improving systems, procedures and processes.

Internal Audit

238. There are internal auditors across the ministries, departments and agencies that are under the direct supervision of the Internal Auditor General (IAG) at the Ministry of Finance Planning and Economic Development (MoFPED). IAG reports to the Permanent Secretary and Secretary to the Treasury. In addition to its legal and regulatory platform, Internal Audit has audit programmes, audit documentation, reporting and follow up activities, as described in international standards.

239. Internal audits will be conducted to provide assurance that the Project is being implemented in accordance with the PIM, complies with GoU regulations and is complying with Project financing covenants. The project will utilise the internal audit function at MAAIF and MoLG.

240. The internal auditors were noted to be pre-occupied in pre-audits of transactions instead of providing independent appraisals of project accounting systems and control environments. Pre-audit jeopardizes the independence of internal auditor later when carrying out specific reviews as they will have been involved in expenditure approval process through pre-audit. The office of Internal Auditor General is shifting gradually to ex-post audits and this will be an advantage to the project. The internal Auditors will be required to carry out the audit of the project at least once annually. These would be carried out by internal auditors at MoLG for Component 2 and MAAIF for other components.

241. IFAD supervision and implementation support missions will consistently demand and review the rolling internal audit plans, internal audit reports produced and shared as per internal audit plans and the progress in the implementation of internal audit recommendations.

External Audit

242. External audits will be executed by the Office of the Auditor General (OAG), which has been carrying out the external audit of IFAD projects implemented by the Government. The Terms of Reference will require IFAD's No Objection. IFAD will require specific audit opinions on: (a) general standard on the financial statements and (b) the balances of funds held in the special account. IFAD handbook on audit will be shared with the auditors to enhance their reviews.

243. The audits by OAG are carried out in accordance with the International Standards of Supreme Audit Institutions (ISSAI) and relevant ethical requirements. As such they also cover revenues, expenditures, assets and liabilities. In addition, they highlight any relevant material issues and systemic and control risks. This enables the auditor to express an opinion as to whether or not the financial statements are prepared, in all material respects, in accordance with an identified or applicable financial reporting framework and (or) statutory requirements.

244. The OAG, in drawing up its audit programmes, incorporates a review of the implementation of the previous period's recommendations. If those recommendations have not been followed, this will be stated in the current audit report. The capacity of OAG has been consistently assessed by IFAD as satisfactory in terms of undertaking project audits. The risk assessment here is therefore low.

245. As noted above, a consolidated project financial statement will be produced on which the Auditor General will provide his/her opinion including Management Letter. Considering that there are two accounting officers involved in implementation of the project (MoLG and MAAIF), the Management Letter and issues raised will be specific on who is responsible, which will assist in implementation of the OAG recommendations. The audited financial statements will be submitted to IFAD within 6 months after financial end as required by IFAD.

246. **Start-up advance**. IFAD encourages the use of a start-up advances for project start-up activities. An amount of USD 500,000 is proposed and can be disbursed after entry into force of the project. The amounts utilized will be accounted for and will form a part of the project costs (loan). Any unutilised amounts of the advance will be refunded to IFAD or transferred to the project's operational account as a part of the project funds. The proposed start-up activities to be funded by the start-up advance include hiring of project staff, acquisition of the off-the shelf accounting system, acquisition of office equipment required for operationalisation of the project office and the commencement of cluster mapping.

247. **Retroactive financing**. There is no need for retroactive financing noted.

Performance Audit[13]

248. Performance audit will be carried out for Component 1 activities and all other trainings and capacity building activities that will be implemented with the support of private service providers under performance-based contracts. The audit will follow a risk-based sampling and will seek to respond to the economy, efficiency and effectiveness with which the resources are utilized to deliver the services to the public. The auditor will assess whether the programmes implemented lead to results, outputs and outcomes in accordance with project objectives. The TOR for the performance audit has been developed and further IFAD will provide a no objection to the contracting process as is done with other consulting contracts.

249. **NOSP expenditure centres.** Project expenditures are to be spent at different implementing levels. The following will be the key NOSP spending units and/ cost centres:

Spending Unit	**Remarks**
PCU - MAAIF	– Payments of eligible expenditure related to other components/activities except Component 2.
PICT – MoLG	– Payments of eligible expenditure related to Component 2, most of which will relates to contractors and other rural infrastructure related activities. – Most of component 2 expenditure will be paid from this level.
Participating districts	– Payments of eligible expenditure for activities to be carried out by the districts. Contractors and other significant payments for rural roads construction will be paid from the MoLG PICT and not districts. The payments at the districts

[13] TORs provided

	are mainly for roads-related supervisions and other related minor operational costs. – The funds will be advanced from PCU based on the approved AWPB. As noted above, funds for significant expenditure will be retained at PCU/PICT and paid directly.
Heifer International Project	– Payments of eligible expenditure by Heifer International in Uganda. – This is one of the co-financiers that will also be implementing some activities under Component 1.

250. **Nature of project eligible expenditures**. NOSP expenditure categories have been allocated in accordance with the standard IFAD expenditure categories. Eligible expenditures include the following expenditure categories:

(i) Works
(ii) Goods, services and inputs
(iii) Equipment and materials
(iv) Consultancies – TA – International
(v) Consultancies – TA – National
(vi) Trainings and workshops
(vii) Grants
(viii) Salaries and allowances
(ix) Other operating costs

251. Detailed cost tables are presented in Annex 3 of this document. Transaction-based disbursement procedures will be used.

252. **Eligibility of Expenditure.** The eligibility of expenditure should require:

a) The expenditure shall meet the reasonable cost of goods, works and services required for the Project and covered by the relevant AWPB and procured in conformity with the procurement guidelines
b) The expenditure shall be incurred during the project implementation period, except that expenditures to meet the costs of winding up the project that may be incurred after the project completion date and before the closing date
c) The expenditure shall be incurred by a project party
d) If the agreement allocates the amount of the financing to categories of eligible expenditures and specifies the percentages of such eligible expenditures to be financed, the expenditure must relate to a category whose allocation has not been depleted, and shall be eligible only up to the percentage applicable to such category. The expenditure shall be otherwise eligible in accordance with the terms of the financing agreement.

Financial Management Risk Assessment

253. **Inherent risks**: **Country Issues, Entity Risks and Project Design**. Uganda's inherent risk is "High" as measured by Transparency International's Corruption Perceptions Index (CPI). The 2018 Transparency International Corruption Perception Index for Uganda rating was 26 (High Risk), which was same as in 2017. The country ranking was 149th out of 180 countries, showing an improvement from the 2017 ranking of 151th.

254. The last Public Expenditure and Financial Accountability (PEFA) assessment report was issued in December 2017. The financial years covered for indicators that required assessing over three years were 2013-14 to 2015-16, 2015-16. The reports showed the following areas of weaknesses:

255. **Aggregate Fiscal Discipline.** Control of contractual commitments is not sufficiently effective, creating a risk of generating further expenditure arrears. The strong external audit function enhances fiscal discipline.

256. **Strategic allocation of resources.** There is a strong emphasis on the overall fiscal framework. The Chart of Accounts caters for a multidimensional analysis of expenditure. However, the link between the medium-term perspective in expenditure budgeting and strategic plans needs to be developed to improve the strategic allocation of resources.

257. **Efficient use of resources for service delivery.** The current weaknesses in competitive bidding in the procurement system could have adverse implications for the efficiency in service delivery. The strengths in the accountability mechanisms such as the comprehensiveness and production of annual financial statements - make external audits effective as counter checks on inefficient use of resources. Publishing of performance targets and outcomes also assists the efficient use of resources, though lack of systematic programme evaluation and data on resources available at service delivery units can undermine accountability. Such information would help management decision-making to support improved service delivery.

258. The PEFA report concluded that there have been improvements in the orderliness and participation in the budget process as well as multi-year fiscal forecasts and functional allocation. Debt recording and reporting had also improved as had payroll functions and elements of procurement. It noted that the payroll and procurement function had achieved this despite an ambitious decentralization policy. Internal control and internal audit have also advanced. The main area of backsliding is arrears, tax audits and reconciliation of arrears. Many of these improvements were attributed to strong management of the PFM reform programme as well as the enactment of the new PFM Act (2015). Some improvements have already been made as a result of the Act and its legal requirements, whilst others are still being developed.

259. In March 2016, the World Bank Group issued a Country Partnership Framework (CPF) for the Republic of Uganda for the period 2016 -2021. The overall risks to the CPF were assessed as substantial, with two areas rated as High Risk:

- Institutional capacity for the effective implementation of projections - due to either understaffing, underutilization of capacity, incomplete implementation of policies and weak oversight and control mechanisms
- Environment and social - weak government ownership of safeguards.

260. The following areas were given "Substantial Risk" ratings:

- Political and governance – mainly due to concerns relating to governance and effective public-sector management
- Sector studies and policies – lack of institutionalization and weak links between planning budgeting and implementation
- Fiduciary – primarily in the area of procurement as well as weak financial management and internal audit functions.

Implementation Readiness

261. The following FM Actions are proposed to mitigate on project risks at NOSP start-up:

	Action	Responsible Party / Person	Target Date / Covenants
(i)	Recruit qualified and experienced PCU/ PICT financial management team.	MAAIF & MoLG	Disbursement condition. Start-up advance will be utilized for this
(ii)	Allocate the tasks and give a formal letter with roles and responsibilities to the District Accountant that will handling project financial reporting and coordinating processing of transactions. He/she will handle and report on transfer from both MoLG and MAAIF.	CAO	Disbursement condition to the participating districts
(iii)	Comprehensive special coding and mapping of IFMIS to enable it to handle key financial reporting and monitoring requirements, including (i) extracting SoEs for withdrawal applications, (ii) reporting expenditure per category and comparing budget vs actual for the same for the current year and cumulatively, (iii) reporting expenditure per category and comparing budget vs actual for the same for the current year and cumulatively and (iv) reporting of expenditure per financier. Training of recruited NOSP staff on IFMIS will be done by Financial Management Division of MoFPED.	MAAIF, MoLG & MoFPED	Immediately after effectiveness. To be finalized before any project expenditure is incurred so as to ensure all project expenditure are captured correctly.
(iv)	Acquisition and installation of an off-the shelf accounting system for the PCU and PICT that will run parallel with IFMIS for the first 2 years and monitored thereafter. This will be integrated so that PICT at MoLG and PCU at MAAIF will use same system for automatic consolidation of project's financial statements. Installation and training on use will be done by the software vendor as part of start-up activities.	MAAIF & MoLG	Immediately after effectiveness. To be finalized before any project expenditure is incurred so as to ensure all project expenditure are captured correctly.
(v)	Ensure advances to districts will be for specific, earmarked activities as opposed to general advances.	PCU – MAAIF and PICT MoLG	Continuous
(vi)	During loan negotiations, IFAD will seek specific assurances from the GoU that project budget estimates will not be arbitrarily cut by the Ministry of Finance, Planning and Economic Development.	IFAD Team	To be part of Loan Negotiations and implemented immediately upon loan effectiveness
(vii)	The project will more likely commence in the course of a financial year, after a	MAAIF, MoLG	To be part of Loan Negotiations and

	Action	Responsible Party / Person	Target Date / Covenants
	budgeting cycle. IFAD will require GoU commitment to include budget estimates for that financial year (year 1) as a supplementary budget to enhance project commencement.	& MoFPED	implemented immediately upon loan effectiveness
(viii)	Provision of counterpart finance for the project to cater for taxes and other counterpart contribution	MAAIF, MoLG & MoFPED	To be part of Loan Negotiations, Financing Agreement and implemented immediately upon loan effectiveness
(ix)	Permanent Secretaries of MAIIF & MoLG, to delegate payment processing authority to the PCU using IFMS in order to reduce on the delays in payment processing cycle.	MAAIF & MoLG	To be part of Loan Negotiations and implemented upon loan effectiveness

FM Supervision Plan

262. **Supervision.** NOSP will be directly supervised by IFAD with annual supervision and implementation support missions, followed initially by shorter follow-up missions six months later as may be required. Supervision will not be conducted as a general inspection or evaluation, but rather as an opportunity to jointly assess achievements and lessons, and to reflect on ways to improve implementation; and impact. From a financial management perspective, IFAD missions will keenly follow up the fiduciary risk at various levels, including the use of the report-based disbursement.

Terms of Reference for Performance Audit

1. Objective of Operational Performance Audit:

Government of Uganda (GoU) needs to conduct detailed Operational audits of the PSP **to evaluate performance of the Organizations in the form of economy, efficiency and effectiveness of its operations.** For this, the PMU would like to appoint one **International/local audit firm (Chartered Accountants/Certified Public Accountants)**, having experience to conduct performance audit in public sector. An interested firm can bid for Operational Performance audit of one or more of the listed hubs. The government may also refer such audit to the Auditor General of Uganda if it so

desires.

b) Primary objectives are to assess the availability of operational activities and services provided by the hubs and whether these are in line with the vision of corporatization and overall value for money.

c) Operation audit will also evaluate the performance and capacity of the staff of hubs, check existing system for services, check Operational Procedure and provide feedback to the project coordinator/country manager.

d) Hiring process of the performance audit firms would be done by the PMU and inter alia

may be financed from the government funding already available.

2. Scope of Assignment:

The assigned audit firm needs to review overall Operational Performance and control system of the project operations and support activities in light of NOSP (National Oilseeds Project) Standards/other applicable Standards to come up with an opinion on the status of economy, efficiency and effectiveness of operations primarily focused to examine whether the 6 hubs are meeting the overall objective of corporatization while also achieving its purpose:

- At the right pace
- With the right cost effectiveness
- With the right administrative structures
- With the right inbuilt system of checks and balances:
    - Administratively,
    - Financially,

- Legally and
- Operationally

- It is also to be examined that whether the corporatized hubs been better then its replacement in achieving its objectives in terms of cost benefit. If yes how much? Could it have been more productive in the given resources? If not why? Who is responsible and how does one correct it within the given resources?

3. Specific Areas of Examination and Verification:

Without undermining the generality of the foregoing, the performance and operational audit firms are expected to:

i) Review and assess respective legal framework under which the relevant hubs is functioning.

ii) Identify any improvements in the Legal framework to align the same to the vision of the respective organization.

iii) Review & Assess whether the Policies, SOPs, Operation manuals, Operational Plan of the hub concerned is correctly made to meet requirements for the organization's day-to-day operational activities.

iv) Determine whether the funds are used for the purposes and intended operational activities.

v) Conduct physical on-site verification of services rendered as described in the payment documents or contracts and verify whether any payments made before actual receipts of services and beyond contract clause. Evidence of work may include photographs of people attending trainings and works by the consultants, written acknowledgment from beneficiaries, participants, stakeholders and other third parties, supporting documents from venues for workshops, training center etc.

vi) Examine whether transaction prices or value are unduly inflated; whether liquidated damages have been charged and recovered as per contract.

vii) Conduct verifications which may be extended to third parties check to confirm eligibility of expenditures especially for hired venues for training, workshop and business meeting etc. if any.

4. Compliance

The assigned audit firm needs to review the compliance on test/sample basis of Support Services i.e. on Accounts, Procurement, and Monitoring and Evaluation covering the following areas:

i) Review expenditures of the hubs in a particular year with reference to business objectives in a timely manner considering KPIs, under which these were claimed and whether right category of financing were used.

ii) Review arrangements for managing the Designated Accounts and determining that these are maintained and operated as per agreed arrangements.

iii) Examine whether the hubs maintains all necessary books of accounts in a timely manner and to ensure compliance of financial management guidelines.

iv) Examine the compliance of laws, rules, regulations, notifications, SROs, including those related to public procurement.

v) Verify whether assets procured under the hub's funding are justified and are appropriately utilized in an efficient manner.

vi) Verify the templates/Proforma used for annual/half-yearly asset stock/inventory takeover goods/services, receipt issues, transfers and disposals are up to the mark. Compare the physical assets with Assets register.

vii) Review good storing system, ageing analysis; identify goods with life span and beyond life span to determine impairment and recommendation for management decision.

vii) Review document management/filling system including time taken for Official correspondence.

viii) Review monitoring and evaluation reports in the areas of physical progress and financial progress, and quarterly/annual reports

5. Conduct period of the Audit

The performance audit shall be carried out covering the period from **the second year of the project and bi-annually onward** in order to ensure continuous monitoring of the management of GoU resources of which will, in turn, generate good value for money.

The operational audit should focus less on transactions-checks and more on Operations of hubs.

6. Performance Audit Planning

- Audit is to be planned to cover all the components and sub components of the hubs at all the implementations sites including their Head Offices.
- The auditor would plan the work dimensions as per guidelines provided under the components break up. Methodology of the test should be planned and resources engagement to achieve the planned result with in stipulated time frame.
- Deliverable would require to be confirmed in the inception report within **30 days** of engagement along with revised and updated plan, methodology, resources and time frame.
- Operational auditor will conduct audit in accordance with the plan with adequate notice to the auditee for preparation of audit data sheet circulated on relevant information.
- On invitation, The audit firm will attend Project Implementation meeting to report on the progress of planned audit work, request the Chairman of the Committee on any need. The practicalities of these arrangements will be discussed and agreed.

7. Staffing by of the Audit Firm

i) Given the nature of this assignment in direct and personnel support of hub officials, the firm staff should all have highly developed human relations and communications skills and the firm may include sufficient number of appropriate seniors / junior staff for specific tasks as required.

ii) The Audit Firm shall provide a detailed schedule of proposed staff and corresponding duration of assignment. The staffing proposal should clearly indicate the international or national origin of staff inputs. The staff must speak the local language of the site visited

iii) Staffing changes may be proposed by either party and no change may be effected by the firm except with the prior approval of the client. In case of substitutions proposed by the firm, the firm at its own cost will ensure reasonable overlap between departing and new staff as well as smooth continuity of work.

8. Deliverables and Reporting

a) Operational audit will report to Project Coordinator and Country Manager.

b) The Reporting will be designed in three **parts;**

i) Preliminary study of the hubs operations by the Principal of Chartered Accountants/Certified Public Accountants Firm and submit an **inception report** with an audit methodology, time frame, audit resources and their qualification **within 10 days** of the award of the contract.

ii) Submit **draft report** within **75 days** of the award of the contract, covering Audit report with an auditor's opinion, detailed report on component wise work undertaken, control environment of the beneficiary institutions as studied by the project, fund received, utilized, reasons for delayed utilization (if any) and deficiencies noted and **a table form report (sample format to agree in the inception report)** with significant issues, findings, financial impacts, recommendations, managements response and timeframe of the implementation of the recommendations. Project Implementation Committee (PIC) representatives (s) would attend the draft report discussion meeting.

iii) Submit **final report** as reviewed **with 90 days** of the award of the contract in

iv) As part of the final deliverable/audit report, the Provincial Government expect to

receive a detailed performance giving a bird-eye view of the hubs especially

covering:

Nature Tasks Timeframe

Cost Outputs Cost/Benefit ratio

Issues Responsibility Solutions

Administration

Operational

Financial

Legal

Each of the area and task may have sub-areas and sub-tasks, if so applicable.

Each Report shall contain:

- Executive Summary
- Summary of audit findings with recommended actions.
- Detailed assessment of each audit areas which include review of the hubs progress, assessment of internal control system that captures the audit issues and recommendations.

- Categorization of audit findings by risk severity: **High, Medium and low.**
- Classification of possible causes of audit findings.

9. Data & Services to be provided by the Client:

a) The audit firm shall be given access to all legal documents, correspondences and any other information associated with the hubs and deemed necessary by the auditor. Confirmation should also be obtained of amounts disbursed and outstanding with Donors; Governments; etc.

b) The audit firm shall also be given access to all relevant papers and documents,

correspondences and any other information deemed necessary during the audit.

c) The auditor shall also be given such other logistic facilities which will be mutually

agreed.

D. Procurement

263. During the design process, a draft Procurement Manual for NOSP was produced, to guide all procurement processes of the projects. It is presented below, together with the draft TOR for the Procurement Officer to be recruited in the PCU. A longer and more detailed version of the Procurement Manual is available in the folder "NOSP Background Files".

NOSP PROCUREMENT MANUAL (DRAFT)

I. Assessment of Procurement Systems

A. Country Procurement Systems Assessment

1. Procurement Regulations applicable to NOSP: All procurements with cost estimate above the threshold for international competitive bidding (ICB) will be undertaken according to the World Bank Guidelines. All contracts procured at national level following National Competitive Bidding (NCB) and other lower procurement procedures such as Restricted Bidding and Shopping (Request for Quotations) will follow the national public procurement law (the Procurement and Disposal of Public Assets Act, 2003 and its attendant regulations). These procedures have been reviewed by IFAD and found to be satisfactory, except for the following provisions, which will not be applicable under this project:

a. Domestic preferences shall not apply under NCB;

b. The charging of fees for dealing with bidder complaints at procuring entity level shall not be permitted;

c. Paragraph 6(1) (b and c) of the fourth schedule of the PPDA Act (restrictions on contract amendments) shall not apply with respect to consultancy services.

2. Legal Aspects and Procurement Practices: Public procurement in Uganda is regulated by the amended Procurement and Disposal of Public Assets Act, 2003). The Parliament of Uganda adopted the Act to make governmental procurement more fair and transparent by subjecting it to the principals of:

- non-discrimination;
- transparency, accountability and fairness;
- maximisation of competition and ensuring value for money;
- confidentiality;
- economy and efficiency; and
- promotion of ethics.

3. Clearly, the amendment of the Procurement and Disposal of Public Assets Act, 2003 has improved the competitive nature of governmental procurement in Uganda as follows:

- Strengthen PPDA by giving it additional powers in regulating public procurement in all Government entities.
- Ensure transparency and accountability by making accounting officers personally liable for their actions in the procurement process.
- Guarantee the confidence of the public in the procurement process by establishing the PPDA Tribunal.
- Introduce a number of rules, regulations and definitions to cover the different needs in the procurement cycle.
- Independence and segregation of roles among the various stakeholders.
- Recognition of procurement planning as crucial to the success of the procurement function.
- Increased autonomy of the entities and wider participation of all stakeholders in the decision-making process.

B. Project Specific Assessment

4. The review of the procurement system in the Ministry of Agriculture, Animal Industry and Fisheries, the lead implementing agency, indicated that the procurement capacity is inadequate. Common areas of weakness in procurement arrangements include: (a) the need for improvement of procurement practices; (b) weak capacity at all levels; (c) Instructions to bidders, qualification, evaluation, award criteria, and contract management are not sufficiently clear; (d) the contract conditions can be improved to achieve a more equitable balance between employer and contractor/supplier. A major shortcoming that leads to awarding contracts to nonperforming contractors/suppliers is not applying a post-qualification process on the nominated contractor/supplier for award. The overall assessment is moderately unsatisfactory. The details of the review are as follows:

5. **Procurement planning:** The legal framework provides thorough guidance on procurement planning, linking the planning process up with the budgeting process, hence providing an important first step towards actual integration of procurement planning in the budgeting process. According to the legal framework, all procurement shall be within the approved budget of the PE.

6. At the same time, the procurement planning process on the National and Districts Level suffers from a number of weaknesses the most important ones being:

a. The PPDA format does not fully comply with IFAD Guidelines. The plan does not include actual rows. Moreover, there is no separate sheet for each procurement category
b. Lack of or failure to procure within the approved plan.
c. Failure to commence procurements as per the planned timelines leads to delays in service delivery and works completed.
d. In one district, the Entity did not provide indicative timelines in its procurement plan.
e. Use of a wrong procurement method to enter into framework contracts.
f. Variance between the planned and actual contract value. This is a sign of poor planning leading to high contracting costs and leads to domestic arrears
g. Conducting procurements outside the Entity procurement plan

7. **Procedures for pre-qualification:** As provided by the Law, the pre-qualification procedure is allowed based on the nature of procurement. In relation to the practice of the procuring entities for pre-qualification spelled out in the law, each procuring entity has established its list; however, the quality of the prequalification documents and evaluation procedures were not assessed.

8. **Preparation of bidding documents:** The legal framework is complemented with a series of Standard Bidding Documents (SBDs) covering procurement of goods, works and services. However, the procuring entities lack capacity in preparation of Bidding Documents resulting in poor quality evaluation criteria, general and special conditions and technical specifications, which, leads to poor quality procurement of goods, works and services. In some cases, allegation exists that technical specifications are tailored for a specific manufacturer which leads to de facto SS.

9. **Management of bidding process from advertisement to bid opening:** In the procuring entity, compliance with the mandatory steps were existed as follows:

a. **Advertising:** Advertisements are placed in widely read national/ international media and websites, depending on the bidding thresholds. The challenge remains with limited bidding where the invitations to tender are sent to some bidders out the prequalified list without proper justification.

b. **Communication with bidders:** Generally, bidders are provided with procuring entity address and all details needed for any clarifications within specific period of time.
c. **Receipt and opening of bids:** Receipts, provided on purchase of bid documents, are included in proposals/bids on delivery and registered in forms provided by the entity to show time of delivery. Generally, bid opening is done within an hour after the bid closing time. The main gap in the bid receiving procedure is the submitted bids are not securely stored since there is no tender box in any of the assessed entities.

10. **Bid evaluation and contract award:** In many cases, evaluation of bids was carried out using criteria not disclosed in the bidding documents or eliminating some criteria enrolled in the documents. Using wrong evaluation methodology and irregularities of evaluation were noticed in several cases which lead to:

a. Reduce competition and failure to attract competitive prices for achievement of value for money.

b. Award the contracts to incompetent vendors.

Moreover, the evaluation committees for consultancy services in most cases, did not include members with a relevant type of skills, knowledge and experience relevant to the procurement requirement.

11. **Preparation and signing of contract:** Based on the recommendation of the evaluation committee and the approval of the contracts committee the contract is signed with the lowest evaluated bidder. However, in some cases the selected bidders failed to provide the performance security in the due time and no corrective action was taken. In one case, there were changes in the special conditions of contract in the signed contract as compared with those in the solicitation document without Contracts Committee approval.

12. **Contract management during implementation, including dispute resolution methods:** The information gathered from the assessed procuring entity confirmed that the lack of proper contract management and contract administration in place. In several cases, there was no evidence of formal appointment of a contract manager contrary to Regulation 259 of the PPDA Regulations 2003. Although the Act requires the public entity to develop an implementation plan for each contract, frequently the Pes failed to comply with this requirement. Moreover, delay in processing the payments for vendors was noticed.

13. **Support and control systems:** The Public Procurement and Disposal of Public Assets Authority (PPDA) in the de-centralised system is the principal regulatory body for public procurement and disposal of public assets in Uganda. It does this through setting standards; ensuring application of the rules is fair, transparent, non-discriminatory and provides value for money; harmonizing procurement and disposal policy systems and practices in central government, local governments and statutory bodies; monitoring compliance of procuring and disposal entities; and, building procurement and disposal capacities in Uganda. The amendments to the PPDA law have introduced several changes prominent of which is the strengthening and enhancement of the role of PPDA in the execution of its regulatory mandate. Its Executive Director reports directly to the Board of Directors whom appointed by the Minister of Finance. However, PPDA is physically and functionally separate from the accounting and reporting functions of MOF. Nevertheless, the information available on the procurement website is not comprehensive and cannot be used to calculate a definite figure for the percentage

of contracts monitored. Moreover, there is a poor enforcement and follow up on external audit recommendations.

14. **Record-keeping:** The Districts recordkeeping practices remain poor, the legal frame-work establishes norms for the safekeeping of records and documents related to procurement transactions and contract management for a period of seven years from the date of a decision to terminate the procurement or disposal action, or the date of the contract completion, whichever comes later. While there is significant improvement in record-keeping at the Central Level, the findings of the PPDA Audit Report on 74 Local Entities for Procurements and Disposals-March 2018 indicated that the Procurement and Disposal Units lacked a central repository for procurement records which was attributed to lack of adequate facilitation. Failure to archive procurement and disposal records in a safe and secure location might result into loss of documents by the Entity through theft or misplacement and affects confidentiality of the procurement process.

15. **Staffing:** The available expertise at PE level does not meet the need for specialised procurement knowledge: The overall lack of procurement knowledge remains a major weakness to the efficiency of procurement operations. It should be noted that there is an urgent need for additional procurement expertise who are possessing the necessary competence levels. Massive upgrading of qualifications through training as well as an increase in the supply of specialised graduates will be required to fill this gap.

II. NOSP Procurement Arrangements

A. General Considerations

16. The responsibility for the implementation of the Project, and therefore for the award and administration of contracts under the Project, rests with the Borrower/MAAIF. The IFAD, for its part, is required to ensure that the proceeds of any loan or grant are used only for the purposes for which the loan or grant was granted. While in practice the specific procurement rules and procedures to be followed in the implementation of a Project depend on the circumstances of the particular case, seven (7) principles generally guide the Fund's requirements: 1) Ethics, 2) Accountability, 3) Competition, 4) Fairness, 5) Transparency, 6) Efficiency, Effectiveness & Economy and 7) Value for Money.

17. **Ethics:** The guiding principles of ethical behaviour are impartiality, independence and integrity. No person or entity shall use his/her/its authority, position or office for personal gain, which will be defined as soliciting, accepting or otherwise benefiting from anything of material value, in any form, either in person or indirectly through close relatives or associates, as a result of procurement financed by IFAD. Borrower/Recipient officials engaged in procurement activity have a duty to:

a. maintain and enhance the reputation of the Borrower/Recipient country by:

i. maintaining the highest standards of honesty and integrity in all professional relationships;

ii. developing the highest possible standards of professional competence;

iii. maximizing the use of IFAD funds and other resources for which they are responsible for the purposes for which these funds and resources were provided to the Borrower/Recipient country; and

iv. complying with both the letter and the spirit of:

- the financing agreement;
- the laws and regulations of the Borrower/Recipient country;
- accepted professional ethics; and
- contractual obligations;

b. declare any personal interest that may affect, or might reasonably be deemed by others to affect, impartiality in any matter relevant to their duties (conflict of interest). In a situation of this nature, the official concerned should not participate in any way in the procurement process, to avoid mis-procurement; and

c. respect the confidentiality of information gained in the course of duty and not use such information for personal gain or for the unfair benefit of any bidder, supplier or contractor. Information given in the course of their duties shall be true, fair and not designed to mislead.

18. **Accountability:** The Borrower/Recipient is accountable to IFAD for all actions and decisions in relation to Project-funded procurement. This includes, but is not limited to:

a. Ensuring that the funds are used solely for the purpose for which they were provided; and

b. Ensuring that procurement is undertaken in accordance with IFAD Guidelines.

19. **Competition:** Full, fair and legitimate competition among eligible suppliers and contractors is the foundation on which Project-funded procurement activities should be based. The most common method of seeking competition is through a competitive bidding process, and, in this regard, IFAD specifies that all goods, works and services should be obtained through an agreed procurement process involving at least three separate suppliers or contractors whose business is directly related to the procurement being undertaken. It is recognized that it is neither practical nor efficient to advertise internationally for low-value contracts for goods, works or services, and the degree to which the principle of competition is required for each procurement activity will be outlined in the procurement method approved by IFAD within the procurement plan. Borrowers/Recipients will be expected to promote genuine competition at every opportunity and maybe required to provide evidence of:

a. fair and genuine competition in the compilation of shortlists and in the solicitation of bids; and

b. the effectiveness of competition during the bidding process.

c. Single sourcing and direct contracting do not provide the elements of competition required by IFAD. Only in exceptional circumstances will these approaches be considered and approved in procurement plans agreed with IFAD.

20. **Fairness:** IFAD's expectation is that Project-funded procurement will be open to as many eligible bidders from IFAD's developed and developing Member States as is practicable in order to meet the requirements of competition. IFAD expects Borrowers/Recipients to ensure that all prospective bidders are:

a. managed with a consistent approach and application of laws, regulations and requirements in respect of the procurement process;

b. offered a level playing field on which to genuinely compete; and

c. treated in a fair, impartial and unbiased way, so that principles of impartiality and equal opportunity can be demonstrated in all procurement activities.

21. In striving for fairness in its procurement operations, IFAD:

a. will not tolerate exclusion of, discrimination, bias or prejudice against, or favouritism or inequality towards any potential supplier or contractor, either directly or indirectly through manipulation of any part of the procurement process, including, but not limited to, the preparation of technical specifications, evaluation criteria or bidding requirements. Where any such activity is suspected or proven, IFAD reserves the right to take any preventative, corrective or punitive action it considers appropriate; and

b. will seek to address, in consultation with the Borrower/Recipient, any impositions that may deter or impinge on the attainment of fairness within the procurement process.

22. **Transparency:** IFAD expects the highest degree of transparency and openness within the procurement processes undertaken under its projects. A lack of transparency can be perceived as an attempt to withhold information, which in turn may make the fairness and integrity of the procurement process suspect. Transparency within procurement relates to disclosing the public domain, information for parties involved, interested in or affected by the process, including but not limited to information on:

a. the availability of potential and existing procurement opportunities;

b. where to access relevant data;

c. the processes by which the procurement is being undertaken;

d. the mechanisms by which contracts will be awarded;

e. contract award data; and

f. appeal procedures.

23. Modes of communication/publication of such information will vary depending on the nature of the data but will generally be through existing means of public information (e.g. government websites, public notice boards or media) or in the procurement documentation relevant to an individual procurement activity (e.g. bid notices and bidding documents). Borrowers/Recipients are required at all times to act openly, predictably and in accordance with the information provided.

24. **Efficiency, Effectiveness and Economy:** IFAD requires Borrowers/Recipients to demonstrate efficiency and economy in undertaking Project-related procurement, to avoid undue implementation delays and to achieve value for money. Procurement must be well organized, carried out correctly with regard to quantity, quality and timeliness, and at the optimum price, in accordance with the appropriate guidelines, principles and regulations. Processes must be proportionate to the procurement activity, so that the overall cost of conducting the procurement process is minimized and tailored to the size of the budget for the activity being undertaken, while upholding the guiding principles. Efficiencies can be obtained through a combination of methods. For instance, a strategic approach can be taken to planning, combining and conducting procurement activities so as to minimize loss of time and resources. For this reason, the design of all IFAD-funded projects must now include a procurement plan.

25. **Value for money:** Underpinning all of the above is the need to obtain value for money for all Project procurement activities through the optimum combination of several factors, including:

a. applying sound, internationally recognized procurement principles;

b. ensuring that the goods, works or services procured meet the requirements for the task and are not over-specified;

c. ensuring that the goods, works or services are contracted on the best possible terms, taking into account their expected life cycle; and

d. ensuring that the provider/supplier of the goods, works or services is qualified, legally entitled and competent to execute the contract.

26. Best value does not necessarily mean the lowest initial price option, but rather represents the best return on investment, taking into consideration the unique and specific circumstances of each procurement activity; the balance of time, cost and quality required; and the successful overall outcome of the contract in meeting its original objectives.

27. Borrower/recipient officials engaged in procurement activity have a duty to:

a. Maintain and enhance the reputation of the borrower/recipient country by:
   - Maintaining the highest standards of honesty and integrity in all professional relationships;
   - Developing the highest possible standards of professional competence;
   - Maximizing the use of IFAD funds and other resources for which they are responsible for the purposes for which these funds and resources were provided to the borrower/recipient country; and
   - Complying with both the letter and the spirit of:
   - The financing agreement;
   - The laws and regulations of the borrower/recipient country;
   - Accepted professional ethics; and
   - Contractual obligations.

b. Declare any personal interest that may affect, or might reasonably be deemed by others to affect, impartiality in any matter relevant to their duties (conflict of interest). In a situation of this nature, the official concerned should not participate in any way in the procurement process, to avoid mis-procurement; and

c. Respect the confidentiality of information gained in the course of duty and not use such information for personal gain or for the unfair benefit of any bidder, supplier or contractor. Information given in the course of their duties shall be true, fair and not designed to mislead.

28. The Project will contribute to building up the in-house procurement capacity of the Ministry of Agriculture, Animal Industry and Fisheries. Ministry of Local Government and participating Districts, instilling best practices and the required approach and methodology, and monitoring the timeliness and quality of the process. IFAD plans an intensive training programme at start-up to familiarise NOSP staff with IFAD Guidelines. The effectiveness of procurement will be assessed during supervision and alternate arrangements put in place if necessary.

29. The PPDA standard bidding documents will be used for undertaking procurement under this Project for all transactions applying National methods (NCB, Restricted Bidding and National Shopping) and consistency with IFAD Procurement Guidelines should be ensured. Concepts relating to Accountability, Competition, Fairness,

Transparency, Efficiency, Effectiveness & Economy and Value for Money contained in IFAD's Procurement Guidelines and which are central to IFAD's Procurement Philosophy are discussed above.

30. The Procurement Process involves the purchasing, acquiring, hiring or obtaining of goods, works and services by any contractual means and can be defined in more detail as procurement of goods, procurement of works and procurement of services. The procurement cycle consists of General Procurement Notice, Tender Document Preparation, Pre-Qualification, Advertisement, Receipt of Tenders, Public opening of Tenders, Evaluate of Tenders, Award of Contract, Issue of Work Order or Purchase Order and Performance of contract.

31. Each Annual Procurement Plan will identify procedures which must be implemented by the Borrower in order to ensure consistency with the IFAD Procurement Guidelines. IFAD may require that all bidding documents and contracts and other records for procurement of goods, works and services financed by the Loans/Grants are:

a. Available for full inspection by the Fund of all bid documentation and related records;
b. Maintained for ten years after the project completion date; and
c. IFAD may also require that the Project cooperate with agents or representatives of the Fund carrying out an audit or investigation into procurement issues.

32. IFAD's review of and no objection to procurement plans is compulsory under all financing agreements directly supervised by IFAD. NOSP is one such agreement.

33. IFAD monitoring and review to ensure that the procurement process is carried out in conformity with IFAD procurement Guidelines and with the agreed procurement plan, IFAD will review arrangements for procurement of goods, works and services proposed by the borrower/recipient, including:

a. Contract packaging;
b. Applicable procedures and procurement methods;
c. Bidding documentation;
d. Composition of bid evaluation committees;
e. Bid evaluations and award recommendations; and
f. Draft contracts and contract amendments.

34. The extent to which these review procedures will be applied to each project or programme will be contained in the letter to the borrower/recipient and the procurement plan. For full details on the review processes, refer to IFAD Procurement Handbook.

35. **Post-review:** All other contracts will be subject to post-review and may be subject to procurement audit by the Fund. The Project staff will maintain accurate records of all procurement activities and documents related to the Project. The procurement files will be maintained for review by IFAD supervision missions and independent audits. The Project staff will also consolidate procurement activities into quarterly and annual progress reports.

36. **Mis-procurement:** IFAD will not finance expenditures for goods, works or consulting services that have not been procured in accordance with IFAD Procurement Guidelines and the financing agreement. In such cases, IFAD may, in addition, take other remedial action under the financing agreement, including cancellation of the amount in question from the loan and/or grant account by declaring it ineligible. Even if the contract was awarded following IFAD's "no objection" statement, the Fund may still

declare mis-procurement if it concludes that this statement was issued on the basis of incomplete, inaccurate or misleading information furnished by the borrower/recipient, or that the terms and conditions of the contract had been modified without IFAD's approval.

B. Procurement Risk Assessment

Key Findings and Conclusions from the PRM Assessment

37. As part of the design process, a Project's PRM was developed. The overall procurement risk is "Medium" at Central Level and "High" at Districts Level on account of inherent weaknesses, particularly those associated with inadequate procurement capacity at Districts level. The assessment indicated the following risks: (i) capacity constraints (the available expertise at PEs does not meet the need for specialised procurement knowledge) leading to – failure to comply with National Procurement Regulations and IFAD Procurement Guidelines; delays in processing procurement and preparing specifications, statement of requirements, and TORs by the User Departments; inadequate evaluation and post-qualification criteria, general and special conditions; evaluation not conducted in accordance with the criteria stated in the bidding documents , delays in evaluation, review and approval, weak records keeping and filing, and weakness in ensuring contract management (supervision)/administration (monitoring) during contract implementation to completion resulting into cost overruns; (ii) award of contracts to firms with no capacity; (iii) Delays in paying vendors due to delays in internal approving processes; (iv) the available expertise at Districts with regard construction management not meet the standard level; (v) lack of use of Procurement plans as a planning and management tool, and (vi) Inadequate working area/rooms and space for record keeping/filing.

38. Key mitigation measures to address procurement capacity gaps are the following:

(a) Ensure the application of the Project Implementation Manual (PIM).

(b) Reduction of the thresholds during the initial period until the Project can demonstrate confidence in its systems and methods.

(c) Recruiting two qualified and experienced procurement officers at the central levels to carry out procurement activities.

(d) Provide focused training and capacity building of the staff of the PCU and other implementing partners.

(e) Timely identification of gaps and hiring of experts to support the MAAIF and MOLG to prepare comprehensive technical requirements/TORs.

(f) Integrate the procurement planning as part of the budgeting process and prepare Procurement Plan for the project using IFAD new template. Continuous updating of Procurement Plan to reflect actual procurement activities. Close monitoring of procurement plans on a monthly basis and closely monitor and exercise quality control on all aspects of the procurement process, including evaluation, selection, award, contract signing and implementation to completion.

(g) Recruit a proficient procurement specialist (consultant) knowledgeable and experienced in donors funded procurement to support and also offer hand on training to the procurement team in the PCU and other implementing partners.

(h) Improve contract supervision and monitoring, and application of the conditions of contract through formation of Contract management and monitoring team, led by the Project Coordinator and Focal persons, including the technical and the procurement teams, and beneficiaries (if necessary). Close monitoring to ensure adherence to stipulates of the sections in the respective Contract Documents and to minimize poor performance of service providers.

(i) Hiring a Third-Party Quality Assurance/Quality Control Consultant to provide independent assurance of the quality of civil works. Conduct training on FIDIC contracts and contract management to build contract implementation capacity for major works and consultancy contracts.

(j) The MOUs to be signed between MOLG and respective Districts should include provision for the role of the MOLG PDU in reviewing and approving all District procurements.

(k) Provide sufficient working area/rooms and space for record keeping/filing.

(l) Regular top management monitoring and follow-up of implementation.

The residual risks after the implementation of the proposed mitigation measures will be reduced to Medium at Districts Level and will remain Medium at the Central Level.

C. Institutional Arrangements.

39. The NOSP PCU anchored in the MAAIF will be responsible for overseeing and implementing all procurement transactions under component 1 and 3 including International Competitive Bidding (ICB), National Competitive Bidding (NCB) procurement and selection of consultants as well as National Shopping with extensive support. All procurement transactions implemented by NOSP PCU will be approved through MAAIF Contracts Committee. Activities under component 2 "Support to Public Infrastructure Serving Oil-Seed Sector" will be implemented under a two-tiered institutional arrangement, namely at the national and district levels. At the national level, MOLG PDU and Contracts Committee will be the main implementing agency for the activities that will cut across districts such as the design of works and carrying out ESIAs. Districts PDUs and its Contracts Committees will be the executing agencies for the road construction works. The majority of the procurement activities under NOSP will be implemented through the application of NCB method; relatively few high-value/specialized procurement packages will attract ICB. Appropriate thresholds that can maximize the efficiency of procurement implementation but manage the governance risks will be specified in the Letter to the Borrower (LTB). IFAD plans an intensive training program at start-up to familiarize the Central Ministries and Districts PDUs with IFAD Guidelines. The effectiveness of procurement will be assessed during supervision and alternate arrangements put in place if necessary.

40. The Borrower shall establish within six (6) months from the date of entry into force of this Agreement a Project Contracts Committee, based in Lira to handle all Project procurements estimated to cost equal or less than USD 55,000 equivalent , with fully delegated powers from MAAIF, with a composition acceptable to IFAD and the required authority to undertake procurement review and selection. The Borrower shall also ensure the continuing operation of the Project Contracts Committee and shall not alter its composition without first consulting IFAD for the duration of the Project Implementation Period.

41. With regard to procurement management, two procurement officers with required qualifications (TORs included in Appendix 1) and experience will be recruited from the market and stationed in MAAIF-PCU/MOLG-PICT. Additional TA will be provided at early stage of the project to strengthen procurement capacity, so the institutions can undertake implementation, facilitation, and coordination of the Project with reduced risk.

Works Procurement Arrangements Under Component 2

42. Design of works: Design work will be centrally done through contracted consultants and coordinated by the MLOG-PICT. The consultants/PICT will ensure the participating districts are involved in the contracting process for ownership. The design consultants will be procured by the PICT.

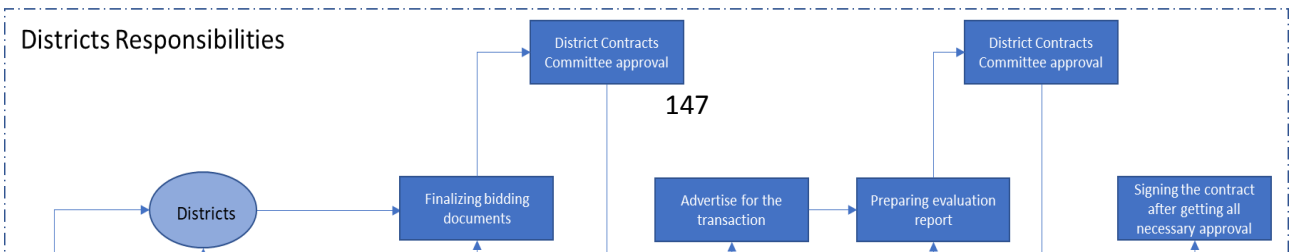
43. Development of bidding documents: Bidding documents (including technical specifications, BOQs, evaluation and post qualification criteria, general items of bid data sheet and special conditions) will be prepared by the PICT with support from the MOLG PDU based on the National template. The districts will be provided with completed bidding documents for them to insert administrative aspects such as physical address of bid delivery and other periphery aspects. The districts would, however, have to be involved in the development of aspects such as specifications and would have a right to seek clarification or request adjustments if their needs are not taken care of.

44. Advertising and Handling of submitted bids: Bid advertisements will be placed in the newspapers by the PICT directing bidders to purchase the bid documents from the respective districts. Receipt of completed tenders from bidders will be handled by the district PDUs in accordance with PPDA procedures. Bid opening will also be handled by the district PDU in attendance of bidders who choose to attend. As part of a quality due diligence review, officials from the PICT will attend bid opening and obtain copies of the bids to be evaluated.

45. Bid evaluation and approval will be a responsibility the district government structures (PDU, and contracts committees). Post qualification analysis will be an integral aspect of evaluation to avoid signing of contracts with incompetent contractor.

46. Due diligence reviews, approvals and No Objections: Before the contract is awarded, the PICT will undertake a due diligence review and provide comments to the districts if they don't concur with the result. These comments should avoid taking procurement decisions or forcing districts to take bidders other than those recommended by evaluation committees; the PICT should provide the type of comments used in No Objections, leaving the district governments to take decisions that have legal mandate implications. However, it will be explicitly stipulated in the MOU that will be signed between MOLG and Districts that No contract will be awarded without the clearance of the PICT. Once the evaluation report is cleared, the PICT will request IFAD's No Objection. On receipt of IFAD's No Objection the Attorney General's approval will be sought by the districts and, after it is received, the contracts are signed off.

Contract administration: Experience under PRELNOR shows that the quality of road works supervision by the districts was less than satisfactory. The PICT will engage supervising engineers to support the districts in the supervision of works. Payment certificates will require signatures of the district engineer. To support payments, measurement sheets will be reconciled to the progress completion certificates. Specific arrangements are presented in Figure 1: Responsibilities and Procedures Works Procurement under Component 2 (Works Procurement).



Use of Prequalification

47. As proposed in the procurement method section, the thresholds for less-completive procurement methods (Restricted Bidding and Request for Quotation) will be as follows:

a. Works estimated below USD 100,000 will be procured through Restricted Bidding or National Shopping.

b. Goods estimated below USD 35,000 will be procured through Restricted Bidding or National Shopping.

c. Consulting and Non-Consulting Services below USD 10,000 will be procured through Restricted Bidding or National Shopping.

This means that if NOSP has a list of prequalified bidders, it would be able to shorten/streamline the procurement processes for bulk of its procurement.

48. Pre-qualifications can lead to misuse, if not well managed. It is proposed that the MAAIF-PCU/MOLG-PICT with support from the PDUs will develop a NOSP specific prequalified list of bidders for use under Less-competitive methods. The prequalified list should be updated every two years and will require IFAD's No Objection prior to being used for limited bidding.

49. In any event, it is important that activities must not be unjustifiably separated into smaller activities just to avoid using the specified procurement method defined by a financial threshold. If it is determined that any such separation has taken place for this purpose, IFAD will withhold the no-objection of the plan until this has been corrected. Conversely, there will be occasions where low-value procurement activities are grouped together under one tender for purposes of economies of scale. In such circumstances, the total cumulative estimated amount of the tender should be used to determine the procurement method. For instance, road works will be packaged in batches (in lots) and will not be procured through restricted bidding although some individual roads may be within the threshold. The invitation for Limited Bidding or the

Request for Quotation will be sent only to those vendors enrolled in the project pre-qualified lists and/or respective PDU lists.

Goods and Services Procurement Arrangements

50. Goods: Goods and supplies such as vehicles and computers that may be common to the PCU and across governorates will be procured centrally through the PCU in order to gain the benefits of bulk / quantity purchases. Low value supplies will be procured at the districts through their respective PDUs and Contracts Committees. Therefore, the consolidated procurement plan will indicate which entity is responsible for the procurement of each item.

51. Services: Most of the anticipated services will cut across Districts. These services will be procured centrally by the PCU through. Certain services such as the recruitment of the consulting firms to carry out roads' improvements feasibility study; detailed design and Environment and Social Impact Assessment that are unique to the implementing partners and will be procured at the MOLG-PICT.

52. Service Providers: The Project will be managed by the MAAIF-PCU/MOLG-PICT and implemented by contracted service providers on performance related contracts. Service providers will include: (i) preselected public institutions except Districts who will have the status of Project Parties and be required to ensure that procurement actions undertaken by them and financed by IFAD or Government be undertaken in compliance with the stipulated procedures of IFAD and Government; and (ii) non-preselected civil society organizations or private sector vendors that will participate in the Project. Service providers not pre-selected will be procured on the basis of IFAD procurement guidelines.

53. Performance based contracts: For Contracts, MOU and Framework Agreements between PCU/PICT and the vendors, it is suggested that performance-based contracts in the delivery of hardware and software goods and services will be adopted. Such contracts will focus on outputs and outcomes of service provision, with clear milestones, with triggers for contract extension linked to achievements. There will be no automatic extensions in time or scope. All contracts, MOUs and Framework Agreements will include the payment schedules against deliverables, monitoring and quality assessment, and value-for-money assessment. They will also define the key responsibilities of the partners at national and districts levels, and will be jointly monitored and supervised. This is not dissimilar to current government personnel procedures which incorporate performance-based assessment.

54. Details of the Procurement Responsibilities and Procedures under different components of NOSP are presented in figures 2&3.

figure 2: Responsibilities and Procedures Works Procurement under Component 1&3

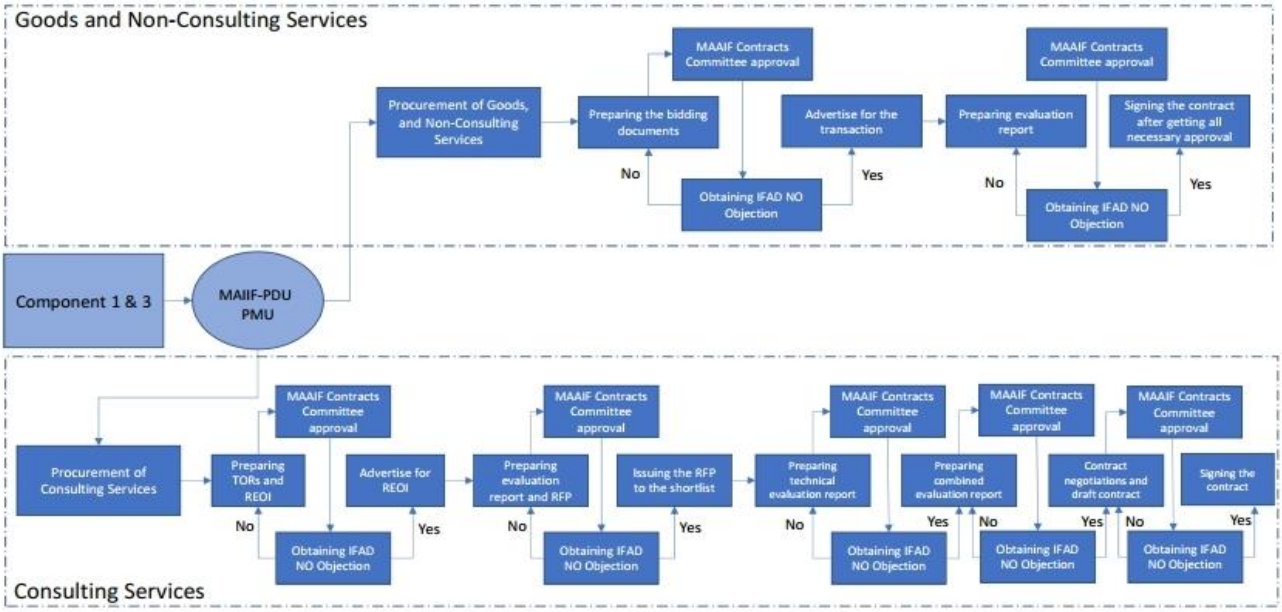
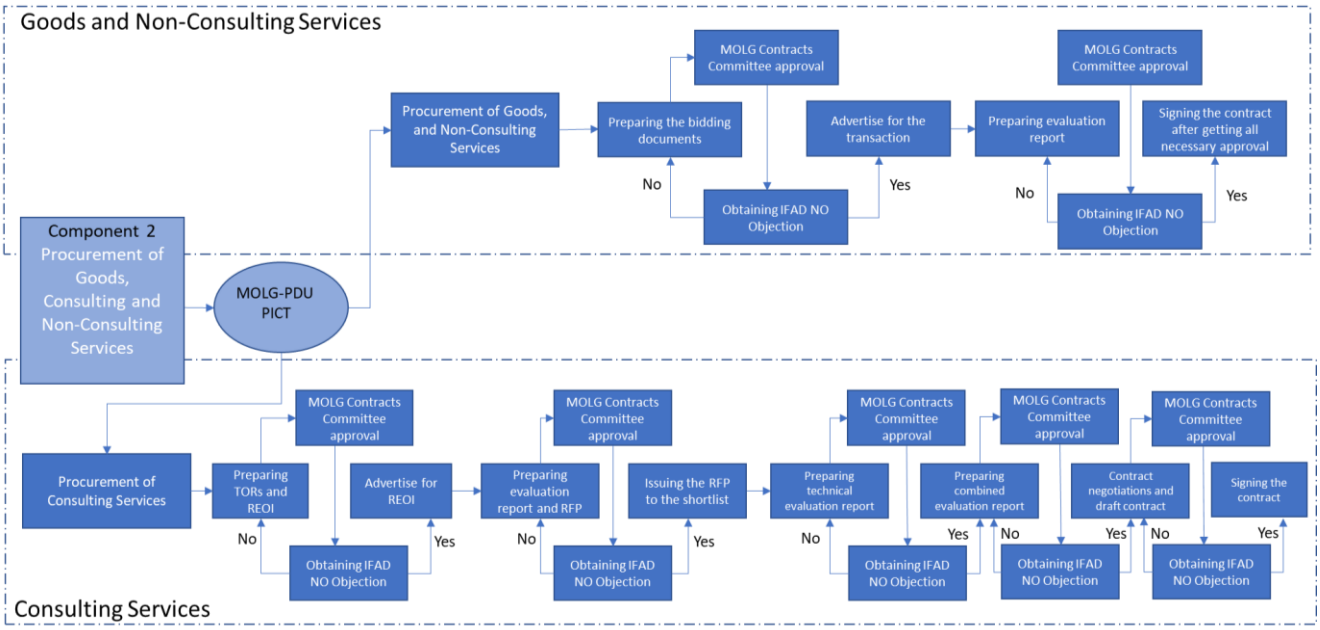


Fig3: Responsibilities and Procedures Works Procurement under Component 2 (Goods, Consulting and Non-Consulting Services)



55. **Public Private Producer Partnerships and other Private Sector Participation arrangements.** Public Private Producer Partnerships may include the following forms or combinations of them; partnerships; leasing; concession; service contract; management contract. Activities that could be financed by an NOSP as a matching contribution (or an incentive to initiate a 4P) include:

a. Pre-investment activities such as:
   - The elaboration and implementation of a communication and dissemination strategy to raise awareness of the programme and its activities among all actors along the value chain;

- Technical assistance and training for producers to form institutions, build capacity and adopt or upgrade their technologies to meet market requirements (for example, in logistics, storage, marketing, accounting, financial literacy, machinery, packaging, labelling, traceability, quality control, and food safety and hygiene);
- Recruitment of independent consultancy firm for undertaking desk and field proposal appraisal;
- Legal services to draft 4P agreements and negotiate and enforce contracts;

b. Technical assistance and coaching for aggregators through recruiting a competent transaction advisor;
c. Obtaining or renewing certification to comply with the quality standards of the buyer or end market;
d. Investments in collective, productive equipment such as transport, office, ICT tools/mobile applications, product processing, vehicles; and
e. Other long-term investments required by Aggregators to renew their facilities or invest in new ones (such as storage/warehouse and mill facilities, etc.).

56. Activities from a to c will be directly implemented by the Project following the same Procurement arrangements for other activities. While activities d and e will be implemented through special arrangements including Competitive process.

57. For the selection of the aggregators under the short-term investments category, open competitive bidding procedures followed by the Project will be applied as follows:

a. A call for proposals for business plans to interested private-sector companies and producers' organizations.
b. The business plans should then be reviewed, assessed and selected following a set of pre-established eligibility and selection criteria.
c. Development of eligible proposals into full-fledged business plans, Project through the recruited advisor will provide technical advice during this stage
d. Final selection of business plans based on the selection criteria.

58. For the selection of the aggregators under the long-term investments category, open competitive bidding procedures followed by the project will be applied as follows:

a. Wide advertisement is done providing potential bidders detailed information and enough time for preparation of applications.
b. Prequalification of potential bidders is done using well designed criteria.
c. Bidding documents are well prepared, clear and non-discriminatory bidding documents. The Project may provide technical advice during this stage.
d. Procedures for bid submission are clear and bid opening is public.
e. Bid evaluation criteria are transparent, well defined in the bidding documents.
f. Negotiation of the final contract, if required, is done only within the parameters defined in the bidding document, and after receiving IFAD "no-objection".
g. Selection of one firm/aggregator for award of contract is done based on most economically advantageous offer.

59. When preparing to select 4P partners and business plan proposals, it is critical to identify an institution with the most appropriate competencies to manage the selection process. It is challenging to assess business plans submitted by partners – especially the aspects related to financial viability, community engagement and compensation – since they tend to rest on a number of assumptions. It is recommended to recruit a specialized service provider to perform this function.

60. Depending on whether the initial mapping exercise leads to the identification of multinationals or SMEs, some due diligence is required to assess the selected company's capacity and reliability in case of long-term investments. Similarly, producer organizations must be assessed to determine whether they would be reliable business partners for the selected private company in a 4P arrangement.

61. As provided by the PTA note "How to do Public-Private-Producer Partnerships (4Ps) in Agricultural Value Chains" the eligibility and selection criteria will include but not limited to:

a. Proven know-how and technical expertise related to the selected product and services (key requirement)
b. Willingness to invest both human and financial resources in the 4P
c. Formal buy-in and commitment of the small-scale producers involved in the 4P business plan, as evidenced by a formal agreement (e.g. contract)
d. The company's production practices and those of its smallholder suppliers are environmentally friendly and comply with social (labour, gender) standards
e. The partner's strategy is not simply focused on short-term profits but on long-term, viable business relationships with producers; it is an integral part of its business model rather than a corporate social responsibility initiative
f. Producers are willing to engage in stable and continuous commercial relationships with business partners, as opposed to opportunistically looking for the best buyer in each season
g. Private sector's proven experience and/or formal commitment to establishing business partnerships with small producers
h. In the case of international companies, capacity to partner with local firms.

62. A standard contract agreement will be developed as part of the implementation manual for the establishment of 4P. The PTA note provides some key elements for typical contract specifications that should be taken into consideration during preparation of the standard contract agreement.

63. Good practices recommend allowing the Service Provider to have more flexibility in operational, managerial and investment decisions aiming at more innovative solutions. Use of output results (performance indicators) is a good means of giving the Service Provider the maximum scope to innovate or otherwise use his skills and experience to design efficient solutions without being constrained by past practices. With the above factors appropriately addressed, the private sector has greater incentive to reduce costs.

64. The Service Provider can procure goods, works and services required by the facility using its own procurement practices (subject to eligibility conditions defined under paragraph 64 of Procurement Guidelines and having no conflict of interest as defined in paragraph 19.b of Procurement Guidelines), provided the Service Provider was selected based on open competitive bidding procedures determined acceptable by IFAD.

D. Applicable Procurement Rules and Regulations

Overriding Principles

As provided in Section 7.05 of the General Conditions, procurement of goods, works and services shall be carried out in accordance with the provisions of the Borrower/Recipient's procurement regulations, to the extent such are consistent with the IFAD Procurement Guidelines and by observing the following specific principles:

- Procurement will be carried out in accordance with Financing Agreement and any duly agreed amendments thereto;

- Procurement will be conducted within the Project implementation period, except as provided under Article 4.08 (a)(ii) of IFAD General Conditions;
- The cost of the procurement is not to exceed the availability of duly allocated funds as per the Financing Agreement;
- Procurement is to be consistent with the duly approved annual work plan and budget (AWP/B) including a procurement plan (for the first time, the procurement plan will cover the first 18 months of the Project implementation period);
- Procurement is to result in the best value of money and fit for purpose.
- All goods, works and services procured will be exempt from duties and taxes.

Specific Rules

All procurements with cost estimate above the threshold for international competitive bidding (ICB) will be undertaken according to the World Bank Guidelines. All contracts procured at national level following National Competitive Bidding (NCB) and other lower procurement procedures such as Restricted Bidding and Shopping (Request for Quotations) will follow the national public procurement law (the Procurement and Disposal of Public Assets Authority (PPDA) Act, 2003 and its attendant regulations. These procedures have been reviewed by IFAD and found to be satisfactory, except for the following provisions, which will not be applicable under this project:

a. Domestic preferences shall not apply under NCB;
b. The charging of fees for dealing with bidder complaints at procuring entity level shall not be permitted;
c. Paragraph 6(1) (b and c) of the fourth schedule of the PPDA Act (restrictions on contract amendments) shall not apply with respect to consultancy services.
d. Procedure for conducting merit point evaluation for Work, Goods and Non-Consulting Services shall not apply.
e. non-monetary bid securities will not be allowed for works and services worth over USD 35,000.

E. Procurement Planning

65. At the outset of the Project, the MAAIF-PCU and MoLG/PICT, in collaboration with other project partners, will establish a consolidated procurement plan covering the first 18 months of the Project, followed by 12-month successive plans synchronized with the annual work plans and budget during implementation. IFAD's review of and No objection to procurement plan is compulsory.

66. For each contract to be financed by IFAD proceeds, the types of procurement methods, estimated cost, prior review requirements and time-frame would be agreed between the Project and IFAD respectively in the Procurement Plan.

Procurement plan should be divided into goods, works and services and as a minimum, the procurement plan must contain the following information:

i. A brief description of each procurement activity to be undertaken during the period or the plan;
ii. The estimated value of each activity;
iii. The method of procurement to be adopted for each activity
iv. The method of review IFAD will undertake for each activity;
v. In addition to the minimum information above, it is considered good practice for the procurement plan to capture additional information such as:
    - Planned timing of the procurement activities;

- Procurement by Project component;
- Dates for IFAD prior review;

The procurement plan shall be prepared in excel sheets and each procurement category (goods/works/consulting services/non-consulting services) in separate excel sheets as follows:

For Goods, Works and Non-Consulting Services

- Project title:
- Financiers:
- Period:
- Type of procurement: goods/works/services
- Code as per AWPB
- Component/unit
- Procurement tender number
- Item description
- Plan vs Actual with two rows:
    - planned
    - actual
- Contract type: Lumpsum or exact /BQS for Works
- Total amount in USD
- Procurement method
- Prior or post review
- Preparation of tendering process
    - bid document preparation and submission to IFAD
    - IFAD No objection
- Bidding process
    - Publication/invitation/advertisement
    - Closing/opening
- Evaluation process
    - Technical and financial evaluation and submission of report to IFAD
    - IFAD No Objection to award
- Contract
    - Award and notification of award
    - Signing of the contract
    - Contract period
    - Contract completion date
    - Comments

For Consulting Services

- Project title:
- Financiers:

- Period:
- Code AWPB
- Component/unit
- Procurement tender number
- Item description
- Plan vs Actual with two rows:
    - planned
    - actual
- Contract type: Lumpsum or time based
- Total amount in USD
- Selection method
- Prior or post review
- Preparation of tendering process (terms of reference)
    - Preparation date
    - IFAD No objection
- Bidding process/Request for Expression of Interest
    - Dated of invitation
    - Closing/opening
- Shortlist
    - Date proposed for submission of shortlist to IFAD
    - Date of IFAD No Objection
- Request for Proposal
    - Date prepared and submitted to IFAD
    - Date of IFAD No Objection
    - Invitation date
    - Date of opening
- Evaluation process:
    - Technical evaluation
    - IFAD No Objection to technical evaluation report
    - Date of opening financial proposals
    - Date of submission of combined evaluation report
    - Date of IFAD No Objection to the report and award
- Contract
    - Award and notification of award
    - Signing of the contract
    - Contract period
    - Contract completion date
    - Comments

F. Procurement Methods and Thresholds

67. Procurement Methods: The methods which are permitted for the procurement of works and goods are: a) international competitive bidding (ICB), b) national competitive bidding (NCB) or open tender, c) limited national bidding (LIB) or

restricted bidding, d) international or national shopping or requests for quotations, e) direct contracting, and f) procurement from United Nations agencies. The indicative time for the procedures under each method is presented in table1.

68. The methods which are permitted for the procurement of non-consulting services are: a) international competitive bidding (ICB), b) national competitive bidding (NCB) or open tender, c) national shopping or requests for quotations, and d) direct contracting.

Table1. Indicative time for procurement procedures (Goods, Works and Non-Consulting Services)

No.	Procedures	Procurement Method							
		ICB			NCB			Restricted Bidding	Shopping
		Works with Pre-qualification	Works without Pre-qualification	Goods and Non-Consulting Services	Works with Pre-qualification	Works without Pre-qualification	Goods and Non-Consulting Services		
1	Preparation of Prequalification Document	20 days	NA	NA	15 days	NA	NA	NA	NA
2	Advertise for Prequalification	42 days	NA	NA	30 days	NA	NA	NA	NA
3	Evaluation of Prequalification	20 days	NA	NA	20 days	NA	NA	NA	NA
4	Preparation of Bidding Documents	15 days	20 days	20 days	10 days	15 days	15 days	10 days	5 days
5	Bidding	42 days	42 days	42 days	30 days	30 days	30 days	21 days	10 days
6	Evaluation	30 days	40 days	30 days	20 days	30 days	20 days	15 days	5 days
7	Notice of best evaluated bidder	5 days							
8	Period during which no further action may be taken	10 days							
9	Providing Performance Security	Within 21 days after signing the contract							21 days if required

69. The selection methods which are permitted for the procurement of consulting services are: a) quality and cost-based selection, b) quality-based selection, c) selection under a fixed budget, d) selection based on consultant' qualifications, e) least cost selection, f) single-source selection, and g) selection of individual consultants. The indicative time for the procedures under each selection method is presented in Table 2.

Table 2. Indicative time for procurement procedures (Consulting Services)

No.	Procedures	Selection Method						
		ICB		NCB			IC	
		QCBS	QBS	QCBS FBS LCS	QBS	CQS	International	National
1	Preparation of the TORs and REOI	20 days	30 days	15 days	20 days	10 days	10 days	5 days
2	Advertise for the REOI	15 working days		15 days			15 working days	10 working days
3	Evaluation of the EOI and Preparation of the Shortlist or the Selection in case of CQS and Individual Consultant	20 days	30 days	15 days			10 days	5 days
4	Preparation of RFP	15 days		15 days			NA	
5	Bidding	42 days	42 days	30 days	30 days	30 days	NA	
6	Technical Evaluation	30 days	40 days 30 days	20 days	30 days	20 days	NA	
7	Notice for Opening Financial Proposals	10 days		5 days	NA			
8	Combine Evaluation	5 days	NA	5 days	NA			
9	Notice of best evaluated bidder	5 days						
10	Period during which no further action may be taken	10 days						
11	Contract Negotiations	10 days		5 days			10 days	5 days

70. For each contract to be financed by IFAD proceeds, the types of procurement methods, estimated cost, prior review requirements and time-frame will be agreed between the Project and IFAD respectively in the Procurement Plan. IFAD financed procurement of works, goods and consultancy services. While eventually the specific thresholds for procurement financed under the Project will be stipulated in the Letter to the Borrower, the recommendations are the following (based on the guidance established by the IFAD Procurement Manual):

71. Works estimated to cost more than USD 700,000 equivalent will be procured through International Competitive Bidding (ICB) method either through pre-qualification or post-qualification procedure using the World Bank's applicable Standard Bidding Documents (SBDs). Works estimated between USD 100,000 and USD 700,000 equivalent will be procured through the National Competitive Bidding (open tender). While works estimated below USD 100,000 will be procured through Restricted Bidding or National Shopping (request for quotations). Direct contracting will have to be identified and approved by IFAD in advance for those cases which justify use of such method.

72. Goods estimated to cost more than USD 200,000 equivalent per contract will be procured through the International Competitive Bidding (ICB) method using the World Bank's applicable SBDs. Goods estimated to cost between USD 35,000 and USD 200,000 equivalent per contract will be procured through National Competitive Bidding (open tender). Goods estimated to cost less than USD 35,000 equivalent per contract will be procured through Restricted Bidding or Shopping methods (request for quotations). Direct contracting will have to be identified and approved by IFAD in advance for those cases which justify use of such method.

73. Consultancy services. Quality and Cost Based Selection will be the standard method applied unless otherwise approved. The following thresholds and processes will apply: i) International Request for Proposal (RFP)– for contracts with a value of USD 100,000 equivalent and above; ii) National Request for Proposal (RFP) – for contracts

with a value of less than USD 100,000 equivalent and more than USD 10,000 equivalent. Contracts with a value of USD 10,000 equivalent or bellow, or procurement of individual consultancy or Technical Assistance services, will be based on National Shopping (request for quotation).

74. Non-Consultancy services. The following thresholds and processes will apply: i) Services estimated to cost more than USD 100,000 equivalent per contract will be procured through the International Competitive Bidding (ICB) method, ii) NCB (open tender) method – for contracts with cost between USD 10,000 and USD 100,000 equivalent. Contracts with a value of USD 10,000 equivalent or bellow, will be procured through Restricted Bidding or National Shopping (request for quotation from predetermined shortlist).

75. However, these financial thresholds may be adjusted as appropriate, with prior IFAD approval, depending of the nature of the assignment. And the method of procurement to be followed will be pre-determined in each approved annual procurement plan.

G. Definition of the applicable Procurement methods for Goods, Works and Non-consulting Services

76. **International Competitive Bidding: International competitive bidding (ICB)** is a procurement method suited to high-value requirements that would be of interest to the international business community. The objective of ICB is to provide all eligible prospective bidders located and operating both within the Borrower's/Recipient's country and abroad with timely and adequate notification of the Borrower's/Recipient's requirements and an equal opportunity to bid for the required goods and works. Where ICB is the identified method of procurement within an approved procurement plan, World Bank procedures as set forth in their guidelines will apply. The new Procurement Regulations for Investment Project Financing (IPF) Borrowers of the World Bank available at: **https://policies.worldbank.org/sites/ppf3/PPFDocuments/Forms/DispPage.aspx?docid=4005&ver=current**, the competitive bidding is now called "Request for Bids (RFB)". RFB is a competitive method for the solicitation of Bids. It should be used when, because of the nature of the Goods, Works, or Non-consulting Services to be provided, the Borrower is able to specify detailed requirements to which Bidders respond in offering Bids. The minimum period allowed for preparation of Bids/Proposals shall be forty-two (42) Calendar Days for open international competitive procurement. The Standard Procurement Document for Request for Bids is available at: **http://pubdocs.worldbank.org/en/299661509568509693/SPD-Request-for-Bids-GOODS-1-envelope-OCT-2017.docx** for Goods and at: **http://pubdocs.worldbank.org/en/328641509642865653/SPD-Request-for-Bids-SMALL-WORKS-1-Env-OCT-2017.docx for works.**

77. **National Competitive Bidding (NCB)** is the competitive bidding procedure normally used for public procurement in the country of the Borrower/Recipient, and may be the most efficient and economical way of procuring goods or works that, by their nature or scope, are unlikely to attract foreign competition. NCB may be the preferred method of procurement where foreign bidders are not expected to be interested because:

- Contract values are small;
- Works are scattered geographically or spread out over time;
- Works are labour-intensive; or

- The goods or works are available locally at prices below those on the international market.

78. NCB procedures may also be used where the advantages of ICB are clearly outweighed by the administrative or financial burden involved. Advertising for procurement under NCB may be limited to the national press of the Borrower's/Recipient's government or, where possible, a free and open-access website. Bidding documents may be in an official language of the country, and local currency is generally used for the purposes of bidding and payment. The procedures are to provide for adequate competition in order to ensure reasonable prices, and the methods used in the evaluation of bids and the award of contracts are to be objective and made known to all bidders, and are not to be applied arbitrarily. The procedures will also include public opening of bids, publication of results of evaluation and of the award of contract, and provisions for bidders to protest. In addition, bidding documents will provide clear instructions on how bids should be submitted, how prices should be offered, and the place and time for submission of bids. Adequate response time for preparation and submission of bids will be provided. If eligible foreign firms wish to participate under these circumstances, they are to be allowed to do so.

79. **Limited National Bidding (Restricted Bidding) (LNB)** is essentially NCB by direct invitation without open advertisement. It may be an appropriate method of procurement where:

- Contract amounts are small;
- There is only a limited number of suppliers or contractors; or
- Other exceptional reasons exist that may justify departure from full ICB procedures.

80. Under LNB, borrowers/recipients should seek bids from a list of potential suppliers or contractors broad enough to ensure competitive prices. This list should include all suppliers and contractors when there are only a limited number. In all respects other than advertisement and preferences, NCB procedures apply to procurement under LNB, including the publication of the contract award.

81. **Shopping** is a procurement method that entails comparing price quotations from several suppliers or contractors (usually at least three) to ensure competitive prices. It is an appropriate method for procuring readily available, off-the-shelf goods or standard specification commodities that are small in value, or simple civil works of small value. Requests for quotations should indicate the description and quantity of the goods, together with desired delivery (or completion) time and place. Quotations may be submitted by mail, electronic mail or facsimile. The evaluation of quotations will follow the principles of competition. The terms of the accepted offer are to be incorporated in a purchase order or brief contract. Under international shopping, the purchaser is to solicit quotations from at least three suppliers in two different countries. National shopping may be used where the desired goods are ordinarily available from more than one source in the country of the Borrower/Recipient at competitive prices.

82. **Procurement from United Nations agencies.** There may be situations in which procurement from specialized agencies of the United Nations, acting as suppliers and pursuant to their own procedures, may be the most economical and efficient way of procuring relatively small quantities of off-the-shelf goods. Use of such agencies as supply sources, together with the Project component and the type of goods or works to be procured from such sources, are to be expressly and specifically agreed between the

Borrower/Recipient and IFAD before proceeding with the application of this method of procurement.

83. **Direct Contracting** (for Goods, Works and non-consulting services) consists in procuring goods or works without competition (by single or sole-source selection). Due to its non-competitive nature, DC may be only permitted in the following exceptional circumstances:

- An existing contract for goods or works awarded in accordance with procedures acceptable to IFAD, may be extended for additional goods or works of a similar nature to a maximum of 25 per cent (%) of the original contract value, with the prior approval of IFAD, provided that no advantage could be obtained by further competition and that the prices on the extended contract are reasonable. Provision for such an extension, if considered likely in advance, is to be included in the original contract;
- Standardization of vehicles, equipment or spare parts to ensure compatibility with existing vehicles, equipment or machinery may justify additional purchases from the original supplier. For such purchases to be justified, the original vehicles, equipment or machinery should be suitable; the number of new items should generally be less than the existing number; the price should be reasonable; and the advantages of another make or source of equipment are to have been considered and rejected on grounds acceptable to IFAD;
- The required equipment is proprietary and obtainable only from one source;
- The contractor responsible for a process design requires the purchase of critical items from a particular supplier as a condition of a performance guarantee; and
- Purchases from the original supplier may also be justified in exceptional cases and emergencies, such as in response to a natural disaster, conflict and post conflict, or in countries where there are restrictions to free markets and enterprises.

84. Any request for direct contracting from a Borrower/Recipient must be accompanied by a detailed justification, which IFAD will examine carefully to ensure that it is satisfied that no other alternative selection methods can be used.

H. IFAD Prior Review Thresholds

85. In accordance with paragraph 80 of the IFAD Project Procurement Guidelines, the following will be subject to prior review by IFAD:

- First five contracts for goods and equipment undertaken by each of the MAAIF-PCU, MOLG-PICT and first three contracts for goods undertaken by each respective District and thereafter, award of any contract for goods and equipment estimated to cost USD 50,000 equivalent or more;
- First five contracts for works undertaken by each of the MAAIF-PCU, MOLG-PICT and first three contracts for works undertaken by each respective District and thereafter, award of any contract for works estimated to cost USD 100,000 equivalent or more;
- First five contracts for consultancy services undertaken by each of the MAAIF-PCU, MOLG-PICT, and thereafter, award to a firm of any contract for consultancy services estimated to cost USD 50,000 equivalent or more;
- First five contracts for non-consultancy services undertaken by each of the MAAIF-PCU, MOLG-PICT and first three contracts for non-consultancy services undertaken by each respective District, and thereafter, and thereafter, award to a

firm of any contract for non-consultancy services estimated to cost USD 25,000 equivalent or more;

- First five contracts for individual consultant undertaken by each of the MAAIF-PCU, MOLG-PICT, and thereafter, award to an individual of any contract for consulting services estimated to cost USD 5,000 equivalent or more;
- Award of any contract through direct contracting, single source selection, including selection of United Nations' agencies, irrespective of the amount. Furthermore, for consultancy services, all Terms of Reference, Short-listing (if applicable) and draft contracts will be subject to IFAD prior review.

Aforementioned may be modified from time to time as notified by the Fund to the Borrower.

86. **Register of Contracts:** Procurement carried out under the Project will be recorded and registered against the Procurement Plan. In addition, all contracts, with or without IFAD prior review, will be listed in the Register of Contracts maintained by the procuring entity with the dates of approval as provided by IFAD. When a contract is amended, the amendment will be recorded in the Register of Contracts. If a contract is cancelled or declared ineligible for financing by IFAD, this information will be written in the Register of Contracts. As this register facilitates the review and approval of payment requests on contracts, it is to be updated and submitted to the IFAD country programme director on a monthly basis. The sample form to be used and instructions are detailed in Annex 6 of IFAD's Loan Disbursement Handbook. It will also be necessary that the PCU prepare annual statistics disaggregated by type and methods of procurement, for the overall procurement transactions carried out for the Project.

87. **Record Keeping.** The IFAD General Conditions for Agricultural Development Financing require that Borrower/recipients retain documents and records for review by IFAD at any time within a period of ten (10) years after completion of the project. Table 3 illustrates what procurement files, folders or dossiers should contain.

Table 3. Elements of the procurement filing

Document	Preferred format
(i) A copy of the published advertisement or shortlist (if applicable) *	Hard and/or Soft copy
(ii) A copy of the published pre-qualification and invitation documents and any amendments, extensions or clarifications that were requested and issued*	Hard and/or Soft copy
(iii) A record of tender opening signed by all present	Hard and/or Soft copy
(iv) A full copy of each bid received and evaluated, plus clarifications requested and responses received	Hard and/or Soft copy
(v) A copy of the evaluation report*	Hard and/or Soft copy
(vi) Signed minutes of all meetings relating to the procurement, including pre-bid and negotiation meetings where these were held	Hard and/or Soft copy
(vii) A contract award notice*	Hard and/or Soft copy
(viii) Any letter of tender acceptance to the supplier, contractor or consultant*	Hard and/or Soft copy
(ix) The signed contract document and contract acceptance*	Hard and/or Soft copy
(x) Any contract amendments*	Hard and/or Soft copy
(xi) All contractual correspondence between the procuring entity and a supplier, contractor or consultant	Hard and/or Soft copy
(xii) Post-contract documents relating to the fulfilment of contract obligations, in particular photocopies of bank guarantees or payment guarantees	Hard and/or Soft copy
(xiii) Signed minutes of any meetings related to contract management, including contract progress or review meetings	Hard and/or Soft copy
(xiv) Signed delivery documents evidencing delivery of supplies or signed completion certificates in relation to a contract for services or works under	Hard and/or Soft copy

the contract, including any contract delivery records	
(xv) A copy of all invoices for works, services or supplies, including work papers verifying the accuracy of payments claimed and details of the actual payment authorized	Hard and/or Soft copy
(xvi) A copy of cumulative payment worksheets/records evidencing management of all payments made	Hard and/or Soft copy
(xvii) A copy of all submissions to and all decisions of the appropriate approval authority related to the procurement, including the approval of the invitation documents, approval of the evaluation report(s), contract award, approval of contract documents and contract amendments and any decision to suspend or cancel procurement proceedings	Hard and/or Soft copy
(xviii) A copy of any claims made by the procuring entity with respect to any warranty, non-warranty, short supply, damage and other claims upon the provider or upon the procuring entity	Hard and/or Soft copy
(xix) In the case of IFAD prior review, all submissions and correspondence in relation to the seeking of IFAD's no-objection	Hard and/or Soft copy
(xx) any other communications relating to the procurement in questions, including internal entity correspondence	Hard and/or Soft copy
**Ideally, drafts of these published documents and reports should also be retained for completeness and to provide a full picture of how the published document evolved. It is, however, accepted that where issues of space exist this may not always be possible in practice.*	

E. Environmental, social and climate change management procedures

1. INTRODUCTION

This section presents procedures to ensure that environmental and social management is mainstreamed into NOSP activities.

The Environmental, Social and Climate Change (ESCC) management procedures for NOSP subprojects will follow the national guidelines and processes as described in the preceding section, as well as IFAD's safeguard requirements as elaborated in SECAP. Processes to ensure that the environmental and social assessments conducted for NOSP subprojects are aligned with IFAD's safeguards requirements are also elaborated.

All interventions focusing on the development of values to be proposed by Multi-Stakeholder Platforms will have to follow the procedures outlined below, including screening, preparation of ESIAs or Project Briefs and other safeguards documentation, review and approvals, disclosure, setting up grievance mechanisms, monitoring, auditing and reporting.

2. IMPLEMENTATION AND COORDINATION

The institutional arrangements for NOSP implementation have been described earlier in this PIM, and gives an overview of the roles of the PSC, PCU and PICT, as well as the hubs. The MAAIF PCU will, among others, also have a Social Inclusion Specialist (SIS) and a Climate and Environmental Specialist (CES). The MoLG PICT staffing will have a Social and Community Development Specialist (SCDS).

The PCU CES and SIS will have overall responsibility for both Components 1 and 2 for environmental and social management in NOSP activities, but will focus on Component 1 activities.

However, in order to ensure that environmental, social and climate change safeguarding is mainstreamed into all Project activities, it has been recommended that:

- The PICT will be staffed with an Environmental and Social Specialist (ESS) instead of the Social and Community Development Specialist. The ESS will be directly responsible for overseeing both the environmental and social aspects of Component 2. The ESS will report to the CES and SIS in the PCU.
- Each Hub will have an Environmental and Social Officer (HESO) who will work closely District Environmental Officer (DEO) and/or District Natural Resources Management Officer (DNRMO), and will continuously liaise with the NEMA Regional Officer. The HESOs will mainly report to the CES and SIS in the PCU, but will also coordinate activities with the ESS.

Specific responsibilities in line with this institutional arrangement in relation to ESIA procedures and safeguards requirements are described in the sections.

3. POLICIES AND LEGAL FRAMEWORK FOR ENVIRONMENTAL MANAGEMENT OF NOSP ACTIVITIES

Uganda has a number a strategic frameworks that guide the agricultural sector, namely: Vision 2040, the Second National Development Plan (NDPII) 2015/16 – 2019/20 and the Agriculture Sector Strategic Plan (ASSP). Policies and legislation that have implications for NOSP cover Agriculture, Agriculture Extension, Food and Nutrition, Environment Management, Conservation and Management of Wetland Resources, Climate Change, Irrigation, Water, Wetlands, Gender and Elimination of Gender Based Violence, HIV/AIDS and Occupational Health and Safety.

A full description of the Policy and Legal framework governing the environmental and social aspects of NOSP activities is contained in Annex 1.

4. SCREENING

The purpose of screening is to provide an initial indication of the nature and complexities of a project, after which it can be categorised to determine the level of investigation necessary to ensure that the project causes no harm to the environment or the project communities, and to ensure that the project is acceptable and sustainable in terms of environmental, social and climate risks and impacts.

SECAP Screening Categorisation

According to the SECAP Review Note, NOSP has been categorised as Category B. In other words, NOSP subprojects may have some adverse environmental and/or social impacts on human populations or environmentally significant areas, but the impacts are site specific and few are irreversible in nature, and can be readily remedied by appropriate preventive actions and/or mitigation measures. These subprojects typically involve agricultural intensification and/or expansion of cropping area in "non-sensitive areas"; natural resource based value chain development; development of an agro-processing facility; construction or operation causing minimal increase in traffic in rural roads; small-scale irrigation projects (<100 ha); activities that have minor adverse impact on physical cultural resources; economic and physical displacement affecting fewer than 20 people or impacting less than 20 per cent of any one community's or individual farmer's or household's assets; and subprojects requiring a migrant workforce for construction or seasonal workers for construction, planting and harvesting.

Activities not supported by IFAD

There are a number of activities that IFAD will not support or implement, for which SECAP (2017) refers to the IFC exclusion list[14]. In the context of NOSP, these are:

- Production or trade in alcoholic beverages;
- Production or trade in tobacco;
- Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCB's, wildlife or products regulated under CITES. NOSP will have to ensure beneficiary farmers use approved pesticides and herbicides. An indirect impact of NOSP may result in an increase in poaching or killing of threatened or endangered species that may raid farms, since most of the hubs contain a number of national parks and forests. NOSP must therefore ensure that sufficient provision is made for the protection and conservation of wildlife, flora and their habitats;
- Production or activities involving harmful or exploitative forms of forced labour[15] and/or harmful child labour[16]. As such forced labour may not be an issue for NOSP subprojects, but it should be noted that IFAD requires that farm hands/casual workers are paid decent living wages, and that labour and working conditions and well-being of workers and local communities are fully considered and in line with ILO conventions. In rural societies, children often skip school during the harvest period in order to assist their families on the farms. Children working on agricultural projects are especially susceptible to harm from poor use and management of agrochemicals. NOSP supported subprojects will therefore have ensure that harvesting (and other) activities do not interfere with children's education, and that children do not handle agrochemicals and are not otherwise exposed to these substances.

SECAP (2017) also states that IFAD will not support "*projects in areas of critical habitats or which result in conversion or degradation of such habitats"*. Emphasis will be to identify alternatives and ensure that any potential degradation or conversion is firstly avoided, and if not avoided, appropriately mitigated.

In addition, in order to retain Category B status, NOSP will NOT support subprojects or interventions that have the following implications:

Subprojects having ***locational implications*** which:

- Would develop wetlands;
- Cause significant adverse impacts to habitats and/or ecosystems and their services, such as conversion of natural forest or wildlands, loss of habitat, erosion or other form of land degradation, or fragmentation of habitats;

[14] International Finance Corporation Exclusion List: www.ifc.org/exclusionlist

[15] Forced labor means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

[16] Harmful child labor means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development.

- Result in major hydrological changes;
- Are located in ecologically sensitive areas, areas of global/national significance for biodiversity conservation (eg. protected areas – national parks and forests, world heritage sites), and/or biodiversity-rich areas and habitats depended on by endangered species;
- Are located in areas subjected to major destruction as a result of geophysical hazards eg. landslides, earthquakes or volcanic eruptions.

Subprojects having ***natural resource implications*** that would:

- Lead to unsustainable natural resource management practices (fisheries, forestry, livestock) and/or result in exceeding carrying capacity;
- Would result in significant increase in the use of agrochemicals which may lead to life-threatening illness and long-term public health and safety concerns;
- Rely on water-based (groundwater and/or surface water) development where there is reason to believe that significant depletion and/or reduced flow has occurred from the effects of climate change or from overutilization;
- Pose a risk of introducing potentially invasive species or genetically modified organisms which might alter genetic traits of indigenous species or have an adverse effect on local biodiversity.

Subprojects involving ***infrastructure development*** that would:

- Require the need to rehabilitate or develop large scale irrigation schemes of more than 100 hectares per scheme;
- Involve significant extraction/diversion/containment of surface water, leaving the river flow below 20 per cent environmental flow plus downstream user requirement;
- Include drainage or permanent correction of natural waterbodies (eg. river training);
- Involve the construction/rehabilitation/upgrading of roads that entail a total area being cleared above 10 km long.
- Involve the construction of a large or medium-scale industrial plant (eg. oil mills exceeding production of more than 10 T/day[17]).

Subprojects having ***social implications*** that would result in:

- Any economic displacement or physical resettlement;
- Significant social adverse impacts on disadvantaged, vulnerable, indigenous and underserved groups;
- Conversion and/or loss of physical cultural and traditional resources, including graves, indigenous tree/plant species that have traditional value.

Generic impacts of the various anticipated NOSP activities under Components 1 and 2 are summarized in Appendix 2.

All Component 1 subprojects and interventions will be screened by the CES and SIS, while Component 2 subprojects (CARs and off-road runoff harvesting) will be screened by the PICT ESS and the relevant HESOs in consultation with DEOs and DNRMOs, and the NEMA Regional Officer.

[17] Based on District guidelines of small, medium and large oilseed mills.

A Screening Checklist is provided in Annex 3.

5. INVOLVEMENT OF BENEFICIARIES DURING SUBPROJECT SELECTION

For Component 1, clusters of stakeholders (producers, buyers/millers, suppliers) will be formed according to the commodities and multi-stakeholder platforms (MSP) will be held regularly (at least twice per year) at the cluster and hub level. NOSP will also engage in farmers group mentoring to equip farmers with skills and confidence to grow their farm enterprise, manage climate risks and face fewer social barriers to their development. Mobilisation of individuals and households into the clusters and engaging them into NOSP activities will be led by a team of market-oriented Economic Mobilizers (EM) in each hub with support from the hub Supply Chain teams. Social mentoring of households of all supported producer groups will be undertaken to address risks and barriers and ensure that households are able to maximize their socio-economic progress.

For Component 2, Community Access Roads will be led by the MoLG and district and sub-county local governments. The selection of roads for NOSP support will be done through a consultative and participatory process at the district/sub-county and multi-stakeholder platform levels. The Districts will prepare a map of the selected sub-counties growing oilseeds and compile a list of priority roads for potential NOSP support, assisted by the MSPs and oilseed farmers. Further prioritisation of CARs will be done across the districts. The PCU will submit a list of the priority roads to the Project Implementation Coordination Team (PICT) in the MoLG to begin the feasibility studies. When the roads to be improved are identified, the district and sub-county local governments will hold community meetings in the villages that the road will pass through to make the citizens aware of the upcoming project, make them fully aware of possible negative and positive impacts of the road and get acceptance of the road applying the principals of free, prior and informed consent (FPIC). The project will facilitate the establishment of area level road management committees to facilitate interaction with the communities during road design and construction activities. The road management committee will assist in community consultation process, monitoring construction activities and their impacts, advising on mitigation measures including participatory implementation of the environment and social management plans and organising road maintenance groups. The District and Sub-County Local Government engineers will be responsible for the supervision of construction works. The PICT engineers, ESS and HESOs will provide quality assurance during the construction by making periodic site inspections, attending site meetings and reviewing. Criteria for selection of CARs are presented at the end of Annex 2.

6. ENVIRONMENTAL, SOCIAL AND CLIMATE SAFEGUARDS DOCUMENTATION

The various safeguard documents required to be prepared for NOSP subprojects and interventions are described below.

Environmental and Social Impact Assessment (ESIA)

Based on the exclusions listed in the preceding section, all subprojects funded directly by NOSP will fall under SECAP Category B, which would not require ESIAs to be prepared. However, in terms of NEMA categorisation, the NOSP interventions will require Project Briefs, apart from large scale cultivation and irrigation projects that would exceed 20 ha, which according to the National Environment Act (2019) (NEA) will require a full ESIA.

In the event that the MSPs propose activities or interventions that may have some environmental and/or social impacts of concern, they would have to undertake ESIAs in accordance with NEMA's guidelines. But if they involve activities listed in the exclusion list, then those interventions will not be supported through NOSP.

An ESIA Report must cover, among others:

- Administrative and institutional arrangements required for environmentally sound implementation of the environmental management, applicable national and international environmental legal and policy frameworks and their relevance to the project;
- A detailed description of the proposed project components, as well as all ancillary works including location, technologies to be used, materials and their quantities, construction period, etc;
- A detailed description the biophysical and socio-economic baseline conditions, bearing in mind that these provide the basis for impact analysis and monitoring;
- A description of other ongoing or planned developments in the project area that could have cumulative or synergistic effects on the project outcome;
- Outcomes of stakeholder consultations and public participation and recommendations for addressing stakeholder concerns in design and implementation;
- Identification and analysis of anticipated adverse impacts and risks, and cumulative impacts, as well as beneficial impacts;
- Analysis of alternatives, including project sites, access options, technologies, construction methodologies, etc, and a 'no project' alternative;
- Preventative, mitigation and enhancement measures;
- Recommendations for changes to project design;
- Environmental and social management plan (ESMP – which includes climate risk resilience proposals);
- Grievance redress procedure;
- Monitoring and auditing requirements and procedures;
- Costs for environmental and social management and monitoring, and climate resilience measures.

As ESIAs are done in tandem with the feasibility studies and design development, it is important that:

- Stakeholder concerns – particularly those of the communities and project affected persons - are addressed in the ESMPs, and if they are not, reasons for doing so should be explained; and
- The project design should be presented to the communities.

Should any of the interventions proposed under NOSP (irrigation schemes or subprojects proposed through the MSP) require ESIAs as per NEA (2019), these reports will be prepared by NEMA registered consultants hired by the proposer.

Environmental and Social Management Plan (ESMP)

As mentioned above, all NOSP interventions will fall under SECAP Category B. In regard NEMA's categorisation prescriptions, while some interventions will require ESIAs to be prepared (as discussed above), the majority will require Project Briefs. In the preparation of Project Briefs/ESMPs, guidelines in NEMA's EIA Regulations (1998) and EIA Guidelines (1997), together with SECAP's ESMP formats, will be closely followed. It will also be noted that ESIA reports must contain ESMPs.

A Project Brief must contain:

- The nature of the subproject in accordance with the categories as per Schedule 4 of the National Environment Act, 2019;
- A detailed description of the project components, including materials to be used, inputs, products and by-products (including waste generation), number of people the project will employ, social and economic benefits derived at the local, regional and national levels;
- A baseline which focuses on bio-physical, social and cultural baseline information required for the analysis of impacts and also for the purposes of monitoring;
- An analysis of positive and negative environmental, landscape, social and climate-related impacts (as specified in the First Schedule of the EIA Regulations, 1998;
- Mitigation measures for negative impacts;
- Details on the implementation of mitigation measures, including at what stage/when they should be incorporated, responsibilities for implementing mitigation, cost of mitigation;
- Details on monitoring requirements, including responsibilities for monitoring during construction and operation, monitoring indicators, monitoring baseline, frequency and means of monitoring, costs of monitoring.

The ESMPs/Project Briefs will be prepared by consultants hired by the PCU.

Again, stakeholder concerns must be addressed in the ESMPs, and the project design should be presented to the communities.

While the actual implementation of ESMPs will be done by contractors, the HESOs will be responsible for ensuring that these are implemented and will carry out regular monitoring. However, supervision and monitoring of ESMP implementation will be done by the CES and SIS, and for CARs by the ESS.

Climate Risk Analysis

The purpose of climate risk screening is to determine the exposure of the project to climate-related risks (High, Moderate or Low) based on available information about historic climate hazard occurrences, current climate trends and future climate change scenarios, as well as to assess the likelihood of the project increasing the vulnerability of the expected target populations to climate hazards. It provides an opportunity to integrate climate issues into project design and therefore increase project resilience and hence sustainability. NOSP has a medium climate classification.

Initial results from the Climate Risk Analysis (CRA) carried out for IFAD by the University of Cape Town[18] indicate that between the present time and the Mid-Century Future (defined as ~2040-2069), the Central region of Uganda will be most vulnerable to climate change impacts for groundnut and sesame cultivation and the Western Region for groundnuts and soyabean. For the Eastern and Northern Regions, the impacts of climate change will generally have a positive impact on groundnuts, sesame, soyabean and sunflower, while soyabean production is also anticipated to improve in Central Region. The final CRA report will provide guidance for NOSP oilseed interventions.

NOSP has made provision for improved climate information services which includes climate data collection, capacity building for cliimate change, and district level climate risk and vulnerability assessments. This is aimed at improving smallholder resilience to climate risks.

FPIC Documentation

Some NOSP interventions (for example the upgrading or construction of rural access roads, land for demonstration plots, or workshops, etc) will necessitate the permanent acquisition of land. The approach to do this will be "to do no harm" and adhere to the principle of free, prior and informed consent – in other words, NOSP will not support subprojects resulting in any physical or economic displacement. Land to be acquired for demonstration plots, workshops and stores/sheds will be located on Government land, which will be selected provided no economic or physical displacement will take place. Alternatively, landowners or communities may wish to sell, rent or lease their land for NOSP infrastructure, which will be done on a "willing buyer/willing seller" or "willing lessor/willing lessee" basis. In the latter cases, detailed agreements will be drawn up and reviewed by the SIS and ESS to ensure that the landowner/community have a fair sale or letting arrangement, which is not to their disadvantage.

For Component 2 subprojects, the MoLG has specified that it will not compensate for land take, physical resettlement or economic displacement. Where a member of the community does not wish to give up his/her land, alternative routes or plots will be identified by the communities themselves. Under no circumstances will a person be coerced into relinquishing land or assets against his/her will. It must also be noted that

[18] IFAD (2019); Climate Risk Assessment for the Agriculture Sector of Uganda; African Climate Development Initiative (ACDI), Climate System Analysis Group (CSAG) and the Environmental Policy Research Unit (EPRU); University of Cape Town.

in most of the Project hubs, land tenure is customary – in other words it is either by individuals, families or by clans.

Any land take for the purposes of the Project interventions will be based on negotiated agreement with individuals, families or the clans, following the FPIC process and ensuring comprehensive documentation of the consultation process and the outcomes of consultations. Thus, the need for a RAP is negated.

The FPIC Process for NOSP essentially comprises: 1) consultations leading to FPIC, 2) formalising the consent agreement, and 3) assessing the implementation of FPIC. The table below summarises the FPIC processes for NOSP. A detailed FPIC Implementation Plan is presented in Annex 4.

Table 1: NOSP FPIC Implementation Plan

Description/Activity	Responsible	Timeframe
Conduct consultation leading to FPIC on the proposed project/specific component/activities		
Consultations should: - Share objective and scope of the project with the representatives identified by the communities and identify project component(s) requiring FPIC - Inform them on the actors financing and implementing the project and their respective responsibilities - Provide clear and transparent information on the benefits and risks of the project - Share the findings of the baseline studies - Formalize consent agreement	PCU SIS, PICT ESS through an independent facilitator, supported by IFAD as part of project implementation support, as required.	At the beginning of Project implementation phase and before construction of CARs/harvesting facilities, and any other acquisition of land or removal of trees/crops for NOSP interventions.
Formalize the consent agreement		
i) Formalize the consent agreement (written or in other form if so requested by the community) The format for a consent agreement would include: - Respective expectations - Proposed project duration, expected results and activities - Participatory monitoring and verification plan and procedures - Identification of grievances procedures and mechanisms - Terms of withdrawal of consent	PCU SIS, PICT ESS through an independent facilitator, supported by IFAD as part of project implementation support, as required.	Project implementation phase. Timing agreed upon the during consultation process and before construction of CARs/harvesting facilities, and any other acquisition of land or removal of trees/crops for NOSP interventions.

Description/Activity	Responsible	Timeframe
ii) Record process through means and languages accessible to all stakeholders and parties involved ***iii) Annex the FPIC agreement and documented process to the PDR***		
Assess FPIC implementation		
i) Assess FPIC implementation as part of the M&E exercise during the project life. ***ii) Identify and monitor appropriate indicators*** for measuring progress towards and/or attainment of agreed terms will be defined and linked with a timeframe in the FPIC agreement	PCU, MoLG, IFAD implementation support and joint supervision missions	Project implementation phase - throughout the project cycle

Integrated Pest Management Plan (IPMP)

It is likely that NOSP will stimulate increased agricultural productivity, and therefore increased use of agrochemicals. Agrochemicals (mainly fertilizers and pesticides) may be necessary to achieve higher yields, but they must be carefully applied as they have various adverse environmental and social impacts related to contamination of water bodies and soil and thereby threatening biodiversity, risks to farm workers and community health from exposure to agrochemicals, and releases of GHGs. In order to properly manage the use of pesticides, Integrated Pest Management Plans (IPMPs) must be prepared. Guidelines for the preparation of an IPMP are presented in Annex 5.

FAO defines integrated pest management as: "*the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimize risks to human health and the environment*. *IPM emphasizes the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms".*

The following main steps can be considered as typical for an IPM approach[19]:

- Prevention and/or suppression of harmful organisms. This is often best achieved by a combination of the following options:
  - crop rotation;
  - inter-cropping use of adequate cultivation techniques (e.g., seedbed sanitation, sowing dates and densities, under-sowing, conservation tillage, pruning and direct sowing);
  - where appropriate, use of pest resistant/tolerant cultivars and standard/certified seed and planting material;

[19] http://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/ipm/more-ipm/en/

    - balanced soil fertility and water management, making optimum use of organic matter;
    - prevent spreading of harmful organisms by field sanitation and hygiene measures (e.g., by removal of affected plants or plant parts, regular cleansing of machinery and equipment);
    - protection and enhancement of important beneficial organisms, e.g. by the utilisation of ecological infrastructures inside and outside production sites.
- Harmful organisms must be monitored with adequate methods and tools, where available. Such adequate tools should include observations in the field and where feasible warning, forecasting and early diagnosis systems (e.g. traps).
- Based on the results of the monitoring it is decided whether and when to use what pest management inputs. Sustainable biological, physical and other non-chemical methods must be given priority over chemical methods if they provide satisfactory pest control.
- Pesticides should only be applied as a last resort when there are no adequate non-chemical alternatives and use of pesticides is economically justified.
- The pesticides applied shall be as specific as possible for the target and shall have the least side effects on human health, non-target organisms and the environment, while their use should be kept at minimum levels, e.g. by partial applications.
- Monitor the success of the applied pest management measures.

The IPMP should evaluate the impact of potential pests prior to programme implementation, identify the type of pests and assess the magnitude of impacts likely to be caused by those pests. In assessing the hazards of pesticide use, the toxicity of the pesticide and exposure to it are key elements. Therefore, as a minimum, the IPMP should:

- Screen the types of pesticides for toxicity by ensuring: they are effective against the target species, have negligible adverse impacts on human health and non-target species, will not precipitate resistance in pests, and do not fall into WHO class 1A or 1B;
- Aim to reduce exposure time or degree of exposure.
- Propose alternative non-pesticide management options (physical, mechanical and biochemical), as well as any available less toxic varieties of the pesticides.

The CES, in collaboration with the NEMA and MAAIF will prepare the IPMP as applicable to crops promoted through NOSP. The IPMPs will then be distributed to all the Hubs, who in turn will ensure that all agricultural involving the use of agrochemicals receive, understand and implement the IPMP. The IPMP must also stipulate national requirements and approved and appropriate agrochemicals used in the schemes. In developing the IPMP, reference should be made to SECAP's Guidance Statement #2 on Agrochemicals, and IFC's EHS Guidelines on Crop Production (revised 2015).

Standard Operating Procedures

Depending on the scale and complexity of the some of the interventions and subprojects proposed under NOSP, other operating procedures or plans may need to be developed to ensure environmental protection, community and occupational health and safety and other risks and hazards. If necessary, these may include:

- Traffic Management Plan;

- Waste Management Plan;
- Health and Safety Management Plan;
- Pollution Contingency Plan;
- Erosion Management Plan;
- Emergency Preparedness and Response Plan;
- Cultural Heritage Management Plan.

These plans may be developed by the PCU SIS and CES and the PICT ESS.

7. DISCLOSURE OF ESIAS AND PROJECT BRIEFS

In developing ESIAs and Project Briefs, consultations must be held with all levels: at community, village, district and national levels. During these consultations, the processes for disclosure of the documents should be communicated. IFAD's SECAP procedures also require that sufficient consultations have been carried out with key stakeholders (ie. the communities) in order to satisfy its requirements for Free Prior and Informed Consent (FPIC).

Prior to approval of the subprojects, the ESIAs or Project Briefs and NOSP's Integrated Pest Management Plan (IPMP) will be disclosed nationally, at hub districts and at village level at a location accessible to the general public, and in a form and language that the communities are able to understand, so that they may comment on any aspects/issues contained in the reports prior to their approval. MAAIF, MoLG, the Hub Districts and IFAD will be responsible for disclosure.

ESIAs (for cultivation or irrigation schemes >20ha and <100ha), Project Briefs and the NOSP IPMP may have to be updated to reflect any received comments and indicate how those comments have been accommodated into the relevant subproject design and implementation procedures. If the comments have not been taken on board, the reason for doing so must be provided.

It is also important that the all designs for the proposed interventions are discussed and approved by the target beneficiary groups and project affected persons.

8. REVIEW AND APPROVAL OF ESIAS, PROJECT BRIEFS AND IPMP

ESIAs and Project Briefs will be reviewed by the PCU CES and SIS, and the PICT ESS together with the District Environment Officers of the Hub districts, and then submitted for review and approval/clearance as follows:

- Subprojects requiring ESIAs according to the NEA (2019 to be submitted to NEMA for review and approval include:
    - Cultivation of 20 hectares and more;
    - Large scale application of agro-chemicals for disease and pest control;

    - Irrigation of more than 20 hectares;
    - Milling facilities with a capacity of at least 1000 kg per day.
- Subprojects for which Project Briefs are to be prepared and submitted to NEMA include:
    - Construction of new CARs
    - Temporary access roads >10km
    - Irrigation schemes between 5-20ha to be submitted to NEMA;
- Subprojects for which Project Briefs are to be prepared and submitted to MAAIF for approval include:
    - Construction of medium to small scale agro-processing facilities;
- Subprojects for which Project Briefs are to be prepared and submitted to MOLG for approval include:
    - Opening up of community access and feeder roads;
    - Upgrading of community access and feeder roads to bitumen standards;
    - Small bridge construction;
    - Swamp road improvement which involves installation of culverts;

The NOSP IPMP will be reviewed by IFAD and approved by MAAIF and NEMA.

9. GENDER BASED VIOLENCE AND SEXUAL EXPLOITATION AND ABUSE

GBV/SEA Risk Factors

There are a myriad of risk factors associated with gender-based violence and sexual exploitation and abuse, which cut across multiple spheres including individual, relationship, community, institutional and policy levels. NOSP component interventions, depending on their scope, can exacerbate existing risks or can create new ones. Project-related risk factors may include:

- Unequitable sharing of income between men and women after sale of oilseed produce;
- The influx of labour into the community due to road construction activities;
- Failure by communities to relate with labourers who sometimes have different culture and language; and
- Limited land for agriculture which requires hiring of land especially by the youth and women, often based on informal agreements.

All these can exacerbate already existing inequities between women, men, and youth.

GBV/SEA Risk Mitigation Measures

The prevention and mitigation of GBV/SEA requires interaction and collaboration between major actors in the NOSP project sub components. These may include: i) the farmers especially women and their children, as well as other vulnerable populations, in communities where NOSP will be implemented; ii) the communities including cultural, religious and informal structures who may play a protection role; iii) contractors and consultants who are responsible for following contractually mandated social and labour practices that prevent abuse and violence; iv) Central and Local Government who are

critical to ensure that SEA prevention and accountability mechanisms are in place; v) workers including extension officers and road construction workers who will need to abide by codes of work ethics or codes of conduct.

In the NOSP context, SEA/GBV risk level is considered to be of medium, and therefore the project will deploy the following strategies:

- Use the GALS methodology to handle GBV/SEA and other gender and youth related inequalities at the household, farmer group and community level;
- Sensitize communities especially the vulnerable populations on the potential risks of an influx of labour associated with a project and made aware of the laws and services that can protect them and provide redress in case of an incident;
- Require every access road contractor to sensitise their workforce on GBV/SEA and sign a code of conduct;
- Train farmer group councillors and road management committees in conflict management.

NOSP will work with service providers for survivors of SEA/GBV (community development office, probation office and police) to offer a minimum basic package of services, ideally including case management support, health services, psychosocial support, shelter—if needed— security and access to legal services.

10.GRIEVANCE REDRESS MECHANISMS

Grievance Redress Mechanism for NOSP

The goal of NOSP's GRM is to promote a mutually constructive relationship and enhance the achievement of project development objectives. The GRM is to ensure that complaints are directed and expeditiously addressed by the relevant agencies which are to enhance responsiveness and accountability.

NOSP will utilize existing formal or informal grievance mechanisms to resolve disputes which may arise. Informal mechanisms include existing committees and or individuals in farmers groups responsible for conflict management and road management committees to handle access road construction related disputes. The formal grievance redress mechanisms exist at village and sub county levels where the LC1 and LCIII chairpersons are involved in dispute resolution for civil cases. For criminal cases, the police are required to intervene. Should disputes not be resolved at these levels, then the matter is taken to the magistrate's and high courts.

Typical Grievances under NOSP

Likely common grievances in the project implementation areas will include:

- Non-payment of work done;

- Non-payments of infrastructure construction materials;
- Non-payment for land taken up by the project common infrastructures;
- Occupation, health and safety;
- Gender based violence;
- Sexual exploitation and abuse;
- Construction safety and nuisances caused by construction;
- Non-fulfilment of contracts.

Each project site (eg. road construction site, farmer's group level) is expected to operate its mechanisms of handling feedback and complaints (see Figure XX below). Feedback or complaints shall be encouraged among all workers and community members throughout the project and resolved without undue delay. This will also be closely monitored and reported through the different project levels including the hub level and PMU level. Such a mechanism will be checked to ascertain its effectiveness, accessible and transparent procedures to receive and resolve complaints and where need be and for purposes of delivering this project, it shall then be reviewed and modified accordingly.

Guiding Principles for NOSP GRM

The GRM for the NOSP is designed on the following universal principles:

- Accessibility and social inclusion;
- Simplicity;
- Transparency;
- Inclusivity;
- Due process and impartiality;
- Prompt action;
- Qualifications (eg communication skills);
- Grievance uptake points;
- Analysis and feedback.

Steps of Grievance Redress in NOSP

The first step in setting up a GRM will be to appoint a committee to handle grievances. At the farmer's group level, members will elect three members (male, female, youth) to form a Grievance Redress Committee (GRC) as part of the executive committee, or they may elect one person as a grievance handling officer. In case of access roads, the road management committee will also elect 3 members (male, female, youth and LC1) to form a GRC as part of the road management committee. At the Parish, Sub County, and Districts, grievances will be handled through existing LC systems. At the Hub level, every district in a given hub will field a sociologist or community development officer to the Hub level grievance committee which will meet on a regular basis to handle any dispute referred to them. The HESO will be the chairperson of the GRC. At the PCU level, MoLG and MAAIF will second a staff in charge of NOSP together with the sociologist at PCU level to form a grievance handling committee.

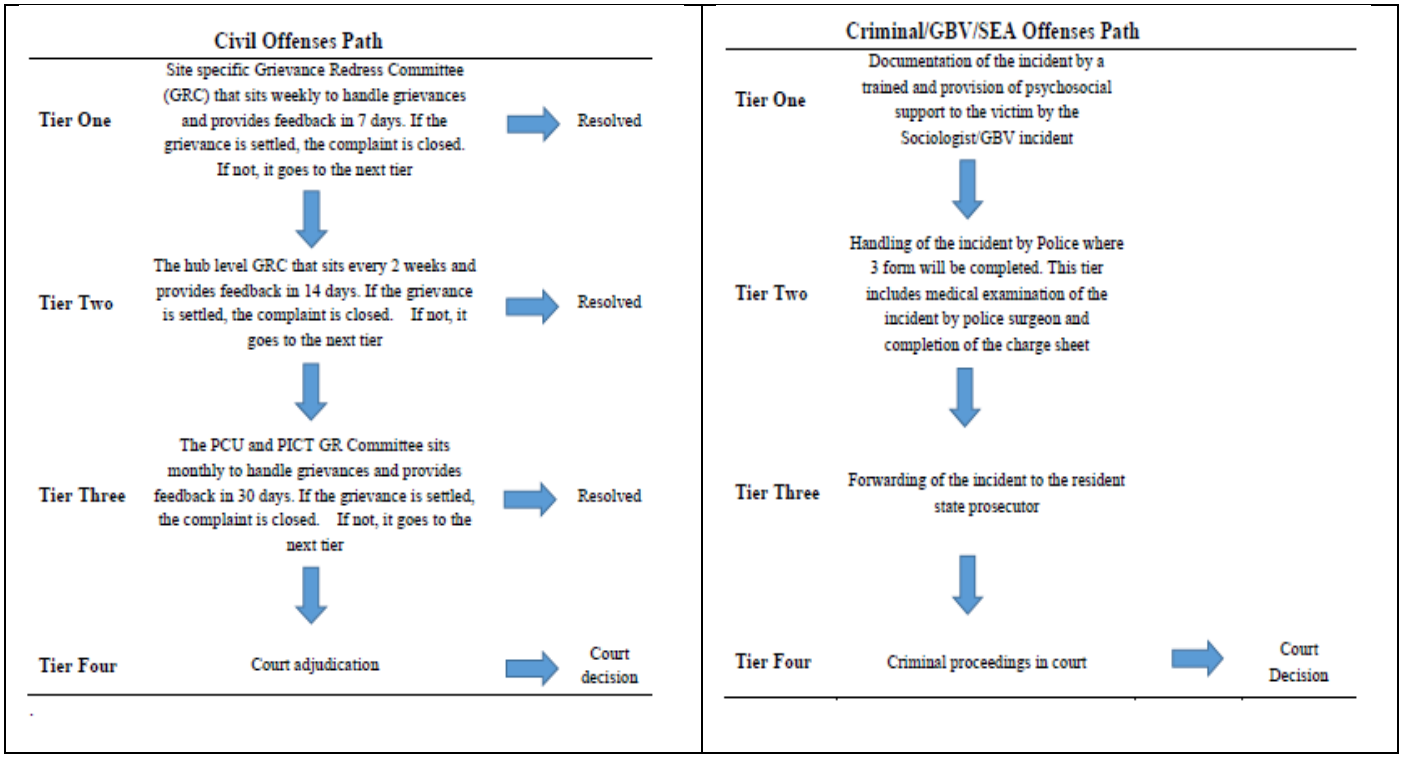
A verbal or a written complaint from aggrieved person will be received by a person assigned in the project as the Grievance Officer (GO)/Counsellor/ Grievance Redress

Committee (GRC) and recorded in a grievance log/book. Grievances can be lodged at any time. The following steps will be followed;

i. Registration of the complaint;
ii. Verification to determine eligibility undertaken by the Grievance Officer (GO)/Counsellor/ Grievance Redress Committee (GRC);
iii. Processing, including hearings and resolutions;
iv. Implementation and case closing.

The PCU SIS and PICT ESS will be responsible for overall monitoring of the effectiveness of the GRMs for Component 1 and Component 2 subprojects respectively.

Figure XXX NOSP Grievance Redress for Civil and Criminal Offences



11.IFAD'S COMPLAINTS PROCEDURE

In addition to NOSP's GRM, communities and individuals who believe that they are adversely affected by NOSP activities may submit complaints to the IFAD Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the IFAD's independent Inspection Panel, which determines whether harm occurred, or could occur, because of IFAD non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the IFAD's attention, and IFAD Management has been given an opportunity to respond. Complaints in may also be lodged using the following email: SECAPcomplaints@ifad.org.

12.MONITORING

Performance Monitoring

Performance monitoring requires that:

- The various safeguards instruments (ESIAS, Project Briefs, ESMPs, and IPMP) have been prepared to the required standard, within the required timelines;
- The safeguards instruments have been reviewed and approved by the responsible entities;

- Environmental, social and climate mitigation measures, have been/are being implemented and that mitigation measures are effective. This includes monitoring the implementation of the ESMPs and IPMP, and also the grievance redress mechanism(s);
- The community is participating in all stages of the environmental and social management and monitoring processes;
- PCU, PICT, and relevant Hub district officers and village level officers have been trained in accordance with the capacity building proposals;
- Reports are prepared and delivered as required.

Performance monitoring will be done primarily by the CES, SIS, PICT ESS, and the HESOs, and for some parameters with support from the Hub Engineers.

Examples of typical monitoring parameters and indicators are shown in the table below:

Table 2 Typical Performance Monitoring Indicators

Monitoring Parameter	**Monitoring Activity/Indicators**	**Target**	**Responsibility for Monitoring**
Safeguards			
Screening	% of proposed interventions screened	100% proposed interventions screened	CES, SIS, ESS, HESO
NEMA Approvals received	% of ESIAs, Project Briefs approved	100% ESIAs, Project Briefs approved	CES, SIS, ESS, HESO
Licences and permits	% of required permits obtained	100% of required permits obtained	CES, SIS, ESS, HESO
Safeguards training	# of PCU, PICT, Hub officers, Hub district and village officers trained	All PCU, PICT, PCU, PICT, Hub officers, Hub district and village officers trained	CES, SIS, SCDC
Grievance Redress	# of subprojects having functioning grievance redress committees	All subprojects have functioning grievance redress committees	SIS, SCDC
	# of grievances received	% of grievances resolved	
Reporting	No. of quarterly reports received	4 quarterly reports received	CES, ESS

Monitoring Parameter	Monitoring Activity/Indicators	Target	Responsibility for Monitoring
	No. of annual reports received	1 annual report received	
Intervention Level Monitoring			
Workshops	# of incidents of oil spills per month	Zero incidents of oil spills per month	CES, HESO
	# of workplace accidents and incidents per month	Zero workplace accidents and incidents per month	
Inoculants laboratory and storage	Quality of wastewater discharge	Effluent from ETPs within national standards for industrial wastewater discharge	CES
Crop production expansion	Baseline acreage under oilseed cultivation	% increase of acreage under oilseed cultivation	SIS
Agro-processing	Quality of wastewater discharge	Effluent from ETPs within national standards for industrial wastewater discharge	CES
Small scale irrigation schemes	# days water not available for irrigation in a year	Zero days water is not available in a year	CES, HESO, Hub Engineer
	# days abstraction rate exceeds permitted rate in a year	Permitted abstraction rate for 365 days/year	
Stores/sheds	% of stores/sheds with functional fire fighting equipment	100% stores/sheds have functional fire fighting equipment	CES, HESO
	% of stores/sheds with adequate ventilation	100% of stores/sheds have adequate ventilation	
Community access roads	% of CARs - siltation in side drains	Zero CARs have silted side drains	HESO, Hub Engineer

Monitoring Parameter	Monitoring Activity/Indicators	Target	Responsibility for Monitoring
	% of CARs - erosion evident in side drains	Zero CARs have eroded side drains	
	% of CARs – functioning culverts	100% culverts functioning	
	% of CARs – completely passable	100% CARs completely passable	
Off road runoff harvesting	% of functioning harvesting structures	100% of constructed harvesting structures functioning	HESO, Hub Engineer

Results Monitoring

Results monitoring involves monitoring compliance and effectiveness of the safeguards instruments, and also assesses the overall environmental, socio-economic and climate-related impacts of the Project's interventions in relation to its development objectives. Results monitoring will be done on an annual basis by the PCU SIS and CES, the PICT ESS, in collaboration with the DEOs/DNRMOs and the NEMA Regional Officer. Results monitoring will be critical in providing feedback and lessons learned for any future phases of NOSP. Typical parameters for results monitoring are shown in Table 3 below. Social and socio-economic indicators should be measured specifically for the hubs in which the subproject interventions are taking place. However, environmental indicators (such as those relevant to water quality and aquatic ecology) may go beyond hub boundaries.

Table 3 Typical Results Monitoring Parameters

Monitoring Parameter	Monitoring Activity/Indicators
Water quality in water courses	Water quality at given sites downstream of irrigation schemes, demonstration plots, agro-processing facilities
Agrochemical releases into water courses	Water quality at given sample sites along drainage network, and point of discharge
Agrochemical concentrations in aquatic fauna	Noticeable number of times dead fish observed in rivers, marshlands and lakes
Soil quality	Nutrient depletion and loss in structure
	Agrochemical contamination
Economic activity in Project area	Changes in agricultural production and marketing
Socio-economic status	Changes in poverty levels
	Changes in nutrition status
	Changes in employment levels for women, men and youth

13.QUARTERLY AND ANNUAL REVIEWS

Quarterly and annual reviews will be undertaken by the PCU CES and SIS, and the PICT ESS and M&E Officer. These reviews are necessary to:

- Ensure that subprojects are complying with the processes established in the ESMF;
- Ensure that subprojects are compliant with the conditions and requirements stipulated in ESIAs, ESMPs and IPMP;
- Identify challenges and opportunities in order to learn lessons and thereby improve Project performance; and
- Be able to determine the cumulative impacts of the Project to establish attainment of the Project Development Objectives.

The reviews will produce Quarterly and Annual Review Reports.

Each year, workshops will be held where environmental, climate change and social performance of the Project will be reviewed and discussed, and recommendations made

for improved Project performance. These workshops will be attended by the CES, SIS, ESS, HESOs, DEOs, DNRMOs and NEMA Regional Officers.

The Quarterly and Annual Review reports will be presented to PSC in order to ensure that the Project activities are achieving its objectives. IFAD will participate in these presentations.

14.REPORTING

Hub Coordinators will submit monthly reports on environmental, social and climate-related issues to the PCU for Component 1 subprojects and to PICT for CARs and off-road harvesting interventions.

The PCU Project Manager and PICT Project Coordinator will submit quarterly and annual environmental, social and climate performance reports to the PSC and IFAD.

15.ENVIRONMENTAL AND SOCIAL AND AUDITING

The purpose of auditing is to establish the level of compliance with national policy objectives and regulatory requirements and whether NEMA's conditions of approval attached to the ESIAs and Project Briefs are being implemented satisfactorily. For Component 1 and Component 2 subprojects, respectively, the PCU and PICT will be responsible for ensuring that environmental and social audits are carried out once every two years. The audits will be carried out by independent consultants.

Audit reports will be sent to the PSC and IFAD, as well as to NEMA and the Hub districts.

16.SUMMARY OF PROCESSES AND RESPONSIBILITIES

Table 4 below summarises the procedures and responsibilities described in this ESMF.

Table 4 ESMF Procedures and Responsibilities

ESMF Procedures	Activity	Responsibility
Screening	Eligibility	CES and SIS; PICT SDS and HESOs
ESIA/Project Brief	Preparation of ESIA or Project Brief, both containing ESMPs	Consultant
	Disclosure of ESIA or Project Brief	MAAIF, MoLG, Hubs and IFAD

ESMF Procedures	Activity	Responsibility
	Review of ESIA or Project Brief	CES, SIS, PICT ESS
	Review and approval of ESIA or Project Brief	NEMA, IFAD, MAAIF, MoLG
	Implementation of ESMP	HESO, contractors, community
	Supervision and monitoring of the ESMP developed for ESIA or Project Brief	CES and SIS; PICT ESS
Climate Risk Analysis	Climate risk monitoring	CES
FPIC	Documentation of process	Independent facilitator
	Supervision and monitoring of FPIC process	SIS, ESS
IPMP	Preparation of IPMP	CES
	Review and approval of IPMP	IFAD, NEMA, MAAIF
	Supervision and monitoring of implementation of IPMP	CES, Hub District Agricultural Officers
Other Plans/SOPs	Preparation of management plans / SOPs	Consultant or Technical Assistants, supervised by CES, SIS, ESS
	Implementation of SOPs	Hub Engineers
Grievance Redress Mechanism	Grievance receipt, verification, investigation, resolution, communication with complainant and referral to higher levels if necessary	Village or Group Grievance Committees
	Monitoring of effectiveness of GRM	SIS, ESS
Performance monitoring	Safeguards instruments	CES, SIS, ESS, HESOs
	Intervention level activities	CES,SIS, HESO, Hub Engineer
Results Monitoring	Project level environmental and social indicators	CES, SIS, ESS, in collaboration with DEOs/DNRMOs and NEMA Regional Officers
Reviews	Submission of quarterly review reports to PSC and IFAD	CES, SIS, ESS, PICT M&E Officer
	Submission of annual review reports to PSC and IFAD	CES, SIS, ESS, PICT M&E Officer
Reporting	Monthly environmental, social and climate resilience reports to PCU, PICT	Hub Coordinators
	Quarterly and annual environmental, social and climate resilience performance reports to the PSC and IFAD	PCU Project Manager and PICT Project Coordinator
Environmental and	Audits of subprojects once	Carried out by independent

ESMF Procedures	Activity	Responsibility
Social Audits	every 2 years	consultants; overall responsibility CES, SIS, ESS

A. CAPACITY BUILDING

1. INTRODUCTION

In view of increasing environmental and social concerns in the country and the overall NEMA 's under staffing at both local and at the district levels it has become very difficult to effectively manage environmental mitigation measures. The successful implementation and monitoring of the environmental and social management framework, environmental and social management plans (ESMPs) will require that target groups and stakeholders who play a role in the implementation of the ESMF be provided with appropriate training and awareness. This is necessary because the implementation of the activities will require inputs, expertise and resources which will be adequately taken care of if the concerned parties are well trained. These groups are described below.

2. EXISTING CAPACITY

MAIIF and MoLG

Currently the capacity within MAAIF and MoLG is inadequate to implement environmental and social requirements necessary to manage the potential environmental and social risks and impacts resulting from the proposed agricultural activities for NOSP. MAAIF does not have a unit dedicated to overseeing environmental issues in the sector yet the nature of its activities interact directly with the environment, and heavily relies on consultants, which is both costly and unsustainable.

At the district level, there is only one District Environmental Officer at the district who is required to oversee all environmental activities in all sectors in the district. This has led to backlogs and the inability to handle the issues in a timely manner. This situation is compounded by a lack of funding, equipment, transport and qualified staff. The newly created districts are not currently staffed with District Environment Offices, exacerbating the difficulties in operationalizing environment management.

It is further noted that, with time, organizations such as MAAIF/MoLG NOSP will need to move away from the use of external systems for ensuring environmental and social safeguards in its development of projects and to enhance its own reliance on its own institutional systems for environmental and social safeguards management. The following are some of the suggested strategies for safeguards enhancement in MAAIF/NOSP and its establishments.

The identification of capacity building requirements has been based on discussions held with implementing agencies on the existing district level capacities to manage environmental and social impacts and risks and to implement national laws and SECAP requirements. At the Project level and at the Hubs, as well as in the Districts, capacity

to practically implement or monitor environmental, social and climate related management was limited.

In order that the ESMF process and requirements are properly followed, it will be necessary to build capacity at all levels at the PCU, PICT, Hub and District level.

In order to ensure that safeguards requirements are wholly integrated into the NOSP project activities, the PCU will include a Climate and Environment Specialist (CES) and a Social Inclusion Specialist, while the PICT will have a Social Community Development Specialist. Each hub will have an Environmental and Social Officer (HESO).

In order for environmental and social teams to be effective under NOSP it is proposed that:

- Funds be provided for specialized trainings for the environmental and social staff within NOSP, in areas such as climate change, GIS, early warning systems and technologies, environmental planning, sustainable waste management options and technologies.
- Introductory safeguards trainings to NOSP staff and such trainings should be responsive to environmental challenges in work places in the organization; and
- Set up an Environmental and Social Management Information System (ESMIS) for NOSP, which will be the responsibility of the CES and SIS at the PCU. These Specialists will be tasked to give back-up skills on mainstreaming environment, climate change and social aspects into the Project activities.

Capacity Building for Collaborating Institutions

The collaborating institutions under the project will include, such as NARO and ZARDIs, private sector players and participating farmers groups. Each of these categories will require responsive capacity enhancement in environmental and social management based largely their levels involvement in NOSP project activities. In addition, NOSP may request national and international university departments undertaking research in agricultural development, or NGOs, to provide support in capacity building or providing mentoring.

3. TRAINING NEEDS

The proposed NOSP activities will be numerous and challenging. Successful implementation of the project activities will require dynamic and multi-disciplinary professionals. Therefore, regular short and tailor-made training courses and seminars will be required to reinforce the capacity and skills of the stakeholders and farmers during the entire project period. The following is an outline of the capacity building and training needs for environmental and social management for NOSP.

Training Topics

Training will be delivered according to the level at which implementation of specific activities and actions is required.

- Requirements of the national environmental, social and climate policies, legislation and administrative frameworks;
- Requirements of IFAD's SECAP and ERNM, Climate, Land and Disclosure Policies;
- ESMF processes, procedures and institutional arrangements to develop and implement ESMPs and other IFAD and NEMA requirements;
- Screening of subprojects as prescribed in the ESMF;
- Environmental, social and climate impacts, IPMP, PCR assessment;
- Preparation, implementation and monitoring of ESMPs and IPMPs;
- Reporting and monitoring implementation of ESIAs, ESMPs, PMPs;
- HIV/AIDS and GBV/SEA sensitisation;
- Grievance redress;
- Environmental and social best practices – including proper application of chemical inputs, pest management, water saving agronomic practices, soil fertility management, and labour saving techniques;
- Participatory mapping;
- Water harvesting techniques;
- Conservation agriculture techniques.

Target Audience

The target audiences for training are intended to be:

- National Steering and Technical Committees;
- MAAIF/NOSP Environmental and Social teams at Project and Hub level;
- Farmers development committees within the lower hub level;
- Agricultural training institutions.

Training Approach

Training will in the first instance be provided to the NOSP PCU, Hub staff and farmers groups. In addition, the NOSP's CES, SIS and ESS will undergo training of trainers, so that they can roll out training to the HESOs and other Hub staff, and lower level team and sector experts with regard to ESMF process, requirements and approvals, including preparation of safeguard documents and their implementation.

The NOSP Environmental and Social Team will roll out training to the target audience, focusing on the on-the-ground implementation of ESC mitigation and management measures, with special attention on water management and agrochemical application, handling, storage and disposal. Independent consultants will be hired to carry out specific training, and resource persons from IFAD NEMA, other relevant institutions/authorities/agencies will be invited to participate (eg. in reviewing ESIA/EMSPs, advising on the preparation and implementation of the IPMP, climate risk assessment, PCR assessment).

Table 5 Proposed Environmental, Social and Climate Training for NOSP

Training Topics	Target Audience	Training Methods	Means of verifications *
National environmental, social and climate policies, legislation and administrative frameworks requirements	NOSP Steering Committee and Technical Committee PCU CES, SIS PICT ESS HESO Hub level Engineers District Level technical staff Sub county technical staff Farmers groups and associations	Training workshops at National district and Hub Roll-out training for hub level, district, sub county and farmers groups and associations	66 high level decision makers, managers, coordinators trained
IFAD's SECAP and NEMA , Climate, Land and Disclosure Policies	PCU CES, SIS PICT ESS HESO District Level technical staff Sub county technical staff	Training workshops at National district and Hub Level Roll-out training for sub county and farmers associations/ groups	66 members of District Agricultural Office Team are trained. 66 District Environment Units members are trained. 66 Extension workers in project impact areas trained. 120 sub county level/farmers association
ESMF processes, procedures and institutional arrangements to develop and implement required safeguards documents	PCU CES, SIS PICT ESS HESO District Level technical staff Sub county technical staff	Training workshops at National district and Hub Level Federal and Regional levels Roll-out training for sub county and farmers associations/ groups	66 members of District Agricultural Office Team are trained. 66 District Environment Units members are trained. 66 Extension workers in project impact areas trained. 120 Sub county level
Screening and rating as prescribed in the ESMF	PCU CES, SIS PICT ESS HESO District Level technical staff	Training workshops at National district and Hub Level	66 members of District Agricultural Office Team are trained.

Training Topics	Target Audience	Training Methods	Means of verifications *
	Sub county technical staff	Federal and Regional levels Roll-out training for sub county and farmers associations/ groups	66 District Environment Units members are trained. 66 Extension workers in project impact areas trained. 120 Sub county level
Environmental, social and climate impacts, IPMP, PCR assessment approaches and requirements	PCU CES, SIS PICT ESS HESO District Level technical staff Sub county technical staff	Training workshops at National district and Hub Level Federal and Regional levels Roll-out training for sub county and farmers associations/ groups	66 members of District Agricultural Office Team are trained. 66 District Environment Units members are trained. 66 Extension workers in project impact areas trained. 120 Sub county level
Preparation, implementation and monitoring of ESMPs, IPMPs	PCU CES, SIS PICT ESS HESO District Level technical staff Sub county technical staff	Training workshops at National district and Hub Level Federal and Regional levels Roll-out training for sub county and farmers associations/ groups	Office Team are trained. 66 District Environment Units members are trained. 66 Extension workers in project impact areas trained. 120 Sub county level
Reporting and monitoring the implementation of ESMPs, PMPs	PCU CES, SIS PICT ESS HESO District Level technical staff Sub county technical staff	Training workshops at National district and Hub Level Federal and Regional levels Roll-out training	Training workshops at National district and Hub Level Federal and Regional levels Roll-out training

Training Topics	Target Audience	Training Methods	Means of verifications *
		for sub county and farmers associations/ groups	for sub county and farmers associations/ groups
Environmental and social best practices – including proper application of chemical inputs, pest management, water saving agronomic practices, soil fertility management, labour saving techniques	PCU CES, SIS PICT ESS HESO District Level technical staff Sub county technical staff	Training workshops at National district and Hub Level Federal and Regional levels Roll-out training for sub county and farmers associations/ groups	Training workshops at National district and Hub Level Federal and Regional levels Roll-out training for sub county and farmers associations/ groups
Participatory mapping	PCU CES, SIS PICT ESS HESO District Level technical staff Sub county technical staff	Practical training sessions	66 members of District Agricultural Office Team are trained. 66 District Environment Units members are trained. 66 Extension workers in project impact areas trained. 120 sub county level/farmers association
Conservation agriculture techniques	PCU CES, SIS PICT ESS HESO District Level technical staff Sub county technical staff	Practical training sessions	66 members of District Agricultural Office Team are trained. 66 District Environment Units members are trained. 66 Extension workers in project impact areas trained. 120 sub county

Training Topics	Target Audience	Training Methods	Means of verifications *
			level/farmers association

* Based on 66 Hub districts covered by NOSP

B. ESMF IMPLEMENTATION BUDGET

The cost estimate for the implementation of activities proposed in this ESMF is USD 11,605,000, as presented in Table 6 below. This cost includes costs already budgeted for in the PDR for Producer Group Mentoring, Public Infrastructure Serving the Oilseed Sector, Knowledge Management and Monitoring & Evaluation, and Project Coordination and Management. In this table, the costs for community sensitisation and ESMP implementation have been adjusted upwards given the importance of these two activities. Finally, the budget provides for annual ESC reviews be undertaken by the PCU, PICT and Hub environmental and social teams.

Also shown in Table 6 below is the budget allocated in the PDR for the Gender Action Learning System (GALS). Although presented as a separate budget line, GALS will address many of the anticipated or potential social risks and interventions posed by NOSP.

Table 6 ESMF Implementation Budget

Budget Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	TOTAL (USD)
ENVIRONMENT/CLIMATE AND SOCIAL STAFF SALARIES								
Hub E&S Officer1	90,000	90,000	108,000	108,000	108,000	108,000	108,000	720,000
PICT ESS	24,000	24,000	24,000	24,000	24,000	24,000	24,000	168,000
PCU CES and SIS	60,000	60,000	60,000	60,000	60,000	60,000	60,000	420,000
						SUB TOTAL Environmental, Climate and Social Staff		1,308,000
ENVIRONMENTAL, CLIMATE AND SOCIAL ACTIVITIES UNDER OTHER PROJECT ACTIVITIES								
Capacity Building and Training	350,000	300,000	350,000	340,000	300,000	300,000		1,940,000
Climate Information Services, Materials and Training	176000	151000	36000	36000				399,000
Hub Climate Risk and Vulnerability Assessment	440000	440000	240000					1,120,000
Social Impact Assessments	140000	140000	90000	40000	40000			450,000

Budget Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	TOTAL (USD)
Soil health assessments	320000	303000	323000	303000	323000	3000		1,575,000
Nutrition Awareness Raising	350000	350000	350000	350000	50000			1,450,000
ESIA and ESMP preparation		600,000	897,000					1,497,000
Environmental Awareness Raising	6,000	6,000	6,000	6,000	6,000	6,000		36,000
Annual ESC Review Workshops (Hubs, PICT, PCU)		10,000	10,000	10,000	10,000	10,000	10,000	60,000
SUB TOTAL Costs Included Environmental, Climate and Social Activities Under Other Project Activities								8,527,000

OTHER COSTS FOR ENHANCING ENVIRONMENTAL, CLIMATE RELATED AND SOCIAL RISK AND IMPACT MANAGEMENT

Community Sensitisation	150,000	200,000	240,000	240,000	150,000	150,000	150,000	1,280,000
ESMP Implementation				95,000	95,000	60,000	60,000	310,000
Annual Independent Audits (NEMA requirement)			60,000		60,000		60,000	180,000
		SUBTOTAL Other Risk and Impact Management Costs						1,770,000
TOTAL ESTIMATED BUDGET: ENVIRONMENTAL, CLIMATE CHANGE AND SOCIAL MANAGEMENT	2,106,000	2,674,000	2,794,000	1,612,000	1,226,000	721,000	472,000	11,605,000
GRAND TOTAL - ENVIRONMENTAL, CLIMATE CHANGE AND SOCIAL MANAGEMENT								**11,605,000**
GENDER ACTION LEARNING SYSTEMS	613,000	3,016,000	2,880,000	100,000	7,000			6,616,000

Annex 1: Institutional, Policy and Legal Framework for Environmental Management

1.0 INSTITUTIONAL FRAMEWORK FOR ENVIRONMENTAL MANAGEMENT

Environmental decision making about the NOSP activities are based on numerous policy and legislative documents. These documents inform decisions on project level environmental authorisations issued by the National Environmental Management Authority as well as comments from key stakeholders who include local and district authorities. Moreover, it is significant to note that they also inform strategic decision making by government agencies and development partners.

Therefore, to ensure streamlining of environmental authorisations it is imperative for the proposed NOSP project developments activity to align with the principles and objectives of key national, international and local development policies and legislation.

Component activities will be achieved through comprehensive support and engagement across MAAIF, NOSP/PCU, MoLG and through engagement with ministries also involved in the agricultural and trade value chain. MAAIF and MoLG will coordinate with NEMA on ensuring that environmental and social issues are addressed effectively throughout the lifecycle of the Project.

MAAIF/NOSP and MoLG will be the main implementing unit of this project at national level, working in liaison with local governments in the respective districts.

a) Overall Project Coordination Unit (PCU) for NOSP project

b) Oversight role and the implementation of mitigation measures and general compliance of the project with any permits, licenses and Approval Conditions and related regulations and standards on environment.

c) Report on matters of resolving complaints and grievances regarding the NOSP activities by stakeholders

1.1 Key Ministries and Agencies

The institutional role for the ESMF are specifically spelled out in the various mandates and environmental management in Uganda is undertaken under a decentralized mechanism.

Table A4-1 Key Ministries and Agencies and their Mandates and Roles

Ministries and Departments	Mandates and Roles
The Ministry of Agriculture, Animal and Fisheries	MAAIF is responsible for policy formulation, planning, setting standards on irrigation, aquaculture and water for livestock. The Crop Protection Directorate of MAAIF is in charge of all matters related to plant health, including

issuance of import and export phytosanitary certificates for live plant material and horticultural crops, as well as for plant pest prevention or eradication programmes. The department is also responsible for enforcing regulations on registration and the use of pesticides and other agrochemicals.

Safeguards Capacity–The MAAIF does not have Environmental and Social management specialists. Given the fact that agricultural activities contribute cumulatively to environmental degradation in Uganda, there should be residential in-house capacity in NOSP for environmental management. NOSP will therefore recruit in-house Environmental and Social Development Specialists to handle safeguard issues, to ensure effective compliance on implementation, and carry out monitoring and reporting on environmental and social issues including land acquisition.

The Ministry of Water and Environment (MWE) The management framework for water resources in Uganda is spelt out in the Water Act, Cap152 and the National Water Policy (1997). The Minister for Water and Environment has the overall responsibility for management of water resources. A Water Policy Committee (WPC) assists the Minister in the management while DWD provides professional and technical services. The National Environment Act, Cap 153 requires a developer to obtain a permit from DWD before the developer can undertake any construction on water resources and that an ESIA be carried out before the DWD can issue a permit to carry out regulated activities on the riverbank and wetlands. In this regard, the Developer will have to obtain water permit before starting any development.

Climate Change Unit, MoWE

Uganda's National Adaptation Programmes of Action (NAPA) was developed under the leadership of the Department of Meteorology as the UNFCCC National Climate Change Focal Point.

As one of the NAPAs, "PROJECT 7: Vectors, Pests and Disease Control Project" aims at understanding the linkages of these outbreaks to climate change for more cost-effective management with special emphasis on vulnerable communities and gender dimensions (GoU, 2007).

Therefore, the Climate Change Unit will have to implement the NAPA on pests and diseases and inform NOSP on its findings

Water Resources Management Directorate (WRMD) The directorate that awards surface water permits and construction permits to Developers. Additionally, WRMD provides technical advice to the Developer in the early stages of the EIA and initial project development phase.

Ministry of Local Government (MOLG) The Ministry is mandated to carry out a number of responsibilities in the Local Government Act as follows: to inspect, monitor, and where necessary offer technical advice/assistance, support supervision and training to all Local Governments; to coordinate and advise Local Governments for purposes of harmonization and advocacy; to act a Liaison/Linkage Ministry with respect to other Central Government Ministries and Departments, Parastatals, Private Sector, Regional and International Organizations; and to research, analyse, develop and formulate national policies on all taxes, fees, levies, rates for Local Governments.

Ministry. Gender, Labour and Social Development The Ministry is enjoined to operationalize Chapter 4 of the Constitution (Articles 31-42), which focus on affirmative action and promotion of fundamental human rights of the people of Uganda. The Department of Occupational Safety and Health in the Ministry is responsible for inspection of workplace environment to safeguard occupational safety, rights of workers and gender equity. This agency shall be fundamental in

monitoring the conditions of workers and whether the proponent is adhering to health, safety and gender aspects during construction and operation of the project infrastructure.

National Environment

Management Authority

(NEMA)

NEMA was formed under the Environment Act 1995 is the principal agency in Uganda for the management of the environment. It role is to coordinate, monitor and supervise all activities in the field of the environment. NEMA is under the Ministry of Water and Environment, and has a cross-sectoral mandate and is to review and approve EIS submitted to it. NEMA has issued guidelines on EIAs (NEMA 1997), and the Environmental Impact Assessment Regulations (1998) was approved by the Ugandan Parliament. The actual implementation of the EIA process remains a function of the relevant line ministries and departments, the private sector, NGOs, the developers, recipient communities and the public.

NEMA retains its mandatory role of coordination, supervision and monitoring environmental issues. As for the implementation of the EIA process.

Safeguards Capacity –In general, NEMA is understaffed and constrained mainly due to the limited operational funds and monitoring agricultural activities of smallholder farmers will be a challenge. However, NEMA can monitor the components of NOSP through its Department of Environment Monitoring and Compliance as well as through District Environment Officers.

Agricultural Chemicals Control Board (ACB)

This is a government agency responsible for controlling the use of agricultural chemicals in Uganda mainly for phyto-sanitary plant/crop protection purposes. This body regulates: (i) herbicides; (ii) pesticides; (iii) fungicides; (iv) fertilizers; (v) insecticides; (vi) plant growth regulators; (vii) seed treatment chemicals; (viii) bio pesticides; (ix) chemicals for wood industry (petroleum and wood treatment); and (x) vector control-the Board also handles chemicals for the control of epidemic pests and diseases. The Agricultural Chemicals Board also gives permits to suitable and approved importers of agrochemicals. The Board also maintains a statistical database of these chemicals.

Capacity– ACB has a low laboratory staff capacity with only two fully qualified staff and no laboratory equipment for assessing pesticides chemicals. In addition, the ACB is unable to regularly sit to assess the chemicals imported in the country and make decisions; and there are no regular field inspections and surveillance due to a limited budget. NOSP will set aside resources for laboratory and technical capacity enhancement for the key stakeholders and a plan to harmonize activities and share resources where capacity is higher.

Ministry of Lands, Housing and Urban Development (MLH&UD) - Office of Chief Government Valuer Valuation of properties and or compensation is the responsibility of the Chief Government Valuer who also approves District Compensation Rates. A copy of these rates is available at every District. The application of the valuation exercise on ground will be done in the presence of at least two local council leaders with the participation of the affected persons. Values assigned to assets must be based on the market rates approved by the respective districts. Where this is not possible, the Chief Government Valuer (CGV) will be engaged to do this.

National Agricultural Advisory Services (NAADS) As per its mandate, will be responsible for advisory services to farmers.

Capacity – NAADS has a limited number of extension workers. However, District agricultural staff (DAOs, DPOs) together with other extension workers at Sub-county level will work together with NAADS to implement the project

Uganda National Bureau of Standards (UNBS) The UNBS is mandated to develop and promote standardization; quality assurance; laboratory testing; and metrology to enhance the competitiveness of local industry and to strengthen Uganda's economy and promote quality, safety and fair trade. UNBS also ensures quality imports through implementation of the Import Inspection and Clearance Regulations 2002 by carrying out inspection of imports.

UNBS will work hand in hand with MAAIF/NOSP to address issues of pesticides quality.

Ministry of Internal Affairs- Government Analytical Laboratory The Government Analytical Laboratory is a Department under the Ministry of Internal Affairs and has been in existence since 1930's. It is mandated to safeguard lives of people and environment as well as enhancing market competitiveness of products through provisions of forensic and general scientific services.

Directorate of Environmental Affairs (DEA) The DEA is responsible for environmental policy, regulation, coordination, inspection, supervision and monitoring of the environment and natural resources as well as the restoration of degraded ecosystems and mitigating and adapting to climate change. DEA comprised the four departments of Environmental Support Services (DESS), Forestry Sector Support Department (FSSD), Wetlands Management (WMD) and the Department of Meteorology (DOM). DEA works in collaboration with NEMA and NFA.

District Environment Officer (DEO)

The functions of the district environment officer include the following:

- advise the district Environment committee on all matters relating to the environment;
- liaise with the authority on all matters relating to the environment;
- to make such reports to the authority as may be prescribed;
- promote environmental awareness through public educational campaigns;
- assist local environment committees in the performance of their functions as provided for in the National Environment Act Cap 153;
- gather and manage information on the environment and the utilisation of natural resources in the district.

District Environmental Committees

The functions of the District Environment Committees include:

- Act as a forum for community members to discuss and recommend environmental policies and bye laws to the District Council;
- Advise the District Technical Planning Committee, the District Council and NEMA on environmental management issues in the district.
- Mobilize members of the public to initiate and participate in environmental activities;
- Develop, in consultation with the District Technical Planning Committee, District Environment Action Plans;

- Receive draft District Development Plans from the District Technical Planning Committee for review and endorsement;
- Co-ordinate the activities of the District Council relating to the management of the environment and natural resources;
- Ensure that environmental concerns are integrated into all district plans and projects; and
- Coordinate with NEMA on all issues relating to environment management.

Environmental Local Committees The Environment Committees are appointed by the Local Government System on the advice of the District Environment Committee. The functions of Local Environment Committees include:

- Prepare Local Environment Work Plans;
- Mobilize people, through self-help projects to conserve the environment, restore the degraded environment and improve the natural environment, and
- Monitor and report on any event or activity, which has or is likely to have a significant impact on the environment.

1.2 Institutional Analysis

An analysis of the applicable administrative and legal framework for this ESMF shows that there are adequate legal and regulatory instruments for environmental management in Uganda. There is considerable experience in carrying out and reviewing ESIA and environmental audit processes. The main challenge, however, lies in monitoring and enforcement due to inadequate capacity with regard to skills, knowledge, manpower and equipment.

Therefore, enhancing the knowledge of project staff, especially those charged with the responsibility to implement safeguards instruments will be critical. Staff from the NOSP, MAAIF, MOLG, NEMA, Local Government Authorities (LGAs), and other MDAs and CBO/NGOs will also need to be strengthened through training, capacity and awareness building on environmental management including legal requirements and ESIA methodology. Chapter 10 of this ESMF elaborates on the capacity building requirements.

2.0 NATIONAL POLICY, LAWS AND REGULATIONS RELEVANT TO NOSP

2.1 Environment Policy and Strategic Frameworks

Table 2 below summarises the policy and strategic frameworks applicable to NOSP.

Table A4-2 Policy Frameworks Applicable to NOSP

Policies and Strategic Documents Key Provisions/Requirements Relevance to the Proposed NOSP Component Activity

Vision 2040 The vision is centred on harnessing opportunities, improving competitiveness and strengthening the fundamentals for transformation of Uganda as a nation.

Uganda's Vision is to have "A transformed Ugandan society from a peasant to a modern and prosperous Country within 30 years", from 2010. This involves changing from a predominantly low income to a competitive upper middle-income country within 30 years. Uganda has abundant land and natural resources that provide numerous opportunities, which can foster faster socio-economic transformation. The proposed NOSP component activity is an opportunity to achieve Vision 2040 Agriculture and land use.

Second National Development Plan (NDPII) 2015/16 – 2019/20 The National Development Plan (NDP) 2016-2020 plan vision is to achieve a transformed Ugandan society from a peasant to a modern and prosperous country within 30 years.

The development of NOSP component activity will be key in improving agriculture related economy.

This is further emphasized in the NDP III (2020/2021/2024/2025)

Agriculture sector strategic plan (ASSP)

The development of the agriculture sector is expected to contribute to national wealth creation and increased employment along the agricultural value chains in a sustainable manner. ASSP recognizes the need to increase access to water for agricultural production as one of its key priority interventions to ensure attainment of GoU aspiration of attaining food security at household levels. This is based on existence of significant potential in Uganda to harness available water for increased agricultural production and productivity. The Plan notes that, for now, only 40% of its irrigable area and 1/3 of the 66 km of total renewable water resources in Uganda is utilized. Increase of oil agriculture productivity and value chains in sustainable way as one of the NOSP component activity

National Agricultural Policy (NAP), 2013

The vision of the NAP is "a Competitive, Profitable and Sustainable Agricultural Sector" and the mission being "to transform subsistence farming to sustainable commercial agriculture." The overall objective of the agriculture policy is to achieve food and nutrition security and improve household incomes through coordinated interventions that focus on enhancing sustainable agricultural productivity and value addition; providing employment opportunities and promoting domestic and international trade. It is evident that, the NAP aspirations will be achieved through interventions planned under the planned NOSP especially aspects of increased household incomes and nutrition This is relevant in terms of increasing the oil seed acreage and through value addition chain and income

Agriculture Extension Policy,2016

The overall development and growth of the sector as stated in the policy is anchored on three strategic thrusts: a) increasing production and productivity with a focus on selected strategic enterprises for each of the ten ecological zones in Uganda; b) strengthening capacity in technical areas of agriculture such as seeds, agrochemicals (including fertilizer), water for production, mechanization, etc.; and c) strengthening the capacity of government and non- governmental institutions in the sector to efficiently deliver productivity enhancing and regulatory services necessary for the sector's growth. Agricultural extension is one of the services that will play a central role in realizing this transformation. This will address the extension needs along the entire value chain (as opposed to the previous focus on mainly

primary production) and synergistic integration with other agricultural support services for optimum return on investment.

The policy reinforces the fact of advising the farmers to improve on the agriculture production of which NOSP famers will be helped through this policy drive.

Food and Nutrition Policy 2003

Uganda's national obligation and commitment are to address issues of food security and nutrition and to promote development. Food security promotes good nutrition and good nutrition is key to good health and the socio-economic wellbeing of a population. Food security and nutrition are mutually reinforcing; social and economic factors have overriding influences on either one or both of them. The economic productivity of a population depends on its nutrition and health status The overall objective of the policy is to promote the nutritional status of the people of Uganda through multi-sectoral and coordinated interventions that focus on food security, improved nutrition and increased incomes and hence NOSP activities.

The National Environment Management Policy, 1994 Provides for sustainable economic and social development through a number of strategies that include Environmental and Social Impact Assessment. Through this ESIA, the project planning is ensuring that all the environmental and social impacts anticipated from the proposed project are assessed and duly mitigated during the development of NOSP component activity to safeguard the integrity of the environmental and social components of the project area

The National Policy on Conservation and Management of Wetland Resources, 1995 This policy aims at curbing loss of wetland resources and ensuring that benefits from wetlands are equitably distributed to all people of Uganda. In general, the policy calls for; sustainable use, sound environmental management of wetlands, equitable distribution of benefits and application of ESIA procedures on activities to be carried out in wetlands. Conversely, wetland related issues have been adequately incorporated into the National Environmental Act, Cap 153. This policy will be applicable for the wetland sections near the areas where oil seeds are grown

Climate Change Policy 2015

The Climate Change Policy aims at ensuring a harmonized and coordinated approach towards a climate resilient and low-carbon development path for sustainable development in Uganda, as well as ensuring that all stakeholders address climate change impacts and their causes through appropriate measures, while promoting sustainable development and a green economy. The policy provides guidance and directions in addressing the problem of climate change while enabling the country to adapt and mitigate the effects of climate change. It focuses on providing direction for the key sectors being affected by the impacts of climate change; facilitating adaptation and strengthening coordinated efforts amongst sectors towards building an overarching national development process that is more resilient. The policy also provides a framework for ensuring coordinated action, with adequate attention paid to capacity development and climate financing mechanisms. The policy's key pillars are adaptation, mitigation, and research and observation, with adaptation emphasized as a primary priority and mitigation as secondary. Uganda has a National Adaptation Programmes of Action (NAPAs) to ensure that climate change issues are addressed.

NOSP will take into account the climate change strategies being addressed by the policy and ensure adaptability and adoption of resilience mechanism in addressing the impacts from climate change.

A National Irrigation Strategic Plan for Uganda (2010-2035)

The Overall Objective of irrigation development in Uganda, in line with the NDP is therefore: "Poverty Alleviation and Economic Growth as a result of the sustainable realization of the country's irrigation potential mitigating the effects of climate change and contributing to the transformation of Uganda society from a peasant to a modern and prosperous country". Under the Plan, irrigation will present the following benefits:

a) it will reduce the risk of climate shock (drought and flood) and allows adaptation against climate change and hence not only renders risk averse farmers willing to invest in seasonal inputs and longer term productivity and sustainability measures, it also reduces the perceived risks of farming system diversification;

b) subject to certain caveats, publicly funded irrigation has significant poverty alleviation potential; and

c) Appropriate irrigation development planning, by facilitating intensified production, can reduce the unit costs of input, extension and post-harvest services. With climate change aspects the farmers are to adopt to use of irrigation than relying on rain fed as it is not sustainable. Irrigation increases productivity and can increase quality of crops;

The National Water Policy, 1999 The objective of the policy is to provide guidance on development of the water resources of Uganda in an integrated and sustainable manner, so as to secure and maintain water y of adequate quantity and quality for all social needs, with full participation of all stakeholders and mindful of the needs of future generations.

Through this ESIA, project planning should ensure that water sources within and near the project area are protected.

The National Wetlands Policy, 1995 In line with the National Vision which is "A transformed Ugandan society from a peasant to a modern and prosperous country within 30 years", the policy vision for the wildlife sector is "Sustainably managed and developed wildlife resources and healthy ecosystems in a developed Uganda". The activities pertaining to NOSP component activity will be carried out in line with the goals of this Policy. These are relevant to the oil seed project objectives

The National Gender Policy, 1997 The aim of the Policy is to guide and direct at all levels, the planning, resource allocation and implementation of development programmes with a gender perspective. The National Gender Policy forms a legal framework and mandate for every stakeholder to address the gender imbalances within their respective sectors. Its overall goal is to mainstream gender concerns in the national development process in order to improve the social, legal/civic, political, economic and cultural conditions of the people in Uganda in particular, the women. The proposed NOSP component activities will be done in consideration of the National Gender Policy guidelines.

The National Policy on Elimination of Gender Based Violence, 2016

The policy provides a framework for the implementation of comprehensive GBV prevention measures and provision of multi-sectoral support services for survivors.

Under these provisions, the contractor will be required to prepare a Labour policy including: a sexual harassment policy, which includes a non-judgmental, non-discriminatory method of reporting and mitigating incidences of sexual discrimination issues and a zero tolerance policy for sexual harassment at construction sites and hence NOSP component activity

National Policy on HIV/AIDS, 2007 Formulated in 2007, the policy focuses on the workplace and acknowledges that it is the workplace where the working population spends most of its active lifetime.

The National Policy on HIV/AIDS covers all workers and prospective workers, all employers and prospective employers from the public and private sectors both formal and informal. The policy spells out the key principles underlying its implementation namely: non-discrimination; confidentiality; HIV testing; greater involvement of people living with HIV/AIDS; promotion of prevention; treatment, care and support; and gender concerns in the work place. The goal is to provide a framework for prevention of further spread of HIV and mitigation of the socio-economic impact of HIV/AIDS within places of work in Uganda. All the workers employed during the construction of NOSP component activities should be treated in a fair manner regardless of their health status in line with the goals of this policy.

Occupational Health and Safety Policy,2006 The policy seeks to:

a) Provide and maintain a healthy working environment;

b) Institutionalise OHS in the project programs/activities; and

c) Contribute towards safeguarding the physical environment.

The OHS Policy Statement is guided by the Constitution of the Republic of Uganda (1995) and other global, national and sectoral regulations and policies. The policy statement also takes into consideration, the Tourism Policy and the Land Sector Strategic Plan, all of which aim to improve the quality of life for all Ugandans in their living and working environment. This policy promotes the safeguarding of workers' health and safety in the work place as pertains to the proposed NOSP component activity.

The National Trade Policy, 2006

The National Trade Policy (2006) is aimed at poverty reduction, promoting employment, economic growth and promotion and diversification of exports, particularly nontraditional exports. The guiding principles of the Policy that have a linkage with the pesticides management are highlighted in the need to mitigate any adverse effects of practices by the country's trading partners. The concerns are dealt with by invoking and implementing trade defense measures as and when appropriate, and taking into account multilateral disciplines in the area. The policy also notes that the country ought to be mindful of the negative social and economic effects that might come with growth in trade, and ensure that mitigating measures and policies are put in place. Access to markets are amongst improvements sought to be addressed in NOSP and is consistent with this policy.

The National Wealth Creation (OWC)

The GoU acknowledge that agriculture has, for a long time, been a core sector of the economy providing the basis for growth in other sectors and significantly contributing to GDP and employment. Under Operation Wealth Creation (OWC), it is the objective of GoU that national policies, interventions and programmes aim at transforming agriculture from subsistence to commercial agriculture with a target of raising household incomes to a minimum UGX20 million per household per year. NOSP will at the grassroots be implemented in close alignment with the OWC especially when it comes to working with farmers. The NOSP farmers engaged in oil seeds is to ensure that they are transformed from subsistence to commercial agriculture.

The National Culture Policy, 2006 The National Culture Policy, 2006 complements, promotes, and strengthens the overall development goals of the country. Its specific objectives

include amongst others, the need to promote and strengthen Uganda's diverse cultural identities and to conserve, protect, and promote Uganda's tangible and intangible cultural heritage. This ESMF outlines Chance Finds Procedures to ensure protection and conservation of any PCRs that will be encountered during project implementation.

Uganda Resettlement/Land Acquisition Policy Framework (2002) With regard to compensation and resettlement issues, the main pieces of legislation are the Constitution of Republic of Uganda/and the Land Act both of which require that:

Compensation should be aimed at minimizing social disruption and assist those who have lost assets because of proposed project to maintain their livelihoods. In accordance with Ugandan laws and standards, a disturbance allowance is to be provided to assist the Project affected individual or family to cover costs of moving and locating to a new holding. Since the proposed NOSP component activity in the unlikely event of some minimum compensation, are to arise.

Hence, the resettlement framework and IFAD involuntary policy to be complied with.

The Uganda Forestry Policy, 2001 Policy Statements 3 and 4 provides for the social and environmental impact assessments especially concerning developing management plans and legal agreements. Policy Statement 7 provides for Uganda's forest biodiversity to be conserved and managed in support of local and national socio-economic development and international obligations. Policy Statement 8 provides that the government will promote the rehabilitation and conservation of forests that protect the soil and water in the country's key watersheds and river systems. The area for the proposed for NOSP component activity has some trees within the and therefore, some vegetation is likely to be cleared during construction.

2.2 National Laws

Key national laws relevant to NOSP are presented in the table below.

Table A4-3 Acts of Parliament Applicable to NOSP

Acts	Key Provisions	Relevance to NOSP Component Activity
The Constitution of the Republic of Uganda, 1995	The 1995 Uganda Constitution is the supreme law and has provisions for environmental protection and natural resource conservation such as Article XIII regarding: "the protection of important natural resources on behalf of the people of Uganda" and Article XXVII regarding: "the need for sustainable management of land, air and water resources. The Constitution requires the Government of Uganda to promote sustainable development and public awareness of the need to manage, promote and protect the rational use of natural resources in a balanced and sustainable manner for the present and future generations. Articles 39 and 17(f) provide for the right to a clean and healthy environment, and the duty to maintain such an environment.	The constitution is relevant to the development of the

NOSP project components activities as it has articles enshrined which give the state the mandate to promote and implement agriculture policies that will ensure that people's basic needs and those of environmental preservation are met. The integrity of the general environment of these project areas during the NOSP component activities needs to be protected in line with the provisions of the Constitution of the Republic of Uganda, 1995.

The National Environment Act, No 5 of 2019

The National Environment Act, Cap 153 contains provisions for environmental management and protection including the need to carry out Environmental Impact Assessment (ESIA) studies in connection with some categories of projects that are likely to have significant impacts on the environment as contained in its Third Schedule. The project as described in Section 2 of the Act falls in the category of projects, which require Environmental and Social Impact Assessment (ESIA). It is therefore on the above basis that the NOSP component activity of the ESMF/ESIA is prepared.

The Agricultural Chemicals (Control) Act, No. 1 of 2006

This Act was enacted to control and regulate the manufacture, storage, distribution and trade in, use, importation and exportation of agricultural chemical and other related matters. Under this Act, the requirement of packaging, labeling or advertisement of agricultural chemicals is relevant in pesticides management to prevent illegal activities related to mislabeling and mis-packaging. In addition, section 13(2) provides for the period in which the seized agricultural chemicals can be detained and the power to dispose them off. The person in whose possession the chemicals were got has to consent in writing for these chemicals to be destroyed by the Government It is therefore important to put in place an effective and efficient mechanism for disposal of the seized/expired chemicals. Similarly, a Pest Management Plan has been developed to among others guide the use of pesticides in NOSP.

Control of manufacture, etc. of agricultural chemicals Act (Cap 29)

The Act provides for safe manufacture, packaging, store, display, distribution agricultural chemicals. It also has provisions governing the Importation and export of agricultural chemicals. The Act in its Section provides for the establishment, constitution and operation of Agricultural Chemicals Board which has the responsibility to advise government on matters pertaining to agricultural chemicals. This is relevant as NOSP farmers are engaged in spraying of pests and hence handling and storage

The Agricultural Seeds and Plants Act (Cap 28)

This Act provides for the promotion, regulation and control of plant breeding and variety release, multiplication, conditioning marketing, importing and quality assurance of seeds and other planting materials. It establishes the National Seed Authority and a Variety Release Committee. The Act also establishes the National Seed Certification Service which is responsible for the design, establishment and enforcement of certification standards, methods and procedures, registration and licensing of all seed producers, auctioneers and dealers, advising the Authority on seed standards and providing the Authority with technical information on any technical aspects affecting seed quality. The Act imposes stringent requirements for variety testing. NOSP will encourage use of seed that are certified and ensure that standards are adhered too.

The Plant Protection Act (Cap 31)

The Act provides for the prevention of the introduction and spread of disease destructive to plants.

Section 4(i) states "Every occupier or, in the absence of the occupier, every owner of land shall take all measures as he or she may be required to take by virtue of any rules made under section 3 and, in addition, such other measures as are reasonably necessary for the eradication, reduction or prevention of the spread of any pest or disease which an inspector may by notice in writing order him or her to take, including the destruction of plants.

These services governed under this Act are targeted for support in NOSP activity component as well.

External Trade Act (Cap 88)

This Act restricts certain imports (section 3) and empowers the Minister to prohibit the importation or exportation of any goods (section 8). This Act provides Uganda the opportunity to restrict or prohibit the importation of highly hazardous pesticides, especially as the provisions of the Customs Management Act can only be amended through the East African Community. This is relevant in relation to pesticides which are used by oil seed farmers

Uganda National Bureau of Standards Act, (Cap 327)

The relevant provision of this Act prohibits any person to import, distribute, sell, manufacture or have in possession for sale or distribution any commodity for which a compulsory standard specification has been declared unless such commodity conforms to the compulsory standard or unless the commodity bears a distinctive mark (section 21(1). This Act could be read together with the National Environment Act on chemical standards in developing standards for pesticides use in the country. In conformity with standards of oil seeds have to comply with the chemical standards

The Water Act, (Cap 152)The Act provides for the use, protection and management of water resources and supply in Uganda. One of the objectives of the Water Act Cap 152 is to control pollution and promote safe water storage, treatment, discharge and disposal of waste, which may pollute water or otherwise harm the environment and human health. In conformity with this law, pollution from the activities related to oil seed farming or disposal of overburden , litter or waste should be avoided.

The Occupational Safety and Health Act, 2006 This Act consolidates, harmonizes and updates the law relating to occupational safety and repeals the Factories Act of 1964. It makes provisions for the health, safety, welfare and appropriate training of persons employed in workplaces. Under Section 13 (b), it requires every employer to provide and maintain safe working conditions, imposing a duty on employers to take measures to protect workers and the public from risks and dangers of their undertaking. It also requires employers to ensure the working environment is kept free from pollution by employing technical measures applied to new plants or processes and employing supplementary organizational measures (Section 13). Section 40(2) states that a person shall, not less than one month before he or she begins to occupy any premises as a workplace, serve on the Commissioner, a notice with the particulars prescribed in Schedule 3. The Act emphasizes work place managers to compel all workers comply and use the PPE in order to fulfil the provisions of this Act. Project planning for the proposed NOSP component activity development shall ensure that the necessary safety measures to ensure the health and safety of local community members within the project areas component specific sites are put in place.

PCU or the contractor will need to apply for Registration of a Workplace permit in accordance with the Act.

Local Government Act, Cap 243 The Act provides for the decentralised governance and devolution of central government functions, powers and services to local governments that have their own political and administrative set-ups. Under Section 9, local governments shall be the highest political authority within their area of jurisdiction and shall have legislative and executive powers to be exercised in accordance with the Constitution and this Act.

The local governments are responsible for the protection of the environment at the district level; this therefore implies that local governments shall be consulted on projects located within their jurisdiction and on matters that affect the environment. The NOSP hubs proposed NOSP component activity is proposed to construct community access road, has the responsibility of ensuring that the environment in the district is protected. The District Environment Officer (DEO) on behalf of NEMA will spearhead environmental issues to be complied with the relevant procedure and are fully involved in all the construction process of NOSP component activity especially monitoring.

Physical Planning Act, Cap 281 The Physical Planning Act, 2010 declared the entire country a planning area.

Section 37 of the Act requires an EIA permit for developments before they are implemented, stating: "Where a development application related to matters that require an environmental impact assessment, the approving authority may grant preliminary approval subject to the applicant obtaining an EIA certificate in accordance with the National Environment Act". The proposed NOSP component activity is subject to this law and therefore has regulatory control to ensure that this project conforms to local physical planning requirements and approvals.

The Investment Code, Cap 92 Requires an investor to take necessary steps to ensure that the operations of his or her business enterprise do not cause injury to the ecology or environment (Section 18 2 (d)). Potential impacts associated with NOSP component activity, specifically those that have the potential of compromising the functioning of natural ecological or environmental systems, should be mitigated.

The Land Act, Cap 227 The Land Act provides for tenure, ownership and management of land. Land is to be used in compliance with relevant national laws such as those listed in Section 43 including the Water Act and National Environment Act. Section 44 reiterates the constitutional mandate for government or a local government to protect environmentally sensitive areas for the common good of the people in Uganda. This law will guide any land issues relating to the proposed NOSP component activity and any related grievances.

Land Amendment Act (2010) This is an Act to amend the Land Act (1998) in order to enhance the security of occupancy of lawful and bonafide occupants on registered land in accordance with Article 237 of the Constitution, and for related matters.

According to the Land Amendment Act (2010), a lawful or bona fide occupant shall not be evicted from registered land except upon an order of eviction issued by a court and only for non-payment of the annual nominal ground rent. MAAIF/NOSP will be responsible of carrying out any likely compensations if they arise in line with the provisions of this Act.

The Land Acquisition Act, 1965 This Act makes provision for the procedures and methods of compulsory acquisition of land for public purposes whether for temporary or permanent use. The Minister responsible for land may authorize any person to enter the land, survey the land, dig or bore the subsoil or any other thing necessary for ascertaining whether the land is suitable for a public purpose. The Government or developer is to compensate any person who suffers damage as a result. The Act requires that adequate, fair and prompt

compensation be paid before taking possession of land and property. The proposed NOSP component activity are unlikely to have major issues of land acquisition.

The National Forestry and Tree planting Act, 2003 This Act provides for the conservation, sustainable management and development of forests for the benefit of the people of Uganda. This law will provide some guidance when it comes to clearing of tree resources and the mitigations that will be put in place such as tree planting. The proposed NOSP component activity should be implemented in a way that natural trees are preserved and new one planted within the project sites.

The Historical and Monuments Act, 1967, (Amended 1977) This is an Act to provide for the preservation and protection of historical monuments and objects of archaeological, paleontological, ethnographical and traditional interests and for other matters connected therewith. Section 1 of this Act describes these terms used above. Section 8 of this Act specifies actions that are prohibited. Section 11 stipulates that any discoveries of the objects made that are considered to be of importance according to this Act shall be reported to the conservator of antiquities or district commissioner or the curator of the museum within fourteen days. Any person who contravenes any of the conditions issued under this Act commits an offence and this attracts a fine as stipulated in Section 19 of this Act.
During the NOSP component activity, there is a need to liaise with the elders to ensure any cultural, archeological and spiritual resources are protected.

Project planning should ensure that all reasonable measures are taken to protect any objects encountered that may be of archaeological, paleontological, ethnographical, historical or traditional interest and that, all work ceases at the proposed project area, should such objects be encountered - the findings of which need to be reported to the Department of Monuments and Museums within 14 days.

Employment Act No 6, 2006 Employment Act, 2006 repeals Employment Act, Cap 219 enacted in 2000. This Act is the principal legislation that seeks to harmonise relationships between employees and employers, protect workers' interests and welfare and safeguard their occupational health and safety MAAIF/NOSP should have adhered to the Act by ensuring the workers are adequately protected against accidents, diseases and injuries and that welfare issues are properly handled.

The Workers Compensation Act, 2000 The Act provides for compensation of workers for injuries suffered and scheduled diseases incurred in the course of their employment. The Act further spells out degrees of compensation depending on the levels of incapacitation, calculation of respective earnings, medical examination and treatment of workers, agreement as to compensation by the worker, power of Court to submit question of law, determination of claims and decisions of the court concerning the treatment of medical reports as well as procedures relating to claims.

Section 22 (1) elaborates the duty of the employer towards contractors or subcontractors. Where a person awards a contract or subcontract to an employer for the execution of any piece of work, that person shall be liable to pay to any worker employed in the execution of the contract or subcontract by the employer any compensation under this Act as if that person had directly employed that person. Considering that all workers are prone to accidents, injury and diseases while at work, the contractor must adhere to the provisions of this Act.

Labour Unions Act, 2006 This is an Act to regulate the establishment, registration and management of labour unions. Section 3 makes provision for employees' rights to organise themselves in any labour union.

Section 4 stipulates that an employer shall not interfere with, restrain or coerce an employee in the exercise of his or her rights guaranteed under this Act. He shall not interfere with the

formation of a labour union or with the administration of a registered organisation. The proposed development of NOSP component activity will be implemented in line with this Act. Workers will have a right to organize themselves into unions or join worker's unions.

The Children's Act, 1997 (CAP 59) This Act refers to a child as a person under the age of 18 years with the right to stay with their parents or guardians; right to education and guidance; right to immunization; right to adequate diet, clothing, shelter and medical attention. It is also the parent/guardian's responsibility to protect the child from discrimination, violence, abuse and neglect; and it is unlawful to subject a child to social or customary practices that are harmful to a child's health.

This Act also states that no child shall be employed or engaged in any activity that may be harmful to his/her health, education or mental, physical or moral development.
There is an observed tendency for agricultural projects to employ and over work children. The proponent and farmers will be required to comply with the Children's Act.

The Penal Code The Penal Code Act states that any person who intends to insult the modesty of any woman or girl, utters any word, makes any sound or gesture or exhibits any object, intending that such word or sound shall be heard, or that such gesture or object shall be seen by such woman or girl, or intrudes upon the privacy of such woman or girl, commits a misdemeanour and is liable to imprisonment for one year. The construction process of NOSP component activity is likely to employ some women and is expected to have more than 25% employees therefore the developer is expected to heed to the requirements of the Act.

2.3 National Environment Guidelines and Regulations

Guidelines and regulations guiding environmental management are summarised in Table A4-4 below.

Table A4-4 Environmental Guidelines and Regulations

Legislation	Key Provisions	Relevance to NOSP Component Activity
The Environmental Impact Assessment (EIA) Guidelines (1997)	It is the responsibility of any developer intending to set up a project for which an ESIA is required to carry out the ESIA and bear all the costs associated with its conduct.	The ESIA shall comply with the guidelines and the process as prescribed.
The National Environmental Impact Assessment Regulations, 1998	The Regulations have been gazetted in terms of Section 108 of Part V of the National Environmental Statute of 1995. The Regulations deal with (among other things) preparation and review process of the environmental impact statement; conditions for approval of a project; post assessment of environmental audit including self-auditing and mitigation measures and provides schedules for the following; Issues to be considered in making environmental impact assessment; Certificate of approval of Environmental Impact Assessment; and Fees.	The Environmental Impact Assessment Regulations, 1998 provide for implementation of the NEA. These regulations require that all projects listed in the third schedule of the NEA be subjected to an impact assessment before implementation. Major construction works

infrastructure is identified as a category iii listed activity requiring a full ESIA. The ESIA process goes through three major stages: screening, the ESIA study, and decision-making. The ESIA for NOSP component activity shall comply with ESIA Regulations throughout its assessment and submission process.

National Environment (Noise Standards and Control) Regulations, 2003 Noise is any unwanted and annoying sound that is intrinsically objectionable to human beings or which can have or is likely to have an adverse effect on human health or environment. The purpose of these regulations is to ensure the maintenance of a healthy environment for all people in Uganda, the tranquillity of their surrounding and their physiological wellbeing by regulating noise levels, and generally, to evaluate the standard of living of the people.

Subject to these regulations, no person shall, for an activity specified under regulation 6, emit noise in excess of the permissible noise levels provided under the first schedule of the Regulations, unless permitted by a license issued under these regulations. Part III Section 8 (1) requires machinery operators, to use the best practicable means to ensure that the emission of noise does not exceed the permissible levels presented under the first schedule of the regulations. The regulations require that persons to be exposed to occupational noise exceeding 85 dBA for 8 hours should be provided with requisite ear protection. The NOSP project activity(community road access) will be associated with some noise generating activities hence the regulations have to be adhered to.

The National Environment (Management of Ozone Depleting Substances and Products) Regulations, 2001 The objectives of these Regulations are to—

Regulate the production, trade and use of controlled substances and products;

Provide a system of data collection that will facilitate compliance with relevant reporting requirements under the Protocol;

Promote the use of ozone friendly substances, products, equipment and technology; and

Ensure the elimination of substances and products that deplete the ozone layer.

Section 4 of this Regulation states that, "No person shall import or export a controlled substance or product listed in the First and Second Schedules, without a license issued by the Executive Director." Section 5 further states that, "A person intending to import or export a controlled substance or product shall apply to the Executive Director for a license in the application set out in Form A and B respectively in the Third Schedule."

Controlled substances according to the Second Schedule of this Regulation include Hydrobromofluorocarbons (HBFCs), and Chlorofluorocarbons (CFCs). The development of NOSP component activity should be carried out with respect to the guidelines in this Regulation.

The National Environment (Waste Management) Regulations, 1999 It is common knowledge that during the construction phase many waste materials consisting of both solid and liquids will be generated. The regulations under section 53(2) and 107 of the act will apply with respect to this project.

These Regulations require that:

Waste generation is minimised by adoption of Cleaner Production methods;

Wastes are disposed of in such a way that they do not contaminate water, soil, and air or impact public health. This is in relation to on-site storage, haulage and final disposal; and Waste haulage and disposal should be undertaken by licensed entities. Waste management practices should ensure that wastes generated during the construction of NOSP

component activity are handled in accordance with the requirements of these regulations, from generation to disposal.

The National Environment (Minimum Standards for Management of Soil Quality) Regulations, 2001 These Regulations emphasis the need to: maintain and restore the minimum soil quality standards as well as enhance the inherent productivity of the soil in the long term; maintain minimum standards for the management of the soil for specified agricultural practices; follow the criteria and procedures for the measurement and determination of soil and apply the prescribed measures and guidelines for soil management. The design of NOSP component activity should ensure that the quality of the soils within the proposed project area is not compromised, and if it is, that it is restored to as close to its original state as possible.

The National Environment (Wetlands, River Banks and Lake Shores Management) Regulations, 2000 These regulations provide for the management of wetlands, riverbanks and lakeshores. Regulation 17 (1) states that every landowner, occupier or user who is adjacent or contiguous with a wetland shall have a duty to prevent the degradation or destruction of the wetland and shall maintain the ecological and other functions of the wetland.

Section 12 (1) of the regulations provides that 'subject to the provisions of these regulations, a person shall not carry out any activity in a wetland without a permit issued by the Executive Director (of NEMA). For the intended project to comply with this Regulation, the farmers is required to secure a Wetlands, River Banks and Lake Shores Management Permit from NEMA and Directorate of Water Development (DWD

Water (Waste Discharge) Regulations, No. 32 of 1998; These Regulations regulate the discharge of effluent or wastewater on land or into the aquatic environment. NEMA sets standards for the discharge of such substances in consultation with the lead agency. A person who wishes to discharge such substances in the prohibited environment must obtain a permit from the Directorate of Water Resources Management (DWRM). MAAIF/NOSP or farmers must obtain a permit from the Directorate of Water Resources Management (DWRM) for the discharge of effluent or wastewater.

National Environment (Audit) Regulations, No. 12 of 2006 The Audit Regulations operationalise Section 3 (3) c of the National Environment Act, Cap 153 in which it is a requirement for ongoing activities, which are likely to have environmental impacts to be subjected to an environmental audit in accordance with Section 22 of the Act. The Regulation also operationalises the Environmental Impact Assessment Regulation, in which it is a requirement to follow up projects that carried out an EIA with an Audit at least three years after the commencement of the project. Audits shall be carried out once the NOSP components activities project commences in line with these regulations and in line with the EIA Certificate of Approval conditions.

Employment (Sexual Harassment) Regulations, 2012 (S.I. 2012 No. 15) The Regulations prescribe that those who contravene the sexual harassment related provisions commit an offence and are liable, on conviction, to a fine not exceeding six currency points or imprisonment not exceeding three months or both.

The proposed NOSP component activity construction process will employ both men and women. Where there are causes of sexual harassment and provisions of the regulations are contravened with, punishment will be in line with the regulations

National Environment (Conduct and Certification of Environmental Practitioners) Regulations, 2003 Section 16 (1) of these Regulations require that no person shall conduct an EIA or carry out any activity relating to the conduct of an environmental impact study or environmental audit as provided for under the Act, unless that person has been duly certified

and registered in accordance with these Regulations. The Regulations set out the procedures of the application for certification and the code of practice and professional ethics. The practitioners have to pay prescribed fees (Fourth Schedule) before they can be fully registered.

This is a relevant provision meant to professionalize the ESIA practice in the country so that the findings of an ESIA study are authoritatively used in decision-making. ESIA process has been undertaken through duly registered practitioners in keeping with the Regulations

2.4 Permitting and Licencing Requirements

There are a number of permits and licences that will be required for the implementation of various NOSP activities. These are presented in Table A4-5 below.

Table A4-5 Permits and Licences Required for NOSP Activities

Item No.	Permit	Issuing Agency	User	Responsibility
1	Environmental approval ESIA certificate	NEMA	• MAAIF/NOSP	Approval commencement of the ESIA study
2	Water abstraction permit	Water Resources Management Directorate, (WRMD)	• MAAIF/NOSP • MSP subproject proponents such as millers or other agro-processors	Abstraction of water for construction and workforce domestic use. Abstraction for industrial use.
3	Discharge licence for effluents and waste water	NEMA	• MAAIF/NOSP/Contractor • MSP subproject proponents such as millers or other agro-processors	Authorises discharge of effluents without compromising the existing environmental conditions and pollution of wetlands and soils
4	Certification of the professional	Construction Engineers Practicing Engineers (UIPPE)	• Contractor	Uganda Institute of To enable NOSP component construction to be undertaken by duly qualified engineers with liability in case of any problem in the works
5	Certification of Registration of Work Place	Ministry of Gender, Labour and Social Development, Occupational Safety and Health Department	• Contractor	Regulates work places
6	Agro chemical storage, use and disposal dealers and farmers who store agrochemicals in bulk	MAAIF	• MAAIF/NOSP • Dealers/Farmers	Required for

7 Other permits/certificates eg. for excavation of borrow pits, restoration NEMA Permits for materials sites issued after ESIA undertaken for those sites • NOSP/Contractor/

• MSP subproject proponent

3.0 INTERNATIONAL CONVENTIONS AND TREATIES

Uganda is party to a number of international conventions and treaties. These are summarised below:

Table A4-6 International Conventions and Treaties

Treaty, Convention or Agreement	Subject/Key Requirement	Relevance to the NOSP Component Activity
African Convention on the Conservation of Nature and Natural Resources	Uganda has ratified the African Convention on the Conservation of Nature and Natural Resources (1968), signed the Protocol Agreement on the Conservation of Common Natural Resources (1982). The Contracting States to this convention are also required to ensure that conservation and management of natural resources are treated as an integral part of national and/or regional development plans. In addition, during the formulation of all development plans, full consideration is required to be given to ecological, as well as to economic and social factors	Project planning should ensure that conservation of nature and natural resources is key during the implementation of the NOSP component activity.
Convention on Biological Diversity (Rio Declaration), 1992	Its objectives are to conserve biological diversity, promote the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding (Article 1).	Project planning should ensure that biodiversity of the proposed project area is protected when implementing the NOSP component activity project.
Basel Convention,2006	The Basel Convention on the Control of Trans-Boundary Movements of Hazardous Wastes and Their Disposal was concluded in Basel, Switzerland, on March 22, 1989, and entered into force in May 1992. Now ratified by 149 countries including 32 of the 53 African countries, the focus of this convention is to control the movement of hazardous wastes, ensure their environmentally sound management and disposal, and prevent illegal waste trafficking (UNEP, 2006). Therefore, any efforts to export obsolete pesticides in NOSP for disposal have to be in line with the Basel Convention.	
Rotterdam Convention, 1999	The Rotterdam Convention aims to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm and to contribute to their environmentally sound use. Governments began to address the problem of toxic pesticides and other hazardous chemicals in the 1980s by establishing a voluntary Prior Informed Consent procedure (PIC). PIC required exporters trading in a list of	

hazardous substances to obtain the prior informed consent of importers before proceeding with the trade. NOSP will observe these provisions when importing agro-chemicals and sound use by the oil seed farmers.

The FAO International Code of Conduct on the Distribution and Use of Pesticides (2002)

It establishes voluntary standards for public and private institutions involved in the distribution and use of pesticides. The Code sets out a vision of shared responsibility between the public and private sectors, especially the pesticide industry and government, to ensure that pesticides are used responsibly, delivering benefits through adequate pest management without significant adverse effects on human health or the environment. To ensure that NOSP activities do not have significantly adverse effects on farmers and the environment, and that an integrated pest management plan is prepared and implemented.

FAO Guidelines on Good Practice for Ground Application of Pesticides, 2001 FAO produced a new, revised and expanded series of pesticide application equipment related guidelines to cover the application of pesticides using any ground-based field crop sprayers, including operator carried and tree and bush crop sprayers. Application of pesticides are adhered to by NOSP/MAAIF and the farmers.

The Safety and Health in Agriculture Convention (ILO 184)

This was adopted by the conference of the International Labour Organization (ILO) addresses the protection of workers in the agricultural sector. More people work in agriculture than in any other sector, more workers are injured in agriculture than in any other sector, and pesticides are a major cause of injury and death. In addition, more children work in agriculture than in any other sector and they are differently and particularly vulnerable to the toxic effects of chemicals such as pesticides. A specific section of the convention deals with the sound management of chemicals and advises governments to adopt good management practices for chemicals, to inform users adequately about the chemicals they use and to ensure that adequate mechanisms are in place to safely dispose of empty containers and waste chemicals. These are taken into account to ensure protection of workers and safety and management of chemicals.

Strategic Approach to International Chemicals Management (SAICM)

Uganda UNEP/UNDP Partnership initiative for the implementation of SAICM is intended to assist the Government, through the National Environmental Management Authority (NEMA), to take up the strategic priorities of SAICM Quick Start Program (SQSP), namely: develop and strength national chemicals management institutions, plans, programs and activities to implement the Strategic Approach, building upon work conducted to implement international chemicals-related initiatives; and undertake analysis, interagency coordination, and public participation activities directed at enabling the implementation of Strategic Approach by integrating the sound management of chemicals in national development priorities and strategies. NOSP to ensure that integration of sound management of chemicals in the project cycle as a priority and strategy.

United Nations Framework Convention on Climate Change (UNFCCC), 1992

The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system

The NOSP activities are to adhere to the convention to ensure that green gases do not interfere with climate system

The Ramsar Convention on Wetlands of International Importance Convention on Wetlands of International Importance especially as Waterfowl Habitats. The Convention's mission is "the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world". The convention was ratified by Uganda at a time when the country's first Ramsar site at Lake George was designated. Uganda now has 12 Ramsar sites (http://ramsar.wetlands.org). The Ramsar Convention has produced guidelines on impact assessment for proposed projects in Ramsar sites. These guidelines are based on the Convention on Biological Diversity's (CBD) guidelines for biodiversity-inclusive impact assessment, with additional Ramsar-specific annotations (Ramsar Convention Secretariat, 2010b). NOSP will ensure that the Ramsar Convention guidelines on impact assessment for the proposed NOSP component activity are followed and vital wetlands are protected.

Bamako Convention, 1991 This Convention was aimed at the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa. It requires party states to use legal, administrative and other measures to prevent the import of hazardous waste into Africa from non-contracting parties. Import of hazardous waste from non-contracting parties is an illegal and criminal act (Art 4.1)

Each Party is required to ensure that persons managing hazardous wastes take all actions necessary to prevent pollution arising from the management of such wastes and to minimise the impacts of such waste in the event of pollution occurring (Art 4.3). Implementation of the subprojects will be carried out in accordance with the guidelines of this Convention, particularly handling and transportation of hazardous wastes.

Montreal Protocol, 1987 The Montreal Protocol on Substances that Deplete the Ozone Layer. Requires parties to: Comply with the Ozone Depleting Substances (ODS) freeze and phase-out; and Ban ODS trade with non-Parties to the Protocol. NOSP will ensure that during the operation of the projects, release of emissions that have the potential of depleting the ozone layer.

ILO Core Conventions These include the following standards for labour:

- Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87);
- Right to Organise and Collective Bargaining Convention, 1949 (No. 98);
- Forced Labour Convention, 1930 (No. 29), Abolition of Forced Labour Convention, 1957 (No. 105);
- Minimum Age Convention, 1973 (No. 138), Worst Forms of Child Labour Convention, 1999 (No. 182);
- Equal Remuneration Convention, 1951 (No. 100);
- Discrimination (Employment and Occupation) Convention, 1958 (No. 111).

The ILO Basic Terms and Conditions of Employment refer to:

- Hours of Work (No. 1)
- Minimum Wage (No. 26, 131) and

- Occupational Safety and Health (No. 155). Ugandan labour laws are closely aligned with the ILO Core Conventions. NOSP will therefore ensure that all national and ILO requirements are followed during implementation of subprojects.

Annex 3: Screening Checklist and Process

The purpose of screening is to provide an initial indication of the nature and complexities of a project, after which it can be categorised to determine the level of investigation necessary to ensure that the project causes no harm to the environment or the project communities, and to ensure that the project is acceptable and sustainable in terms of environmental, social and climate risks and impacts.

Screening Categorisation

According to the SECAP Review Note, NOSP has been categorised as Category B. In other words, NOSP subprojects may have some adverse environmental and/or social impacts on human populations or environmentally significant areas, but the impacts are site specific and few are irreversible in nature, and can be readily remedied by appropriate preventive actions and/or mitigation measures. These subprojects typically involve agricultural intensification and/or expansion of cropping area in "non-sensitive areas"; natural resource based value chain development; development of an agro-processing facility; construction or operation causing minimal increase in traffic in rural roads; small-scale irrigation projects (<100 ha); activities that have minor adverse impact on physical cultural resources; economic and physical displacement affecting fewer than 20 people or impacting less than 20 per cent of any one community's or individual farmer's or household's assets; and subprojects requiring a migrant workforce for construction or seasonal workers for construction, planting and harvesting.

Screening Checklist

In order to ensure that NOSP projects remain within SECAP's Category B classification, each NOSP subproject will be screened using the following checklist.

NOSP SUBPROJECT SCREENING CHECKLIST

SCREENING CHECKLIST YES NO

PROHIBITED ACTIVITIES

Will the project:

Produce or trade in alcoholic beverages

Produce or trade in tobacco

Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such

as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCB's, wildlife or products regulated under CITES.

Production or activities involving harmful or exploitative forms of forced labour and/or harmful child labour .

GEOGRAPHICAL OR LOCATIONAL CRITERIA

Will the subproject:

Develop wetlands;

Cause significant adverse impacts to habitats and/or ecosystems and their services, such as conversion of natural forest or wildlands, loss of habitat, erosion or other form of land degradation;

Be located in critical habitats or which result in conversion or degradation of such habitats

Cause fragmentation of habitats;

Result in major hydrological changes;

Be located in ecologically sensitive areas, areas of global/national significance for biodiversity conservation (eg. protected areas – national parks and forests, world heritage sites), and/or biodiversity-rich areas and habitats depended on by endangered species;

Be located in areas subjected to major destruction as a result of geophysical hazards eg. landslides, earthquakes or volcanic eruptions.;

NATURAL RESOURCES CRITERIA

Will the subproject:

Lead to unsustainable natural resource management practices (fisheries, forestry, livestock) and/or result in exceeding carrying capacity;

Result in significant increase in the use of agrochemicals which may lead to life-threatening illness and long-term public health and safety concerns;

Rely on water-based (groundwater and/or surface water) development where there is reason to believe that significant depletion and/or reduced flow has occurred from the effects of climate change or from overutilization;

Pose a risk of introducing potentially invasive species or genetically modified organisms which might alter genetic traits of indigenous species or have an adverse effect on local biodiversity.

INFRASTRUCTURE DEVELOPMENT CRITERIA

Will the subproject:

Require the need to rehabilitate or develop large scale irrigation schemes of more than 100 hectares per scheme;

Involve significant extraction/diversion/containment of surface water, leaving the river flow below 20 per cent environmental flow plus downstream user requirement;

Include drainage or permanent correction of natural waterbodies (eg. river training);

Involve the construction/rehabilitation/upgrading of roads that entail a total area being cleared above 10 km long.

Involves the construction of a major bridge or river crossing

Involve the construction of a large or medium-scale industrial plant (eg. oil mills exceeding production of more than 10 T/day).

SOCIAL CRITERIA

Will the subproject:

Result in any economic displacement or physical resettlement;

Cause significant social adverse impacts on disadvantaged, vulnerable, indigenous and underserved groups;

Result in the conversion and/or loss of physical cultural and traditional resources, including graves, indigenous tree/plant species that have traditional value.

Should the answer to any of the above be YES, then the subproject will not qualify for consideration under NOSP.

All Component 1 subprojects and interventions will be screened by the PCU Climate and Environmental Specialist (CES) and Social Inclusion Specialist (SIS), while Component 2 subprojects (CARs and off-road runoff harvesting) will be screened by the PICT Environmental and Social Specialist (ESS) and the relevant Hub Environmental & Social Officers (ESOs) in consultation with the District Environmental Officers (DEOs) and District Natural Resource Management Officers (DNRMOs), together with the NEMA Regional Officer.

IDENTIFICATION, SELECTION AND PRIORITISATION OF COMMUNITY ACCESS ROADS

The following are proposed criteria for the identification, selection and prioritisation of community access roads:

1. Identification and selection of the Community Access Roads (CARs) is done through a consultative and participatory process at county level, involving the target communities, LC1 representatives and PICT Engineer, ESS and HESO.

2. Prioritisation and Ranking is done through the Subcounty council and submitted to the District council for approval.

3. Selection of CARs will be in areas with high concentration of poverty.

4. The roads must have community (especially farmers) and political support.

5. The area must have high agricultural production level.

6. There should be connectivity to other major roads, social facilities like schools, health facilities etc.

7. There should be no major social and environmental problems that require mitigation by the project. i.e. avoid eco sensitive protected areas such as wetlands or forests, and major bridges (as per screening checklist)

8. Other supportive economic activities may be considered like tourism attraction, etc.

9. There should be no earlier interventions or similar programs for the prioritised CARs in last 10 years.

10. The number of Kilometres for any section should not be less than 5km and not more than 10 kms.

11. The selected CARs should be designed to District Road III standard, but will still be classified as community access roads. This will ensure that the roads are climate resilient.

Annex 4: FPIC Implementation Plan for NOSP

BACKGROUND

Consultation with the public and stakeholders is considered an important as it provides valuable input to develop acceptable and sustainable project design and implementation plans. Most importantly, it allows the concerned communities opportunities to voice their aspirations, concerns and preferences regarding the intended development project, including their stance to give or withhold their consent to the proposed initiative, entirely or partly. This operational principle of empowering local communities to give or withhold their consent to proposed investment and development programmes that might affect their land access and use rights, territories, natural resources and livelihoods, etc, is ensured through seeking Free, Prior and Informed Consent (FPIC) of concerned communities prior to planning a development intervention. Consultations with the concerned communities in good faith are believed to constitute soliciting FPIC, which ensures that they participate in decision-making processes concerning the development project, in line with IFAD Policies.

There are many advantages to seeking FPIC:

- FPIC improves the relevance and quality of investments;
- Community ownership of the investment and its results and sustainability are enhanced;
- Partnership between local communities, government institutions and financing organizations is strengthened;
- The recognition and support of local communities' aspirations for their own development minimizes or prevents conflicts with other resource users; and,
- FPIC minimizes reputational, operational and fiduciary risks for the government, company or donor carrying out activities that may affect the land, resources and rights, and livelihood of the local communities.

An FPIC Implementation Plan is presented here to guide on the consultations leading to FPIC component 1 and 2 of NOSP project.

GUIDANCE AND LEGAL FRAMEWORKS FOR FPIC

IFAD is among the first international financial institutions to adopt FPIC as an operational principle in its policy documents, including its policies on Improving Access to Land and Tenure Security (2008); Engagement with Indigenous Peoples (2009), Environment and Natural Resource Management (2011), and Social, Environmental and Climate Assessment Procedures

(2014). IFAD-funded projects are people-centred, and, for IFAD, FPIC is not only a safeguard principle, rather a proactive approach to identify development pathways with local communities and build ownership on project initiatives .

In Uganda people's right to full consultation, participation and expression of views with respect to policies and projects affecting their community are clearly stipulated in the 1995 Ugandan Constitution. These are further amplified by; Local Government Act, National Agricultural Extension Policy, National Irrigation Policy, 2018, National Gender Policy, Cooperative Act, National Agricultural Policy and the Public-Private Partnership Policy. The Local Government planning and budgeting processes require participation of citizens. The implementation of government programmes also require that these programmes are implemented and owned by communities as ultimate beneficiaries.

PRELIMINARY CONSULTATIONS

1. During the NOSP EMSP mission in September 2019, consultations were held with local government agencies and communities regarding development interventions intended under NOSP. The community consultations were held at selected farmers groups, millers, and local government leadership, access road contractors and road management committee in Lira hub, Gulu hub and Mid-western hub (Hoima). A range of issues were discussed during community consultations, the main topics covered being:

- Road selection process: when by whom, whether consulted, types and level of community consultations involved, who benefits and who does not ;
- Community's awareness of rights: to give consent or deny projects being financed by IFAD, IFAD's respect of peoples' rights, what happens if they deny consent etc.;
- Communities' perceptions: the benefits and risks of the proposed community access roads, construction of stores, rain feed oilseed production, agricultural research and what they might involve;
- Physical/economic displacement of communities due to project interventions: awareness about likely consequences, people to be affected, consent on relocation and compensation terms, cultural and/or historical heritage sites and social service facilities that may be affected etc.; and,
- Resettlement and compensation plans: under what circumstances, who will be affected, how, whether fair/reasonable, at what stage will it be done.
- Environmental management: formal or customary laws governing environmental management (protection, conservation and harmonization etc);
- FPIC observance: Legal and/or customary regulations and processes requiring/related to observance of FPIC;
- Grievance redress: legal provisions, what and how, mechanisms and procedures/processes;
- ESMF monitoring procedures: current status with handling ESMF monitoring, existing institutional arrangements and practices (experience, challenges, capacity gaps, etc).

The key findings from these preliminary consultations were as follows:

Selection of access roads: Local Governments already have a set criteria and procedure for selecting access roads. The identification and selection of the roads is done through a consultative and participatory process right from the village level to district level. The Parish Development Committees identifies the roads through parish meetings and submits priority roads to sub counties for ranking and incorporation into sub county plans and budgets and these are later submitted to districts for approval. The set criteria include;

- CARs ought to be in areas with high concentration of poverty.
- Must have community (especially farmers) and political support.
- Such communities must have high agricultural production levels.
- There should be connectivity to other major roads, social facilities like schools &health facilities
- There should be no major social and environmental problems that require mitigation by the project. I.e. avoid eco sensitive protected areas and other major bottlenecks.
- Other supportive economic activities should be considered like tourism attraction, mining etc.
- There should be no earlier interventions or similar programs for the prioritised CARs in last 10 years.
- The number of Kilometres for any section should not be less than 5km and not more than 15 kms.
- The selected CARs should be within the minimum budget and Cost.

Community's awareness of rights: Communities are aware of their rights to consent or deny project. Ordinarily majority of the communities accept government project and are willing to participate and benefit from the projects. The mission learnt that in a few cases where communities have not consented construction of access roads, such roads have not been constructed as an alternative option is often selected.

Communities' perceptions: Communities anticipate NOSP to be of great benefit to the communities. It is expected to enable farmers raise acreage of oil seed cultivates, raise production and marketing of oilseeds leading to increased household incomes and better welfare indicators. The project is expected to increase participation of men, youth and women in production of oilseeds and farmers expect to acquire better GAPs, negotiation skills and value addition so as to enhance incomes. The project will enhance farmer's connectivity with other actors like input suppliers and millers which will enhance quality seed and quality produce as well as value addition. Thea access road construction will enhance connectivity to markets and other social services. The risks identified by farmers were mainly fears related to instability in prices, GBV, and poor environmental management

Displacement and resettlement: These are unlikely to happen because under NOSP component 2 there will be very minimal land take needs especially with respect to re-alignment and routing of roads which will be restricted to existing alignments with minor deviations where

necessary. Again consultations with communities show high level of willingness and acceptance among community members for construction of access roads.

Environmental Management: There are NEMA policies, regulations and standards for managing disposal of pesticides and disposal of oil residues from oilseed processing. However, the challenge is enforcement of these standards among agro-chemical shops, farmers and millers. The access road designs often describe the nature of road off run harvesting pits and construction of access roads in an environmentally friendly manner. With good contract management, road contractors often follow these guidelines before certificate of completion is issued.

Grievance redress: In some farmers groups there are counsellors to handles members family and group related conflicts if they arise. Groups have bye-laws to this effect. And at family level clans often through clan meetings and structures handle family conflicts. If such conflicts are not settled then they are referred to Local councils or formal courts of law. For access roads, the road management committees are set in place to handle any grievances related to road construction among other responsibilities. The Ministry of Lands, Housing and Urban Development has developed guidelines on the formation, composition, responsibilities and operations of user committees. These guidelines are utilised by Local Governments and partners. For instance the road management committees are responsible for;

i. Mobilizing local residents for meetings in collaboration with the Government Officials

ii. Reporting any grievances to the Community Development Officer during construction of the roads

iii. Reporting to the Parish Chief/ Town Agent/ Sub County or Town Clerk any health and safety problems or risks on the respective roads during and after construction

iv. Reporting to the Parish Chief/ Town Agent/ Sub County or Town Clerk any environmental issues arising out of the construction of the roads for follow up

v. Liaising with local leaders to ensure security of the construction materials during the project implementation

vi. Mobilizing local residents to clean the road during and after construction in collaboration with the local leaders

2.

3. FPIC IMPLEMENTATION PLAN

4.

5. Given that NOSP has no displacement and resettlement issues, the FPIC process requires consultations and formalising consent as explained below;

6.

1. Consultations leading to FPIC

7.

Use community mapping and participatory enquiry techniques to allow assessment of ownership, occupation and use of land and resources as well as the social dynamics (eg.

movements and relationships among the different social groups) and right holders. The consultation processes, meetings, field visits, mappings and discussions will help to;

- Confirm that communities are in need of the project interventions;
- Share the objective and scope of the access road with communities directly;
- Clearly inform the communities and their representatives the different roles expected of them;
- Provide clear and transparent information on the benefits and risks of the project;
- Share the findings of the baseline studies;
- Engage selected community members or communities' representatives in the resources and social mapping activities, in order to assess ownership, occupation and use of land territories and resources as well as the social dynamics (relationships among the different social groups);
- Ensure inclusive participation - men, women, young people, the elderly, representatives of different communities present on the same land and territory, and neighbouring villages - and provide for multiple maps by the different communities;
- Share the maps with all stakeholders and actors; and,

It is important that:

- Where there are doubts on consent, or where concerns are raised during consultations, these doubts and concerns are documented, and the communities are requested to propose means/solutions to overcome concerns;
- Feedback is provided to the road contractors and project staff on concerns/doubts raised by the communities;
- Feedback is provided to the communities on how their concerns have been accommodated in the scheme design.

The usual practice for IFAD-funded projects is to use independent, qualified facilitators supporting the FPIC process. The selection of suitable facilitators for the FPIC process is critical to the success of the process. In the selection process, consideration should be given to the cultural context the facilitator will work in, to language skills, ethnicity, gender, experience in consultation and participatory processes, age (eg. elders prefer to speak to older facilitators), technical knowledge of the proposed project and knowledge of IFAD policies and FPIC requirements. If the right people to facilitate these exercises are selected, they can play a role as facilitators and at the same time build the capacities of project staff, as well as of communities. Communities' representatives who participate in the mapping processes should be identified by the communities as their representatives in the FPIC process.

2. Formalise the Consent Agreement

Once project activities and project sites requiring FPCI agreement are identified, this will be formalised in a written form in local languages within the 6 hubs, as well as English. The

effective time the consent agreement would be formalised will be agreed upon during the consultation process and needs to be formalised before any investment is made. The consent agreement will be the outcome of the collective decision-making process by the local communities. The process will be adequately documented.

The consent agreement will be prepared by parish development committees/ sub counties/ districts and shared with hub coordinators. The format for a consent agreement would, among others, include:

- Project activities on which consent is provided
- Respective expectations
- Proposed project duration, expected results and activities
- Participatory monitoring and verification plan and procedures
- Identification of grievances procedures and mechanisms
- Terms of withdrawal of consent
- Record of process through means and languages accessible to all stakeholders and parties involved.

8.

The FPIC Agreement and record of process will be made available through means and languages that are accessible to all stakeholders and parties involved. The FPIC Implementation Plan will be confirmed and/or revised at the beginning of project implementation phase (during start-up workshop, beginning of consultations leading to FPCI, beginning of participatory mapping exercise).

3. Assess FPIC Implementation

In order to assess FPIC implementation, the appropriate indicators for measuring progress towards and/or attainment of agreed terms will be defined and linked with a timeframe in the FPIC agreement. Subsequent workshops and stakeholders reviews of the FPIC plan may also amend the various indicators to be established in the FPIC agreement. Joint supervision missions assessing project progress will also assess implementation of FPIC agreements on regular basis. Whenever possible, supervision and evaluation missions would include experts of relevance.

Table XX…: Summarised NOSP FPIC Implementation Plan

Description/Activity Responsible Timeframe

1. Conduct consultation leading to FPIC on the proposed project/specific component/activities PCU through an independent facilitator, supported by IFAD as part of project implementation support, as required. At the beginning of Project implementation phase and before construction of CARs/harvesting facilities, and any other acquisition of land or removal of trees/crops for NOSP interventions.

9. Consultations should:

- Share objective and scope of the project with the representatives identified by the communities and identify project component(s) requiring FPIC

- Inform them on the actors financing and implementing the project and their respective responsibilities

- Provide clear and transparent information on the benefits and risks of the project

- Share the findings of the baseline studies

- Formalize consent agreement

2. Formalize the consent agreement PCU through an independent facilitator, supported by IFAD as part of project implementation support, as required. Project implementation phase. Timing agreed upon the during consultation process and before construction of CARs/harvesting facilities, and any other acquisition of land or removal of trees/crops for NOSP interventions.

i) Formalize the consent agreement (written or in other form if so requested by the community)

The format for a consent agreement would include:

- Respective expectations

- Proposed project duration, expected results and activities

- Participatory monitoring and verification plan and procedures

- Identification of grievances procedures and mechanisms

- Terms of withdrawal of consent

ii) Record process through means and languages accessible to all stakeholders and parties involved

iii) Annex the FPIC agreement and documented process to the PDR

3. Assess FPIC implementation PCU, IFAD implementation support and joint supervision missionsProject implementation phase - throughout the project cycle

i) Assess FPIC implementation as part of the M&E exercise during the project life.

ii) Identify and monitor appropriate indicators for measuring progress towards and/or attainment of agreed terms will be defined and linked with a timeframe in the FPIC agreement

Loan Agreement: FPIC requirements will be included in the Loan Agreement as a condition to disbursement for Project implementation.

Disclosure: IFAD's Policy on the Disclosure of Documents enables project design documents to be disclosed prior to the Executive Board session at which the project is to be considered. Thus, this FPIC Implementation Plan will be disclosed together with the Project Design Report (PDR), Environmental and Social Management Framework (ESMF), and other documents to be submitted to the Executive Board (and Evaluation Committee).

Documenting the FPIC Process: FPIC process will be documented through minutes of consultations, mapping documents prepared by the communities, videos where feasible, and FPIC agreements/formalisation documents.

Investing in rural people

Uganda

National Oilseeds Project

Project Design Report

Annex 9: Integrated Risk Framework (IRF)

Document Date:	26/10/2019
Project No.	2000002260
Report No.	5155-UG

East and Southern Africa Division
Programme Management Department

Risk categories	Risk Probability	Risk Impact	Mitigations/comments
1. Political and governance	Medium	Low	Since the end of the conflict in Northern Uganda some 15 years ago, the country as a whole and the NOSP target area in particular have enjoyed political stability that has supported the successful implementation of development programmes of the NOSP type. At the same time the improvements in overall policy environment, with a stronger private sector emphasis, have enhanced economic development opportunities in the NOSP area and increased chances of improved future equality and social stability.
2. Macroeconomic	Medium	Low	Since 1990, Uganda has pursued a policy of a fully liberalised economy and market environment with the private sector taking the driving seat to achieve economic growth and social development. This has facilitated the country's development which has been characterised by a high growth rate and a significant decline in poverty. Growth increased from 6.3 percent in the 1990s to an annual average of seven percent in the 2000s, giving Uganda one of the highest sustained growth rates in Sub-Saharan Africa (SSA) over this period. Substantial oil reserves were discovered in the Lake Albert Rift Basin in 2006 and commercial oil production is expected to start in the early 2020s. At the same time the future challenge will be to use oil revenue and other public funds to reduce poverty and rural-urban inequalities and ensure sustainable and inclusive growth for a rapidly increasing population.
3. Sector strategies and policies	Low	Low	Within the agricultural sector, the oilseeds industry ranks high on the government agenda due to its poverty reduction potential. In the highest potential areas for oilseeds production in the north and north-eastern Uganda, where 20 years of conflict led to a crippling effect on agriculture, it is a strategic crop for the Government towards the post-conflict economic reconstruction and the transformation of subsistence agriculture to market-oriented farming. In addition to the importance of domestic oilseeds production to the local vegetable oil industry, the by-products from oilseed processing are important to the development of the animal feed industries and the whole livestock sector, which increases chances for strong continued policy support to NOSP implementation.
4. Technical aspects of project or program	Low	Low	There is a relatively low likelihood that technical design issues will adversely impact the achievement of the project objectives. Learning from the two phases of VODP implementation, the NOSP approach is based on increased market orientation and focus on profitable operations and sustainable institutional arrangements at all levels, including the use of private service providers in both operational components. The roads component design is based on successful methods used in the same area, again based on the utilisation of private contractors where possible.

Risk categories	Risk Probability	Risk Impact	Mitigations/comments
5. Institutional capacity for implementation and sustainability	Medium	Low	Low implementation capacity in some government structures has in various cases led to low disbursements and weak implementation performance in development projects in Uganda. The market and private sector focus in NOSP implementation approaches mitigate this threat. The widespread use of experts and service providers contracted from the private sector aims to ensure that performance-oriented implementation will materialise in NOSP operations.
6. Financial management	High	Medium	The project faces risks in discrepancies in budgeting due to the strict timelines (10 months of the prior year), omission of project budgets in printed estimates approved by parliament especially for district-level activities, MoFPED requirements for project financial reporting using IFMS which has not been tested comprehensively on capability for project financial reporting, as well as delays in financial reporting by districts who will handle some funds for supervision and monitoring for infrastructure development and other agricultural and environment-related activities. To minimize these risks it has been agreed that key payments for infrastructure works will be budgeted and paid from the parent ministry (MoLG), hence reducing funds to be disbursed or required to be budgeted by districts. It is also critical to have close collaboration between PMU and planning officers at the ministries and district levels to ensure that appropriate budgets are included in the printed estimates. To mitigate on challenges of IFMS not being able to handle project reporting appropriately, a simple off-shelf accounting system (Pastel) will run concurrently with IFMS for the first 18 months which will serve as a pilot phase, after which a review will be made. In addition to the usual attendance by PMU staff for monitoring of the execution of training and capacity building activities which will be handled by private service providers, a performance audit will be carried out and will follow a risk-based sampling. It will seek to respond to the economy, efficiency and effectiveness with which the activities are carried out in accordance with project objectives.

Risk categories	Risk Probability	Risk Impact	Mitigations/comments
7. Procurement	High	Medium	The overall procurement risk is rated “Medium” at central level and “High” at district level. The assessment indicated the following risks particularly at the district level: capacity constraints leading to failure to comply with applicable rules and contract awarding principles; delays in processing procurement and in evaluations, reviews and approvals; weak records keeping and filing as well as overall weaknesses in contract management and follow-up. To reduce procurement risks, the PDR includes a draft for a comprehensive Procurement Manual for NOSP. With regard to the management and execution of procurement activities under NOSP, an experienced Procurement and Contracts Manager will be recruited in the PCU immediately after NOSP start-up. He/she will be in overall charge of the implementation of the procurement activities under the project. Furthermore, a Procurement Specialist will be recruited at NOSP effectiveness to the PICT in MoLG, to support and oversee the procurement activities related to the construction and rehabilitation of rural roads (see detailed TOR for both procurement posts in the PIM). Furthermore, IFAD-supported international TA will be provided at early stages of the project to NOSP to strengthen procurement capacity and to assist in the planning and implementation of the procurement operations. IFAD will also support the planning and implementation of an intensive training programme at the project start-up to familiarise the Central Ministries and District PDUs with NOSP/IFAD Guidelines on procurement and contract management.
8. Stakeholders	Low	Low	The likelihood of adverse impact or reaction by stakeholders in the oilseeds sector towards NOSP implementation is ranked low. Comprehensive consultation process with the stakeholders during the design process, covering both the smallholder producers and agro-businesses, demonstrated great interest by all parties to develop the value chain to the mutual benefit of all stakeholder groups.
9. Environment and social	Medium	Low	Increased commercialisation of cash crop production, as in the case of oilseeds, may have adverse social and environmental impacts. This is recognized in the design of NOSP (for details, see the comprehensive SECAP in Annex 5). The use of the GALS is aimed to promote gender participation and empowerment in the target areas and the promotion of environmentally friendly technologies and climate smart agricultural practices will ensure that the social and environmental aspects are addressed on a continuous basis. Additionally, the MSPs will serve as a conduit for any emerging issues to be addressed during the course of implementation. ESMPs will be developed for rural roads development.
Overall	Medium	Low	Uganda is heading for national elections in 2021, therefore the commencement of implementation in 2020 will be crucial to NOSP.

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National Oilseeds Project

Project Design Report

Annex 10: Exit Strategy

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East and Southern Africa Division
Programme Management Department

NOSP PDR

ANNEX 10

EXIT STRATEGY

ANNEX 10: NOSP EXIT STRATEGY

Sustainability of the NOSP benefits and results can be approached at three different levels: the smallholder, the farmer group/cooperative and the value chain. The NOSP exit strategy and its success is closely linked to results achieved at all these three sustainability levels. With this sustainability focus, the exit strategy is in-built in the NOSP activities and in the manner they are to be implemented. The Table below presents the approach to NOSP exit strategy from the point of view of the key activities in the two operational components of the project.

Component/Activity	**Sustainability and Exit Strategy**
Component 1: Support to Oilseed Value Chain Development	
Supply Chain Brokering and Investment Facilitation	The core of the value chain and cluster development approach is a rolling process of action-oriented brokering, dialogue and investment facilitation among the key actors in each cluster/hub to catalyse investments and remove bottlenecks to increase trading and profits, and to make the most of practical opportunities for growth. To achieve this, NOSP will organise multi-stakeholder platforms (MSP) for oil seed supply chains at two levels: cluster and hub. MSPs will be held regularly (at least twice per year) at the cluster and hub level, initially facilitated by the NOSP team but later jointly by the producers and businesses themselves. Therefore, after NOSP closes, the independent MSPs continue to operate and provide a sustainable solution to this part of the oilseed market development.
Producer Group Mentoring	The objective is that all producer groups in NOSP clusters should graduate to being fully independent, financially robust and self-managing within four years of project engagement. Further, a majority of group members and their households would have the skills and confidence to grow their farm enterprise, manage climate risks and face fewer social barriers to their development. Therefore, well before NOSP exits, both members and groups would have reached a development level which ensures that the benefits gained from NOSP support would continue as the projects closes.
Financial Services	The promotion financial services under NOSP is based on institutional development approach with fully sustainable solutions. The support operations VSLAs, SACCOs and formal financial institutions relies on linking the smallholders and other participants in the oilseed value chains to these institutions and assisting the FIs to develop appropriate services in the oilseeds sector. These services would be institutionalized in the FIs and rolled out to value chain participants, which aims to ensure that these services would continue after NOSP closes.
Technical Support Services	All NOSP activities in the promotion of support services to smallholders in the oilseed clusters are based on a sustainable private sector-based approach with a clear plan to continue to function after the project support expires. Given the widespread lack of appropriate technical advice and follow-up available to many smallholders, the programme will launch a Farm Production Advisors (FPA) promotion scheme. After initial training and support by NOSP, the FPAs would continue to provide technical services to farmers against fees, without further project support. NOSP will also include an Auxiliary Farm Services Promotion Scheme to stimulate investment from commercial auxiliary farm service providers. To catalyse this transformation and mechanisation process, the scheme will offer partial investment incentives to absorb some of the risk for the early adopters and then gradually reduce these incentives in subsequent years to return to market-based financing. After initial NOSP support, the mechanisation service providers would continue to operate fully

	commercially in the NOSP clusters. Similarly, Quality Declared Seed Production Scheme would stimulate local seed businesses that, after initial NOSP support, would operate fully commercially well before the project closes. The project would also develop a network of NSCS-accredited private seed inspectors and labs and in this manner introduce a sustainable, private sector-based inspection function to the oilseeds sector.
Component 2: Support to Market Linkage Infrastructure Serving Oilseed Sector	
Enhancement of Community Access Roads Serving Oilseed Clusters	The exit strategy for the community access roads construction and rehabilitation concerns mainly the maintenance of these roads. The NOSP approach follows the GoU policy and procedures in this respect. At the completion of construction, each road will be commissioned and handed over to the district authorities by the contractors. The road committee will also sign the handover certificate to indicate that they participated in the construction and are satisfied with the way the contractor conducted work. Thereafter the road maintenance will be the responsibility of the relevant district authorities, with the support of the local communities.

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National Oilseeds Project

Project Design Report

Annex: Annex 1. Nosp Log Frame Final 24102019 Clean

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Programme Management Department

Annex 1
NOSP Logical Framework

Results Hierarchy	Indicators/a	Base line	Mid-term target	End target	Means of Verification			Assumptions
					Source	**Frequency**	**Who**	
Outreach	***1. Estimated corresponding total number of households***				Project reports, Outcome surveys	Annual	PCU/PICT	Continued social, political and economic stability in the country and region. Manageable climatic events. Macro-economy continues to improve.
	Household members – Number of people		1089300[1]	1750000				
	Households	tbd	217,860	350 000				
	Women-headed HHs/b	tbd	67,540	108 500				
	2. Number of people receiving services promoted or supported by the project							
	Total no. of persons receiving services	0	74,700	120 000				
	Female (60%)	0	44,820	72 000				
	Male	0	29,880	48 000				
	Youth (18-35 years) (40%)	0	29,880	48 000				
Project Goal: Inclusive rural transformation through sustainable development of the oilseeds sector.	***3. Number of HHs with increased household assets****				IFAD Impact Study	Before and after project implementation	IFAD/PMU	Economic policies continue to support oilseeds sector and associated value chains for smallholder farmers.
	Total no. of HHs	tbd	56,020	90 000/c				
	No. of female headed HHs	tbd	17,370	27 900				
	4. Women reporting improved quality of their diets							
	Females – Percentage%	0	20	50				
Development Objective: To commercialise key oilseeds value chains	***5. Number of HHs reporting increased sales of oilseed crops****				Outcome Surveys, IFAD	Quarterly	PMU	Implementation builds on limited local government
	Total no of households	tbd	56,020	90 000				

[1] Average HH size of 5 in Uganda

and improve the livelihoods and resilience of the smallholders engaged in oilseed production and marketing.	***6. Number of HHs reporting increase in income****				Impact Study	Annual	PMU	capacity through private sector led support services to smallholder oilseeds farmers. Local and international demand for oilseeds continues to grow. No adverse climatic events destabilize the oilseeds sector.
	Households	tbd	56,020	90 000				
OUTCOME A. Increased production, productivity and profitability in oilseeds sector	***7. Households reporting an increase in production***				Outcome Surveys	Annual	PMU	The project beneficiaries utilize the knowledge and skills given during the trainings.
	Percentage of HHs	0	40	75				
	8. Households reporting adoption of environmentally sustainable, climate resilient technologies and practices							
	Percentage of HHs		50	80				
Output A. 1 Multi-stakeholder platforms (MSP) formed and oilseed production clusters established	***9. MSPs and Clusters established and brokering deals between stakeholders***				HCU Reports, PCU reports	Quarterly	PMU/HCU	Project resources at village level can strengthen group capacity. Smallholder farmers are influenced by the clustering of production, thereby allowing them to have parity with off-takers. Suitable agricultural related income-
	Total No of MSPs	0	405	406				
	MSPs Hub level – numbers	0	5	6				
	MSPs Cluster level - numbers	0	400	400				
	No. of clusters	0	200	200				

								generating activities.
Output A 2. Production Groups trained in market-orientation and business skills	***10.* Number of persons trained in income-generating activities or business management***				Business Skills Mentor reports, HCU and PCU reports	Quarterly	PMU/HCU	Off-takers are interested in trading with clustered smallholder oilseeds producers. Producers and private sector can negotiate satisfactory arrangements.
	Total	0	74,400	120,000				
	Female	0	44,820	72 000				
	Youth	0	29,880	48 000				
Output A 3. Social mentoring provided to production groups and high-risk households	***11. Clusters facilitated in GALS****				Mentoring Reports from Mentors, HCU reports, PCU reports	Quarterly	PMU/HCU	Social mentoring can resolve priority issues/constraints.
	Number of clusters	0	200	200				
	12. Number of high-risk HHs receive HH mentoring*							
	Number of high-risk HHs	0	20 000	20 000				
	Female-headed HHs	0	12 000	12 000				
	Youth-headed HHs	0	8 000	8 000				
Output A 4. Financial Services enhanced in supported clusters	***13. Percentage of VSLAs credit-linked with FIs****				HCU and PCU reports	Quarterly	PMU/HCU	The GoU facilitates access to the Agriculture Credit Facility to benefit smallholder oilseeds producers.
	% of VLSAs	0	30	60				
	% of women farmers in VSLAs assessing credit/financial services	tbd	40	60				
	% of VLSAs with majority women members	0	85	85				
	%. of youth farmers in VSLAs assessing credit/ financial services	0	30	40				
	14. Number of formal FIs supported to launch innovative oilseeds products*							

	No. of formal FIs supported	0	2	4				
	No. of formal FIs with innovative oilseeds products	0	2	4				
	15. Number of persons in rural areas trained in financial literacy and/or use of financial products and services*							
	Female	0	44,820	72 000				
	Youth	0	29,880	48 000				
Output A 5. Market-based technical services for smallholders enhanced	***16. Number of Farm Production Advisors (FPA) mobilised and trained****				HCU and PCU reports	Quarterly	HCU	Smallholders willing to, through commercialization, pay for the private sector led support services.
	Total no. of FPA	0	100	200				
	Women FPAs	0	60	120				
	Youth FPAs	0	40	80				
	17. Number of Auxiliary Farm Service Providers (AFSP) trained and operational*							
	Total no. of AFSP	0	100	200				
	Women AFSP	0	60	120				
	Youth AFSP	0	40	80				
	18. Local seed businesses (LSB) supplying Quality Declared Seeds established and operational*							
	Total no. of LSB	0	100	200				
	LSB run/led by women	0	60	120				
	LSB run/led by youth	0	40	80				
OUTCOME B. Transport Infrastructure Serving Oilseeds Sector Improved	***19. Households reporting improved physical access to markets***				Project reports, Outcome /HH surveys, Market Surveys	Annual	PMU	Local government has the resources to support to maintain upgraded or new CARs. CARs complement other NOSP
	Percentage of households	0	20	75				
	20. Oilseeds producers reporting reduced transport costs							
	Percentage of oilseeds producers	0	20	75				

	% of youth oilseeds producers	0	20	40				activities.
Output B.1 Community access roads constructed or rehabilitated to all-weather standard	***21.*** **Number of kilometres of roads constructed, rehabilitated or upgraded**				Project Engineers' reports, PMU report	Quarterly	PMU	Local government has the resources to support road design, construction and maintenance.
	No. of kms	0	0	2,500				

* These are in alignment with PRO-WEAI indicators

(a) All indicators disaggregated by gender, age, poverty and location

(b) 31% HHs are female headed (UBOS 2016)

(c) The adoption rate for the NOSP Component 1 intervention is projected at 75% (75% of total 120,000 targeted HHs = 90,000), See more in EFA in Annex 4. Mid-term taken as mid-way PY4 based on the cumulative expenditure of the supply chain, producer mentoring, financial services and farm production advisors sub-components.

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National Oilseeds Project

Project Design Report

Annex: Ifad Procurement Risk Matrix Maaif Mo Lg

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East and Southern Africa Division
Programme Management Department

IFAD Procurement Risk Matrix

Division	**ESA**
Country	**Uganda**
Project	**National Oil Seed Project**
Date	
INHERENT RISK RATING	**2.19**
NET RISK RATING	**2.56**

#	Description of Risk Feature	Rating	Assessment Basis	Remarks	Recommendation /Mitigation	Rating
A	**COUNTRY RISK ASSESSMENT**	**2.30**				**2.60**
1	**Legal and Regulatory Framework**	**2.20**				**2.60**
a	Country procurement law, regulations and manual exist	3	3 they all exist, 2 only two exist, 1 only one exist or none			3
b	Existence of Standard Bidding Documents for Goods, Works and Services	3	3 all exist, 2 only for NCB & ICB, none for Shopping, 1 none exists			3
c	Procurement Monitoring	1	Use PEFA Framework, see worksheet for details	Records for contracts are maintained in the procurement web-based database, including data on what has been procured, the value of procurement and who has been awarded contracts. However, these are not comprehensive so no percentages can be calculated.	The website of each IFAD financed Project/Programme will include all procurement realted information.	2
d	Procurement Methods	1	Use PEFA Framework, see worksheet for details	Less than 60% of the contract value are procured using competitive methods	During the preparation of the Procurement plan, low-value procurement activities will be grouped together under one tender for purposes of economies of scale	2
e	Public access to procurement information	3	Use PEFA Framework, see worksheet for details	At least four of the key procurement information elements are complete and reliable for government units representing most procurement operations and are made available to the public in a timely manner		3
2	**Accountability and Transparency**	**2.40**				**2.60**
a	Procurement Complaints Management	3	Use PEFA Framework, see worksheet for details	The procurement complaint system meets criterion (1), and three of the other criteria		3
b	Country Corruption Perception Index score	1	The score is published on Transparency.org. 0 to 29 = 1, 30 to 60 = 2, 61 to 100 = 3	Uganda ranks 149 out of 180 countries in the 2018 Corruption Perception Index according to Transparency International which indicates that integrity and ethical values still require strengthening.	All procuring entities as well as bidders and service providers, that is: suppliers, contractors, and consultants shall observe the highest standard of ethics during the procurement and execution of contracts financed under the IFAD funded Projects in accordance with paragraph 84 of the Procurement Guidelines. The Revised IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations shall apply to all projects, in addition to the relevant Articles of the Kenya Public Procurement Act and other national legislation which refers to corrupt practices.	2

c	2-tiered system to handle complaints	3	3 as stated, 2 only a single level system, 1 no system	Complaints on procurement processes are the responsibility of the Accounting Officer at the first level. A small fee is charged for lodging a procurement or disposal complaint with the Accounting Officer. The second level of complaint is the PPDA, where no additional fee is charged. The next level of complaint is the PPDA Appeals Tribunal. The final level of complaint is with the courts of law.		3
d	Existence of a debarment system	2	3 full existence, 2 existence of complaints body that is the authority, 1 does not exist	The system in place; however, the Company registry is not yet very strong and debarring a bidder does not necessarily translate into actual punitive results as non-complying bidders then register other companies and still participate in public bidding/ or own a chain of other companies.	The Government of Uganad will ensure IFAD's debarment list are respected in awarding contracts under the IFAD finances; and assist IFAD investigations pertaining to the funded activities.	2
e	Existence of an independent and competent local authority responsible for investigating corruption allegations	3	3 existence of independent Anti-Corruption agency, 2 existence of an office within a government ministry/agency that carries out some/all of these functions, 1 does not exist	The Inspectorate of Government is an independent institution charged with the responsibility of eliminating corruption, abuse of authority and of public office. The powers as enshrined in the Constitution and IG Act include to; investigate or cause investigation, arrest or cause arrest, prosecute or cause prosecution, make orders and give directions during investigations; access and search – enter and inspect premises or property or search a person or bank account or safe deposit box		3
B	**PROJECT INSTITUTIONAL RISK ASSESSMENT**	**2.23**				**2.63**
1	**Capability in Public Procurement**	**2.40**				**2.80**
a	Existence of a Procurement Unit with at least 2 staff members (Design stage, reference is to govt agency) Existence of a Procurement Officer (Implementation)	3	3 as stated, 2 one staff member, 1 does not exist (at Design stage) 3 as stated, 2 someone else doing Procurement, 1 procurement function not consistently handled by anyone			3
b	Staff member(s) have at least 7 years experience in donor-funded public procurement	2	3 as stated, 2 for less than 7 years and/or experience in public procurement but not donor-funded, 1 for less than 3 years experience	PDU staff have limited experience in using Donors Procurement Regulations and Procedures and have a heavy workload.	Recruiting two qualified and experienced procurement officers at the central levels to carry out procurement activities. Recruit a proficient procurement specialist (consultant) knowledgeable and experienced in donors funded procurement to support and also offer hand on training to the procurement team in the CPMU and other implementing partners.	3
c	What is the general quality of documents produced by the procurement office?	2	3 for very good bidding documents, evaluation reports and contracts, 2 for mediocre documents, 1 for documents with bad quality	Generally, the quality of the bidding documents and evaluation reports are acceptable; however, further improvements are needed as described in the PDR and PIM	Provide focused training and hand-holding for capacity building of existing staff of the PMU, MOLG PDU and Districts	2
d	Do procurement staff have immediate access to the legal and regulatory framework documents?	3	3 for all, 2 for some, 1 for none			3
e	Are the procurement and financial management functions separated?	2	3 for total separation, 2 for some separation, 1 for procurement being done by FM staff	Both units are reporting to the same undersecrtary	The institutional arrangements for the project will ensure total separation for the two functions	3

2	**Public Procurement Processes**	**2.05**				**2.46**
i	**Procurement Methods**	**1.75**				**2.75**
a	Procurement methods for Goods consistent with IFAD Guidelines	2	3 as stated, 2 for national or international, 1 for none	Only NCB and other less competitive methods were applied	Develop the PIM for the project with clear procurement procedures, responsibilities, and process timelines	3
b	Procurement methods for Works consistent with IFAD Guidelines	2	3 as stated, 2 for national or international, 1 for none	Only NCB and other less competitive methods were applied	Develop the PIM for the project with clear procurement procedures, responsibilities, and process timelines	3
c	Procurement methods for Services consistent with IFAD Guidelines	2	3 for large-value method for firms, small value method for firms and method for individual consultants; 2 for two of the above; 1 for only one or less	Only large-value method for firms and small value method for firms were existing	Develop the PIM for the project with clear procurement procedures, responsibilities, and process timelines	3
d	Easy access to bidding documents by foreign firms	1	3 bidding documents are free and could be issued/sent electronically; 2 foreign bidders have to wire funds to Project to buy bidding docs; 1 bidding docs not practically available to foreign bidders	The foreign bidders have no option to get the documents electronically	All ICB bidding documents will be available over the project website for free downloads	2
ii	**Procurement Planning**	**2.33**				**2.67**
a	Are procurement plans prepared ahead of time and consistent with annual work plans/budgets?	3	3 prepared ahead and consistent, 2 one of either, 1 none			3
b	Do procurement people participate in the annual work planning processes?	2	3 if required by regulation and practised, 2 if required by regulation, 1 if none of above	As practice only	The PIM should clearly stipulate the participation of the procurement staff in the preparation of the AWPB	2
c	Are Procurement Plans done using an effective format with planned and actual rows across 3 different categories	2	3 for all, 2 for some, 1 for none	The PPDA format does not fully comply with IFAD Guidelines.The plan does not include actual rows. Moreover, there is no seprate sheet for each porcurement category	As part of the mission activities, the 18 monts PP will be developed using the IFAD template that will be followed later.	3
iii	**Procurement Processes**	**2**				**2**
a	Minimum number of quotations established by law	3	3 for three or more; 2 for two, 1 if it does not state or less than two			
b	Minimum number of days for advertised procurement under competitive bidding processes	2	3 for minimum of 30 days; 2 for minimum of 20 days; 1 for less than 20 days or not stated	According to the National Regulations twenty working days for the open domestic bidding method and twelve working days for the restricted domestic bidding method	It will be clearly stated in the PIM that minimum period for open bidding will be thirty days and 21 days for the restricted bidding	2
c	Is there enough time provided for bidders to ask questions and receive answers in the bidding process?	3	3 if bidders have a minimum of 3 days for the RFQ method, 7 days for competitive methods to ask questions, 2 if less than ... but more than two, 1 if two days or less			3
d	Are clarifications provided to all bidders?	3	3 for all, 2 for some, 1 for none			3
e	Are bids received prior to the deadline securely stored?	1	3 for all, 2 for some, 1 for none	Tender Box was there but it is not utilized. the bids received were stored in the procurement room without any security	All Project PEs should establish and utilize a secure Tender Box for all project procurements	1
f	Are procurement securities securely stored?	2	3 for all, 2 for some, 1 for none	No standard procedure was established, in some cases securities stored at a box in the room of Senior Procurement Officer without an updated register to present the received securities	The standrd procedure was clearly highlighted in the procurement section of the PIM	2
g	Are public bid openings conducted for advertised procurements, and within an hour of receipt of bids?	3	3 for both, 2 for bid openings being conducted more than an hour after receipt, 1 for bid openings not being conducted			3

h	Are minutes of bid openings taken, and sent to bidders who submitted bids?	🟡	2	3 for both, 2 for minutes being taken but not being sent, 1 for none	The minutes were developed using one of the PPA format and they allow bidders who attend the meeting to copy the minutes.	IFAD through its close follow up will ensure proper procedures to be followed	🟡 2
i	Are evaluations conducted by a suitably qualified ad-hoc evaluation committee?	🔴	1	3 for both, 2 for qualified but not ad-hoc, 1 for ad-hoc or none	While the PDU established an ad-hock evaluation committee for each transaction, the members were not suitably qualified for some transactions espicially Consultancy	The formation of the evaluation committee should be based on the nature of the procurement.	🔴 1
j	In evaluation, is responsiveness based on criteria requirements in the bidding documents?	🟡	2	3 for all, 2 for some, 1 for none	In some cases, the evaluation committee eliminated the application of some criteria, or use different criteria	It is clearly highlighted in the procurement section of the PIM	🟡 2
k	Are evaluations completed within the bid validity period?	🟡	2	3 for all, 2 for some, 1 for none	In some cases, the evaluation was delayed and further extension were requested from the bidders	The indicative time table for the procurement procedures that was incorporated in the PIM will be closely monitored by IFAD	🟡 2
l	Are conditions precedent to contract effectiveness clearly stipulated in the contract? (i.e., advance payment security, performance security, insurance, etc)	🟢	3	3 for all, 2 for some, 1 for none			🟢 3
m	Does the agency maintain a complete record of the process? This would include copies of all public advertisements, pre-qualification documents (if used, the pre-qualification evaluation report documenting any decisions not to pre-qualify certain potential bidders), the bidding documents and any addenda, a record of any pre-bid meetings, the bid opening minutes, the final bid evaluation report (including a detailed record of the reasons used to accept or reject each bid), appeals against procedures or award recommendations, a signed copy of the final contract and any performance and advance payment securities issued, etc.	🟡	2	3 for all, 2 for some, 1 for none	In many cases. the procurement files miss some important documents. Moreover, Inadequate working space for record keeping/filing was allocated.	Ensure that complete documentation of procurement processes is kept on procurement files at the PMU, including all related documents and the records for transactions implemented by other partners. Provide sufficient working area/rooms and space for record keeping/filing.	🟡 2
n	Are all contracts awarded advertised publicly?	🟡	2	3 for all, 2 for some, 1 for none		During the preparation of the Procurement plan, low-value procurement activities will be grouped together under one tender for purposes of economies of scale	🟢 3
iv	**Contract Administration and Management**	🟡	**1.91**				🟡 **2.18**
a	Existence of authority levels in the contract management process	🟡	2	3 for existence, 2 for some practice, 1 for none	For each contract the PMU assigned contract manager	The procedure will be well illustrated in the procurement section of the PIM	🟡 2
b	Existence of approval thresholds for contract amendments	🔴	1	3 for existence, 2 for some practice, 1 for none			🟡 2
c	Is there an effective contract monitoring system/framework in place?	🟡	2	3 for all, 2 for some, 1 for none	Only contract monitoring form was found but in many cases, there is no progress report	Improve contract supervision and monitoring, and application of the conditions of contract through Formation of Contract management and monitoring team, led by the project Coordinator and Focal persons, including the technical and the procurement teams, and beneficiaries (if necessary); Close monitoring to ensure adherence to stipulates of the sections in the respective Contract Documents and to minimize poor performance of service providers.	🟡 2
d	Is there a process to monitor delivery of goods to verify quantity and quality?	🟡	2	3 for all, 2 for some, 1 for none	No standard procedure was established	The procedure was well illustrated in the procurement section of the PIM	🟡 2
e	Is there a framework for approval of deliverables and payment process for consulting services contract?	🟡	2	3 for all, 2 for some, 1 for none	Framework was not established	The procedure was well illustrated in the procurement section of the PIM	🟡 2
f	Is there a process for resolution of final payment and contract closure?	🔴	1	3 for all, 2 for some, 1 for none	as above	as above	🟡 2
g	Are contract disputes handled in accordance with a formal complaints/arbitration system?	🟢	3	3 for all, 2 for some, 1 for none			🟢 3

h	Are works contracts supervised by independent engineers or a named project manager?	3	3 for all, 2 for some, 1 for none			3
i	Are contracts completed on schedule and within the approved/ contracted contract price?	2	3 for all, 2 for some, 1 for none	In some cases delay was noticed	Improve contract supervision and monitoring, and application of the conditions of contract through Formation of Contract management and monitoring team, led by the project Coordinator and Focal persons, including the technical and the procurement teams, and beneficiaries (if necessary); Close monitoring to ensure adherence to stipulates of the sections in the respective Contract Documents and to minimize poor performance of service providers.	2
j	Does the organization have contract registers that register all contracts (with names, prices and dates), per procurement category?	1	3 for all, 2 for some, 1 for none	Only list of on-going procurements were found	IFAD will ensure development and maintaining of the Contracts Register	2
k	Are adequate contract administration records maintained? (These would include contractual notices issued by the supplier, contractor, purchaser or employer; a detailed record of all changes or variation orders issued affecting the scope, qualities, timing or price of the contract; records of invoices and payments, progress reports, certificates of inspection, acceptance and completion; records of claim and dispute and their outcomes; etc.)	2	3 for all, 2 for some, 1 for none	Some documents are missing as presented in the working paper	Ensure that complete documentation of procurement processes is kept on procurement files at the PMU, including all related documents and the records for transactions implemented by other partners	2

Risk Rating System

3	***L** : Low Risk*
2	***M** : Medium Risk*
1	***H** : High Risk*

PEFA Framework

2011 Framework: Procurement assessed under **P1-19**
2011 Framework: Procurement assessed under **P1-24**

2011 Framework	2016 Framework
Transparency, Comprehensiveness and Competition in the legal and regulatory framework	Procurement Monitoring
Use of competitive procurement methods	Procurement Methods
Public access to complete, reliable and timely procurement inforrmation	Public access to procurement information
Existence of an independent administrative procurement complaints system	Procurement Complaints Management

Procedure

1 Open **www.pefa.org**
2 Scroll down and search by country
3 Choose whole country, not regions within a country
4 Choose latest report. Download entire report
5 Examine Pillar PI-19 or PI-24 (depending on Framework used) to see assessment
6 Summary information from section of report should be in **Remarks** of the Matrix
7 Score as follows:

PEFA	IFAD Matrix
A	3
B	3
C	2
D	1