IFAD
Investing in rural people

Republic of Uganda

National Oil Palm Project (NOPP)

Final project design report

Main report and annexes

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East and Southern Africa Division
Programme Management Department

Contents

Annexes

Currency equivalents

Currency Unit	=	UGX (Uganda Shilling)
USD (United States Dollar) 1.0	=	UGX 3700

Weights and measures

1 kilogram (kg)	=	1000 g
1 kg	=	2.204 lb.
1 kilometre (km)	=	0.62 mile
1 metre (m)	=	1.09 yards
1 hectare (ha)	=	2.47 acres
1 acre (ac)	=	0.405 hectare

Abbreviations and acronyms

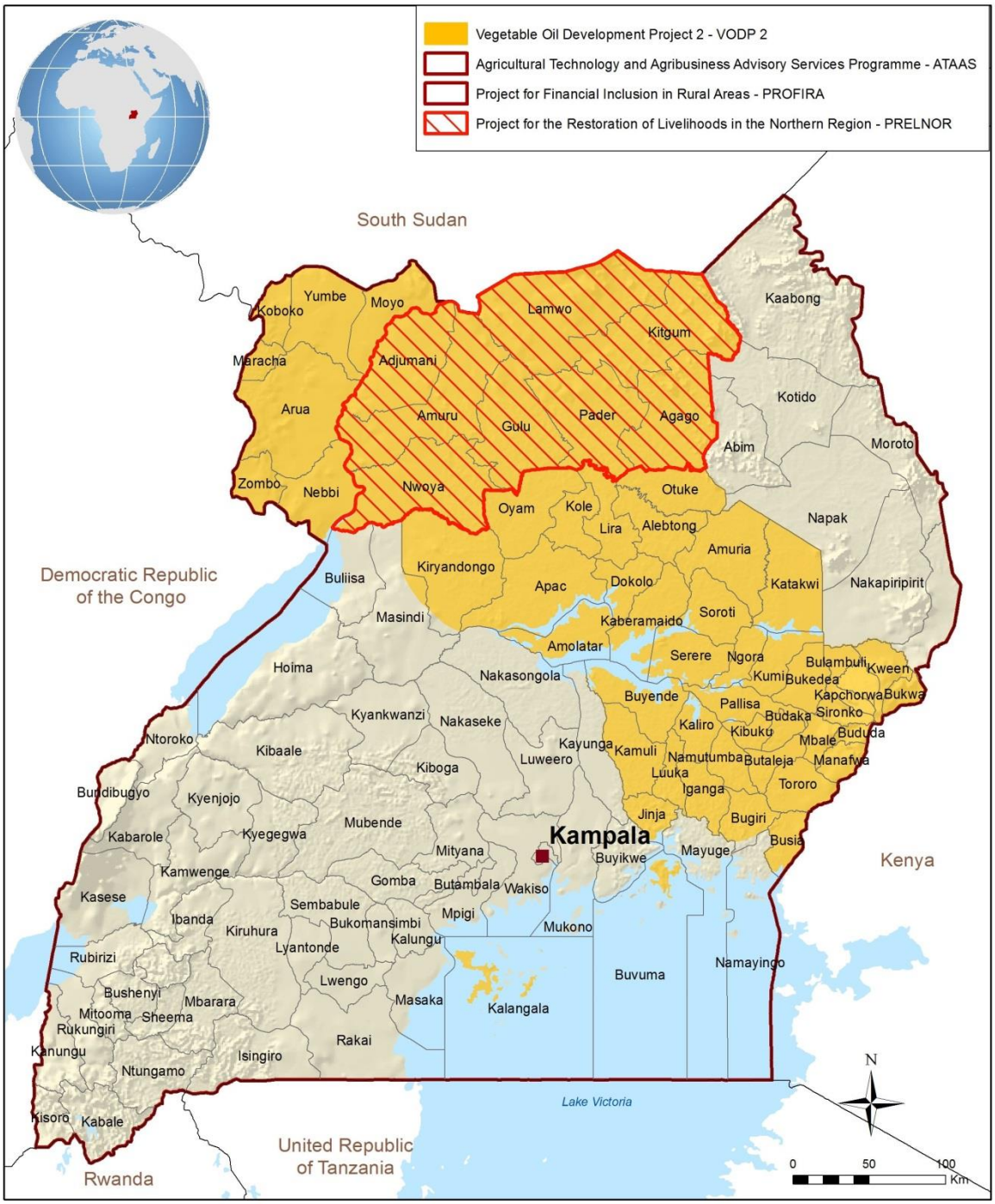
aBiTrust	
ACF	Agricultural Credit Facility
AR4D	Agricultural Research for Development (also AR&D)
ASSP	Agricultural Sector Strategic Plan (2015/16 to 2019/20)
AWPB	Annual Work Plan and Budget
BHTSS	Buvuma Hub Technical Support Services
BOPGF/C	Oil Palm Growers Federation/Cooperative
BoU	Bank of Uganda
BUL	BIDCO Uganda Limited
OPG-CF	Oil Palm Growers - Community Forum/Fora
COSOP	Country Strategic Opportunities Programme (IFAD)
COSTAB	Software for preparing, organizing and analysing project costs
CPE	Country Programme Evaluation (IFAD)
CPO	Crude Palm Oil
DLGA	District Local Government Authority
ESIA	Environmental and Social Impact Assessment
EHS	Environment, Health and Safety
FFB	Fresh Fruit Bunches
FFS	Farmer Field School
FO	Farmer Organisation
GDP	Gross Domestic Product
GHG	Greenhouse Gases
GII	Gender Inequality Index
GIS	Geographical Information System
GoU	Government of Uganda
HCS	High Carbon Stocks
HCV	High Conservation Value
HDI	Human Development Index
HDP	Hub Development Plan
HH	Household
HIV/AIDS	Human Immuno-deficiency Virus infection and Acquired Immune Deficiency Syndrome
Hub	Geographical area covering favourable areas for OP growing within 30 km radius from a mill and benefiting from technical and FFB marketing support services
ICT	Information and Communication Technologies
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IGA	Income Generating Activities
KHTSS	Kalangala Hub Technical Support Services
KOPGT	Kalangala Oil Palm Growers Trust
LGA	District Local Government
LUC(A)	Land Use Change (Analysis)
M&E	Monitoring and Evaluation
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MoFPED	Ministry of Finance, Planning & Economic Development
MoU	Memorandum of Understanding
MTR	Mid-Term Review
NaCRRI	National Crops Resources Research Institute (Namulonge)
NAP	National Agricultural Policy
NAPA	National Adaptation Programme of Action
NARO	National Agricultural Research Organisation
NDP	National Development Plan
NEMA	National Environment Management Authority
NGO	Non-Governmental Organisation
NOPP	National Oil Palm Project
NRM	Natural Resource Management
OP	Oil Palms
OPG	Oil Palm Grower
OPUL	Oil Palm Uganda Ltd.

PDO	Project Development Objective
PDR	Project/Project Design Report
PMU	Project Management Unit
PPP	Public Private Partnership
REDD	Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
RIMS	Results and Impact Management System (IFAD)
RSPO	Round Table for Sustainable Palm Oil
SACCO	Savings and Credit Cooperative Organization
SOP	Standard Operating Procedure
SOPGA	Oil Palm Growers' Cooperative Savings and Credit Society Ldt
TSS	Technical Support Services (OP Hub)
UBoS	Ugandan Bureau of Statistics
UCA	Uganda Cooperative Alliance
UDB	Ugandan Development Bank
UNFFE	Uganda National Farmers Federation
UNHS	Uganda National Household Survey
UOPGT	Uganda Oil Palm Growers Trust
VODP	Vegetable Oil Development Project (phase 1 = VODP-1 and phase 2 = VODP-2)
Y	Year


Uganda
National Oil Palm Programme (NOPP)
Design report
Pre-identified NOPP Hubs
Masaka Hub
Kalangala Hub
Buvuma Hub
Mayuge Hub
South Sudan
Democratic Republic of the Congo
Kenya
United Republic of Tanzania
Rwanda
Lake Albert
Lake Edward
Lake Victoria
Lake Kyoga
L. George
Koboko
Yumbe
Moyo
Kitgum
Kaabong
Adjumani
Nyadri
Arua
Arua
Pader
Kotido
Gulu
Gulu
Amuru
Abim
Nebbi
Moroto
Moroto
Oyam
Lira
Amuria
Buliisa
Apac
Dokolo
Katakwi
Nakapiripirit
Kaberamaido
Masindi
Amolatar
Soroti
Nakasongola
Kumi
Hoima
Kapchorwa
Bukwa
Sironko
Nakaseke
Kamuli
Kaliro
Pallisa
Mbale
Mbale
Bundibugyo
Kibaale
Kiboga
Kayunga
Luweero
Butaleja
Manafwa
Tororo
Iganga
Fort Portal
Kabarole
Kyenjojo
Bombo
Jinja
Bugiri
Mubende
Jinja
Busia
Kampala
Mityana
Mayuge Hub
Kamwenge
Mukono
Kasese
Mpigi
Wakiso
Buvuma Hub
Sembabule
Ibanda
Masaka
Kiruhura
Kalangala Hub
Masaka Hub
Bushenyi
Mayuge
Mbarara
Mbarara
Rukungiri
Rakai
Kalangala
Isingiro
Kanungu
Ntungamo
Kisoro
Kabale
N
0
50
100
km
IFAD
The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.
Map compiled by IFAD | 28-06-2017

Uganda

IFAD-funded ongoing operations



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Map compiled by IFAD | 27-10-2016

Executive Summary

1. **Rationale.** The investment in oil palm in Kalangala, part-financed under the Vegetable Oils Development Project (VODP) and VODP2, has brought about a substantial and transformative socio-economic impact there. Prior to the project the major – though declining – economic activity was fishing, and food crops were grown mainly for subsistence or local markets. In 1998 VODP introduced oil palm into Uganda, piloting an innovative public-private-producer-partnership (4P) through an integrated processor/nucleus estate/smallholder model. Some 1,800 households benefited directly as smallholder oil palm growers, while another 3,000 people gained employment on the nucleus estate and mill or on the smallholders' plots. Not only does oil palm offer smallholders a high return, it also – critically – offers regular and reliable monthly payments. The knock-on impact of oil palm development has also been considerable. The island now has regular ferry services, a substantially expanded road network, solar-generated electricity and clean water supply services. Private investment has resulted in new cell phone infrastructure, petrol stations, bank branches and hotels and resorts, and tourism is emerging as an important sector for the island. A 2015 assessment confirmed the project's positive impacts, yet it also raised some potential risks –issues reflected in the design of NOPP.

2. The impact of oil palm development in Kalangala provides a strong "proof of concept" for scaling up oil palm investment in Uganda, based on: (i) the favourable agro-ecological conditions in some areas of the country for production; (ii) the viability of smallholder oil palm production; (iii) the nucleus estate-smallholder model, which has provided a framework for a sharing of incentives and risks; and (iv) the attention to environmental and social safeguards and mitigation measures. At the same time, expanding national and regional markets for vegetable oil mean there is growing private sector interest in the oil palm industry; and smallholder farmers too are keen to take up the crop. Equally, key policy documents of Government make clear its commitment to develop oil palm in the country. Finally, expansion of smallholder oil palm production is consistent with IFAD's strategic framework 2016-2025 and the COSOP 2013-2018 for Uganda.

3. Drawing on the knowledge and experience gained to date and the growing opportunities, NOPP will facilitate the expansion of a vertically integrated value chain with strong linkages between the smallholder oil palm growers and primary processors. The arrangements will reduce the market risks faced by smallholders, and ensure their access to quality inputs, technical know-how and investment credit. The private sector partner will provide them with seedlings and will purchase their fresh fruit bunches (FFBs) at a transparently negotiated price; Government will develop the necessary public infrastructure and provide the growers with financial, technical and organizational support; and the smallholders will grow oil palm as a business, adopting the key practices to guarantee the productivity of their crop while meeting environmental standards, and will deliver the FFBs to the crude palm oil (CPO) mills. IFAD's role will be to broker this 4P relationship and build trust amongst the partners.

4. At the same time, NOPP will ensure that the benefits of oil palm are shared by the larger communities in which oil palm investment will take place. It will empower community members to seize the emerging economic opportunities, by developing both non-oil palm farming and non-farming livelihood activities. The Project will also mitigate the potentially negative effects of the oil palm investment, in areas such as land tenure security, food security, environment and management of natural resources and HIV/AIDS. And by diversifying income streams and improving services, NOPP will also improve the climate resilience of communities in the project areas.

5. To maximise the benefits to the economy, consumers and smallholder producers, while at the same time ensuring the sustainability of the sector, it is critical that the sector develops in an orderly manner and draws on global best practice. NOPP will support Government to develop an enabling policy and institutional framework that stimulates the development of a modern, environmentally sustainable and socially responsible oil palm sector.

6. **Geographical hub approach.** The Project will work in a limited number of geographical hubs, or agro-climatically suitable areas within a radius of 30 km around a planned or actual CPO mill, in which a minimum of 3,000 ha of smallholder oil palm production can be assured. This radial area marks the limits of financial viability for the producers. Using this model, NOPP will concentrate its activities in the following hubs: Buvuma Island, Mayuge, Masaka/Rakai, a fourth hub yet to be definitively selected, and Kalangala (where it will consolidate the investments to date, but will not expand the area under oil palm production). In all new hubs, investment will be dependent on a firm commitment by the private sector to invest in the CPO mill to process the local supply.

7. **Targeting**. The Project will support poor and vulnerable households – smallholder oil palm growers and others – in the communities located within the hubs. The principal targeting mechanisms will include: (i) setting a 2 ha upper limit per household for the area of oil palm to be eligible for Project financing; (ii) promoting the participation of women and youth in all Project activities, and using gender sensitive approaches; (iii) promoting environment, health and safety (EHS) measures; (iv) promoting alternative economic opportunities in the oil palm communities; and (v) addressing the potentially negative effects of the oil palm investment. A first target group will be prospective smallholder oil palm growers in the four new hubs (plus those already growing oil palm In Kalangala),most of them with less than 2 ha to dedicate to oil palm production. A second target group will be poor families in communities where oil palm investment will take place, who will be assisted to respond to the increased economic opportunities; and will participate in household mentoring and community activities. Overall, an estimated 30,800 households – or 154,000 individuals – will directly benefit from the NOPP activities. Of these, over 11,000 households will benefit as smallholder oil palm growers, and the other 19,800 from the alternative economic livelihoods and/or the mitigation of social risk activities – though both these activities will be open to oil palm growers too. Many more people are expected to gain employment from the smallholder growers and the nucleus estate in Buvuma. Finally, the communities within the hubs will indirectly benefit from the broader spill-over economic and social benefits resulting from the Project.

8. **Project objectives.** The overall goal of the 10-year Project is inclusive rural transformation through oil palm investment. To achieve this, the specific development objective is to sustainably increase rural incomes through opportunities generated by the establishment of an efficient oil palm industry that complies with modern environmental and social standards. This will in turn be realised through three outcomes: sustainable supply chains for oil palm growers established; household livelihoods diversified and resilience increased; and an enabling environment created for sustainable scaling-up of oil palm investment. The Project will apply a nutrition lens to its activities, particularly Component 2, in order to make it nutrition sensitive. The Project has three components.

9. **Component 1. Scaling-up smallholder oil palm development.** NOPP will establish sustainable commercial partnerships between smallholder oil palm growers and private processors. In total, it will involve some 11,000 growers with a 19,700 ha under oil palm, in four new hubs where the crop will be planted for the first time, and in Kalangala where production is already established.

10. **Sub-component 1.1. Development of smallholder oil palm plantations.** *In the four new hubs* the objective will be to enable around 9,230 new smallholder producers to establish a total of 15,000 ha of oil palm, and also establish a 5,000 ha private sector nucleus estate on Buvuma Island. Of the total 15,000 ha, an estimated 12,000 ha will be planted on smallholder plantations of 2 ha or less, supported by NOPP development loans. In Mayuge, Masaka/Rakai and Hub 4, 20% of the oil palm growers will plant a further 3,000 ha, the establishment costs of which will be financed either from commercial loans from interested banks, or from their own resources.

11. In each new hub, a broadly similar set of activities will be carried out. First, prior to any investment, a Hub Development Plan (HDP) will define the specific activities required in the hub, the resources needed and responsibilities for implementation. Second, environmental and social impact assessments (ESIA) and related studies will be undertaken and integrated into an Environmental and Social Management Plan (ESMP). Third, smallholder growers will be identified, mobilized and registered: all farmers will be encouraged to consider oil palm as a business, and develop up to 2 ha with Project financing. Fourth, the programme will ensure the productivity of smallholder oil palm growers, who will receive training and extension support, backed up by a set of Standard operating procedures (SOP). Fifth, NOPP will support environmental management campaigns, determined according to the needs identified in the ESIA, related studies and ESMP. In each hub a start-up team will be set up, to implement the HDP and provide the initial technical services to the smallholder producers. The team, to be led by a Plantation Establishment Manager, will receive support from the PMU line managers, and will work closely with Local Government. An office will be constructed for the team, and this will also be a venue for farmers training and other community-related activities.

12. *In Kalangala*, by VODP2 completion there will be about 4,700 ha of established smallholder oil palm plantations. Under NOPP, there will be no expansion in the area under production. NOPP will continue to provide development loans to those smallholders who will have not reached harvesting stage by VODP2 completion. However the main focus will be to increase the productivity of the current smallholder plantations, both by ensuring timely delivery of both fertilizers to the growers and FFBs to the mill, and promoting improved field husbandry and agronomy practices. In order to better analyse the issues and draw up a plan for NOPP, a technical review will be carried out during VODP2.

The Project will also take measures to address number of specific environmental management issues in Kalangala, and to focus on EHS for farmers/workers.

13. **Sub-Component 1.2. Development of OPG organizations.** Technical support services (TSS) for oil palm plantation establishment in the new hubs will be provided initially through the hub start-up team. However, following establishment of the plantations, the start-up team will hand over to a dedicated TSS team, who will provide the oil palm growers with the necessary production services. The idea will be to keep the TSS light in terms of team members and outsource service provision to the extent possible; and from the start, mechanisms will be put in place for the eventual full cost recovery for the services delivered to the growers. Robust administrative and IT systems will be established to facilitate this process and ensure timely payments for their FFBs. In Kalangala, where KOPGT has provided technical services to the oil palm growers, the challenge is to assist it to limit its service delivery costs – a process that has already started. The move from KOPGT to a Kalangala Hub TSS entity will be informed by a review of KOPGT, to be conducted prior to NOPP start-up, and the drawing up of an action plan for KOPGT's institutional transformation.

14. During the planting process, the Project will assist smallholder growers to form hub-level organizations, to interface with the TSS. The growers will be assisted to organise themselves into unit and block committees and choose their lead farmers, and there will be programme of capacity building for the growers' organizations. The organizations will be encouraged to formalise their legal status, and to register in the legal form they choose. NOPP will assist them to play a role in the oversight of the TSS and gradually assume their ownership, as well as paying for the services received. Eventually the TSSs are expected to become self-financing entities, owned by the organizations under an appropriate governance/legal framework. The oil palm growers' organizations will also ensure EHS measures for their members/workers. Each organization will assign a focal point for EHS, develop a Code of Conduct, and self-regulate and monitoring their EHS practices, with sanctions for non-compliance. They will also visit Kalangala to learn about EHS, and Training Days will also be organized. An EHS Practitioners Group will be formed and will meet regularly.

15. **Sub-component 1.3. Establishment of support infrastructures.** In the four new hubs, NOPP will construct and maintain roads critical for oil palm development, production and marketing. Some 300 km of access roads and 910 km of farm roads will be constructed. In Kalangala, there remain about 180 km of roads yet to be constructed. If they are not completed under VODP2, then Government will finance these roads as part of its contribution to NOPP. All roads will be delineated with farmers and, to the extent possible, constructed before the oil palm is planted, so as to ensure that farmers do not plant in the areas earmarked for roads, and facilitate the transport of seedlings and fertilizers. Road construction will be contracted out, while supervision of construction will be done by the PMU with the assistance of the District Local Governments. Road maintenance will be funded by the Project prior to the start of the oil palm harvesting phase, after which the farmers, and for certain roads the Districts, will be fully responsible for maintenance. NOPP will also finance the provision of fertilizer storage capacity of 15,000 tons in each hub. New ferries and landing sites for Buvuma and Kalangala will be funded under the IFAD loan for VODP2, though if it is not possible to make these expenditures prior to the completion of VODP2, then Government will finance them as per the NOPP budget.

16. **Sub-Component 1.4. Private sector-led infrastructure development.** On Buvuma Island, Bidco will establish a nucleus estate for oil palm production of approximately 5,000 ha, plus the estate road network. In all the new hubs, the private sector partner will also finance the establishment of a nursery, to supply the smallholder growers with oil palm seedlings; as well as a CPO mill to process the FFBs supplied by the growers. The mill will be established once 3,000 ha of smallholder oil palm have been planted; the capacity can expand as the area under cultivation further increases.

17. **Component 2. Livelihoods diversification and resilience.** Recognising the limitations of an approach that focuses solely on the smallholder oil palm growers, NOPP will support the creation of alternative economic opportunities and the mitigation of social risks in the larger communities.

18. **Sub-Component 2.1. Alternative economic opportunities.** The sub-component is targeted primarily at those households within the oil palm growing communities that do not directly benefit from the oil palm investment: an estimated 75% of these households will participate in at least one of the activities offered. However, the activities will also be open to oil palm growers too, and an estimated 40% of them (23,700 households) will participate. Activities will specifically target women, youth and poorer households, using gender and age sensitive approaches. Support will be provided to enable non-OP and OP growers to enhance the productivity, sustainability and diversification of their ***crop and livestock enterprises***; apply tailored climate-smart agriculture practices that not only support

yield but also food and nutrition security; strengthen their linkages to local markets for their produce; and ultimately increase the profitability of their enterprises as well as improve resilience and reduce risks to livelihoods through sustainability and diversification. Activities will include: (a) improving extension service delivery, by training the extension workers and improving their, and farmers', access to ICT-based agriculture information; (b) establishing farmer-led trial plots to enhance farmers' agricultural skill development, using Farmer Field Schools; and (c) improving farmer access to quality agricultural inputs for field/horticultural crops and small livestock production. The Project will also provide support to households to identify, develop and finance ***micro and small rural enterprises***, with target participation rates of 50% for both women and youth. The activities will include: (a) the establishment of business incubation services: scoping and validating business opportunities, prototyping of business opportunities, trainings in business skills development, and mentorship sessions; and (b) improved access to financial services: promotion of Village Savings and Loans Association (VSLA), and reducing rural financial institutions' risks to lend to the target group.

19. **Sub-Component 2.2. Mitigation of Social Risks.** Rapid economic development in rural areas where poverty is widespread can lead to a variety of social risks, such as increased intra-household tensions and vulnerabilities, high-risk sexual behaviour, pressure on the traditional land tenure systems and a range of manifestations of social fragmentation. Sub-component 2.2 will assist households and communities to effectively manage these risks.

20. ***Household Mentoring*** will be used to enable household members to jointly self-assess the challenges they face and identify the actions they would like to take. In particular, it is expected to help them address issues around HIV/AIDS and nutrition; improve the distribution of household tasks; better manage higher and regular incomes and make decisions more equitably on their use; improve household relations, wellbeing and self-confidence; and ultimately increase household incomes. The involvement of parents and their sons and daughters in the process will also help to create economic opportunities for youth. The activities will target 8,070 selected households. Households that "graduate" from the Household Mentoring programme after 12 to 24 months will be encouraged to assist others in their communities. To leverage its impact, the intervention will also target community leaders, and will work with oil palm growing households at the unit level where collaboration can generate benefits for all members. NOPP will also support complementary, district level efforts in the areas of HIV/AIDS, gender equality and nutrition efforts, with locally prioritised activities; and it will promote sports and cultural activities, as identified by community members, to instill healthy lifestyles among the youth, offer female youth an opportunity to participate in these types of activities, and create an entry point for discussing and identifying livelihood opportunities for rural youth.

21. To improve ***land access and tenure security***, NOPP will promote three sets of activities. First, participatory land use planning will be used to identify and accommodate different land uses in the oil palm growing communities around the CPO mills, taking into consideration the rights of owners and users to decide on the use of their lands but also recognizing that their use can impact on the livelihoods of others. Second, while no major land acquisition will be supported under NOPP, information will continue to be collected on the post-payment livelihood decisions made by the compensated households in Buvuma; training will be provided on procedures for land acquisition and compensation; and technical assistance will strengthen the PMU's capacity in this area. Third, NOPP will support land tenure security measures, including civic education and public sensitization for communities involved in or affected by oil palm growing; local land dispute resolution and legal advice; and support for land registration. The activities will be implemented through "Land Information and Resource Centres" – para-legal advice centres that will be established and supported for five years; after which, if considered sufficiently useful, they may be taken up by the District government.

22. **Component 3. Oil Palm Sector Development Framework.** Component 3 will assist GoU to establish the enabling conditions for the sustainable scaling-up and long-term development of the sector. There will be two sub-components: Policy and institutional support for national oil palm sector development; and Strengthening of national capacity for oil palm research.

23. **Sub-component 3.1. Policy and institutional support for national oil palm sector development.** The Project will support the development of a ***national policy*** to promote the sustainable and equitable development of, and regulate, the sector. A policy analyst will take on day-to-day responsibility for the process; and a multi-stakeholder Task Force will provide guidance and steerage, and commission relevant background studies and assessments. Extensive consultations with relevant stakeholders will be conducted at both national and local levels. Following the drafting of the policy, an investment strategy and costed implementation plan will be prepared. The policy and strategy will require approval by Cabinet, after which they will be officially launched – with the launch

used as an opportunity to stimulate private sector and smallholder interest in the sector. Following approval of the policy, it is anticipated that a Bill to provide the legal basis for the regulatory dimensions of the policy will also be required: this will require Parliamentary debate and approval. As an important dimension of the policy framework, a sector-level Strategic Environmental Assessment (SEA) will be developed to assess the cumulative impact of upscaling oil palm development in the country. The SEA will inform the policy, guide NOPP's capacity building efforts, and reduce the workload for and improve the quality of each subsequent ESIA.

24. The policy is also expected to propose a national ***institutional framework*** for the development, regulation and administration of oil palm sector-related matters. Its precise form will be determined through the policy design process; though a multi-stakeholder Board, served by a Technical secretariat, will likely be needed. The functions of the proposed Uganda Oil Palm Growers' Trust (UOPGT) that will be created following the restructuring of KOPGT, to mediate the provision of financing to oil palm growers, will likely be under the responsibility of the Board, and they may be included as part of the Secretariat's role. NOPP will also support the establishment of an oil palm stakeholder platform, for sharing information and promoting discussion – among Government agencies, the private sector, smallholder growers and their representatives, service providers, NGOs and the development partners – on the operational and policy challenges along the value chain.

25. As a step towards establishing a sustainable approach to financing oil palm development, the Project will seek to bring the commercial banks to the sector. A number of banks in Kampala have indicated their potential interest. However, they know little about the oil palm enterprise model, the likely risks and the transaction costs they would face; and they have no tailored financial products adapted to the sector. Under NOPP, the PMU will work with the commercial banks to help them overcome their knowledge gap and stimulate / facilitate their entry into the sector, above all as suppliers of long-term credit for oil palm establishment.

26. **Sub-Component 3.2. Strengthening of national capacity for oil palm research.** While oil palm is still a new crop in Uganda, since its introduction a considerable knowledge has been gained. However management of that knowledge has been very limited. To address this issue, NOPP will carry out three sets of activities. First, it will support **knowledge management** through improved documentation, production, dissemination and use of knowledge products. It will also facilitate identification of knowledge gaps and development of strategies and mechanisms for filling these gaps. Second, **oil palm research** work will be scaled up, with trials focused on a number of already-defined priorities, including the scope for geographical expansion of oil palm production; and NOPP will also seek to improve the accuracy and reliability of data from current trials. Given the importance of oil palm, a dedicated research and development programme will be established and supported under the National Agricultural Research Organization (NARO). Third, the issue of **training** – for researchers, field staff, farmers and lecturers/students – is central to the development of a national capacity; and a training plan for researchers will be developed by NARO, for possible eventual financing with Project resources. Under NOPP, researchers will also visit regional and international public and private oil research institutions for learning and use of research facilities.

27. **Project oversight.** The Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) will be the lead implementing agency for NOPP, and will work with other government agencies as needed to ensure effective programme implementation. A multi-agency Project Steering Committee (PSC), chaired by MAAIF, will meet twice per year to provide strategic guidance to programme implementation, review the Annual Work Plans and Budgets (AWPB), and review implementation progress and impact. It will also provide high level advice on key issues raised by programme management on which it requires guidance.

28. **Project management.** MAAIF will establish a Project Management Unit (PMU), to be responsible for managing the Project, directly implementing some activities and contracting implementation of others; as well as for financial management, procurement, monitoring and evaluation, and knowledge management. NOPP represents a considerably larger and more complex intervention than VODP2, and the current PMU will be strengthened accordingly. A new organizational structure will be established, with four units or divisions, each headed by managers, for Operations, for M&E and Learning, for Finance and Administration, and for Procurement and Disposal. This will lighten the day-to-day management responsibilities of the Project Manager, and enable him/her to dedicate more time to the critical representative role required under a Project of this sort.

29. While the PMU will be responsible for guiding and managing programme activities, implementation on the ground will be the responsibility of: (a) the NOPP-specific hub start-up teams; (b) local government – the District Local Government Authorities (DLGAs); (c) the private sector

partner(s) and commercial banks; (d) the oil palm growers' organizations; and (e) contracted service providers (private companies, NGOs) and individual consultants. The availability and competence of potential service providers has been confirmed. To facilitate performance monitoring and reduce the risk of non-delivery, their contracts will be bound to delivery schedules. NOPP implementation readiness will be enhanced by the preparation under VODP2 of revised operating procedures.

30. **Planning**. Planning and budgeting under NOPP will be integrated into the GoU performance-based budgeting process, while simultaneously responding to IFAD's requirements; and it will be based on AWPBs that will form the backbone of programme planning. The AWPB process will offer the opportunity for Project Manager and PMU team to reflect on the lessons of implementation from the previous years; and structure the AWPB accordingly.

31. **Monitoring & Evaluation**. The Project M&E system will be built up from the existing VODP2 M&E system; it will be based on the Logframe and will comply with IFAD's Results and Impact Management System (RIMS); it will combine quantitative and qualitative/ participatory methodologies; and it will be linked to the MAAIF M&E framework. The M&E system will allow the PMU to monitor its physical and financial performance and adjust its strategy accordingly, particularly through the AWPB process. All data related to the target group will be disaggregated by gender and age, so as to better monitor the Project targeting strategy and fine tune it as necessary. The system will also be designed to evolve into a comprehensive M&E system for the oil palm sector, with a consolidated management information system for mapping and tracking the production and performance of every grower. A web-based dashboard will present programme progress and achievements, and feed the communication activities. Consultancy services will be used in designing the M&E system and strategy. Key elements of the M&E system will include: (a) physical and financial progress reports for monitoring implementation; (b) a Mid-Term Review (MTR), conducted in the fifth year, to review progress and performance, identify bottlenecks, and recommend possible adjustments; (c) a Project Completion Report, to review implementation performance; (d) outcome assessments, conducted every two years; (e) impact evaluation, reflected in baseline surveys for each hub, mid-term and final impact assessments; and (f) thematic studies, on topics to be defined during implementation.

32. **Knowledge management** (KM). The KM function will draw heavily on the M&E data, information and analysis, and it will in turn serve to: (a) bring operational experience to national policy processes; (b) analyse implementation experience and lessons learned, to inform the PMU and enable it to make informed strategic and operational decisions; and (c) document best practice and programme successes, to communicate to different programme stakeholders. The tools used will be appropriate to the purpose: briefs or learning notes will be used for policy dialogue and sharing with stakeholders and other programmes, and a regular short NOPP e-newsletter to programme stakeholders will also be developed to share experience and highlight new learning notes.

33. **Communication**. As part of the NOPP design process, a communication strategy was drafted. Its main objective is to: (a) proactively engage and build awareness of NOPP among audiences; (b) demonstrate that oil palm investment is transforming the life of the smallholder farmers and their communities; (c) change the perceptions of some donors, NGOs and activists; (d) ensure the oil palm growers and non-growers fully understand what the Project is doing in their communities; and (e) identify key audiences and create targeted messages accordingly.A number of key communications messages have already been identified; these will be developed further and key NOPP staff will be supported to be effective communicators.

34. **Supervision.** NOPP will be supervised jointly by GoU and IFAD through regular supervision and implementation support missions. Continuous implementation support will be provided by staff of the IFAD Country Office (ICO) and, at times, staff from other on-going IFAD supported projects in the country. Supervision will be used as an opportunity to bring technical support to NOPP, assess achievements and lessons jointly, and reflect on ways to improve implementation and impact. A GoU / IFAD mid-term review (MTR) will be undertaken in 2022. Early 2028, a Project Completion Report will be conducted, to review implementation performance, draw key programme lessons and develop proposals for further consolidation and scaling-up of the OIL PALM sector outside IFAD financing.

35. **Project costs and financing.** The total cost of NOPP inclusive of taxes and duties is estimated at USD 210.5 million (UGX 814.5 billion), including base costs of USD 207.0 million (UGX 734.8 billion) and price and physical contingencies of USD 3.5 million (UGX 79.7 billion). Around USD 76.4 million (or 36.3% of the total Project costs) will be financed by an IFAD loan and USD 1.2 million (or 0.6%) by an IFAD grant. The Project will be cofinanced by Government (USD 11.2 million or 5.3%); by the private sector (USD 90.6 million or 43.1%); by reflows of development loans disbursed under

VODP2 (USD 13.8 million or 6.6%); and by the farmers themselves in various forms (USD 17.2 million or 8.2%).

36. **Financial and economic analysis.** The Project investments will generate substantial incremental net returns, both to oil palm growers and to those engaged in income generating economic activities and intensification of agricultural production. Oil palm production models suggest an average annual incremental net income before debt service of USD 1,619/ha for smallholder farmers during full maturity (between year 11 and year 18 after planting). Net household incomes after financing are estimated to exceed USD 1,000/year as of year 11 and will remain so until year 25, for an average of USD 1,554/year. For commercial farmers, net household incomes will reach USD 4,000/year as of year 10 and will remain above it until year 25, for an average of USD 5,329/year. Annual incremental net incomes to enterprises are projected to range between USD 300 and USD 1,200 for activities such as micro laundry services, consumer retailing, sales of improved cooking stoves and groundnuts processing and marketing and between USD 100 and USD 200 for agricultural intensification activities such as food production and traditional goat rearing,. The Project as a whole is expected to generate an EIRR of 14.3% and a ENPV (@10%) of USD 28 million. When a sensitivity analysis is done on a number of variables, the EIRR shows considerable robustness and remains above 12%, except for a combined reduction by 20% of both FFB yields and prices as well as for a reduction of 20% of oil palm areas. .

37. **Risk identification and mitigation.** Identified risks include the following: (a) NOPP generating negative publicity for GoU and for IFAD; (b) the private sector partner not fulfilling its investment commitments on Buvuma and in the new hubs; (c) a decline in the profitability of smallholder oil palm production, leading to loss of interest by the growers; (d) agronomic challenges; (e) the institutional challenges associated with the establishment of a national UOPGT and of sustainable grower organizations, and the transfer to producers' ownership of TSS bodies; (f) the potential adverse environmental impact and contribution to climate change; (g) the impact of climate change on areas suitable for oil palm in Uganda; (h) the creation of disparities in the level of benefits accruing to different social groups at both community and household level; and (i) increasing risks of HIV infection. These risks are described in more detail in the main report, as are the proposed mitigation measures for all of them.

38. **Sustainability** of the programme results is built into the character of the commercial partnership between the private sector company and smallholder producers. The private sector partner(s) has a vested interest not only in ensuring that smallholder production is sustained to achieve full utilisation of milling capacity, but also that it is profitable for those smallholder growers. For smallholder oil palm growers, the private sector partner offers them a secured and reliable market for their production, and a regular monthly income; and it is thus fully in their interests to continue producing oil palm and selling it to the CPO mill. In this context, the role of Government will be to facilitate the maintenance of existing commercial relationships between producers and private sector partners, and to stimulate the further growth of the oil palm sector, in a way that is inclusive and sustainable. This it will achieve through an enabling policy and institutional framework that encourages responsible investment at all levels; and by providing the sector with public goods and services to reduce the transaction costs to investors.

39. At the level of the oil palm communities, sustainability will be assured through a Project approach that will be based on building human and social capital at household and community levels, to take up alternative economic livelihood opportunities and mitigate social risk. Post-programme, the principal role of Government will be to ensure the maintenance of public infrastructure and the provision of social and regulatory services to grower communities.

40. NOPP has been classified as *Environmental and Social Category "A"*. The climate risk classification is moderate. Sustainability will be enhanced through a comprehensive strategy to manage social, environmental and climate risks. This includes a series of specific studies at pre-implementation stage, ESIAs for each hub and a stakeholder engagement plan; a SEA, institutional capacity development and training to implement sound environmental and social management systems (ESMSs); and ex-post ESIA at completion. EHS practices and regular environmental and social audits will also contribute to programme sustainability.

NOPP- Logical Framework

Results Hierarchy	Indicators				Means of Verification			Assumptions and Risks
	Name	Base-Line /a(2018/19)	Mid-Term (2022/23)	End Target (2027/28)	Source	Freq.	Resp.	
Goal: *Inclusive rural transformation through oil palm investment /b*	1. District poverty rates /c	X	X	X	UBOS poverty maps	Baseline, mid & end	UBOS	
Development Objective: *Sustainably increase rural incomes through opportunities generated by the establishment of an efficient oil palm industry that complies with modern environmental and social standards*	2. Household gross income /d	X	X	X	Progr surveys	Baseline mid & end	PMU	▪ Peace and stability remain favourable for rural economic growth ▪ Socio-economic infrastructure and services are attracted by oil palm-generated income ▪ GoU and private sector remain sensitive to inclusive and environmentally sustainable agric. Investment
	3. # of households receiving programme services (*)	1,810	24,490	30,837	Progr. M&E	Annual	PMU	
Outcome 1: Sustainable supply chains for oil palm growers established	4. # of smallholder OP growers selling FFBs to processors	1,810 (37% W)	1,810 (37% W)	9,887 /e (30% W; 40% Y)	Progr. M&E	Annual	PMU	▪ International prices remain high enough for industry viability. ▪ Trade with neighbouring countries remains open
Outputs: 1.1. Smallholder oil palm plantations developed.	5. Area (ha) planted by smallholder OP growers, financed by development loan and other sources	4,700	13,700 500 14,200	16,700 3,000 19,700	Progr. M&E	Annual	PMU	▪ GoU/private sector honour commitments to invest /g ▪ Commercial farmers able to mobilize financing for expansion ▪ Self-standing smallholder model (no nucleus estate) proves viable ▪ Climate change does not negatively affect oil palm yields. ▪ A viable institutional model for sustainable provision of TSS is established. ▪ Farmers apply good agronomic practices. ▪ Proper operation and maintenance for transport infrastructure (roads and ferries) is ensured.
1.2 Smallholder OP growers' organizations able to source cost-effective good quality technical support services (TSS)	6. % of TSS costs paid directly by OPGs /f	0	n.a.	100	Progr. M&E	Annual	PMU	
1.3 Support infrastructures established	7. Km of access and farm roads constructed/ rehabilitated (*)	410	1,370	1,580	Progr. M&E	Annual	PMU	
1.4 Complementary processing capacity by private sector installed	8. Total CPO milling capacity installed in Uganda (Mt/hr)	40	60	100	Private sector	Annual	PMU	

Results Hierarchy	Indicators				Means of Verification			Assumptions and Risks
	Name	Base-Line /a(2018/19)	Mid-Term (2022/23)	End Target (2027/28)	Source	Freq.	Resp.	
Outcome 2: Household livelihoods diversified and resilience increased.	9. # of households reporting an increase in food production or in income from a new income-generating activity (*) /h	0	8,910	15,310	Progr. surveys	Annual	PMU	
Outputs: 2.1 Households enabled to take up alternative economic opportunities.	10. # of persons trained in income-generating activities or production practices and/or technologies (*) /i	0	13,922 (50% W; 50% Y)	23,922 (50% W; 50% Y)	Progr. M&E	Annual	PMU	
2.2 Social risks mitigated.	11. # of households graduating from household methodologies programme	0	4,892	8,066	Progr. M&E	Annual	PMU	▪ HIV/AIDS transmission risks can be mitigated
	12. # of persons, whose ownership or user rights over land has improved (*) /j	0	10,708	16,193	Progr. M&E	Annual	PMU	
Outcome 3: Enabling environment created for sustainable scaling-up of oil palm investment	13. Total value of private sector investment in oil palm sector (USD million)	150	195	240	Private sector	Annual	PMU	▪ National policies remain conducive for private sector agricultural investment.
Outputs: 3.1 Policy and institutional arrangements for OP sector development established	14. # of policy, strategy and bill for oil palm development prepared and proposed to policy makers for approval (*)	0	2	3 /k	Progr. M&E	Annual	PMU	▪ Oil palm bill approved as an Act of Parliament ▪ GOU gives necessary priority to investment in research capacity for oil palm
3.2 National OP research capacity strengthened	15. % Increase of FFB yields achieved on demonstration plots through improved agronomy practices	0	5%	10%	NARO	Annual	NARO	

Notes:

(*) Indicators from IFAD's Results and Impact Management System (RIMS) Framework, presented at the Executive Board in April 2017.
/a Baseline indicators for oil palm include achievements of VODP and VODP2 in Kalangala District
/b Rural transformation is defined as a process in which rising agricultural productivity, increasing marketable surpluses, expanded off-farm employment opportunities, better access to services and infrastructure, and capacity to influence policy, all lead to improved rural livelihoods and inclusive growth.
/c Depending on Uganda National Household Surveys (UNHS). Most recent disaggregated poverty rates available are from UNHS 2012/13. The UNHS 2015/16 is currently ongoing and will be used to populate baseline data. Mid-term and end-targets will be populated based on baseline data.
/d Baseline data will be collected through baseline survey. Mid-term and end-targets will be populated based on baseline data.
/e At full development in 2028/89, a total 11,041 are expected to sell their FFBs to the processors.
/f This indicator is organization-specific. Baseline for KOPGT is 62%. End-target for all OPGs' organizations is 100%.
/g For the private sector, in Buvuma the key commitment is to establish the nucleus estate and CPO mill; in other areas the commitment is to establish a CPO mill to service a minimum 3,000 ha production cluster.
/h Assuming overlapping of 20% among persons trained in IGAs and agricultural technologies and 80% 'success rate' among households supported.
/i No discounting for overlapping among persons trained in IGAs and agricultural technologies.
/j Assuming it applies to 100% of OP growers and 20% of non-OP growers
/k Actually approved.

Main Report

I. Strategic context and rationale

A. Country and rural development context[1]

Economic and rural development.

1. Uganda's development experience over the past two decades has been characterized by high growth and significant decline in poverty. Growth accelerated from 6.3% in the 1990s to an annual average of 7.0% during the 2000s, giving Uganda one of the highest sustained growth rates in the world over the past two decades. At the same time, the country was one of the fastest in Sub-Saharan Africa to reduce the share of its population living on $1.90 PPP per day or less, from 53% in 2006 to 35% in 2013.

2. Uganda is a land-locked country and is over1,000 km from the nearest seaport in Mombasa in Kenya. This is both a constraint and an asset: it raises the cost of imports by about 20% and of exports by about 25% relative to Tanzania and Kenya. However, domestic industries are advantaged by the high cost of imports, and have an export advantage relative to those in Uganda's inland neighbours, which are even more distant from the ocean and regional trade accounts for about half of exports, with accelerating trade to South Sudan and Democratic Republic of Congo providing opportunities for rural growth in northern Uganda. Exports account for about 16% of Gross Domestic Product (GDP) and imports about 21%.

3. With its strong growth performance, Uganda has made substantial economic and social gains, though with wide disparities between regions. Government's revenue raising capacity is low at about 13% of GDP, with about 30% of the government budget financed by development partners. International debt is about25% of GDP. However, substantial oil reserves were discovered in the Lake Albert Rift Basin in 2006and oil production is expected to start in 2020. 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 in the post-oil economy.

Poverty and gender[2]

4. **Demographics**. According to the last census the country's population was 34.6 million in 2014, and with population growing at around 3.3% p.a., the 2017 population is estimated at over 41 million. The high population growth rate also means that half the population is below 15 years of age, and less than half – around 20 million – is of working age, and the dependency ratio stands at 108% - among the highest in the world. However, the average population density of 195 persons/km² (World Bank, 2015) is substantially lower than Burundi and Rwanda. An estimated 31% of total households are headed by women. In 2012/13, the literacy rate was 71% among persons aged 10 years and above, with a higher rate among males (77%) than females (66%). As much as 77% of the population lives in rural areas and around 70% of the working population are agriculture and fishery workers.

5. **Poverty**. Uganda's Human Development Index (HDI) value for 2015 is 0.483 (the low human development category) positioning the country at 163 out of 188countries, even if the 2015 value represents a significant increase over the 1985 value of 0.3. According to Uganda´s national poverty line, 20% of the population (around 7 million people) lives in poverty, 43% are economically active but vulnerable to falling back into poverty and 37% are more resilient. Poverty is still predominantly rural, as 23% of the rural population fall into the lowest wealth quintile, compared with 9% in urban areas. Key features of the different socio-economic groups in Uganda is shown in Table 1 below.

[1] Further details in Annex 1:Country and rural context background
[2] Further details in Annex 2:Poverty, targeting and gender

Table 1: Key features of socio-economic strata in Uganda

Poor	*Economically Active but Vulnerable*	*Middle Class*
- Very low asset base resulting in lower income, higher propensity of food insecurity & vulnerability: - Access to limited land and/or tools, inputs and markets - High dependency rations - Low levels of education	- Reasonable asset base enabling higher production rates, options and income levels - More likely to have easier access to land (up to 2 ha), more tools & some access to inputs/markets - Manageable dependency rations - Primary & some secondary education	- Strong asset base and enabling standards of wellbeing, higher resilience to shocks: - Access to over 2 ha of land, information, inputs, markets - Low dependency on agriculture due to involvement in other lucrative Income Generating Activities (IGAs) - Lower dependency ratios

6. Despite significant economic growth in rural areas in Uganda, some rural households remain very poor, fragile and vulnerable to external shocks affecting household livelihoods, including adverse weather conditions. The most important internal shock remains HIV/AIDS, despite the impressive decline in its prevalence in the 80s and 90s. In 2015, an estimated 1.5 million people were living with HIV, and the estimated HIV prevalence among adults (aged 15 to 49) stood at 7.1%.The Central Region – where much of NOPP investments will take place – has a higher prevalence, estimated at 10.6% in 2011. High-risk sexual behaviour, gender inequality, transactional sex, stigma and discrimination are some of the factors behind the epidemic. The impacts of HIV and AIDS are visible not only at household level; it is foreseen that in 2025 the Ugandan economy will be 39% smaller with HIV/AIDS than it would be without it.

7. **Adequate nutrition** is a prerequisite for human development and socioeconomic well-being. In Uganda, 34% of children are stunted, 5% of children under five are wasted and 2% are severely wasted. About 14% of children under five are underweight and 3% are severely underweight. Rural children are much more likely to be nutritionally disadvantaged than urban children. In general, although the nutritional status of children in Uganda has improved slightly over the last five years there are still pockets within the country that experience high levels of malnutrition and micronutrient deficiencies (hidden hunger). Malnutrition does not only affect children as an estimated 12% of women in Uganda are malnourished. Studies indicate that the most popular food preparation methods in Uganda are steaming and boiling. Although these may appear to be methods that promote nutrient retention, the minimised probability of adding any fats and oils compromises the bioavailability of some micronutrients. Therefore vegetable oil, especially those naturally rich or fortified with vitamin A, if utilised in food preparation, would contribute not only to meeting the oils and fats needs but also those of vitamin A.

8. **Women**. Uganda's Gender Inequality Index (GII) value for 2016 was 0.704, ranking it 61stout of 144 countries – a significant improvement from 2012 when the value was 0.538, ranking it 122nd. The introduction of universal free primary education in 1997 and free secondary education in 2007 have dramatically improved gender parity in education. The Gender and Productivity Survey (2008) reported that four out of every five women in Uganda are employed in agriculture. Generally, women are more dependent than men on farm self-employment than on non-farm and formal employment, due to inadequate skills, discrimination in formal labour markets, and difficulties of combining employment with family responsibilities and caregiving. Around 46% of women in the labour force are unpaid compared to only 18% of men. This means that women and men have significantly different access to income. For decision making, only 38% of married women directly participate in decisions relating to their own health care, major household purchases, and visits to their family or relatives, (UNFPA, 2013).

9. **Youth**. Uganda has one of the world's youngest population, with over 78% of its population below the age of 30 years. With about eight million youth aged 15-30, the country also has one of the highest youth unemployment rates in Sub-Saharan Africa. With the majority of youth lacking the requisite skills, the informal sector has become the major alternative source of employment and opportunity for job creation. Youth in rural areas have resorted to small-scale agriculture and supplying agricultural labour, while those in the urban setting are into petty trade and artisanship. Youth seeking to start their own enterprises are faced with challenges in obtaining access to credit.

Agriculture and vegetable oil production

10. **The agricultural sector** remains the backbone of the Ugandan economy: about 40% of the land area of the country is considered arable and of this about 30% is currently being cropped. While

most of the country has two cropping seasons, production in the north is limited to one. Agriculture provided22% of national GDP and 53% of Uganda's export earnings over 2007-2011 period, and contributes a large share of the raw materials for industry. Food crops dominate, followed by cash crops, while non-traditional export crops are also important. About three quarters of agricultural households derive their livelihoods from largely subsistence-oriented, low input rainfed agriculture, with holdings averaging less than 1.5 ha (only 1% of agricultural land is irrigated). Yields remain low for most food crops and are generally poor for cash crops. In spite of problems of fertility and high soil nutrient loss, there is a limited application of the 'green revolution technology': use of improved farming practices and fertilizers remains among the lowest in the region, with less than 10% of smallholders using fertilizer occasionally. Post-harvest management and handling is limited and the majority of farmers rely on traditional systems for grain handling and storage, leading to up to 30% post-harvest losses.

11. **Climate variability & change.** The effects of climate change and unsustainable natural resource management on agricultural productivity are a key issue in Uganda: high climatic variability and lack of reliability in the onset and cessation of the rains, uncertainty about the duration and distribution of the rain, and longer than usual dry spells are the most common issues. Data analysis for the past ten years shows a decrease in rainfall of about 8% and an increase in temperature of 0.7-1.5 °C. Several climate change policy instruments have been adopted by GoU, and consistent with the 2011 East African Community regional policy on climate change, the primary focus of Uganda's policy response to climate change is adaptation, with mitigation considered a secondary priority.

12. **Land tenure.**There are four main tenure systems in Uganda, namely: customary, "mailo", leasehold and freehold and one sub-tenure system – occupancy; as well as several other forms of tenancy and occupation. The main land tenure system in the Project area is "mailo" ownership with associated tenancy and occupancy sub-systems; however more traditional customary tenure is prevalent in certain areas. Most land holdings are not formally registered and disputes over ownership and use are high in most areas. Nonetheless land markets are quite vibrant (formal and informal, rental and sales) and land is often used to secure loans, including through the use of customary land as collateral in certain parts of the country. While the legal framework is supportive of women's land rights, in practice women's land rights remain weaker than men's. Access to land by young adults also remains a challenge.

13. **Vegetable oils.** Vegetable oil consumption in Uganda mounted to about 540,000 tons in 2014, though this translated to extremely low per capita consumption rates: 8.2 kg/capita p.a. compared to 21.0 kg/capita p.a. in developed countries. Only half the national demand is met by net domestic vegetable oil production (i.e. total production less exports); the remainder coming from imports. The preponderant share of vegetable oil imports is accounted for by Crude Palm Oil (CPO), which is refined into vegetable oil locally by about six processors, two of which are large scale – and one of which, Bidco[3], is the private sector partner under the IFAD-supported Vegetable Oil Development Project (VODP). On the other hand, because of its distance from the sea, Uganda's import parity price for CPO is relatively high, so favouring local production of oil palm and oil seeds.

Policy, strategy and institutional context

14. The key guiding economic growth and development policy for Uganda is Vision 2040, which aims to 'transform Ugandan society from a peasant dominated to a modern and prosperous middle income country within 30 years'. Vision 2040 is implemented through five-year National Development Plans. The current Second National Development Plan 2016-20 (NDP II) highlights agriculture as one of the three priority sectors in Uganda's drive to achieve middle-income status. Its key strategies to achieve rural transformation focus on industrialization and export-oriented growth through value addition and agro-processing; strong public/private/partnerships (PPPs) for sustainable development; and private sector-led growth and a quasi-market approach. At the same time, NDP II 'recognises that agriculture is critical for addressing poverty, food security and income generation, especially of the poor and of women. Relevant investments areas include: (i) developing human resources and achieving gender equality; (ii) improving physical infrastructure in rural areas (roads, connectivity and power generation); (iii) ensuring the availability of inputs (including investment in a fertiliser plant);and (iv) the promotion of micro, small and medium enterprises in rural areas to improve value addition.

[3]Bidco Uganda Ltd. (BUL) is a private company registered in Uganda for managing the processing and distribution of vegetable oils and soaps. Owned by Bidco and Wilmar, Bidco Uganda has established Oil Palm Uganda Ltd (OPUL) for the development of oil palm plantations in Kalangala. See Annex 1 for more details.

15. **Agricultural policy framework**. Uganda's current agricultural sector policy is guided by the 2013 National Agriculture Policy. The vision of the Policy is "A Competitive, Profitable and Sustainable Agriculture Sector"; its mission to: "Transform subsistence farming to sustainable commercial agriculture." To realise it, the policy's overall objective is to achieve food and nutrition security and improve household incomes through coordinated interventions that will enhance sustainable agricultural productivity and value addition; provide employment opportunities, and promote agribusinesses, investments and trade. It has a strong private sector orientation, and it indicates that Government actions will aim to strengthen the private sector through improved public service delivery and by putting in place an enhanced regulatory environment for the agricultural sector.

16. The Agricultural Sector Strategic Plan 2015-20 (ASSP) is derived from, and supports the achievement of NDP II, while reflecting the principles and priorities of the National Agriculture Policy. It aims to transform subsistence farming into commercial agriculture through coordinated interventions to enhance productivity, value addition and trade. ASSP identifies twelve priority and four strategic commodities – one of which is oil palm – which, through a series of actions to develop their value chains, are expected to contribute to wealth creation and employment.

17. **Land.** The National Land Policy, approved in 2013, provides an overall basis for further developing the legal and institutional framework for tenure and land governance. The Constitution and the 1998 Land Act (amended in 2010) recognize the four tenure systems referred to above, plus occupancy. The Act also provides for the granting of freehold titles, leasehold agreements, Certificates of Customary Ownership and Certificates of Occupation, even if few of the latter have been granted. The Act provides for the registration of group-owned land under Communal Land Association. It also provides for women to register land owned directly by them and to inherit land, and for the co-registration of ownership by spouses; and it prescribes consent of both spouses in the transfer of ownership. In practice however, women's land rights remain weaker than men's.

18. **Environmental and climate change policies.** Uganda's Intended Nationally Determined Contribution (INDC) submission of 2015 indicates that Uganda has one of the lowest per capita emissions in the world. The GoU National Adaptation Programme of Action (NAPA) (2007) did not articulate policy principles and strategies but provided agreed response actions developed with a participatory approach. Several climate change policy instruments have now been adopted: the National Policy for Disaster Preparedness and Management; the National Policy on Climate Change and Implementation Strategy approved in 2015; and the Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (REDD) Readiness Strategy. With the rolling national development plans, these instruments articulate Uganda's climate change policy.

19. The GoU's approach to gender equality is defined in the Uganda **Gender Policy** 2007-2017. It has also promoted gender equality and women´s empowerment in the Uganda Vision 2040 and NDP II; ratified regional and international instruments; and approved laws related to gender equality and women´s rights (the Anti-Trafficking in Persons Act, the Female Genital Mutilation Act, the Domestic Violence Act and the National Policy on Elimination of Gender Based Violence). The Ministry of Gender, Labour and Social Development(MGLSD) drives the promotion of gender equality, working through representatives at District, County and Sub-county levels to reach out to communities. The **Youth Policy** and National Youth Action Plan (2016) approved by the MGLSD provide the framework and guidelines for the development of programmes and services targeting youth. Employment opportunities for, and participation of, youth in agriculture continues to be extremely limited, and many youth are among the ranks of the poor. The MGLSD's Youth Livelihoods Programme provides loans to male and female youth: around 40% of loans are dedicated to agriculture, especially in value addition. The **Nutrition Action Plan,** managed by the Office of the Prime Minister, outlines Government's approach on nutrition, and the Nutrition Advocacy and Communication Strategy 2015-2019 aims to create awareness among the population on approaches to adequate nutrition. Nutrition-related activities are implemented by different players and at every level, with District Nutrition Coordination Committees coordinating actions at local level; and a Multisector Coordination Committee, involving eight ministries, other non-governmental, public and private sector stakeholders, seeks to ensure that these are effectively coordinated.

B. Rationale

20. **The impact of VODP.** A key part of the rationale for expanding smallholder oil palm production under NOPP lies in the substantial and transformative socio-economic impact achieved under VODP and VODP2. Prior to the arrival of oil palm on Bugala island in Kalangala District most farmers were growing subsistence crops with very limited market opportunities, and the major – though declining –

economic activity on the island was fishing. In 2004 VODP introduced oil palm into Uganda, piloting on Bugala an innovative public-private-producer-partnership (4P) approach based on a vertically-integrated processor-nucleus estate-smallholder model.[4]As a result of the public and private oil palm investment some 1,800 households have benefited directly as smallholder oil palm growers, while another 3,000 people have gained employment, either on the nucleus estate and mill or on the smallholders' plots. The growers' current net income from oil palm after loan repayment is about USD 700/ha; once the loan repayments are completed and as yields rise, incomes will rise to almost USD 1,500/ha. Not only does this represent a significantly high level of income than is possible from any alternative crop, oil palm also – critically – offers regular monthly payments and it is a reliable and assured income source.

21. The knock-on impact of oil palm development has also been considerable. Investment in infrastructure means that the island now has regular and frequent ferry services from two points; an improved grade one gravel main island road and a feeder road network of 700 km, up from only 70 km in 2000; and solar generated electricity and clean water supply services, both on a full cost recovery basis and serving more than 30% of the total households of the island. Private investment in other services has also taken place: new cell phone infrastructure has resulted in full coverage; new petrol stations have opened; and the opening of branches by two banks has resulted in the share of the population accessing financial services increasing from 18% in 2006 to 45%in 2016. Hotels and resorts have been built and tourism is emerging as a new, thriving economic resource for the island.

22. According to the UNDP Human Development Index for Uganda, in 2000, Kalangala district (Bugala plus 83 other smaller islands, 43 of which are inhabited) was ranked the 71st poorest district out of 76. Preliminary results from an impact study carried out in 2016 show that today, 97% of households on Bugala island live in houses with permanent roofing materials compared to a national average of 69%; while 45% of the population use improved pit latrines compared to the national average of 9%[5]. Furthermore, today Bugala has 11 primary schools, 2 secondary schools and 3 vocational institutions, compared to only one primary school and one secondary school in 2006. The result is that in Kalangala district 22% of the population has attained Secondary Education, which is higher than the national average of 19% (NPHC 2014).

23. A 2015 study undertaken by the Institute of Development Studies of the University of Sussex confirmed the investment's positive impact in terms of the physical assets that farmers were able to acquire; the perception of wellbeing measured by being able to afford school fees and health services; job opportunities created; the access to various social services and infrastructure; reduced pressure on the environment for charcoal burning because of alternative sources of livelihoods; and the overall empowerment of farmers in terms of voice and influence in decision-making processes. The study, however, raised some potential risks in terms of food-security in the long-term due to mono-cropping; the pressure on the traditional land tenure systems due to the increased value of land; and the overall exposure of farmers to production risks – all issues reflected in the design of NOPP.

24. **The opportunity for scaling up.** The success of oil palm (OP) development in Kalangala, and the clear demonstration of impact, provide a strong "proof of concept" for further OP investment in Uganda, based on some key factors: (i) the suitability of the agro-ecological conditions in some areas of the country for large-scale commercial production; (ii) the viability of smallholders' engagement in oil palm production; (iii) the nucleus estate-smallholder model, which has proved a successful and appropriate partnership framework for sharing of incentives and risks between smallholders and the private sector partner; and (iv) the attention to appropriate safeguards and mitigation measures for environmentally and socially friendly oil palm investment.

25. At the same time, while the national and regional markets for vegetable oil are growing, a large part of this market is currently satisfied through imports; and this is spurring private sector investment in the emerging oil palm industry. There is also the scope for a substantial increase in production, as there may be up to 100,000 ha of area suitable to oil palm development in Uganda, according to preliminary soil and rainfall assessments. Furthermore, Uganda's Vision 2040; the key strategies in NDP II and ASSP - with its explicit focus on oil palm as one of the country's four strategic crops; and the current strong emphasis in the policy debate in the country on agriculture-led rural transformation – all offer evidence of the interest by GoU to develop oil palm in the country. Equally, there is clearly demonstrated interest by proven private sector partners in further investing in the sector; and there is

[4] Further details in Annex 1: Country, rural and sector context background
[5] Note that figures for Kalangala are for 2016, while the national averages are for 2014.

high interest in the crop from smallholder farmers. Finally, expansion of smallholder oil palm production is consistent with IFAD's strategic framework 2016-2025 for enabling inclusive and sustainable rural transformation in all its three strategic objectives and key outcomes, as well as IFAD's COSOP 2013-2018 for Uganda.

26. Together, these factors provide a solid basis for scaling up the commercial oil palm development model piloted and proven under VODP and VODP2, so as to expand the benefits to a larger number of smallholders in areas suitable to grow the crop, while complying with modern environmental and social standards. There has been considerable knowledge gained in the experience to date, notably on: (i) oil palm planting and maintenance technologies; (ii) organisational modalities for smallholders; (iii) how to build partnerships between the public and private sector and smallholder producers; and (iv) the roles and responsibilities of each collaborating partner. Also, through the past investments, trust has been built among the partners involved (Government, Bidco, smallholder farmers and their organisation and IFAD), and this will be capitalised on in the approach for scaling up investment and results in the sub-sector.

27. To maximise the benefits to the economy, consumers and smallholder producers, while at the same time ensuring the environmental sustainability of the sector, it is critical that the sector develops in an orderly manner and draws on global best practice. Oil palm has specific soil and rainfall requirements; and to attain full potential, high yielding varieties must be planted and appropriately maintained. There are important environmental issues to address and critical decisions to be made about the appropriate mix of production under nuclear estate and smallholder farmers, and their location relative to a crude palm oil (CPO) mill. Oil palm is best processed on a large-scale to avoid uncontrolled effluent disposal and increase efficiency in oil extraction, with each mill having its own specific catchment area from where it draws its supply of fresh fruit bunches. A policy framework to guide decision-making and investment in these and other areas is thus critical – a point recognised in the intention of MAAIF to develop a "sector policy to guide consolidation and expansion in the country" (ASSP). NOPP will support GoU to develop an enabling policy and institutional framework to stimulate the development of a modern, environmentally sustainable and socially responsible oil palm sector

28. **The NOPP theory of change.** NOPP will draw on the experience from the oil palm investment in Kalangala under VODP and VODP2 and build on the opportunities generated by a growing domestic palm oil industry to drive the transformation of the economy of those areas that are suitable for oil palm production and thus sustainably improve the incomes and livelihoods of rural communities. NOPP will facilitate the establishment of a vertically integrated value-chain with strong backward and forward linkages between the oil palm growers and primary processors. The arrangement will reduce the market risks faced by smallholders, such as the lack of a guaranteed market, the limited access to quality inputs and technical know-how and the limited availability of credit for medium- and long-term investment. Under this arrangement, the private sector partner will provide seedlings to OP smallholder growers and will purchase their FFBs at a transparently negotiated price; Government will develop the necessary public infrastructure and provide the growers with financial, technical and organizational support; and the smallholder growers will grow oil palm as a business, adopting the key practices required to guarantee the productivity of their oil palm plantation while ensuring conformity to environmental standards, and will deliver the FFBs to the CPO mills. IFAD's role will be to broker this 4P relationship and build trust amongst the partners. As evidenced under VODP/VODP2, the model is expected to create new economic opportunities for smallholder producers and others in the local communities; to result in increased incomes and improved livelihoods for them; and to catalyse broad-based rural economic growth. To ensure the target community's livelihoods approach is fully covered, awareness creation on appropriate utilisation of income at household level to ensure it supports the most important needs of different household members i.e. food, health, education, shelter clothing, etc will be crucial.

29. At the same time, NOPP will ensure that the benefits of oil palm are shared by the larger communities in which oil palm investment will take place. It will empower members of these communities who will not directly benefit from oil palm (as well as some oil palm growers) to seize the emerging economic opportunities, by providing them with technical and business development capacity building to develop both non-oil palm farming and non-farming livelihood activities. The Project will also mitigate the potentially negative effects of the oil palm investment on the livelihoods of the beneficiary communities, in areas such as land tenure security, food and nutrition security, environment and management of natural resources and HIV/AIDS. The broad impact of NOPP will catalyse growth in the local economies, thereby attracting private and public investment in socio-

economic infrastructure and services. And by diversifying income streams and improving services, NOPP will also improve the climate resilience of communities in the Project areas.

30. Finally, by supporting the development of an enabling policy and institutional framework to govern the oil palm sector, NOPP will enable GoU to establish the conditions for the sustainable and equitable development of the oil palm sector, and the further extension of the benefits already achieved under VODP and VODP2 and those to be achieved under NOPP to other rural communities that offer the scope for oil palm production.

II. Project description

A. Project area and target group

31. **Geographical hub approach.** Only limited parts of the country have conditions proven to be suitable for growing oil palm, where rainfall, soil and temperature conditions are favourable. These include the mainland areas located in a narrow belt (25-30 km) along Lake Victoria and surrounding the two island districts of Kalangala and Buvuma, but also areas in the western (Bundibugyo, Masindi) and north-western (Arua) parts of the country.

32. The Project will work in a limited number of geographical hubs, where a hub is defined as an agro-climatically suitable area (***not*** an administrative district), within a radius of 30 km around a planned or actual CPO mill, and in which a minimum of 3,000 ha of OP production can be assured. It is this radial area that marks the limits of financial viability for the producers, who may be smallholders only or, in the case of Buvuma and Kalangala, smallholders plus nucleus estate.

33. Drawing on this model, NOPP will concentrate its activities on smallholder OP development on the following hubs: Buvuma Island, Mayuge, Masaka/Rakai and Kalangala (Bugala and outlying islands, where it will consolidate the investments to date, but will not support an expansion in the area under OP production); as well as a fourth hub, not yet definitively selected, which may be located around Kiryandongo, subject to confirmation of its suitability for production, or in Buikwe. Project investment in any of these, or other hubs, will be dependent on confirmation of the agro-ecological suitability of the area, the identification of smallholder producers with 3,000 ha to dedicate to OP production within the 30km radius; and a firm commitment by the private sector to invest in the CPO mill to serve the local supply.

34. **Targeting mechanisms**[6]. The Project will provide targeted support to poor and vulnerable households – smallholder OP growers and others – in the communities located within the hubs, and for a variety of different, though linked, activities. The principal targeting mechanisms will include: (i) setting an upper limit (2 ha) per household for the area of oil palm to be supported through the Project financing, in order to target the active poor, limit the cost per beneficiary, and increase the overall number of Project beneficiaries; (ii) proactively promoting the participation of women and youth, as OP growers and as participants in other Project activities; (iii) promoting environment, health and safety (EHS) measures, and more generally the welfare, of smallholder oil palm growers and their workers, as well as workers on the nucleus estate; (iv) promoting alternative economic opportunities, for both OP growers and other households, with a specific focus on women and youth, which will enable them to increase their incomes and strengthen their resilience to shocks; and (v) addressing the broader socio-economic impact of the oil palm investment in hosting communities by mitigating the potentially negative effects (e.g. HIV/AIDS and land tenure insecurity).

35. **Target groups**. A first target group will be prospective smallholder OP producers in the four new hubs, who may currently be practicing subsistence cropping and/or fishing, having up to 2ha of land suitable for oil palm development. These households will benefit from Project support with development financing to enable them to establish up to 2 ha of oil palm while keeping some land for food crops. In Mayuge, Masaka/Rakai and Hub 4 a minority of these households will have more than 2 ha to dedicate to OP production (an assumed 20% of households, with an average of 4 ha additional land, beyond the 2 ha): this group will be supported with NOPP financing up to the 2 ha threshold; beyond this area, they will be expected to either access commercial financing or draw on their own resources to meet the establishment costs. The Project will link these producers to financial institutions and provide them with technical support services. In Kalangala, the Project will support

[6] Further details in Annex 2:Poverty, targeting and gender

those smallholders already growing oil palm, to increase the productivity of their existing plantations; but it will not support an expansion in the area under production.

36. A second target group will be poor families in targeted communities where oil palm investment will take place, who will be assisted to respond to the increased economic opportunities in a dynamic local economy. Smallholder OP growers will also be targeted by this intervention to diversify their incomes and strengthen their food security. In addition, household mentoring and community activities will serve to mitigate the social risks that could potentially occur in a context of rapid economic and social change. Specific targets will be set to reach out to women and youth (at least 50%), and gender sensitive approaches will be used in all stages of the Project. Overall, the alternative socio-economic activities will allow to more than double the number of beneficiaries and to deepen sustainable livelihood development in the OP-growing communities.

37. Poor and vulnerable households will be directly targeted by NOPP investments in oil palm production (Component 1) and in alternative economic opportunities and mitigation of social risks (Component 2). Overall, an estimated 30,800 households will directly benefit from these NOPP activities, without considering the sensitization activities aimed at whole communities. On the basis of an average household size of 5, these figures translate to 154,000 individuals. Of these, over 11,000 households will benefit as smallholder OP growers; and a total of 23,700 households are expected to benefit from the Alternative Economic Livelihoods activities, out of which 19,300 will be additional, non-OP growing households. A total of almost 8,100 households will benefit from the mitigation of social risk (household mentoring) activities: these will include not only OP growers and non-OP growers, but also an estimated 475workers in the nucleus estates (of Kalangala and Buvuma).

Table 1: Summary of direct NOPP beneficiaries

Hub	*Smallholder OP growers (households)*	*Alternative economic opportunities*	*Mitigation of social risks*	*Total beneficiary households b/*	*Total beneficiaries*
Kalangala	1,810 a/	3,892	1 482	5 215	26 075
Buvuma	1,923	4,135	1 560	5 526	27 630
Mayuge	2,692	5,788	1 851	7 404	37 019
Masaka	2,308	4,962	1 587	6 346	31 731
Hub 4	2,308	4,962	1 587	6 346	31 731
Total NOPP	**11,041**	**23,738**	**8 066**	**30 837**	**154 186**

/a: Already growing OP; this group will benefit from improved technical support services, institution building and, for farmers who will not have achieved the commercial phase by completion of VODP2, support for oil palm maintenance
/b: total beneficiary households is not the sum of the three sets of activities, as it is assumed that a significant number of households will participate in more than one activity. See details in Annex 2.

38. Beyond the direct target group many more people are expected to benefit indirectly as a result of the employment opportunities created by the smallholder OP growers and the nucleus estate in Buvuma.[7] Finally, the communities within the targeted area for smallholder oil palm development will indirectly benefit from the broader spill-over economic and social benefits resulting from Project interventions targeting the communities in which OP growers live, together with the improvements in infrastructure and social services that will accompany the core oil palm investment. As the spill over effect of oil palm increases, socio-economic activities and services will further develop.

B. Development objective and impact indicators[8]

39. **The overall goal** of the National Oil Palm Project is inclusive rural transformation through oil palm investment.

[7] Interviews with smallholder OP growers in Kalangala suggest that up to 3 labourers per ha are required to maintain the plantations and harvest the FFBs, implying that part-time employment opportunities for up 45,000 people will be created. In addition, about full-time 1,000 jobs are expected to be created on the nucleus estate.
[8] Further details in Annex 4:Detailed NOPP description

40. **The specific development objective.** To achieve this goal, the Project's specific development objective is to sustainably increase rural incomes through opportunities generated by the establishment of an efficient oil palm industry that complies with modern environmental and social standards..

C. Outcomes/components

41. **Outcomes and outputs.** The outcomes that would make possible the achievement of the development objective are summarized below, together with the related Project components and action areas:

Component 1: Scaling-up investment in smallholder oil palm development: Sustainable supply chains for oil palm growers are established. .

1.1 Development of smallholder oil palm plantations
1.2 Development of OPG organizations
1.3 Establishment of support infrastructures

Component 2: Livelihoods diversification and resilience: Household livelihoods are diversified and resilience increased.

2.1 Alternative economic opportunities
2.2 Mitigation of social risks

Component 3. Oil Palm Sector Development Framework: An enabling environment is created for sustainable scaling-up of oil palm investment.

3.1 Policy and institutional support for oil palm sector development
3.2 Strengthening of national capacity for oil palm research

Component 4. Project Management, Monitoring and Evaluation and Knowledge Management.[9]

Reflecting on one hand the long establishment period for oil palm, and on the other hand the lesson learned that trust building between the private sector partner and smallholder OP growers is a slow process, the Project will be implemented over a 10 year period.

D. Project Components

Component 1. Scaling-up smallholder oil palm development

42. Under Component 1, NOPP will establish sustainable commercial partnerships between smallholder oil palm growers and private processors. In total, it will involve some 11,040 growers with a total of 19,700 ha under oil palm production, both in four new hubs where oil palm will be planted for the first time, and in Kalangala, where current production will be consolidated. In each hub, the Project will support the development of the smallholder OP plantations; the establishment or strengthening of organizations of smallholder OP producers and the technical support services they need to produce efficiently; and the construction and maintenance of a road network, and water transport as necessary, to facilitate the delivery of inputs and FFBs; and the investment by the private sector in processing capacity to eventually absorb the production of FFBs from the smallholder OP growers.

Sub-component 1.1. Development of smallholder oil palm plantations

(a) Development of New Hubs

43. Here, the objective will be to enable around 9,230 new smallholder producers in four separate hubs to establish a total of 15 000 ha of oil palm. In the first of the new hubs, on Buvuma Island, about 1,920 smallholder growers will plant 2,500 ha of oil palm. This area, plus the 5,000 ha on the nucleus estate to be developed by the private sector, will result in a total of about 7,500 ha of oil palm on Buvuma. The other three hubs will all be made up exclusively of smallholder plantations. In Mayuge

[9] This component is described in Sections III.B and C

Hub[10], an estimated 2,690 growers will plant a total of 4,600 ha; and in both Masaka/Rakai and the fourth Hub[11] 2,310 growers will plant a total of 3,950 ha (see Table 2 on the following page).

Table 2: OP growers and incremental area to be developed

Hub	Dev. Financing (<2 ha)			Commercial / own financing (>2ha)			Totals	
	OP area	OP growers	Av. OP area / producer (ha)	OP area	OP growers	Av. increm. Area (ha) / HH	Total OP area (dev. and comm.)	Total OP growers
Kalangala Hub	-	***1 810***		-				***1 810***
Buvuma Island Hub	2 500	***1 923***	1.3	-			2 500	***1 923***
Mayuge Hub	3 500	***2 692***	1.3	1 105	538	2.1	4 605	***2 692***
Masaka / Rakai	3 000	***2 308***	1.3	947	462	2.1	3 947	***2 308***
Hub 4	3 000	***2 308***	1.3	947	462	2.1	3 947	***2 308***
TOTAL	12 000	***11 041***		***3 000***	***1 462***		***15 000***	***11 041***

44. Of the total 15,000 ha, an estimated 12,000 ha will be planted on individual smallholder plantations in areas of 2 ha or less, supported by NOPP development loans. In Mayuge, Masaka/Rakai and Hub 4, it is assumed that around 20% of the total 7,300 or so smallholder OP producers in these hubs will have additional land to dedicate to oil palm production, and in total they will plant a further 3,000 ha, which will be financed either from commercial loans which NOPP will assist them to access from interested banks, or from their own resources, with technical support from NOPP.

45. As shown in Table 3 below, the first smallholder development to be supported will be on Buvuma island in 2019/20[12]. This will be followed by the Mayuge hub in 2020/21, the Masaka hub in 2021/22 and a fourth hub in 2023/24. In each of the hubs the smallholder plantations funded by development loans (up to 2 ha per producer) will be rolled out over a maximum of 2 years, in order to ensure the synchronization of the FFBs coming on stream and the establishment of the CPO mill by the private sector partner (there must be guaranteed minimum volume of FFBs to make the establishment of a mill viable, which translates into a minimum of 3,000 ha of plantations). In each of the three hubs where farmers will finance the planting of additional land to oil palm, it is assumed that they will do so on average two years after the initial planting.

[10]This hub might include areas from Bugiri and Namayingo districts, depending on the location of the mill and the availability of land for OP development

[11]The selection of the fourth hub has not yet been definitively made. This may be in Kiriyandongo (where there is an estate of about 300 ha), but only after a thorough assessment of the impact of the recent drought on its suitability for smallholder oil palm development. Alternative locations might include Buikwe or expansions in existing hubs. In case of a new private sector partner, then there will have to be detailed negotiations with the new private sector partner about the roles, responsibilities and investments expected from each of the parties. Any agreement reached will have to include the most important elements of the current agreements, such as the provision of technical assistance by the private sector partner, the implementation of the price formula and service cost panel, and the establishment of technical support services.

[12]While activities by NOPP will start by early 2018, about 15-18 months will be required for the growing of the seedlings, hence the first plantings under NOPP are expected by mid-2019.

Table 3: Roll out of smallholder oil palm planting

	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total
Buvuma		1 250	1 250								2 500
Mayuge- development loans			1 750	1 750							3 500
Mayuge- commercial loans/own-financing					553	552					1 105
Masaka - development loans				1 500	1 500						3 000
Masaka- commercial loans/own-financing						474	473				947
Hub4- development loans						1 500	1 500				3 000
Hub4- commercial loans/own financing								474	474		948
Total	**-**	**1 250**	**3 000**	**3 250**	**2 053**	**2 526**	**1 973**	**474**	**474**	**-**	**15 000**

46. ***The Oil Palm Hub Development Plan*.** In each of the new OP hubs, a Hub Development Plan (HDP) will be compiled by the PMU team before starting to invest. The HDP will be critically important to ensure synchronized, speedy planting within blocks and units. The Plan will also outline the resources needed, specify the tasks required, and identify the persons and institutions responsible for developing the new oil palm hub.

47. The HDP will be built on a number of preparatory activities, assessments and studies, most of which will be conducted by the PMU and Start-up team, while a few will be undertaken by the DLGs or contracted service providers. These will include: (a) environmental and social impact assessments and plans(see below), to be done by specialized service providers; (b) a survey to identify nursery and mill sites and major roads; (c) a survey of farmers willing to cultivate oil palm, including a quick assessment of the farmers' land tenure status, in order to confirm the availability of 3,000 ha of plantable land within a radius of 30km from the mill site; (d) identification, mobilization and registration of oil palm growers; (e) a district-level "Rapid Physical Planning Assessment", to establish existing land use, planned infrastructure development and anticipated future land use needs, including for settlements, which will be undertaken by the DLG specialized department (see under sub component 2.2); (f) a land use plan for plantations, including identification of units and blocks, and roads; and (g) an assessment of existing farmers' organizations and existing technical service providers.

48. ***Environmental and social assessments and plans, and compliance with RSPO.*** Environmental and Social Impact Assessments (ESIA) and related studies will be undertaken, for approval by both the National Environment Management Authority (NEMA) and IFAD. For Buvuma Island, the ESIA has already been completed, approved and disclosed. The private sector partner will carry out an additional High Conservation Value (HCV) assessment for smallholder areas, which will also ensure compliance with the RSPO Principles and Criteria. For the other new hubs, the various environmental and social assessments will be streamlined to the extent possible. The results from these studies will be integrated into a single, user-friendly Environmental and Social Management Plan (ESMP) that conforms to all requirements and addresses the most important risks (see Annex 12, Attachment 2). This simplification of procedures is in line with global initiatives aimed at lowering barriers for smallholder farmers to produce certified commodities. The ESIAs and related studies will be carried out by a consultancy firm registered with NEMA and supervised by the PMU EHS officer. Prior to NOPP inception a Stakeholder Engagement Management Plan will be developed (based on the Stakeholder Engagement Framework in Annex 12, Attachment 5) to: (a) identify key stakeholders; (b) set standard operating procedures for stakeholder consultation and information disclosure; and (c)set up a grievance management system. Further detail on the environmental assessments, monitoring and audits, including RSPO compliance, is in the SECAP Review Note, Annex 12, Attachment 1.

49. ***Mobilization and registration of smallholder oil palm growers***. The PMU and DLG will identify OP growers through a participatory district mobilization process. The first step will be identification of land for oil palm development. Such land should have suitable soils and rainfall; it should exclude rocky areas, hard pans, wetlands, land less than 200m from the lake and on slopes of 20 degrees or more, and other HCV areas; it should not encroach on protected forests or on other people's land; and enough land in relation to family size, composition and needs should be set aside to grow diverse food crops. The Project will encourage all farmers to consider oil palm. The importance of social inclusion (including youth and women), respect for the environment, and the need for OP growers to actively participate in learning a range of new skills and attitudes, will all be part of the initial mobilization process.

50. ***Ensuring the productivity of smallholder OP producers***. After registration, the smallholder growers will receive foundation training by the start-up team's Agronomist/ Extension Specialist, with support from the PMU agronomist. Thereafter, the extension officers will provide refresher training in the field during the period when palm planting and maintenance activities are being carried out.

51. To guide the PMU staff, start-up team, smallholder OP growers and other parties involved on howto carry out field activities and achieve high yields of FFBs and rates of oil extraction at the mill, a set of standard operating procedures (SOP) will be developed. Supported by the PMU agronomist, the extension team will also monitor the effectiveness of the SOP's, and propose improvements to them if necessary. The PMU team will update these SOP's periodically, and disseminate the new information to the producers. Draft SOP's have been included in this document (see Annex 11). Drawing on the SOPs, the PMU team will compile a training manual, which will serve to provide guidance for the extension workers, and ensure that the same consistent message is given out to the growers. This will go hand-in-hand with an oil palm production handbook aimed specifically at the growers, which will be developed by the same team, assisted by a learning specialist. The growers will be given this handbook to refer to, and so it will be written in plain language and be illustrated.

52. ***Environmental Management*.** To address increased pressure on the environment caused by the increased economic activity associated with OP cultivation, the Project will support Environmental Management Campaigns in each hub. The contents and focus of the campaigns will be determined according to the findings of the ESIA and related studies and fulfilling the needs identified in the Environmental and Social Management Plan. Activities may include: (i) reforestation and enrichment planting, (ii) promoting alternative energy technologies for domestic use, such as improved cooking stoves or briquette making, (iii) stakeholder dialogue with sub-county administrations on alternative revenue streams to charcoal, (iv) biodiversity offsetting, (v) demarcation of forest reserves. The activities will in principle be outsourced to service providers and supervised by DLG staff and PMU.

53. ***The start-up team*.** The implementation of all activities related to the development of smallholder plantations will be the responsibility of start-up teams, which will be established in each hub, under the PMU. Their specific role will be to implement the HDP and provide the initial technical services to the smallholder producers. The team will receive technical and administrative support from the PMU line managers, and will engage with DLG to help facilitate the work with farmers and the related daily planning and running of hub activities.

54. The start-up team, to be led by a Plantation Establishment Manager (TOR for its key staff are shown in Annex 5, Attachment 3), will operate from when the hub infrastructure is being established. The team will manage and organise: (a) initial surveys as part of the elaboration of the HDP (see above), (b) the construction of roads, (c) clearing of land, (d) marking out of smallholders' fields, (e) ensuring good agricultural practice in the planting of the oil palm, (f) making sure oil palms and other inputs are delivered on time to farmers' fields, (g) overseeing the synchronised planting of the smallholder plantations, according to the blocks and units; (h) keeping the loan records for each individual farmer; and (i) managing the cash transfers to farmers for maintenance of oil palm fields. Specific technical services the start-up team will provide to the smallholders will include: extension and agronomy services; logistics services; inventory management (for fuel, fertilizers and other inputs); the terracing of plantations; and managing accounts and credit control. Consultancy services may be employed from time to time if required. The team will be physically based in the hub to facilitate good communications with the producers and the private partner and contribute towards a strong partnership. An office and warehouse for storing inputs will be constructed on the site. This will also be a venue for farmers training and other community-related activities, and it will eventually be transferred to the growers' association.

(b) Kalangala Hub Consolidation

55. There are 4,424 ha of established smallholder oil palm plantations on the Bugala and outlying islands, and while an additional 300 ha are still to be planted, this will be carried out during VODP2. Under NOPP therefore, there will be no expansion in the area under OP production in Kalangala. NOPP will continue to provide development loans in Kalangala to those smallholders who will have not reached harvesting stage by VODP2 completion. However the main focus in Kalangala will be to increase the productivity of the current smallholder plantations.

56. Currently, smallholder yields in Kalangala remain below those of the nucleus estate. Growers are not implementing all the required field husbandry and agronomy practices; and there are logistical challenges in terms of both supplying the producers with fertilizers on time, and transporting the FFBs to collection points and on to the mill. To improve smallholder productivity, the extension system needs

to be made more effective and extension officers need to be skilled up and held more accountable to the growers. Productivity increases need to go hand-in-hand with good harvesting practices. In order to better analyse the current situation and draw up a set of recommendations as to how to address the problems identified, an in-depth technical review will be carried out during VODP2, to provide a more detailed basis for an operational work plan under NOPP.

57. There also remain a number of specific environmental management and social risk mitigation issues to resolve in Kalangala, such as farmer encroachment on the buffer zones and lack of financial literacy on appropriate utilisation of income. DLG staff will be supported to carry out environmental monitoring, focusing on forest reserve protection and water quality monitoring, while KOPGT will also be strengthened to better manage these issues. All farmer fields that are in the buffer zones will be mapped and identified, and a crop management system that minimises the use of agrochemicals will be instituted. In addition, to address the key issue of environment, health and safety (EHS) for farmers/workers, activities will focus on: (a) undertaking appropriate environmental activities, as described in the section above for the new hubs; (b) rolling-out of EHS practices to new OP growers joining KOPGT; and (c) Kalangala becoming an EHS Learning Centre for the new hubs as they come on stream.

Sub-Component 1.2.Development of OPG organizations

(a) Technical support services (TSS)

58. ***In the four planned new hubs***, the technical support services for oil palm plantation establishment will be provided initially through the hub start-up team, directly managed by the PMU. The team will oversee all activities related to the planting of the oil palm.

59. Once the establishment of the plantations is completed, the hub start-up team will hand over to a Technical Services Support (TSS) team, whose function will be to ensure the provision to the OP growers of the necessary services throughout the whole management cycle of OP plantations. The size and composition of the TSS teams will be a function of the availability, quality and affordability of private sector OP-related service providers present in the hubs. While it is expected that some members of the start-up team may transition to the TSS team, this will depend on the functional analysis done at that stage. Taking as the starting point the tested model of KOPGT, the idea will be to keep the TSS light in terms of numbers of technical team members and outsource service provision to private providers to the extent possible. Supplementary team members may be added at any stage as and when the need arises. In order to assess the service delivery situation in the new hubs, a survey will be undertaken as part of preparing the HDP (see above). The PMU will oversee the transition process form the start-up team to the TSS team in order to ensure continuity of qualified professional services to the farmers, and the Project will finance the establishment, operation and technical training of the TSS team. Right from the start, mechanisms will be put in place for the eventual full cost recovery for all the direct services provided to the smallholder producers. Robust administrative and IT system will be established, both to facilitate this process and to improve the administration of the services provided to OP growers and ensure timely payments for their FFBs and to independent service providers.

60. ***In Kalangala***, where KOPGT has provided technical services to the OP growers, the challenge is to assist KOPGT to move away from ‘project mode’ and instead to operate as a private sector operator, with a streamlined and potentially reorganized staff structure aimed at containing the fixed overhead cost of service delivery. The main shift is managerial and ‘cultural’ in nature, and is already being introduced in a gradual manner. The move from KOPGT to a Kalangala Hub technical support services entity will be informed by an internal technical and operational review of KOPGT, to be conducted prior to NOPP start-up (see Annex 4, Attachment 1). This will assess the full costs of goods and services it provides, including all indirect costs; and it will benchmark these against reference prices, quality benchmarks, and performance standards. Once this information is available, an action plan for KOPGT’s institutional transformation will be drawn up. The lessons learnt from this transition process in Kalangala, most of which will happen under VODP2, will inform the institutional development processes in the new hubs.

(b) Development of farmer organizations

61. During the planting process in the new hubs, the Project will assist oil palm growers to form hub-level organizations, built upwards from the units and blocks, to form their interface with the technical support services provided by the start-up team. The OP growers will be trained in governance and the roles and responsibilities of the association, and assisted to organise themselves into relevant unit

and block committees and choose their lead farmers. The organizations will be encouraged to start the formalisation of their legal status as soon as possible, and to register, in whatever legal form they will consider as most appropriate. The speed at which this process can take place will vary considerably hub by hub. In Kalangala, KOPGA is ready to register as a cooperative shortly – a process being supported by the Ugandan Cooperative Alliance (UCA); in Mayuge a representative Mayuge District Oil Palm Growers' Association has already been established; while in the other hubs this process will most likely be much slower.

62. As soon as the TSSs are established, NOPP will explore the options for enabling the growers' organizations to play a role in their oversight and to gradually assume their ownership; though this will depend in part on the speed with which the organizations assume a formal legal status. The process for getting the TSS services paid for by the growers will also be a gradual one: based on the experience from Kalangala, it will start with transport services (a service that OP growers in Kalangala already pay KOPGT for) and continue with other services; and as the growers start to generate an income from the oil palm, they will be able to play a greater role in financing the TTSs' operations. Eventually they are expected to become self-financing entities, owned by the smallholder OP growers' organizations. An appropriate governance and legal framework will be established to ensure ownership of the producers' organizations over the TSS teams.

63. Capacity building for the producers' organizations will be conceived as a "rolling" programme. It will be implemented by the Uganda Cooperative Alliance (UCA), depending on its performance in supporting KOPGA under VODP2, or tendered out for competitive bidding. In case of positive performance under VODP2, UCA will be directly contracted by the PMU (subject to appropriate justification – see Annex 8) along with resource persons on specific technical topics (extension, value chain logistics, etc.). Depending on the capacity and maturity levels of existing farmer organizations and private sector OPG-related technical service providers in the new hubs, some or all of a long list of topics (shown in Annex 4) will be addressed. It will include training the organizations' leaders and members on governance and business management; financial management and record keeping; financial sustainability; extension logistics, technical standards and accountability; transport and loading logistics; EHS; and the functioning of the pricing committee and the service cost panel. It will also include facilitating field visits for the organizations to meet other farmer organizations to learn from their institutional structure; supporting the growers' organizations at all stages of the process of registration and the subsequent steps of operationalising their new institutional and governance framework; building the capacity of the units and blocks in participatory planning and M&E; backstopping the organizations to ensure that they are offering efficient and effective services to their members; and facilitating the establishment of an apex federation of organizations in each hub.

64. **Promoting EHS Practices.** OP growers' organizations will have a crucial role to play to ensure the occupational health of farmers and workers. Key EHS aspects will include: use of Personal Protective Equipment (PPE); guidance on land clearing techniques to minimize both the negative impact on the environment and greenhouse gas emissions; use of environmentally-friendly oil palm management practices; safe storage, handling and application of agrochemicals; prevention of soil erosion; buffer zone management; and the non-use of child labour. Each growers' association will assign a focal point for EHS, develop a Code of Conduct, and introduce self-regulation and self-monitoring of EHS practices at the unit and block level, including the development of bylaws and sanctions for non-compliance. This self-regulation approach is complemented by regular audits coordinated by the NOPP EHS officer and including NEMA and external independent experts responding to needs as identified by IFAD and Government. Each newly formed OP growers' organization will visit Kalangala to understand the importance of EHS, familiarize themselves with RSPO-compliant EHS standards, and learn about implementation challenges and how to overcome them. Twice-yearly EHS training days will be organized, and, where needed, more frequent events (such as a "safety Thursday"). Finally, the DLG staff working on environment, natural resources and forestry will also be trained on EHS procedures. All EHS activities will be led by the NOPP EHS officer, in close collaboration with the OPG organization's EHS focal point, relevant DLG staff and the private sector EHS officer for each hub. Together these will form an EHS Practitioners Group and meet regularly.

Sub-component 1.3. Establishment of support infrastructures

65. **Roads**. In the four new hubs, the Project will construct and maintain access and farm roads critical for oil palm development, production and marketing, ensuring the delivery of inputs to the farmers and of FFBs to the mill, as well as the access of the technical service providers to the farms. Based on the experience in Kalangala, it is estimated that for every 100 ha of smallholder oil palm

developed, about 2 km of access and 6 km of farm roads will be built. In the four hubs, therefore, a total of some 300 km of access roads and 910 km of farm roads will be constructed. In Kalangala, there remain about 180 km of roads that are yet to be constructed under VODP2. If they are not completed under VODP2, then assurance will be sought that Government will finance these roads as part of its contribution to NOPP.

66. Drawing on the lessons from Kalangala, access and farm roads will be delineated with participation of farmers and constructed prior to the commencement of OP planting in each unit and block. This approach would avoid future litigation, ensure that farmers do not plant in the areas earmarked for roads, and facilitate the transport of seedlings and fertilizers.

67. Design of the roads will be in accordance with the Ministry of Works and Transport design manuals and specifications. Access roads will be designed and constructed to class III district roads standard, while the farm roads will be narrower, with a carriageway width of 3.5 metres, although otherwise similar to those of the district class III road. During design, due consideration will be given to the fact that the roads should be motorable throughout the year and should offer sufficient stability to enable carrying of heavy loads. The design of roads will be done primarily by the PMU with the assistance of district engineers, with the possibility of contracting consultants in case of constraints in capacity.

68. Construction of access and farm roads will either be contracted out to private sector contractors on the basis of a competitive procurement process; or it will be directly contracted to the private sector partner, Bidco, where appropriately justified (see Annex 8) – according to the local context. Supervision of road construction will be done by the PMU with the assistance of district engineers.

69. Maintenance of farm and access roads will be funded by the Project prior to the start of the OP harvesting phase, after which the farmers will be fully responsible for maintenance of farm roads. They will receive the necessary training and advice from the districts, supported by the PMU, on how best to manage their roads. Districts are expected to take over the maintenance of those roads classified as community access roads. Road maintenance will include both; (i) routine maintenance, which needs to be done twice a year; and (ii) periodic maintenance, which should be done every 3-4 years depending on the intensity of rainfall, terrain and traffic volume.

70. **Fertilizer stores and hub office buildings**. In each hub the Project will finance the provision of fertilizer storage capacity of approximately 15,000 ton (as in Kalangala), constructed either as a single store or a series of smaller ones located to minimise transportation of fertilizers over long distances, plus an office building for the start-up team and the TSS provider. Construction of the stores and buildings will be contracted out.

71. **Water transport**. The required new ferries and landing sites for Buvuma, and the outlying islands of Kalangala, will be funded under the IFAD loan for VODP2, subject to the expenditures being fully incurred prior to December 2018. In the event that it will not be possible to make these expenditures prior to the completion of VODP2, then Government will finance the provision of water transport services as indicated in the NOPP budget.

Sub-Component 1.4. Private sector-led infrastructure development.

72. On Buvuma Island, Bidco will establish a nucleus estate for oil palm production of approximately 5,000 ha plantable area and construct the estate road network. The cost of this investment, which constitutes an integral part of the Project, has been included in the detailed cost tables, with financing from the private sector partner. Since the acquisition of the land will be finalised prior to Project start-up, this cost – met wholly by Government – has not been included in the detailed cost tables.

73. In all of the new hubs, the private sector partner will also finance the establishment of a nursery, to supply the smallholder growers with OP seedlings; as well as a CPO mill to process the FFBs supplied by the smallholder OP growers. The mill will be established once 3,000 ha of smallholder oil palm have been planted; the milling capacity will be assumed to expand as the area under cultivation further increases.

Component 2. Livelihoods diversification and resilience

74. Oil palm investment has been shown to have positive outcomes not only for smallholder OP growers and their families, but for the entire community where oil palm development takes place. On the other hand, some risks have been identified in terms of both the inability of some local households to take full advantage of the economic opportunities emerging from oil palm development, and the

possible emergence of social problems, at both household and community levels. The component aims to maximize the positive impacts of the Project in the oil palm growers' communities, by promoting sustainable and inclusive livelihoods opportunities – both agricultural and non-agricultural – for oil palm and non-oil palm growers; while also mitigating the potential social and land tenure related risks. Activities will be implemented at both household and community levels, and they will specifically target women, youth and poorer households, using gender and age sensitive approaches. In addition, the project will incorporate activities that will take advantage of the focus on these target groups as well as of the expected increases in income, diversification of production and livelihood opportunities. This integrated approach will contribute to improved nutrition, therefore further enhancing resilience, future earnings of individuals, and overall economic and social development.[13]Implementation will be linked to the roll-out of the Project in the different hubs.

Sub-Component 2.1. Alternative economic opportunities

75. Sub-component 2.1 will seek to ensure that all community members are able to capture the range of economic opportunities arising from the income stream generated in the local economy by the oil palm investment. It will support improved food and agricultural production, and entrepreneurship and self-employment; and as a linked initiative, it will promote the development of community-level rural financial institutions. The specific opportunities will be identified, evaluated in terms of their feasibility, viability and inclusiveness, and validated using a participatory approach. The sub-component is targeted primarily at those households within the OP growing communities that do not directly benefit from the oil palm investment and that have the potential to take advantage of the emerging economic opportunities: an estimated 75% of these households (19,300) in the five hubs (the four new ones, plus Kalangala) will participate in at least one of the activities offered. However, the activities will also be open to OP growers too, and an estimated 40% of them (4,400) will participate in at least one of the activities, resulting in a total of 23,700 households. To ensure a synergy between the different activities, those under this sub-component are scheduled to start up two years after the farmer mobilisation process under Component 1 and a year after the planting of the oil palm.

Table 4: Target population for Sub-component 2.1

	Sub-component 2.1 Alternative Economic Opportunities											
	Improved Food Production Techniques			Entrepreneurship and Self-Employment			VSLAs			Total HHs Component 2.1		
Hub	OPGs	Non-OP growers	***Total # HHs***	OPGs	Non-OPGs	***Total # HHs***	OPGs	Non-OPGs	***Total # HHs***	OPGs	Non-OPGs	***Total # HHs***
Kalangala	362	1 689	2 051	181	1 689	1 870	543	1 689	2 232	724	3 168	3 892
Buvuma Island	385	1 795	2 179	192	1 795	1 987	577	1 795	2 372	769	3 365	4 135
Mayuge Hub	538	2 513	3 051	269	2 513	2 782	808	2 513	3 321	1 077	4 712	5 788
Masaka / Rakai	462	2 154	2 615	231	2 154	2 385	692	2 154	2 846	923	4 038	4 962
Hub 4	462	2 154	2 615	231	2 154	2 385	692	2 154	2 846	923	4 038	4 962
TOTAL	2 208	10 305	12 513	1 104	10 305	11 409	3 312	10 305	13 617	4 416	19 321	23 738

(a) Intensification of agricultural/food production

76. To increase their assets and incomes, support will be provided to non-OP and OP growers to enable them to enhance the productivity, sustainability and diversity of their crop and livestock enterprises; apply climate-smart agriculture practices adapted to the specific land access conditions; strengthen their linkages to local markets for their products; and ultimately increase the profitability of their enterprises as well as improve resilience and reduce risks through diversification. Specific activities will include the following.

[13] A nutrition lens has been applied during project design, especially for Component 2 Behaviour change communication / nutrition education (information) activities directed at project households and communities take place as part of Component 2, in order to ensure that increased incomes and the variety of foods that are available are actually consumed, resulting in better diets. The project will integrate nutrition information and behaviour change activities in Household Methodology activities, in coordination with the Ministry of Health.

77. ***Provision of quality extension services.*** The Project will leverage on the available resources and skills of OPG TSS in tandem with available LG agricultural extension services. It will offer: (i) trainings to extension workers in agricultural innovations, climate-smart agricultural practices and their dissemination through participation in training sessions and exchange visits; training of extension workers in FFS methodology; identification and training community-based facilitators who will be the real FFS facilitators. This training will be offered by private service providers to be procured by the PMU; (ii) access to agriculture information for extension workers through leveraging on the available ICT and partnering with mobile platforms to provide access to information to local farmers. The PMU agriculture/extension officer will take the lead in developing these partnerships .

78. ***Farmer-led trial plots*** will be established to enhance farmers' agricultural skill development, using the Farmer Field Schools (FFS) approach on community groups of 25/30 participants centred around priority agricultural enterprises of their choice. Attention will be put in ensuring that the trials support a reasonable, if not complete, food basket and not just focus on income from production. Community-based facilitators will be identified and trained to guide the FFS groups.[14]. Training will last 2 weeks, involving also the oil palm hub extension officers and the local government extension workers. One farmer-led trial plot per FFS per annum will be established for season-long learning and dissemination activities; one lead farmer per FFS, selected by the FFS group, will be trained (in Year 1 and refreshed in Years 4 and 7; and exchange visits and monthly follow-up and activity planning meetings conducted with Hub and Local Government Extension workers. Establishment farmer-led trial plots in each FFS will be facilitated by the sub-country agricultural extension officer.

79. ***Access to quality and improved agricultural inputs*** for short season field/horticultural crops and small livestock production by: (i) organization of specialized local seed producer groups for improved drought tolerant (OPV) varieties (by sub-county extension staff), including the development of community seed banks for bulking and conservation of more resilient varieties; (ii) support to village agricultural input shops by providing technical support to the interested beneficiaries in starting an input shop; and (iii) organization of fairs & business linkages events where producers and inputs suppliers can meet and negotiate, with facilitation from the PMU agriculture/extension officer.

80. Overall responsibility for these activities will lie with the Agriculture Officer, under the supervision of the Operations Manager in the PMU. Implementation will be supported through LG extension services, which will be strengthened/equipped for that purpose. In each District covered by NOPP, the District Agricultural Officer (DAO) supported by extension staff based at sub-county level, will supervise and monitor the activities of FFS facilitators, in liaison with the hub start-up teams, under the overall oversight of the PMU.

(b) Promotion of self-employment and small-scale entrepreneurship

81. The Project will provide support to both OP growers and non-OP growers to identify and develop micro and small rural enterprises in the OPG hubs. Particular focus will be put on supporting women and youth, with targets of 50% participation rates for both groups. Specifically, the two sets of activities will aim to facilitate the establishment, and the financing, of local business opportunities. They will include the following.

(i) ***Establishing business incubation services***:

- **Scoping and validation of business opportunities,** considering criteria of viability, feasibility, inclusiveness and desirability. This activity will involve the organization of workshops, and engaging stakeholders and representatives from public and private sectors, including civil society, with the aim of identifying the specific opportunities to be promoted. Possible opportunities might include micro laundry services, retail marketing of personal goods and hygiene items, sales of improved cooking stoves, and groundnuts processing and marketing
- **Prototyping of business opportunities**. Selected opportunities will be assessed for their viability, and simple business models and their financing plans developed, involving sector experts. Many of the micro- and small business opportunities will have been identified by the beneficiaries themselves; however for those that may be new to the area or that require

[14] Besides playing a key role in leading the FFS groups, these lead farmers will act as the first point of contact for any behaviour change communication activities (see below under comp. 2.2). Having members from within the community and who have progressively enhanced their livelihoods through the project act as triggers for change will make a great impact.

specialised technical or managerial skills requirement, NOPP will pitch solutions to potential entrepreneurs and provide technical support and business modelling.

- **Trainings in business skills development,** including training for trainers to deliver the skills modules; and training of beneficiaries in entrepreneurial mind-set creation, business modelling, business planning, management, basic numeracy and accounting, and basic financial literacy.
- **Individual and group mentorship sessions** by local entrepreneurs engaged in successful livelihood activities, as mentors to support the new livelihoods interventions.

(ii) Improved access to financial services:

- **Promotion of Village Savings and Loans Association (VSLA)**. Community based trainers (CBTs) will be selected and trained to promote, guide and monitor at least 6 VSLAs per year, specifically reaching out to women and youth. The VSLAs themselves will be provided with tool kits. The CBTs, who will be given bicycles to visit the VSLAs and receive monthly facilitation for three years, will promote VSLAs in the first two years, monitor their performance and, after the first two cycles, assist them to open savings accounts.
- **Reducing Rural Financial Institutions' (RFIs) risks** to lend to the target group. Activities will include: (i) assessing the presence, capacity, geographical reach and services offered by different types of RFIs in the hubs and demand/supply constraints; (ii) partnering with selected RFIs to fill the demand-supply gap; and (iii) supporting the establishment of an OP growers' SACCO in each hub.[15]

82. Overall responsibility for these activities will lie with the Institutions, Enterprise and Finance Officer in the PMU. Implementation will be by specialised business development services providers, to be recruited in each hub by the PMU in consultation with the relevant DLGs. Organizations will be invited to bid individually or as part of a consortium of financial and non-financial business development service providers, and their contracts will be performance-based and renewable.

Sub-Component 2.2. Mitigation of Social Risks

83. Rapid economic development in rural areas where poverty is widespread can lead to a variety of social risks. These can include increased intra-household tensions and vulnerabilities, increases in high-risk sexual behaviour, pressure on the traditional land tenure systems and a range of manifestations of social fragmentation. For this reason, the Project integrates a set of measures to mitigate the potential social risks that may arise. Sub-component 2.2 thus combines two sets of activities that will complement the economic livelihood activities. A first set focuses on household- and community-level sensitisation and empowerment; while a second set will aim to improve the land access and tenure security of different land users from the communities where oil palm investment takes place. Overall responsibility for managing and supervising these activities, and for ensuring that they are implemented hand-in-hand with the other Project activities, will lie with the Social Development Officer of the PMU, supported by relevant short-term expertise. Specific interventions are as follows:

(a) <u>Household- and community-level sensitisation and empowerment</u>

84. ***Household Mentoring.*** Barriers limiting households´ economic development in NOPP target areas include the limited participation of women in decision-making at household level; unequal access and control of productive assets, opportunities and benefits; increased exposure to HIV; and the potential for malnutrition among certain household members. These risks not only increase household tensions and vulnerability, but can also hinder the possibility of households exploring their full socio-economic potential and compromise the long-term sustainability of the benefits generated by the Project. Household mentoring can respond directly to these challenges[16]: the methodology facilitates participatory livelihoods planning through a joint self-assessment by household members of the challenges they face and an identification of the actions they would like to integrate into their lives and embed them in their "household vision" and plan. Under NOPP, the methodology is specifically

[15]The support may be provided in partnership with PROFIRA, in the event that SACCOs falling under direct PROFIRA support are selected as partners under NOPP.
[16] This methodology was successfully tested under the IFAD-financed District Livelihood Support Project (DLSP), and is currently being scaled up to other areas of the country under the IFAD-funded Project for Livelihoods Restoration vc he Northern Region (PRELNOR) .

expected to help households address issues around HIV/AIDS and nutrition; better distribute tasks among household members; better manage higher and regular incomes and make decisions more equitably on using the incomes earned; improve household relations, overall wellbeing and self-confidence; and ultimately increase household income. The involvement of parents and their sons and daughters in the process will also help to create economic opportunities for youth These outcomes will make a real contribution to the success of Components 1 and 2.1.

85. The households will be selected from those targeted by the Project (Components 1 and 2.1), as well as those of the nucleus estate workers in Kalangala and Buvuma, through a participatory assessment of the social risks they face conducted by sub-county officials, local leadership and mentors. The Project will target approximately 8,100 households, through either a full Household Mentoring cycle of 24 months, or a shorter, 12-month version, depending on circumstances of the individual households. In addition, to leverage its impact, the intervention will target community leaders, and it will also work with oil palm producing households at the oil palm unit level, where collaboration between households will generate benefits for all members. Households that "graduate" from the Household Mentoring will be encouraged to assist other households in their communities, assuming a role similar to that of the Community Mentors; this responds to the transformative power of the methodology, where those reached become eager to share their experience with others.

86. Implementation of Household Mentoring will be the responsibility of Community Development Officers at Sub-County level. Implementation arrangements will involve coordination between relevant Sub-County Community Development Officers and Community Mentors, who will all be trained on Household Mentoring methodology. The mentors will receive a monthly 'fee', plus a bicycle and basic working materials. The Community Development Officers will provide on-going support and oversight to the Mentors to ensure particularly that they respect the facilitative nature of the mentoring process. Each mentor will work with 10 households, and each Community Development Officer will supervise 10 Community Mentors.

87. ***Supplementary activities at community level*.** NOPP will support additional district level efforts in the areas of HIV/AIDS, gender equality and nutrition efforts to complement the Household Mentoring approach, with the activities aimed at supporting on-going efforts in expanding information, awareness and behaviour change promotion in each of the three areas. The specific activities to be promoted in both areas will be selected in line with the challenges and priorities identified by Sub-County Community Development Officers with the support of the NOPP PMU. They will be carefully coordinated with other stakeholders to ensure that they complement and reinforce each other. In addition, NOPP will promote sports and cultural activities, as identified by local community members (male and female). This is an intervention which is aimed at: (a) instilling healthy lifestyles among the youth, (b) offering female youth an opportunity to participate in these types of activities, and (c) creating an entry point for discussing and identifying livelihood opportunities for both male and female youth in rural communities.

(b) Improved land access and tenure security

88. ***Participatory land use planning*** will be used to identify and accommodate different land uses in oil palm growing communities. It will involve building consensus and agreement in communities on different land use needs, including the conversion of land to OP production; taking into consideration the rights of existing owners and users to decide on the use of their lands but also recognizing that their use can impact on the livelihoods of others. Sensitization on the need to accommodate different land uses will involve local government, community leaders, farmers and other community members. Women, youth and other vulnerable groups will be actively targeted to contribute.

89. The geographical focus of the land use planning exercises will be the areas in the 30km radius around the CPO mills, though the possible impacts of other existing and planned land uses in a wider area will also be considered. The exercises are not expected to cover whole Districts and may cut across more than one District, depending on the location of the mill and OP growing areas. The starting point will be a light "Rapid Physical Planning Assessment", which will input into the HDP and provide a framework for oil palm growing development in a District and the integration of this into Sub-County- and District-level plans.

90. The land use planning exercise will take as its starting point the mapping and surveying of OP land identified by smallholders under Component 1, which will provide the basis for planning the units and blocks. Following this, the road network requirements will be planned and mapped. The assessment will also consider land for food / agricultural production, and identify any land likely to be

lost (and the losers of that land) as it is converted to OP production. Fish landing sites, market and settlement centres will also be identified, as will development plans for public facilities such as schools and health centres and infrastructure for electrification. District and Sub-County by-laws for regulating future land use will be prepared; and financing plans will also be developed, which could be independently supported. Once approved by the community, draft plans will be submitted to Sub-County and then District Planning committees, who will approve them and then monitor their implementation and enforcement. Responsibility for the Rapid Physical Planning Assessments and the land use plans will lie with the District Physical Planning Departments (PPDs), working in collaboration with the MHLUD PPD, the hub start-up teams, para-legal Land Centres (see below), NGOs, OP producers' organizations and others, and supported by the PMU. Funds will be transferred from the PMU to MLHUD to support the processes mentioned above, including the recruitment of relevant service providers.

91. The Rapid Physical Planning Assessments and the surveying, mapping and assessment of land pledged by farmers are expected to be completed in Buvuma under VODP 2. The further elaboration of the land use plans is expected to continue and to include Kalangala after NOPP start-up. These land use plans are expected to be finalized by the end of 2019, and land use planning for other new hubs will be phased in as part of the hub development planning process.

92. ***Capacity building on mitigation measures for land acquisition***. The land acquisition for the nucleus estate, buffer zone and infrastructure at Buvuma is expected to be completed under VODP2. No similar land acquisitions for the establishment of nucleus estates will be supported under NOPP. Under VODP2 a review was conducted in 2017 of the land acquisition processes at Kalangala and Buvuma, Under NOPP, information will continue to be collected on the post-payment livelihood decisions made by the compensated households in Buvuma, both for monitoring purposes and to assist the targeting of the potential beneficiaries under the alternative livelihoods activities. In addition, training will be provided for Project implementers, other government agencies, NGO service providers and community leaders on procedures for land acquisition and compensation for oil palm growing. Finally, to strengthen the PMU's capacity and oversight of land acquisition and compensation processes, the implementation of mitigation plans and management of a Geographic Information System (GIS), technical assistance will be recruited on a retainer contract.

93. ***Land tenure security measures*** will be supported for all people in OP growing communities. This set of activities, which will be financed through the IFAD grant, will include: (i) civic education and public sensitization provided to communities involved in or affected by oil palm growing, to identify opportunities for strengthening tenure security – particular emphasis will be given to securing the rights and access for women, youth and vulnerable groups; (ii) local land dispute resolution and legal advice in preparing wills and in facilitating land transactions; and (iii) support for land registration: advising on appropriate options, and linkages with district and zonal land offices of the MLHUD will be facilitated. For all registration options, the recognition of co-spousal ownership will be actively encouraged, in line with the requirements of the law.

94. Activities will be implemented through "Land Information and Resource Centres" – para-legal advice centres focused on land tenure security. They will be registered as Community Based Organizations and typically located close to the district administrative offices. The Centres will work closely with District Lands Offices, District Land Boards and Area Land Committees. The Land Centres will be established and managed by a competitively selected service provider, who will train paralegals, District land administration institutions and others, in civic education, dispute resolution and land registration requirements, etc. They will be supported for five years under NOPP; after which, if considered sufficiently useful, they maybe taken up by the District government and MLHUD, as already done elsewhere in the country. Three centres will initially be established at Kalangala, Buvumaand Mayuge, financed by the IFAD grant. The establishment of similar centres in the other hubs will depend on the mobilization of additional resources by the Government or other partners.

95. In addition, support will be provided to District land administration institutions to enable them to more effectively play their role in strengthening tenure security. The support provided by NOPP for tenure security measures will be harmonized with that provided by MLHUD. This is expected to include support from the MLHUD zonal offices covering NOPP areas of intervention. A memorandum of understanding between the NOPP PMU and MLHUD will be signed during NOPP start up.[17]

[17] This MoU will also cover the collaboration with MLHUD for physical planning.

Component 3. Oil Palm Sector Development Framework

96. Uganda's ASSP 2015-20 identifies oil palm as one of four strategic commodities that are expected to contribute to wealth creation and employment in the country, and it highlights a series of public investment priorities in support of the oil palm sector, as well as the intention to develop a *"sector policy to guide consolidation and expansion in the country".* Component 3 is focused on assisting GoU to establish the enabling conditions for the sustainable scaling-up and long-term development of the oil palm sector, during and beyond the lifetime of NOPP. It will draw on the experience gained under VODP2; and it will build on the outputs generated under Components 1 and 2 of NOPP. There will be two sub-components: Policy and institutional support for national OP sector development; and Strengthening of national capacity for OP research.

Sub-component 3.1. Policy and institutional support for national oil palm sector development

97. The output of Sub-Component 3.1 is the establishment of an enabling policy, legal, strategic and institutional framework for the inclusive and sustainable development of the oil palm sector. Responding to MAAIF's intention to develop a sector policy, the Project will support a nationally-owned process to develop a set of enabling policies for oil palm sector development; it will also assist GoU to establish the long-term institutional arrangements required for promoting and regulating the sector,; and it will leverage commercial financing to the oil palm sector. Responsibility for implementing most of Sub-Component 3.1 would lie with MAAIF, though it may delegate the day-to-day tasks, and the broader facilitation of the process, to the PMU. The sub-component will comprise two sets of activities.

(a) Policies for oil palm development

98. ***Development of policy, bill and strategy framework.*** The Project will support the development of a national policy that will promote the sustainable and equitable development of, and regulate, the sector. The process will be led by MAAIF/PMU. It will involve the recruitment of a consultancy services for the day-to-day responsibility for the process; and the establishment of a Task Force, or Technical Working Group, with members drawn from the different stakeholders in the sector, to provide guidance and steerage to the process. The eventual policy will draw strongly on evidence, and to make this possible the Task Force will commission a series of relevant background studies and assessments. Drawing on the experience of other agricultural policy development processes in Uganda, extensive consultations will be required, at both national and local levels. Participants would be drawn from the many relevant ministries and agencies of GoU; as well as from development partners, private sector actors along the oil palm value chain, OP producers and their organizations, NGOs and other service providers. A team of selected officers will travel to different countries to understudy the policies in place for oil palm development (Ghana, Ivory Coast, Malaysia, etc.).

99. Following the drafting of the policy, a linked investment strategy and costed implementation plan to operationalise the policy will also be prepared. Its purpose will be to provide clarity and guidance as to how GoU, initially supported by NOPP, can provide financial and technical support for oil palm development in response to requests for support from investors, processors and producers. The framework would thus define the criteria – agro-climatic, agronomic, economic, social and environmental; as well as a clear process and procedures, that could be applied in assessing potential NOPP investments.

100. Approval of the policy and strategy will require the conducting of a Regulatory Impact Assessment (RIA) and the submission of these documents to MAAIF's Top Policy Management for approval, and then to MoFPED in order to obtain a Certification of Financial Implication (CFI). Once issued, a complete package of documents, plus a Cabinet Memo, will be submitted to the Cabinet Secretariat for its approval, prior to final consideration and approval by Cabinet. Following approval of the policy and strategy, they will be officially launched – with an explicit intention of using the launch as an opportunity to stimulate private sector and smallholder interest in investing in the sector. Drawing on the experience of the National Sugar Policy, following Cabinet approval of the policy, it is anticipated that ***a Bill*** to provide the legal basis for the regulatory dimensions of the policy will also be required.

101. NOPP will provide support to the entire process for developing, advocating and promulgating the policy, the bill and the investment plan. It will finance all required expenditures associated with the process: at this stage this is expected to constitute consultancies, stakeholder consultations and communications, as well as targeted learning visits for policy makers and parliamentarians to major oil palm producing countries in West Africa and/or South East Asia.

102. ***Strategic Environmental Assessment.*** An important dimension of the overall sector policy framework will be the development of a Strategic Environmental Assessment (SEA). An SEA is a policy instrument to reach an informed consensus on broad environmental issues related to a (sub-) sector, as opposed to the ESIA which looks in detail at the impacts of a proposed programme at a specific location. The SEA will be carried out at the start of NOPP, and will seek to answer questions related to cumulative impact of upscaling palm oil development in the country. Issues to be addressed in this exercise include (i) a country-wide agro-ecological suitability assessment and zoning exercise; (ii) exploring environmentally sustainable target levels of palm oil production at country level; (iii) establishing environmental guidance for the entire oil palm cycle including grower and site identification, planning, development and operations; (iv) providing guidance with regards to the interpretation of RSPO principles and criteria with regards to national policies and procedures; (iv) outlining strategies to conserve areas of High Conservation Value (HCV) and High Carbon Stock (HCS); and (vi) identifying weaknesses and gaps in current government legislation, strategies and implementation capacity. The SEA will inform the sector policy development process, guide NOPP's capacity building efforts, and reduce the workload for and improve the quality of each subsequent ESIA. IFAD will be closely involved in the development of this SEA, through joint development of TORs and review of deliverables.

(b) Institutional arrangements for oil palm sector

103. ***National institutional arrangements.*** The policy is also expected to propose an institutional mechanism to provide a national framework for the development, regulation and administration of oil-palm sector-related matters, beyond the implementation period of NOPP. Its precise form will depend on the decisions made in the course of the policy design process.

104. Given the relatively limited scale of, and potential for, oil palm production in Uganda (relative to e.g. coffee or sugar), only light governance arrangements would be required. A **Uganda Oil Palm Growers' Trust (UOPGT)** is proposed, to mediate the provision of financing to all oil palm growers in the country and provide broad guidance to the development of the sector.

105. Following the restructuring of KOPGT, the Trust will start anew as an entity with national coverage under NOPP. It will retain only its loan administration function, continuing to mediate the provision of financing to all OP growers in the country, using NOPP funding (and repayment flows from loans issued under VODP/VODP2) for investing in smallholder OP developments. In addition, it will: (a) safe-keep farmer loan repayments for GoU; (b) hold a 10% share of OPUL and other private sector partners; and (c) sit on the national pricing committee and national service cost panel. Depending on the national level vision for the future institutional and policy configuration of the sector, it may also take on other strategic tasks.

106. At the hub level, UOPGT will ensure the delivery and management of development loans to OP growers through contract arrangements with local service providers (TSS, financial institutions, OP miller, etc.) on payment of a commission. These service providers will: (a) appraise the loan applications of locally registered farmers for establishment of OP plantations; (b) manage loans to farmers and loan recovery; and (c) receive payments by the millers on behalf of growers, deduct OPGs' loan repayments and make payments to their accounts (this function is to be transferred to farmer organizations over time).

107. In addition, NOPP will support the establishment of an **oil palm stakeholder platform**. ASSP proposes to establish and support at least ten commodity platforms to provide fora for sharing information and discussion among stakeholders to identify and address challenges along the value chain of the specific commodities. Building on the multi-stakeholder consultations associated with the policy development process, NOPP would support the transformation of the policy consultation forum into such a platform. This platform, which would take into account the lessons learned under the Oilseed Subsector Platform (OSSUP) supported under VODP2, would meet regularly to discuss problems and constraints facing the industry and propose the necessary policy responses. The Project would support the facilitation of meetings of the Platform and the associated follow-up, through the Technical Secretariat; and would finance the conducting of studies or policy analysis for which a need is identified.

108. Participation in the policy development process, and the subsequent stakeholder platform, would be broad, involving relevant agencies of Government, the private sector processing sector, smallholder oil palm growers and their representatives, banks/financial institutions and other service providers, NGOs and the development partners.

109. ***Engagement of financial institutions.*** NOPP will continue the development financing arrangement that has worked well under VODP/VODP2, to provide medium- and long-term loans for the input and cash requirements of the smallholder OP growers, and up to a maximum planted area of 2 ha per smallholder producer. In addition, however, as a key step towards establishing a sustainable approach to financing OP development, the Project will seek to bring financing from financial institutions to the sector. Such commercial funds would be targeted, at least initially, at those smallholder producers who wish to plant more than 2 ha to oil palm.

110. A number of commercial banks in Kampala have indicated their potential interest in lending to the sector and some are currently already financing farmers in Kalangala who have reached the commercial phase. However, while they recognise that oil palm is a low risk agricultural enterprise, they do not yet know enough about the OP enterprise model, the likely risks and the transaction costs they would face; and they currently have no tailored financial products adapted to the sector. Under NOPP, the PMU will work with large financial institutions in order to stimulate their entry into the OP sector, as suppliers first and foremost of long-term credit for OP establishment; though they would also be encouraged to think of OP growers as a growing market segment for other banking services. Efforts would aim at informing the banks about the sector – its production cycle, the marketing arrangements, its requirements in terms of investment and working capital etc.; confirming its viability for smallholder growers and thus for lenders to the sector; identifying potential risks; and assisting interested banks to develop lending products specifically targeted to the unique characteristics of the sector.

111. The activities under NOPP will likely evolve in response to the issues raised by the financial institutions. However, they are likely to include: (a) regular dialogue with these institutions, to understand better their interests and concerns with regard to the OP sector; explain the main characteristics and features of the sector; and provoke their interest in investment; (b) on the basis of that dialogue, the conduct of a preliminary banking business case study, to identify and assess the key technical, organizational and financial features of the OP sector and respond to the banks' major concerns; (c) support for field visits, to enable interested representatives of the banks to visit Kalangala, see the impact of oil palm production on the local economy, and talk to the key players involved in the value chain; (d) The conduct of targeted studies for individual banks that are interested in committing to the sector, to develop specific banking products and delivery/repayment methodologies; (e) the provision of limited operational support to any banks that commit to start lending operations in any of the Project hubs; and (f) dissemination and marketing seminars/workshops in the hubs where banks have expressed interest to work, and product review workshops with farmers. These activities would be managed by the Institutions, Enterprise and Finance Officer in the PMU.

Sub-Component 3.2. Strengthening of national capacity for oil palm research

112. Oil palm is still a new crop in Uganda, although since its introduction a considerable knowledge has been gained. The PMU, KOPGT, NARO and OPUL have all gained knowledge of key aspects of the sector through their hands-on experience in oil palm research, establishment, production, harvesting and processing, as well as their collaboration between each other and knowledge sharing with regional and international oil palm organizations. Management of accumulated knowledge and learning however has been very limited. Under NOPP, there will be a concerted effort to develop the oil palm knowledge base, as is the case for other crops such as coffee and sugar. Uganda's unique conditions for OP production (high altitude, lower temperature) gives this particular importance. NOPP will support this process of building an institutional knowledge base through support for: (a) knowledge management; (b) priority research activities relative to oil palm production, and (c) training and capacity building.

113. The Project will support strengthening of **knowledge management** through improved documentation, production, dissemination and use of knowledge products. NOPP will also facilitate identification of knowledge gaps and development of strategies and mechanisms for filling these gaps, including through participation of oil palm sector stakeholders and organizations in knowledge networks and study tours for technical knowledge sharing. The main product will be the production of an oil palm growers' guide for Uganda, to be prepared by the PMU. As new information is gathered, the guide will be updated. An online version will also be made available. Consideration will be given to creating a Mobile Phone Application that could be used to disseminate information to the growers.

114. **Oil palm research.** Leveraging the capacity of the oil palm research team in NARO, research work will be scaled up. The research focus under NOPP will be on: (a) pests and diseases

surveillance and their control methods, with emphasis on integrated pest management systems; (b) development of best agronomic practices for optimal use of fertilizers; (c) roll out of agronomic practices aimed at yield increases on smallholder farms on Kalangala to other smallholder areas; (d) review of yield and growth, including evaluation of the time from pollination to ripeness maturity and maturity to fruit rotting, to inform optimum harvesting conditions; (e) multi-locational provenance trials, with planting material from West Africa and South-East Asia to identify those most suitable for Uganda conditions; and (f) linking up with other oil palm research centres in Africa and Southeast Asia for training and acquisition of planting material for breeding trials.

115. Oil palm research trials have already been carried out in at least 10 sites. NOPP will support NARO to improve the accuracy and reliability of data captured from these trials; to equip all trials sites with automated weather stations; and to more frequently monitor the trials. In addition, the areas covered by research trials will be expanded and include other potential areas like West Nile. Trial plots will establish the growth characteristics of the oil palm and confirm that it can be successfully grown under such environment, given the less-than-ideal conditions for oil palm growth recently observed in the drought situation. Water retention techniques and other cultural practices will be observed, including water harvesting, land preparation to break subsoil, use of drought tolerant planting materials from West Africa, use of water absorbent gels during planting to prolong use of water by the plants, and use of potassium fertiliser formulations to help water retention and resilience during extreme stress situations.

116. Finally, it is important to note that oil palm research is currently under the Research Programme for horticulture and other crops. Given the importance of the crop, a dedicated research and development programme within NARO will be established and supported under NOPP.

117. **Training and capacity development**. The issue of training – for researchers, field staff, farmers and lecturers/students in secondary and tertiary levels of education – is central to the development of a national capacity to develop the oil pam sector; and it will need to be reflected in the national policy and investment strategy. As part of this agenda, a costed, long term research and training plan will be developed by NARO aimed to train researchers and extension workers in key disciplines: oil palm agronomy, physiology, protection (entomology and pathology), to build local knowledge about oil palm. This could eventually be financed with Project resources, or as part of a national strategy for oil palm development. Researchers will benefit from visits to regional and international public and private oil research institutions for learning and use of research facilities as required. NARO is strongly encouraged to engage with the Malaysian Palm Oil Board, where staff can be trained, and to participate in conferences, where staff can gain knowledge and exposure to the oil palm industry.

118. Oil Palm farming will continue to be new until a generation of famers have passed through its entire cultivation cycle. The Extension Officers in the Hub start-up teams/ TSSs will be key to knowledge dissemination and they will be trained on oil palm agronomy by the private sector partner, and visit other oil palm producing areas in West Africa and Asia to enhance their knowledge and build their capacity.

119. Overall responsibility for this sub-component will lie with the Operations Manager of the PMU, while day-to-day responsibility will rest with NARO, which will direct the research programme. NARO will also work closely alongside the private partner. It will be the responsibility of the PMU Agronomist to gather and collate the research findings from NARO, and working with the M&E and Learning Manager and his/her team, document and disseminate the findings to the extension workers and smallholder farmers, through periodic training and updating of the SOPs.

E. Lessons learned and adherence to IFAD policies

120. **Lessons learned.** First and foremost the Project design is guided by, and draws on, the lessons learned under VODP and VODP2, including:

(i) ***Building a solid and credible public-private-producer partnership (4P).*** VODP was the first major agricultural 4P in Uganda and one of the first for IFAD too. It built an innovative partnership between the private sector, local and national government and farmer organizations. Under the arrangement GoU made available land and provided fiscal incentives to leverage the initial investment from the private sector; the competitively selected private investor then developed a nucleus estate and processing capacity, and provided access to seedlings, agricultural inputs and a transparent and reliable market to smallholder OP growers. Through the project GoU improved critical infrastructure and provided the growers with financial, technical and organizational support; this enabled them

to plant a new industrial crop up to the same standards as the nucleus estate, assured them of a market for their produce, and allowed them to become suppliers to the CPO mill – and genuine and full participants in the 4P. This 4P arrangement lies at the heart of the NOPP approach, both with the current private investor and, it is expected, others.

(ii) ***Building trust***. 4Ps of the type established in Kalangala are primarily built on trust. Transparent land purchases ('willing buyer, willing seller basis') for the nucleus estate and tenants/landlord relationship brokering for smallholder oil palm growers were the starting point. Clearly defined roles and responsibilities, articulated in written agreements, as well as transparent and formal mechanisms for shared governance and decision-making, have also been essential. A key factor has been the transparent pricing formula that tags the price of FFBs paid to farmers to the average CPO price in Malaysia, adjusted to factor in import transport costs. A similar mechanism has been established to determine the charges to farmers for seedlings and fertilizers. This commitment to transparency will be pursued under NOPP. Effective communication to OP producers, right from the start, will be critical, to ensure that they understand the principles behind the partnership, as well as their rights and responsibilities.

(iii) ***Long-term commitment***. Time has been a critical element in building the 4Ps, as inclusive business models require consensus building and alignment of different interests, often under less than favourable policy environments and with slow decision-making in the public sector. Time was required for farmers' acceptance of new technologies and, more generally, for a shift in mindset from subsistence to commercial, business-oriented farming. Knowledge building took time, not only for farmers but also for the private sector, Government and IFAD. Finally, time was needed for social acceptance by the local communities, to allow for an informed and consensual process of land purchase and identification of the beneficiaries. NOPP will be able to draw on and capitalise the gains from this long-term effort.

(iv) ***IFAD's role as trusted broker.*** IFAD's role as a neutral broker has been critical in building the trust among the different partners (GoU, private sector and farmers), by facilitating negotiations to resolve disagreements, helping to address the challenges arising and ensuring transparency. This has required considerable flexibility to changing circumstances in order to accompany such a complex development with a wide range of interests to be mediated and aligned. IFAD was called to provide a steady commitment to support the other partners facing challenges and maintain commitment. This it will continue to do under NOPP.

(v) ***Organization of smallholder OP growers.*** For growers to work well with each other, and to develop constructive and effective relationships with both the local technical support service providers and the private sector partner, they need to have strong representative organizations at the block, unit and hub levels, with effective governance and channels for selecting qualified individuals to represent them. Smallholder OP growers are willing to take on responsibilities for quality control and provision of some services – something that needs to be built upon going forward; strong organization can support this process. NOPP will pursue this approach to OP growers' organization.

(vi) ***Institutional framework for governance and sustainability of oil palm investment.*** A strong sense of ownership by the farmers of the oil palm business and the institutions that govern it has been key to turn them into actual partners rather than beneficiaries, thus ensuring their long-term commitment. On the other hand, the provision of efficient and effective services to the OP growers is essential to guarantee the profitability of their enterprises. This requires a business-driven institution with appropriate professional and technical capacity, run by professional managers. The right balance needs to be attained between ensuring a sense of ownership by the OP growers and an appropriate business-oriented operating model. Achieving this will be a key challenge for NOPP.

(vii) ***Planting of oil palm***. In Kalangala, farmers are organized within units and the units are organized in blocks, but each farmer operates individually. When farmers were initially mobilized, they planted oil palm seedlings in very small areas over 3-4 years on their plot. A key lesson learnt is about the need to complete the planting of contiguous areas at once so that the crop ripened together to reach large enough volumes to keep harvesting and transport costs down. The most recent oil palm development on the outlying islands in Kalangala has successfully tested this approach with labour groups planting individual

farmer blocks all at once, so the Project will scale-up simultaneous planting in large blocks by smallholders for all future development.

(viii) ***Technical support for oil palm production.*** Through the Kalangala experience, much has been learned about oil palm planting and maintenance technologies, and smallholder growers have shown themselves well able to adopt these and achieve yields comparable with those of the nucleus estate. However, new OP growers need intensive technical support for planting and maintaining their seedlings; and close collaboration needs to be promoted with the private sector partner for transfer of knowledge to OP growers. Growers also need to be trained from the start to consider OP growing as a commercial business – something that can facilitate a gradual evolution to technical service provision at cost, critical for increased efficiency and sustainability. Financial literacy training is critical here. These lessons are reflected in the NOPP design.

(ix) ***Risks***. The study in Kalangala conducted by the Institute of Development Studies of the University of Sussex raised some potential risks, in terms of food security, the pressure on the traditional land tenure systems, and the overall exposure of farmers to production risks. Other risks are those of increased inequality and associated social issues, including the potential spread of HIV/AIDS. In order to promote broad-based growth in the OP growing communities, as well and to mitigate the risks that can emerge at both household and community levels, there is need to provide economic and social support to other community members beyond the OP growers. Particular efforts need to be made to promote the inclusion of youth and women in these activities. Component 2 of the Project is specifically designed to address these issues.

(x) ***Environmental and social issues.*** OP development attracts much interest as well as concerns – some of this justified, given its poor record on environmental and social sustainability in other parts of the world. Ensuring that OP development in Uganda conforms to the highest international standards of environmental sustainability and social responsibility – and that smallholder OP growers understand and buy into these issues – is critical; and widely communicating the approaches used and the results achieved is crucial for reassuring stakeholders as to their concerns. The NOPP design explicitly builds on these principles.

121. In addition, a broader set of lessons have been learned from the specific experience accumulated through IFAD interventions in Uganda, and these too have been taken into account in the NOPP design. These include the following:

(i) ***A conducive policy framework*** is essential for the success of a project. The risk of changes in policy during implementation needs to be factored into project design and appropriate risk management measures identified. Yet conversely, the project implementation experience can generate important lessons that, if backed up by knowledge-based information, can offer valuable lessons to government that it can use to establish or strengthen the policy framework for the sector in question. Systematic data collection exercises and vigorous data analysis is a prerequisite for this to be a possibility.

(ii) ***There is need to concentrate limited resources***, if significant impact is to be created. Spreading limited resources thinly across wide areas limits impact and is also a burden for coordination. Projects should, to the extent possible, invest in contiguous geographical areas and focus on a few strategic interventions in order to maximize impact and avoid spreading financial resources too thinly. This can pose a political challenge, which needs to be carefully managed. However, effectiveness of implementation is largely dependent on how streamlined the design objectives and components are.

(iii) ***Linking farmers to markets*** either through contractual arrangements or/and improved infrastructure, is a catalyst both to increased and profitable agricultural production, and to smallholder producers considering 'farming as a business'. The private sector has shown that it is willing to engage in equitable partnerships with smallholders, as long as it is assured of a stable supply of high quality produce. The government's role here is critical in ensuring the pivotal effect of public funds to foster a commercial win-win relationship between smallholders and the private sector – and avoiding the free hand-outs that rural populations often expect from projects, which can undermine project sustainability.

(iv) ***Economic logic of the project area*****.** In promoting projects that seek to engage smallholder producers in value chains or improve their access to markets, it is essential to ensure that the

resources for public economic investment respond to the economic conditions and opportunities. Investment must be driven by market opportunities, rather than administrative boundaries.

(v) ***Support to commodity platforms*** offers opportunities for valuable networking but sustaining platforms is challenging. Commodity platforms offer opportunities for coordination and networking across value chains, and enable different players to interact and better understand and value the role played by others along the chain. It is also an approach promoted by MAAIF under ASSP. It is one that will be supported under NOPP.

(vi) ***The need to employ specialised approaches for effective social inclusion*** is critical for reaching the poor. While many projects work with farmers' groups, it is realised that many extremely poor farmers do not participate in such groups. The Household Mentoring" approach adopted under DLSP has proved to be a valuable tool for promoting inclusion of very poor households, such as female-headed, HIV/AIDS affected, and those with many dependents and limited resources for agricultural production; the approach strengthens the capacity of households to self-assess their constraints and plan and manage their livelihoods.

(vii) **A clear communication strategy** is essential at all stages of a project, at start-up to manage expectations, build ownership of local stakeholders and buy-in political support; during implementation for proactive sharing of information and exchange with local stakeholders and policy makers; and towards project closure, with particular focus on exit strategies and sustainability. Proactively sharing the approaches and methods used, and the benefits realised, is also important for preventing uninformed criticisms of the project.

122. **Compliance with IFAD policies.** NOPP addresses each of the three Uganda COSOP strategic objectives, while targeting sustainable development of the palm oil sector and its spill-over in rural communities, including: (i) the production, productivity and climate resilience of smallholder agriculture are sustainably increased; (ii) the integration of smallholders into the markets enhanced; and (iii) the access to and use of financial services by the rural population promoted. The Project complies with relevant IFAD policies on targeting, gender, youth, environment and climate change, private sector development and rural finance, and it will collaborate with on-going projects (PROFIRA). Further details are provided in Annex 12.

123. As confirmed in a 2017 IFAD-supported review (see Annex 3, Attachment 1), the land acquisition process on Buvuma (the only hub where a nucleus estate is to be established) and Kalangala that was undertaken by Government complied well with IFAD's social, environmental and climate assessment procedures (see the SECAP Review Note in Annex 12, Attachment 1). Land was acquired on a '*willing buyer'* and '*willing seller'* basis. **Free, Prior and Informed Consent** (FPIC) was achieved through: (i) initial sensitization of the local population, (ii) valuation of willing sellers, and (iii) disclosure of values prior to final agreements being signed. A grievance mechanism was put in place and monitoring has been carried out by both OPUL and IFAD consultants. Additional measures introduced by the VODP PMU included the provision of compensation for licensees, extra disturbance allowances for both tenants and licensees. There has also been proactive responsiveness as issues arose: tenants were paid separately to landowners to ensure they received their monies, gender sensitivity was included to ensure spouses opened joint bank accounts as joint signatories and banks provided additional sensitisation on money management.

124. Looking forward, under Sub-component 2.2 (b), information will continue to be collected on the post-payment livelihood decisions made by the compensated households in Buvuma, and training will be provided for Project implementers, other government agencies, NGO service providers and community leaders on procedures for land acquisition and compensation for oil palm growing. In addition, prior to Project start-up. In addition, a Stakeholder Engagement Management Plan will be developed, on the basis of the already-drafted Stakeholder Engagement Framework (Annex 12, Attachment 5).

125. Furthermore, a series of assessments – ESIAs, HCV, HCS and GHG – have all been mainstreamed into the hub planning process; an Environmental and Social Management System has been integrated into the design, in a way that places emphasis on the smallholders' adoption of good practices in EHS (Annex 12, Attachment 6); and a Strategic Environmental Assessment will be carried out under the Projectto answer questions related to cumulative impact of upscaling oil palm development in the country and to provide guidance to the Government and private sector on sustainable oil palm development in the Ugandan context.

III. Project implementation

A. Approach

126. The Kalangala investment has demonstrated that oil palm can be grown in areas of Uganda where conditions are suitable, and that smallholders are viable and credible partners. The model of nucleus estate and smallholder development has provided for knowledge transfer and confirmed the viability of domestic production and value addition, as well as the benefits that oil palm production can bring to rural communities. Drawing on the lessons learned there, the implementation approach pursued by this 10-yearProject will be characterised by a number of key features.

127. **Scaling-up oil palm based on smallholder OP growers.** As obtaining large areas of land for nucleus estates is extremely time-consuming, costly and difficult, under NOPP no new large-scale acquisition of land for estate production of OP is foreseen. A private-sector driven approach will continue to be pursued however, based on mobilising smallholder producers to grow the crop while the role of private sector investment will be to supply inputs (seedlings and fertilizer) and construct and operate CPO mills in line with international best environmental and social practices. Thus, while replicating in Buvuma island the successful processor-nucleus estate-smallholder model of Kalangala, NOPP will represent a key step in a long-term process and commitment towards a model based on smallholder production. Specifically, it will increase the proportion of the total OP area in Uganda under smallholder production from the current 40% to around 70%.

128. **Hubs and phasing.** NOPP support for smallholder OP production will take place in 'hubs', defined in terms of agro-ecological and environmental suitability and commercial viability. Each hub will constitute a minimum production area of 3,000 ha within a 30 km radius of a CPO mill site. The location of three hubs has already been defined, while that of the fourth will be decided upon during implementation. It will be important to ensure that as soon as production of FFBs comes on stream there is a CPO mill to supply (and conversely, for the private sector partner, ensuring that there is adequate supply to justify the substantial investment of the CPO mill). Therefore, synchronizing the establishment of the mill with the planting of the oil palm will be critical. In all hubs, the aim will be to ensure that a minimum of 3,000 ha are planted within a 2–year period. The experience of labour groups to ensure the rapid planting of contiguous blocks will be used in NOPP.

129. **Empowerment of OP growers and transformation of oil palm support institutions.** Under the programmatic approach to be promoted under NOPP, a series of current project-specific institutional arrangements need to be modified. First, in Kalangala, the Project will support the transformation of KOPGT into two separate entities – a national-level institution (proposed to be the Uganda Oil Palm Growers Trust – UOPGT), the role of which will be limited to mediating the provision of development loans to smallholder OP growers; and a hub-level technical support services body, the ownership of which will eventually pass over to KOPGA, with its members fully covering the TSS costs. At the same time, NOPP will continue the work of VODP2 to support the institutional strengthening of the KOPGA, to enable it to take on this ownership role, and yet also effectively manage it as a business-driven institution with appropriate professional and technical capacity, run by professional managers. Second, in all new hubs, the Project will: (a) establish light, independent hub-level technical support service bodies, so that farmer mobilisation can be started quickly; (b) strengthen the organization of smallholder OP growers and assist them to register their organization, to which the technical support service bodies will respond, and which they could possibly eventually own and oversee; and (c) ensure the delivery of development loans to the smallholder OP growers from UOPGT, through local hub-specific windows that it will establish.

130. **Promoting commercial financing of oil palm development.** The current smallholder OP establishment has been financed through the development financing arrangement implemented under VODP and VODP2. Under NOPP, this arrangement will continue: the Project will finance the establishment of OP on the fields of smallholder farmers up to a maximum area of 2 ha. However, in order to promote the sustainable scaling up of OP development in Uganda, NOPP will build on VODP2's early efforts to engage financial institutions in the sector in Kalangala, in particular to finance working capital for farmers who have reached the commercial phase and have thus been weaned off the development loan scheme. The aim is to attract commercial financing for the establishment of OP on the fields of smallholder farmers with land beyond the 2 ha supported by NOPP. A number of banks have already indicated their interest in exploring opportunities to lend to smallholder OP growers; NOPP will work closely with the banks, and will assist them both to fully assess the risks of providing seasonal and term loans, and develop and operationalise targeted lending products.

131. **Social inclusion** will be a foremost concern in the implementation of all Project interventions, and a series of measure will ensure that resources will reach poor and economically active but highly vulnerable households. The Project will offer support beyond what is a relatively limited number of smallholder OP growers to spread the economic benefits of oil palm production to a broader group within the local communities – and build their resilience to external shocks. This will enable the Project to respond to the potential social risks – both at household and community levels – that are often associated with the rapid growth of a local rural economy. Particular efforts will be made to ensure that women and youth are able to participate in the various activities of the Project. For this purpose, NOPP will adopt tested approaches like the household mentoring methodology, to reach individual households and their members – particularly women and youth, who may be excluded from the OP development

132. **Environmental and social sustainability**. In a sector where, globally, there have been major and justified concerns about environmental sustainability, the use of most advanced environmental and social standards at all levels of this long-cycle value chain is critical. Bidco, the private sector partner, is committed to the environmental and social principles of Round-table on Sustainable Palm Oil (RSPO) and will be implementing these in all future investments; while the Project implementation approach fully incorporates global best practice with regard to such standards. Sustainability thus represents an agenda fully shared by Bidco, Government and IFAD (as well as, with time, the smallholder OP growers themselves); and it is explicitly incorporated into the Project design.

133. **Integration of national policies and development strategies**. NOPP responds to, and is supportive of, several important dimensions of national policy - and in particular the objectives of the National Agricultural Policy and ASSP. At the same time, as a national project, NOPP will represent the vehicle for facilitating the further development of an enabling policy and institutional framework to promote and regulate the oil palm sector. It will draw on the lessons learned under VODP; the momentum that it has been able to create in the oil palm sector; as well as the reputation it has acquired as a broker of partnerships between the key players in the sector, to support GoU's objective of developing a national policy. The process to be supported will be closely linked to the activities supported under Components 1 and 2. It will not only draw on their experience, but it will also build the policy and institutional framework for both implementing the other Project activities, and establishing the conditions for further public and private investment in the sector.

B. Organizational framework

134. The VODP2 experience shows the importance of striking the right balance between direct implementation by Project management and outsourcing implementation to independent agencies or private service providers. Particular lessons learned were that: (a) the PMU proved to be too small to handle the multiple tasks required; (b) the expectation that other projects/programmes and agencies would be available and willing to implement various components proved unfounded; and (c) although contracting private agencies to implement certain activities proved to be costly and added another layer that sometimes made problem-solving more difficult, it made it possible to hold the contractors accountable and terminate the contracts as needed. As a consequence, NOPP is designed on one hand with a strengthened management and coordination function, and on the other to allow for delivery of services by competent providers on a competitive basis, while giving Project management clear and primary responsibility for implementation. The programme will also provide for overall oversight and coordination through mechanisms that involve agencies directly concerned with project implementation as well as consultation with complementary projects/programmes.

135. ***Project oversight.*** The Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) will be the lead implementing agency for NOPP; MAAIF will chair the Project Steering Committee and house the Project Management Unit. It will work closely with other line ministries and Government agencies as needed to ensure smooth and effective Project implementation. It will also convene a broad range of stakeholders, both from Government and beyond it with an interest in the oil palm sector, to participate in the process of designing and putting in place a national policy framework for oil palm development. It will also establish the institutional framework to govern and promote investment in the sector as derived from the policy.

136. At the district level, all Project activities will be overseen by the relevant District Local Governments. The DLGs will ensure that NOPP activities are coordinated with those of the district; and will take responsibility either for implementing (or supporting the implementation of) specific and defined NOPP activities.

137. ***Project Steering Committee (PSC).*** A Project Steering Committee (PSC) will provide overall guidance on Project activities and ensure coordination between different government agencies. It will be established and chaired by MAAIF. The PSC will be responsible for providing strategic guidance to Project implementation, overseeing Project planning, reviewing the Annual Work Plan and Budgets (AWPB) prior to submission to the Fund, and reviewing implementation progress and impact. It will also provide high level advice and address key issues raised by Project management on which it requires guidance. The PSC will also work in close collaboration with the Policy Task Force (see Component 3) to ensure appropriate and timely coordination with other initiatives to strengthen the oil palm sector. The PSC shall meet two times in a year and on an ad-hoc basis as and when necessary.

138. The PSC membership will include representatives from public sector agencies and organisations that are actively engaged in the development of the oil palm sector (MAAIF, MoFPED, NARO, NEMA, Ministry of Trade, Industry and Cooperatives (MTIC); Ministry of Works, MLHUD/ULC, UNRA, Ministry of Local Government, Ministry of Justice, Ministry of Gender, Labour and Social Development (MGLSD); as well as representatives of the future UOPGT and OP grower organisations. PMU will act as secretariat of the PSC. In addition, IFAD, as the lead funding agency, will be invited to attend as observer, as needed.

139. While the PSC will be principally an inter-ministerial body, the Project will establish other mechanisms to ensure collaboration and policy dialogue with the private sector, farmers' organizations and other interested stakeholders. In particular, the oil palm stakeholder platform (Sub-component 3.1) that is expected to grow out of the policy consultations will provide a forum for broader consultation and policy dialogue among the different stakeholders in the sector.

140. ***The Project Management Unit (PMU).*** MAAIF will establish a PMU to manage the Project, directly implementing some sub-components, and contracting implementation of others. The PMU will also be responsible for financial management, procurement, monitoring and evaluation, and knowledge management. The PMU will be located in an office in Kampala, which will be provided with the necessary equipment (information technology equipment and furniture) and logistical support to enable the officers to effectively undertake their respective duties.

141. The PMU's principal roles and responsibilities will be to: (a) manage the Project activities so as to ensure the achievement of outcomes and development objective; (b) liaise with and coordinate the line ministries and other agencies, as well as the private sector partners, working with the Project to ensure smooth implementation; (c) prepare consolidated annual workplans and budgets (AWP/Bs) for the Project and submit them to MAAIF and IFAD for comments and approval and subsequently ensure and coordinate their implementation; (d) procure goods and contract service providers in a timely fashion as required for effective Project implementation, and in accordance with GoU and IFAD procedures; (e) put in place, manage, supervise and monitor performance-based contracts with service providers as required for the different activities; (f) manage the IFAD loan and grant funds in accordance with IFAD's General Conditions, disburse and control the flow of funds for various contractual and partnership agreements, and ensure timely submission of justifying documentation for the smooth flow of funds; (g) ensure effective gender, youth and poverty targeting and support and monitor targeting effectiveness; (h) monitor and evaluate physical and financial progress, and develop an efficient knowledge management and Project communication system with all involved partners; and (i) submit Project implementation progress and financial reports to IFAD and GoU in a timely manner.

142. While the PMU will take over responsibilities for oil palm development from the already-existing PMU for VODP2, NOPP represents a considerably larger and potentially more complex intervention, and there is need to strengthen the current PMU in order to enable it to offer technical leadership in the areas covered by the Project and effectively manage implementation. With an expanded staffing profile, a new organizational structure is needed. Under NOPP four units or divisions will be established, each headed by divisional managers, for Operations, for M&E and Learning, for Finance and Administration and for Procurement and Disposal. Under this new arrangement, the Project Manager will have only four direct reports. This will lighten his/her day-to-day management responsibilities, and enable him/her to dedicate more time to the critical representative role required under a Project of this sort.

143. The following staff will report to the Operations Manager: (a) an Oil Palm Agronomist, (b) an Environment, Health and Safety Officer; (c) a Project Engineer; (d) a Social and Enterprise Development Officer; (e) a Participatory Planning and Mobilization Officer; and (f) a Credit and Farmer Institutions Development Officer. The M&E and Learning Manager will manage: (a) a KM and Communication Officer; (b) an M&E Officer; and (c) an M&E Assistant. The Finance Manager will

manage: (a) an Accountant; (b) an Assistant Accountant; (c) an Office Administrator; and (d) a Procurement Officer (reporting independently directly to the Project Director). Draft terms of reference for all the management/professional positions are provided in Annex 5, Attachment 2.

144. In each new hub, a Hub Start-up team will be established, reporting initially to the PMU. Each one will be headed by the Plantation Establishment Manager, and will comprise a Roads, Terracing and Infrastructure Officer; a Planter; a Lining Gang; an Agronomist/extension specialist; Extension Officers; Logistics and Inventory Specialist; an Accountant; and a Credit Officer.

145. NOPP has a thematic scope and institutional and implementation arrangements that differ from those of VODP; and as such it is not appropriate for the current staff of the VODP2 PMU to be automatically reconfirmed under NOPP. At the same time, NOPP can definitely benefit from some of the capacity and expertise built under VODP2. For this reason, a rapid and transparent process for identifying suitable candidates for the NOPP PMU will be used, following the positive similar experience of other IFAD-financed projects in Uganda, such as RFSP and PROFIRA. The current VODP2 staff will be free to apply to the new posts (professional and support) under NOPP and, subject to them having the required qualifications and experience, they will be interviewed by a panel set up by Government in consultation with IFAD and proposed for appointment as appropriate. In the event that no suitable internal candidates can be identified for a PMU post, the post will be publicly advertised and a competitive selection process will be followed, with interviews by the same panel above. The process should start early 2018 to ensure a smooth transition between VODP2 and NOPP, with all staff confirmation, recruitment and contract renewal subject to prior approval by IFAD. The positions of EHS Officer and Social Development Officer (Sociologist), which are already needed under VODP2, will be recruited as soon as possible under VODP2 and carried forward in NOPP.

146. ***Implementation responsibilities*.** While the PMU will be responsible for guiding and managing Project activities, implementation on the ground will be the responsibility of different institutions. These will include: (a) the NOPP-specific hub start-up teams; (b) local government – the District Local Government Authorities (DLGAs); (c) the private sector – both the private sector partner(s) and financial institutions; (d) the OP producers' organizations; and (e) contracted service providers (private companies, NGOs) and individual consultants.

147. The Project design exercise has confirmed the availability and competence of agencies that could be recruited as service providers to effectively and efficiently implement the Project activities, particularly those under Sub-component 1.2 and Component 2. To guarantee proper performance monitoring and reduce the risk of non-delivery of the desired results by the selected organizations, service providers' contracts will be bound to a detailed delivery schedule comprising of output and outcome indicators, annual budgets, work plans, Project management guidelines, procedures and operating practices for Project execution, that will be developed in the contract design phase together with monitoring and reporting tools to be used.

148. NOPP implementation readiness will be enhanced by the elaboration under VODP2 of a series of operating procedures that will build on those of VODP2. The VODP2 PMU will contract capacity to support them in drafting: (a) a Project operations, financial and human resource management manual; (b) up-date of the current oil palm guidelines to reflect the rollout and oil palm hub strategy of NOPP and the business approach of the Project for promoting oil development; (c) criteria for the selection of oil palm growers and households to benefit from alternative livelihoods activities; (d) the framework for the HDP, drawing on the matrix in Annex 11;and (e) the various SOPs required, drawing on those defined in Annex 11.

C. Planning, M&E, learning and knowledge management[18]

149. The M&E and Learning Team of the PMU will have responsibility for the preparation of the annual work plan and budget, progress monitoring, M&E, reporting, knowledge management and communication. To implement this range of activities, the existing VODP2 M&E team will be strengthened, to comprise an M&E & Learning Manager, who will be supported by a Knowledge Management (KM) and Communication Officer, an additional M&E Officer for the national office in Kampala, and one M&E assistant for each oil palm development hub.

[18] See further details in Annex 6:Planning, M&E and learning and knowledge management

150. **Planning**. Planning and budgeting under NOPP will be integrated into the GoU performance-based budgeting process, while simultaneously responding to IFAD's requirements; and it will be based on Annual Work Plans and Budgets (AWPBs) that will form the backbone of Project planning. These, together with the Logframe's quantified results-based indicators and NOPP MIS input/output database, will be the primary basis for monitoring the Project's progress.

151. The PMU will have overall responsibility for the AWPB process. The process will be one that offers the opportunity for flexibility in the management of the Project so as to better achieve its outcomes. The AWPB process will offer the opportunity for Programme Manager and the PMU team to reflect on the lessons from the implementation experience of the previous years; in the light of this, propose the activities and associated expenditures required to achieve the intended project outcomes; and structure the AWPB accordingly. The NOPP AWPB itself will be based on the annual implementation plans for the different sections of the PMU

152. **Results-based Monitoring & Evaluation**. The M&E system for the Project will be based on the Logical Framework and will be in full compliance with IFADs Results and Impact Management System (RIMS). The existing VODP2 M&E system will be strengthened to respond to the expanded requirements of NOPP, and to consolidate results and lessons in a centralized system. This will be designed to allow for interlinkages with the MAAIF M&E system.

153. The M&E system will serve to enable the PMU to monitor its physical and financial performance and to adjust its strategy accordingly, particularly through the AWPB process. All data related to participation of the target group will be disaggregated by gender and age (youth versus non-youth); and thus a very specific purpose will be to monitor the Project targeting strategy, and fine tune this as necessary. The system will be designed to allow its evolution into the M&E system for the entire Ugandan oil palm sector, including both public and private sector, and incorporating land use, environmental, social (including EHS) and other relevant issues.

154. The M&E system will also include a consolidated management information system (MIS) for the OP sector as a whole, which will be designed to be capable of providing a reliable and complete set of data that supports sectoral planning and assessment of the impacts of sector investments. This will be based on an aggregation of data that starts at the level of the individual OP producer. Building on the already existing farmer information system, the intention will be to have the capacity to map, and to track the production and performance of, every producer.

155. The system will operationalise an efficient MIS for the collection, analysis and retrieval of both Project-related technical and implementation information and OP sector-related data. The presentation of data will be web-based, with a dashboard that presents the Project achievements and sector progress, while also feeding the internal and external Project communication activities. Thus much of the data will be available to any interested party, in Uganda and outside. Where possible, a mixed methods approach to M&E will be adopted, which will draw on and combine quantitative and qualitative methodologies that offer the scope for active participation by all stakeholders.

156. Major building blocks of the M&E system will include: (a) Project implementation monitoring, through quarterly (for GoU), bi-annual and annual progress reports, which will present the Project's physical and financial achievements structured by components and sub-components and highlight key implementation issues;(b) a Mid-Term Review (MTR), conducted towards the end of the Project's fifth year, to review progress and performance, identify bottlenecks and issues, and recommend possible adjustments to the content, targeting and financing of the Project components; (c) a Project completion report, to review implementation performance; (d) outcome assessments, conducted every two years; and (e) impact evaluation, reflected in baseline, mid-term and final impact assessments.

157. To conduct the full range of M&E activities envisaged, provision will be made for the recruitment of a consultant at Project start-up to assist with re-designing the M&E framework and strategy, designing the baseline survey and developing methodologies for monitoring oil palm yields and farm practices. Provision is made for conducting the baseline survey for each hub, as well as those at mid-term and completion; for the outcome assessments; and for thematic studies, on specific topics to be defined during the course of implementation.

158. **Knowledge management** (KM). The KM function in the Project will draw heavily on the data, information and analysis generated by the M&E function, and it will in turn serve a number of key purposes; among them: (a) bringing operational experience to national policy processes; (b) analysing implementation experience and lessons learned, to inform the PMU and enable it to make strategic and operational decisions based on evidence; and (c) documenting best practice and Project

successes, to communicate to different sorts of Project stakeholders (from farmers at one extreme, to advocacy NGOs at the other) using a range of different media.

159. The tools used will be appropriate to the purpose: 'policy briefs' or 'learning notes', documenting best practices, lessons learnt and failures, will be used for policy dialogue and sharing with stakeholders and other projects/programmes. A regular short NOPP e-newsletter to Project stakeholders will be developed to share experience and highlight new learning notes. The NOPP 4P will allow for upgrading technical and operational knowledge and practices on smallholder oil palm development in Uganda, and for building appropriate technical expertise in this area at all levels. NOPP will also identify knowledge gaps and development of strategies and mechanisms for filling these gaps, including through participation of oil palm sector stakeholders and organisations in knowledge networks and study tours for technical knowledge sharing.

160. **Communication**. The need for an effective communication strategy, and function, is paramount under this Project. NOPP involves working with many different stakeholders, including OP growers, non-OP growing households in OP growing communities, the larger OP growing communities, the private sector partners, local government, contracted service providers, national government agencies, etc., at different levels from villages to ministries. This requires that NOPP reaches out to all of them, informs and engages them, and ensures their interest and commitment to the Project's success. The experience of VODP suggests that NOPP is likely to attract public interest, scrutiny and potential suspicion. Globally, oil palm development has been heavily criticised for the unsustainable environmental practices and flaunting of communities' land rights, in some cases with justification; while in Uganda, some media reports and activists have attempted to discredit VODP by claiming that it has been responsible for deforestation, land-grabbing and pollution of Lake Victoria.NOPP's response has both to ensure that its environmental and social practices are beyond reproach; and to communicate these, as well as the real benefits of oil palm development in Uganda, to interested parties.

161. As part of the process of designing NOPP, a communication strategy has been drafted. Its main objective is to address this challenge and to: (a) proactively engage and build awareness of NOPP among audiences; (b) demonstrate that oil palm investment is transforming the life of the smallholder farmers and their communities; (c) change the behavior and perceptions of some donor communities operating in Uganda and some NGOs and activists; (d) ensure the oil palm growers and non-growers understand what the Project is doing in their communities and their respective role; and (e) identify key audiences and create targeted messages accordingly.

162. The audiences will be segmented so the NOPP messages can be more effectively tailored. Primary audiences will include: the beneficiaries and the local communities; GOU (Office of the Prime Minister, MoFPED, MAAIF, MLHUD, Ministry of Foreign Affairs, District Local Governments, etc.) and Parliamentarians; the principal development partners operating in Uganda; NGOs and civil society organizations (CSOs); the media; and financial institutions/banks. A number of key communications messages have already been identified; these will be developed further and incorporated into NOPP daily activities in order to enable the partners and key NOPP staff to be effective communicators for NOPP. Communication channels will be tailored to the different audiences to be reached and the specific purpose; they will include: media (newspapers, magazines, television and radio etc.); press releases; the web; video, photos, social media; storytelling; rural radio; and posters and drama.

163. Once the communications strategy has been finalized and approved within the PMU, the Communication Officer will share the document internally so that staff is conversant with the content. For implementation each PMU staff should be aware of their own communications responsibilities and specific lines of communication as established.

D. Financial management, procurement and governance

164. ***Inherent and project level risks assessment.*** Uganda's inherent risk is high as measured by Transparency International's Corruption Perceptions Index (CPI).The 2016 Index for Uganda score rating was 25 (High Risk), and Uganda's ranking was 151stout of 176 countries, down from 139thout of 168 in 2015. In the World Bank's Ease of Doing Business 2016 Report, the ranking of Uganda (out of 190 countries) improved from 135 in 2015 to 115 in 2016.IFAD's rural sector performance score for Uganda is also a high risk (3). At project level, a Financial Management Risk Assessment (FMRA) undertaken following IFAD guidelines shows a high risk. Appropriate mitigation measures have been designed such as supplementing the Government Integrated Financial Management System (IFMS) with dedicated off the shelf accounting software, technical services to support the young OP Growers'

Organisation at hub level, profiling of IFMS at project level to be a disbursement condition among others. Once the above measures are implemented, the rating will immediately drop to a medium risk. The medium target of the project is to have a low risk rating as is for VODP2. Details are presented in Annex7.

165. ***Implementing institutions and participating organisations with fiduciary responsibilities***. The Lead Project Agency will be the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) through a dedicated Project Management Unit (PMU). Other key cost centres will include: (i) farmer organisations at each hub,; (ii) participating districts (mainly for component 2); and (iii) Uganda Oil Palm Growers Trust (UOPGT). The PMU will be the accounts consolidation centre, receiving financial returns from these various cost centres. As such, the PMU will be responsible for (i) Budget consolidation ensuring a bottom-up approach and timely submissions for inclusions in GoU overall approved budget estimates, (ii) Procurement planning, execution and support service, (iii) disbursement of funds through IFMS, (iv) management of withdrawal applications, (v) consolidation of financial reports and facilitation of project level audits, (vi) submission of requests for No Objection to IFAD.

166. ***Staffing.*** The PMU will be staffed with a Finance Manager, an Accountant and an assistant accountant. The Farmer organisations at each hub will be staffed with an accountant and credit officer. At each participating district there will be a designated Project accountant.

167. ***Budgeting.*** NOPP budget will (as required by the Public Finance Act) be part of the GoU overall national budget estimates each year and will be subject to parliamentary approvals/ appropriations. The GoU planning calendar requires the elaboration of the budget by August of the previous year (10 months before implementation).

168. ***Funds flow in the context of Treasury Single Account system.*** The GoU, under a proposed Treasury Single Account (TSA), has been negotiating with development partners, including IFAD, to replace project-specific bank accounts for loan or grant funds with one holding account for all loans or grant funds from each partner. Funds for multiple projects/programmes will flow through TSA, as an intermediary, rather than a transaction account. During the design and loan negotiations for PRELNOR, IFAD agreed to pilot this arrangement. However, almost two years after entry into force of PRELNOR, the TSA arrangement has not yet been implemented, although steps to make the installations are under way.

169. The TSA has several positive features to enable better management of fiscal resources by the GoU, but also there are some fiduciary risks and adjustments needed at project level. These are discussed in Annex 7.The key safeguard is the ability of IFMS to earmark/ encumber funds; and it is thus able to protect project funds even when comingled with other GoU funds in the Uganda Consolidated Fund (UCF). At loan negotiations, IFAD will obtain key assurance from GoU to mitigate these risks, failing which conventional NOPP-specific designated and operational bank accounts will be opened in Bank of Uganda. Growers' organizations (being private sector entities) at each hub will have to operate through NOPP specific bank accounts in acceptable commercial banks.

170. The PMU will be delegated full authority to effect payments, in line with the arrangements in force for the other IFAD-financed projects in Uganda. This will shorten the payment processing cycle and reduce payments' time with respect to the experience of VODP2, thus ultimately improving disbursements.

171. ***Internal controls.*** The anticipated factors that will contribute to increased internal control risk are:(i) the increased number of oil palm hubs;(ii) the nature of the loans to farmers, that is, in-kind deliveries of inputs plus cash advances for farm maintenance, all to be systematically debited to farmer loan accounts; (iii) the difficulty of having a fixed farmer loan amortisation schedule because loan repayments are based on a FFB yields and (iv) US dollar hedged prices among others**.** The proposed measures to enhance the control environment at hub level are:(i) separation of the credit unit from financial management; (ii) setting up accounting systems on accrual basis; (iii) use of computerised inventory tools such as delivery notes and store issue vouchers; (iv) replicating banking arrangements as developed under KOPGT; and (v) having activity tagged advances from PMU to the hubs.

172. ***Accounting Systems, Policies and Procedures***. These will be detailed in a Financial Management Manual. Although the GoU prefers IFMS to handle project accounting demands, this has not yet been practically shown. Until this is demonstrated, under NOPP, IFMS will be used mainly as disbursement tool and will be supplemented with a simple off-the-shelf accounting software at the

PMU. The PMU based stand-alone accounting software (and its chart of accounts) will be structured to effectively identify the respective expenditures by both category and component. IFMS will not be used at the OP growers' organization level in the various hubs, which will instead use dedicated accounting software on accrual basis able to handle farmers' loans, inventory management and FFB harvests.

173. ***Financial reporting and monitoring*.** For project level financial statements consolidated by PMU, the financial reporting will comply with International Public Sector Accounting Standards (IPSAS) - Cash basis. However, at hub level, growers' organisations will account on accrual basis in accordance with International Financial Reporting Standards (IFRSs).

174. ***Internal audit.*** The Project will utilise the internal audit function at MAAIF. MAAIF internal audit is typically focused on pre-audits of transactions, instead of providing independent appraisals of project accounting systems and control environments. However, with the strengthening of the office of Internal Auditor General, Uganda is shifting gradually to ex-post audits, which will be an advantage to the Project.

175. ***External audit, governance and anti-corruption***. External audits for the Project will be done by the Auditor General, either directly or through an appointed firm. The Terms of Reference will require IFADs No Objection. Specific audit opinions will be required on: (a) financial statements, (b) balances of funds held in the TSA (or operation of the designated account as applicable); (c) use of SOE procedure. FOs will be audited by auditors appointed at their respective AGMs by recommendation of the Board. The NOPP auditors will also have access to all transactions of the FOs. Specific anti-corruption measures are discussed in Annexes7 and 8.

176. ***Procurement*.** Based on the assessment done, national systems will be used. A NOPP specific contracts committee, with a Procurement Disposal Unit (PDU), will be constituted under the Public Procurement and Disposal of Assets (PPDA) Act. Direct contracting will be used for (a) procurement of seedlings, fertilisers and other agro chemicals through the private sector partner; construction of access and farm roads in Buvuma by Bidco; and (c) capacity strengthening support to the growers' associations by UCA. This is fully justified in Annex 8.

E. Supervision

177. NOPP will be supervised jointly by GoU and IFAD through regular supervision and implementation support missions. Oil palm growers organisations and private sector representatives will be invited to de-briefings and wrap-up meetings. Continuous implementation support will be provided to the Project from ICO-based staff and, at times, staff from other on-going IFAD supported projects in the country. Supervision will be used as an opportunity to bring technical expertise to bear, assess achievements and lessons jointly, and to reflect on ways to improve implementation and impact. The focus of these missions will be on: (i) supporting the achievement of development impact, based on progress measured against the Project outcomes and agreed indicators, joint identification of implementation challenges and solutions with implementers and beneficiaries, and agreement on actions to achieve Project objectives; (ii) ensuring compliance with fiduciary requirements, including loan covenants, financial management, procurement and overall efficient use of Project funds; and, (iii) monitoring and supervising the application of environmental and social safeguards measures.

178. A mid-term review will be undertaken 5 years after project onset, jointly organised by GoU and IFAD in close collaboration with other stakeholders. The review will be undertaken to assess progress and performance, identify bottlenecks and issues, and recommend possible adjustments to the content and financing of the Project components, the targeting strategy, and the implementation arrangementsover the remainder of the Project period. At the end of the Project, a Project Completion Report (PCR) will be done, to review implementation performance, draw key Project lessons and develop proposals for further consolidation and scaling-up of the OP sector outside IFAD financing.

F. Risk identification and mitigation

179. A series of risks have been identified for the investment in NOPP. Some risks are specific and internal to the Project, while others are broader and related to oil palm and the impact of its development on communities. The following are the main risks identified at this stage, and the proposed mitigation measures.

Table 5: Project Risks and mitigation measures

Risks	*Mitigation measures*
Reputational risk. There is a generally negative attitude around large-scale agricultural investments in Africa, and also, because of heavy deforestation in Malaysia and Indonesia, around oil palm development. Both can attract negative publicity – even when these risks are properly mitigated (as in Kalangala). As an IFI, IFAD is particularly vulnerable to negative publicity.	This risk can be mitigated both substantively and through effective communication. On one hand, NOPP will support palm oil development in a way that conforms to the highest standards and best practice in terms of environmental and social sustainability – ensuring RSPO compliance will be critical in this regard. Key elements include a Stakeholder engagement management plan, to be developed prior to NOPP inception (Annex 12, Attachment 5); a report on the land acquisition processes at Kalangala and Buvuma, which specifies further measures to be introduced under NOPP; the continued collection of information on Buvuma on the post-payment livelihood decisions made by the compensated households; and the training of Project implementers, government agencies, NGO service providers and community leaders on procedures for land acquisition. On the other hand, NOPP will finalise and implement a proactive communication strategy focused on reaching four main audiences: global media, national media, key knowledgeable stakeholders and farmers/OP growers. Specific communication messages using the right tools and language will be developed for the different audiences. The focus will be on information dissemination so that misinformation is countered and correct technical and social information is provided.
Private sector investment . Private sector may not fulfil its investment commitments (a) for developing oil palm on Buvuma Island, and (b) for establishing CPO mills in new hubs, where an untested smallholder "model" for oil palm development will be established without the "guarantee" offered by a nucleus estate.	The oil palm processors are above all interested in ensuring the supply of FFBs, and if they are convinced that smallholder OP producers can supply the quantities required, then they have limited interest in growing the crop themselves. Bidco has expressed its willingness to establish a CPO processing mill wherever there is a confirmed supply for it. In practice this means finding a total area under smallholder OP production of 3,000 ha within a 30 km radius of an oil mill site (a 'hub'). Prior to EB presentation, Bidco is expected to confirm its agreement-in-principle in writing. Prior to any planting, NOPP will work with the private sector partner to pre-identify a suitable hub, and confirm both the suitability of the growing conditions, and the availability of land for OP production. It will also assist the private sector partner by undertaking the necessary ESIA, and putting in place the technical support services for the smallholder OP growers. In the unlikely event of Bidco (or any other private sector partner) not being interested in investing in the CPO mill, one of the five other oil processors in Uganda would be expected to take up the opportunity.
A decline in the profitability of smallholder OP production. This could arise either from lower global prices for palm oil, or low productivity of smallholder OP growers. The consequences could be that the growers either lose interest in oil palm production, or lose their trust towards the private sector partner.	According to the most recent World Bank commodity price update, palm oil prices are expected to gradually increase, with the 2030 price 20% up on the current level. In theory therefore, and for at least one-third of the life cycle of OP planted under NOPP, prices should not be an issue. In addition however, the Project will (a) ensure transparency in the setting of the purchase price of FFBs, and ensure that the producers' organizations communicate this to their members; and (b) support the provision of technical services to producers, to ensure that their yields are on a par with those of the nucleus estate and their sales of FFBs offer a net return that at least matches those of other crops (see below).
Oil palm productivity. Kalangala OP plantations confronted some agronomic challenges (bunch rot before maturity, uneven ripening) that have affected yields. In addition, OP growers in Kalangala were initially reluctant to apply fertilizer and therefore the high yielding OP varieties did only partially reach their genetic potential. In some cases, the supply of fertilizer by the private sector	To address the various productivity issues, NOPP will: (i) support a Research & Development programme under Component 3.2. NOPP will also facilitate close collaboration with the private sector partner to develop appropriate technical recommendations for smallholder OP growers in addressing the agro-climatic and agronomic challenges they face. (ii) ensure that, before becoming OP growers, farmers are clear as to their responsibilities and aware of the technical recommendations (including use of fertilizers – covered in the loan financing) and the consequences on yields of not doing so. (iii) strengthen OPG organisations at unit/block level to increase peer pressure for application of best agricultural practices. (iv) Ensure that fertiliser supplies for smallholder OP growers are ordered

partner has also been insufficient and or delayed.	sufficiently in advance of requirements. Each TSS will have its own store. (v) in areas where the viability of smallholder OP is not yet confirmed, the effects of recent drought on yields will continue to be monitored, and any new investment will take place there only once the viability is confirmed.
Institutional transformation. The establishment of a national UOPGT; the establishment of sustainable organizations of smallholder producers (such as KOPGA); and the establishment and transfer to producers' ownership of technical support service bodies (such as KOPGT), is a complex set of inter-linked institutional challenges.	A road map for the establishment of a national UOPGT has already been defined and agreed upon. To allow time for the consultation and legal transformation process, the timeframe for establishing UOPGT is 5 years. In Kalangala, important lessons have been learned that reduce the risks under NOPP. Significant progress has been made by KOPGT in laying the basis for its future transformation. It has achieved cost recovery for the FFB transport services, and its accounting system now follows its functional responsibilities. In 2017both a first external audit and a review to assess the efficiency, affectivity and cost of the services it provides to producers will be undertaken. Under NOPP future hub-level technical services have been designed from the outset with a view to their eventual operation as a commercial undertaking, and the stakeholder consultation process will build ownership, particularly about (self)-financing future costs. In addition, KOPGA (which is currently being supported to register as a cooperative) provides a model for how to establish and support other similar producer organizations. The long implementation period of NOPP (10 years) means that the transformation process for these organizations can proceed at the pace required, rather than to fit within a predefined schedule.
Broad environmental and social risks. Investments in the oil palm sector have a relatively high risk profile in terms of potential environmental impact and contribution to climate change. Major risks can include loss of forests resulting in increased greenhouse gas emissions, loss of habitat and reduction in biodiversity, as well as contamination of surface waters with palm oil mill effluents.	Experience from VODP-2 and elsewhere shows that, if carried out properly, oil palm investments can actually counteract prior environmental degradation and contribute to sustainable development, while increasing carbon sequestration through the conversion of grasslands and cropland to perennial OP tree cropland. The main private sector partner (Bidco/Wilmar) has been on the forefront of promoting RSPO and up-dated its own policies in 2013. It has strongly committed itself to ensuring the respect of environmental guidelines for the construction of its own new nucleus estate on Buvuma and wants that all smallholder OP growers be in line with industry best practices and its own corporate policies. NOPP will promote best cropping practices for smallholder OP growers and respect for the environment right from the start. Initial sensitisation will emphasise the "no-go" areas for oil palm (including other people's land). IFAD and Government will carefully monitor the application of environmental mitigation measures during project implementation.
Climate resilience for oil palm. It is difficult to forecast the impact of climate change on areas suitable for OP in Uganda. Some areas may receive more rainfall (which is positive if field drainage is good), the increasing frequency of peak events could bring extended periods of water deficit.	OP have also shown their resilience, even if it can take a palm up to 24 months to attain previous yields after an extended water deficit event. The basic climate risk analysis carried out for NOPP (Appendix 12, Attachment 4) shows the risk is medium. Training will focus on implementing best management practices, including those for moisture conservation, and in areas where water is nearby, consideration may be given to simple applications of supplementary water.
Income inequality. The OP sector in Kalangala has had a substantial impact and contributed to improved socio-economic and poverty indicators there. However, those not participating in OP development benefited less from such income growth, so contributing to emerging social tensions.	NOPP has been specifically designed to ensure that no households in oil palm growing areas are left behind. Sub-component 2.1 has a specific focus on creating alternative economic opportunities in the hubs, both through intensification of agricultural/ food production and in incubating small and micro rural enterprises. It is targeted mainly at non-OP growing households in the OP growing communities, and as such it aims to tackle these issues head-on.
HIV/AIDS. As in other fishing	To mitigate this risk and in line with best international practice NOPP will

areas, Kalangala District and Buvuma Island have high HIV infection rates and are considered to be at higher risk of HIV transmission. Both OP development and resulting growth of the local economy will further increase mobility in the area, which is likely to increase risks of HIV infection and increase pressure on already stretched health services.	have a multi-layered behavioural HIV prevention strategy, including appropriate and widespread awareness raising information at community level – focusing on priority activities identified by sub-county Community Development officials, and directly implementing activities to facilitate behaviour change at individual and household level; the latter will be embedded in the Household Mentoring approach. Also, NOPP will liaise with GoU ministries and agencies supporting delivery of health/HIV services and programmes to keep them abreast of Project interventions and lobby for coordinated response so that the increased health-seeking behaviour resulting from NOPP HIV interventions is matched by the supply of corresponding clinical services in the target area. NOPP will also link with private sector partners to establish complementary measures in relation to HIV/AIDS.

IV. Project costs, financing, benefits and sustainability[19]

A. Project costs and financing

180. **Project costs**. The total cost of NOPP inclusive of taxes and duties is estimated at USD 210.5 million (UGX 814.5 billion), including base costs of USD 207.0 million (UGX 734.8 billion) and price and physical contingencies of USD 3.5 million (UGX 79.7 billion). Table 6 below shows a breakdown of the costs by the main components and sub-components.

Table 6: Project Cost Summary by Component

Uganda National Oil Palm Programme **Components Project Cost Summary**	(UGX Million)					(USD '000)				
	Local	Foreign	Total	% Foreign xchang	% Total Base Costs	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs
A. Scaling-up investment in smallholder oil palm devel										
1. Development of smallholder oil palm plantations	103 567	103 484	207 051	50	28	29 174	29 150	58 324	50	28
2. Development of OPG organizations	28 167	30 956	59 123	52	8	7 934	8 720	16 654	52	8
3. Establishment of support infrastructures	21 609	32 542	54 151	60	7	6 087	9 167	15 254	60	7
4. Investment in nucleus estates and mills /a	42 316	273 066	315 382	87	43	11 920	76 920	88 840	87	43
Subtotal Scaling-up investment in smallholder oil palm	195 658	440 048	635 706	69	87	55 115	123 957	179 072	69	87
B. Livelihoods diversification and resilience										
Alternative economic opportunities	15 602	15 655	31 256	50	4	4 395	4 410	8 805	50	4
Mitigation of social risks	6 439	6 439	12 879	50	2	1 814	1 814	3 628	50	2
Subtotal Livelihoods diversification and resilience	22 041	22 094	44 135	50	6	6 209	6 224	12 432	50	6
C. OP Sector Development Framework										
Policy and institutional support for OP sector development	3 311	3 301	6 612	50	1	933	930	1 863	50	1
Strengthening of national capacity for OP research	3 067	3 446	6 513	53	1	864	971	1 835	53	1
Subtotal OP Sector Development Framework	6 378	6 747	13 125	51	2	1 797	1 901	3 697	51	2
D. Programme Management, M&E and Know ledge Management	35 343	6 497	41 840	16	6	9 956	1 830	11 786	16	6
Total BASELINE COSTS	259 420	475 387	734 806	65	100	73 076	133 912	206 988	65	100
Physical Contingencies	313	731	1 044	70	-	88	206	294	70	-
Price Contingencies	19 129	59 538	78 667	76	11	777	2 385	3 163	75	2
Total PROJECT COSTS	278 862	535 656	814 518	66	111	73 941	136 503	210 445	65	102

\a The purchase of land for Buvuma nucleaus estate financed by GoU is happening w ay before NOPP entry into force and has therefore been excluded from the NOPP costab

181. **Programme financing.** The financing plan by components and by expenditure accounts is presented in tables 7 and 8 below. Around USD 75.8 million (or 36% of the total Programme costs) will be financed by an IFAD loan and USD 1.2 million (or 0.6%) by an IFAD grant, specifically for the activities related to land tenure security measures. The Government's contribution is estimated at USD 11.7 million (5.6%), to cover duties and taxes, but without including the purchase of land for the nucleus estate, estimated at about USD 13.5 million, as this will be completed before the signing of the Financing Agreement. About USD 13.8 million (6.6%) will be financed from the reflows of the development loans recovered from VODP2, which should also be counted as Government's contribution. Financing from private sector partners (BUL or others) is estimated at USD 90.6 million (43.1%). The farmers supported through the development loans will contribute USD 5 million, mainly through family and other hired labour for land preparation, contour bundling and other on farm

[19]See further details in Annex 9: Programme cost and financing

investment. Besides, farmers expanding their farms beyond the maximum threshold of 2 hectares supported by the project will invest a total of USD 10 million, either through their own capital or through loans from financial institutions. Farmers' organisations in each hub will contribute USD 2.12 million by financing their operational budgets when harvesting starts, five years after planting. The total contribution by farmers, in various forms is thus estimated at USD 17.2 million (8.2%).

Table 7: Financing plan by Component (USD '000)

Uganda
National Oil Palm Programme

Components by Financiers (USD '000)	IFAD Loan		IFAD Grant		GoU		Private Sector		Trust (Loan reflows)		Development Loan Farmers		Commercial farmers		Farmers Organisations		Total			Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	For. Exch.	Taxes)	Taxes
A. Scaling-up investment in smallholder oil palm development																					
1. Development of smallholder oil palm plantations	29,663	50.1	-	-	598	1.0	-	-	13,830	23.4	5,004	8.5	10,084	17.0	-	-	59,178	28.1	29,577	29,003	598
2. Development of OPG organizations	11,319	66.8	-	-	4,208	24.8	-	-	-	-	-	-	-	-	1,428	8.4	16,956	8.1	8,889	3,859	4,208
3. Establishment of support infrastructures	11,974	76.5	-	-	2,978	19.0	-	-	-	-	-	-	-	-	691	4.4	15,643	7.4	9,428	3,807	2,408
4. Investment in nucleus estates and mills /a	-	-	-	-	0	-	90,622	100.0	-	-	-	-	-	-	-	-	90,622	43.1	78,588	12,034	-
Subtotal Scaling-up investment in smallholder oil palm development	52,956	29.0	-	-	7,784	4.3	90,622	49.7	13,830	7.6	5,004	2.7	10,084	5.5	2,120	1.2	182,399	86.7	126,482	48,703	7,214
B. Livelihoods diversification and resilience																					
Alternative economic opportunities	7,854	89.2	-	-	950	10.8	-	-	-	-	-	-	-	-	-	-	8,805	4.2	4,410	3,444	950
Mitigation of social risks	2,013	54.9	1,209	33.0	442	12.1	-	-	-	-	-	-	-	-	-	-	3,663	1.7	1,832	1,390	442
Subtotal Livelihoods diversification and resilience	9,867	79.1	1,209	9.7	1,392	11.2	-	-	-	-	-	-	-	-	-	-	12,468	5.9	6,241	4,834	1,392
C. OP Sector Development Framework																					
Policy and institutional support for OP sector development	1,533	81.3	-	-	353	18.7	-	-	-	-	-	-	-	-	-	-	1,886	0.9	942	591	353
Strengthening of national capacity for OP research	1,518	81.6	-	-	342	18.4	-	-	-	-	-	-	-	-	-	-	1,861	0.9	985	533	342
Subtotal OP Sector Development Framework	3,052	81.4	-	-	695	18.6	-	-	-	-	-	-	-	-	-	-	3,747	1.8	1,927	1,124	695
D. Programme Management, M&E and Knowledge Management	9,955	84.1	-	-	1,875	15.9	-	-	-	-	-	-	-	-	-	-	11,831	5.6	1,853	8,103	1,875
Total PROJECT COSTS	75,830	36.0	1,209	0.6	11,747	5.6	90,622	43.1	13,830	6.6	5,004	2.4	10,084	4.8	2,120	1.0	210,445	100.0	136,503	62,765	11,177

\a The purchase of land for Buvuma nucleaus estate financed by GoU is happening way before NOPP entry into force and has therefore been excluded from the NOPP costab

Table 8: Financing Plan by Expenditure Category (USD '000)

Uganda
National Oil Palm Programme

Expenditure Accounts by Financiers (USD '000)	IFAD Loan		IFAD Grant		GoU		Private Sector		Trust (Loan reflows)		Development Loan Farmers		Commercial farmers		Farmers Organisations		Total			Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	For. Exch.	Taxes)	Taxes
I. Investment Costs																					
A. Credit and Guarantee Funds /a	23,753	45.1	-	-	0	-	-	-	13,830	26.3	5,004	9.5	10,084	19.1	-	-	52,670	25.0	26,335	26,335	-
B. Works	7,894	77.3	-	-	1,839	18.0	-	-	-	-	-	-	-	-	484	4.7	10,217	4.9	7,152	1,226	1,839
C. Goods, Services and Inputs /b	32,712	77.9	1,209	2.9	6,856	16.3	-	-	-	-	-	-	-	-	1,236	2.9	42,012	20.0	20,695	15,032	6,285
D. Vehicles /c	2,046	61.6	-	-	1,274	38.4	-	-	-	-	-	-	-	-	-	-	3,320	1.6	1,994	51	1,274
E. Nucleas Estate establishment and Mill	-	-	-	-	0	-	90,622	100.0	-	-	-	-	-	-	-	-	90,622	43.1	78,588	12,034	-
Total Investment Costs	66,404	33.4	1,209	0.6	9,969	5.0	90,622	45.6	13,830	7.0	5,004	2.5	10,084	5.1	1,720	0.9	198,840	94.5	134,764	54,678	9,398
II. Recurrent Costs																					
A. Salaries and Allowances	6,974	91.4	-	-	657	8.6	-	-	-	-	-	-	-	-	-	-	7,631	3.6	-	6,974	657
B. Operating Costs	2,453	61.7	-	-	1,121	28.2	-	-	-	-	-	-	-	-	400	10.1	3,974	1.9	1,739	1,113	1,121
Total Recurrent Costs	9,426	81.2	-	-	1,778	15.3	-	-	-	-	-	-	-	-	400	3.4	11,604	5.5	1,739	8,087	1,778
Total PROJECT COSTS	75,830	36.0	1,209	0.6	11,747	5.6	90,622	43.1	13,830	6.6	5,004	2.4	10,084	4.8	2,120	1.0	210,445	100.0	136,503	62,765	11,177

\a Financing for development of OP smallholder plantations
\b Includes equipment, materials, consultancies, contracts for service provision ,training and workshops.
\c This includes ferries and water barges

B. Summary benefits and economic analysis[20]

182. **Financial analysis.** The results of the financial analysis suggest that the Project investments are going to generate substantial incremental net returns, both to oil palm growers as well as non-oil palm growing rural population engaged in income generating economic activities and intensification of agricultural production. The Project benefits are estimated on the basis of nine representative models, including three for oil palm development, two for micro- and two for small- enterprises, and two for agriculture intensification. Oil palm production models suggest an average annual incremental net income before debt service of USD 1,619/ha for smallholder farmers during full maturity (between year 11 and year 18 after planting). Net household incomes after financing are estimated to exceed USD 1,000/year as of year 11 and will remain so until year 25, for an average of USD 1,554/year. For commercial farmers, net household incomes will reach USD 4,000/year as of year 10 and will remain above it until year 25, for an average of USD 5,329/year. Annual incremental net incomes to enterprises are projected to range between USD 300 and USD 1,200 for activities such as micro laundry services, consumer retailing, sales of improved cooking stoves and groundnuts processing and marketing and between USD 100 and USD 200 for agricultural intensification activities such as food production and traditional goat rearing.

183. **Economic analysis.** The economic internal rate of return (EIRR) to the Project investment is estimated at 14.3%, with an economic net present value of USD 28 million (UGX 98 billion) at 10%

[20] See further details in Annex 10:Economic and Financial Analysis

discount rate. The sensitivity analysis shows that the EIRR is rather robust as it remains above 12% in most cases, except for a combined reduction by 20% of both FFB yields and prices, which severely affects the economic viability of the project, as well as for a reduction of 20% of oil palm areas, for which the EIRR remains however acceptable, at 10.9%.

C. Sustainability

184. **Sustainability of the Project** results is built into the character of the interlocking commercial partnership between the private sector company and smallholder producers. These are relationships that in the different hubs will be built up over time, and will be underpinned by an explicit commitment to transparency (through for example the pricing formula for FFBs) and to building trust between the parties. Each of the concerned parties has a clear interest in maintaining the relationship:

- For the private sector partner(s) it is function of the long-term investment made in nucleus estates and CPO processing plants, and its commitment to the principles of RSPO (and the reputational risk of not doing so). It has a vested interest not only in ensuring that smallholder production is sustained to achieve full utilisation of milling and refining capacity, but also that OP production is a profitable as possible for those smallholder producers. In order to achieve these objectives, it will be willing to invest in relationship-building with smallholder producers.
- For smallholder OP producers, the private sector partner offers them a secured and reliable market for their production, and a regular monthly income. It is thus fully in their interests to continue producing oil palm and selling it to the private CPO mill. They will be able to ensure and maintain the productivity of their OP plots and efficiently market their FFBs, given the investments to be made under the Project in assisting them to establish and build strong, representative organisations that will manage the required production support, input supply and marketing services and interact and negotiate with the private sector and government.
- In this context, the role of Government in a post-project context will be to facilitate the maintenance of existing commercial relationships between producers and private sector partners, and to stimulate the further growth of the OP sector, in a way that is inclusive and sustainable. This it will achieve, by performing the core functions of government: (a) designing and implementing an enabling policy and institutional framework that encourages investment at all levels and ensures the development of a modern OP industry; and (b) providing it with the necessary public goods (e.g. infrastructure) and services (research and development, technical knowledge and specialised training) to reduce the transaction costs to investors.

185. At the level of the OP communities, sustainability will be assured through a Project approach that will be based above all on building capacity –human and social capital – at household and community levels, to take up alternative economic livelihood opportunities and mitigate social risk. Post-project, the principal role of Government will be to ensure the maintenance of public infrastructure and the provision of social and regulatory services to grower communities.

186. Further and new investment in oil palm production beyond the NOPP implementation period will be assured, on one hand through the incentives provided by an enabling policy and institutional environment for investment, and on the other through the availability of financing to enable smallholder producers to establish OP plots. This will be achieved both through the efficient management of reflows of development funds from the past VODP and VODP-2 projects and NOPP, managed by the UOPGT; and through the engagement by financial institutions in the oil palm sector – a process that NOPP will support actively.

187. **Social, Environmental and Climate Sustainability**. NOPP has been classified as *Environmental and Social Category "A"*, as activities include potential adverse environmental and social impacts that are significant, and affect an area broader than the sites subject to physical intervention. The *climate risk classification is moderate***,** mainly driven by the long lifetime and thus exposure of the investments. The sustainability of NOPP will be enhanced through a comprehensive strategy to manage social, environmental and climate risks, which has been integrated into the design of NOPP.[21]

188. The strategy builds on the recommendations of the ESIA (approved by NEMA in 2015), an Environmental and Social audit of smallholders' oil palm investment in Kalangala and a gap analysis of

[21]Detailed information related to potential opportunities, negative impacts and associated mitigation measures, as well as climate resilience, is included in Annex 12, Annex 1 – SECAP Review Note.

the ESIA for Buvuma island (both studies undertaken in 2016) and includes: (i) the development of specific studies (High Conservation Value assessment, Biodiversity Offsetting plan, environmental cost-benefit analysis and carbon/GHG analysis) at pre-implementation stage; (ii) the development of ESIAs for each Project site[22] and their approval by both IFAD and NEMA before any investment takes place, a condition that will be included in the Financing Agreement.; (iii) a Stakeholder Engagement Management Plan to enhance continuous and meaningful consultation; (iv) development of SEA, institutional capacity development and training of PMU and OPUL to implement sound environmental and social management systems (ESMSs); and (v) ex-post ESIA at completion. The sustainability of the Project will also be strengthened through the implementation of EHS practices and regular environmental and social audits using independent experts to record achievements, lessons learned and update the ESMS to meet emerging issues and risks. These are in line with the Guidelines for Environmental Impact Assessment (NEMA, 1997) in Uganda.

189. With the measures foreseen for securing land tenure, OP growers are willing to adopt the OP growing technologies promoted under NOPP, which are focused on environmental sustainability and increased resilience to changing climate patterns. There will be a 'no-burn' policy when clearing land, and limited use of agrochemical except fertiliser and the lake border buffer zone will ensure protection of Lake Victoria. Smallholder producers will be supported to follow the same environmental practices as the nucleus estate in order to ensure RSPO compliance. The PMU and private sector partner will jointly prepare specific guidelines for smallholder EHS, which will be used by TSS for training farmers. The construction of the CPO mill in line with RSPO standards will address issues of environmental sustainability. The company will follow best practices for hazard waste and materials management, erosion management, and workplace emergency preparedness.

190. **Scaling-up**. As a large-scale 4Ps, the whole Project is a living example of scaling-up by extending geographical scope, deepening the public-private-people partnerships by empowering further people and involving new private partners, and laying down the policy and institutional conditions for the further expansion of the OP sector in Uganda. The area under oil palm production in the country will increase almost fourfold. The hub areas will see a boom in rural growth and the people will see a transformation in their livelihoods. The Government will have an operational 4Ps model to replicate elsewhere in the country. This will also be relevant elsewhere, especially in Africa, within the context of growing interest and concerns regarding large-scale land-based investments and the application of the African Union's Principles and Guidelines for Large-scale Land-based Investments. In addition, NOPP's support for multi-stakeholder dialogue and long-term independent monitoring of environmental and social impacts is also expected to elevate current standards for transparency and accountability to civil society and other non-governmental partners.

[22]The ESIAs will be prepared in line with relevant international standards, follow the EIA process for Uganda and also be reviewed and disclosed by IFAD. Draft terms of reference for the ESIAs are to be found in Annex 12, Attachment 2.

Annexes

Annex 1

Country, rural and sector context background

Annex 1: Country, rural and sector context background

I. Country overview

1. **Uganda is a land-locked country**. It is located over 1,000 km from the nearest seaport in Mombasa in Kenya, which is both a constraint and an asset. It raises the cost of imports by about 20% and of exports by about 25% relative to Tanzania and Kenya. However, domestic industries are advantaged by the high cost of imports, and have an export advantage relative to those in Uganda's inland neighbours, which are even more distant from the ocean. Regional trade accounts for about half of exports, with accelerating trade to South Sudan and Democratic Republic of Congo providing opportunities for rural growth in northern Uganda. Exports account for about 16% of Gross Domestic Product (GDP) and imports about 21%. Uganda's location also comes with some risks: poor neighbouring countries prone to conflict has led to spill over of conflicts into the country, as well as a substantial influx of refugees. However, with peace coming to the north in 2008, Uganda is a secure and stable country.

2. **Since 1986 Uganda has made substantial economic and social gains**. Annual economic growth has averaged about 7% per year for the past decade, though with wide disparities between regions. Government's revenue raising capacity is low at about 13% of GDP. About 30% of the government budget continues to be financed by development partners, and international debt[23] is about 31-34% of GDP. However, substantial oil reserves were discovered in the Lake Albert Riff Basin in 2006. Oil production is expected to start in 2020[24], generating revenue of about USD 2 billion per year for 20 years. This is likely to enhance GDP by about 15-20%. 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 in the post-oil economy. With the global recession and elections in 2011, annual inflation reached 25%, but has now dropped to about 5%. However, with the economic gains have come issues of corruption (the 2016 Transparency International Corruption Perception Index for Uganda score rating was in the high category, and placed Uganda 151 out of 176 countries);and these inevitably have economic implications.

3. **Uganda's Agricultural Sector.** Nearly 72% of Uganda's land area (FAOSTAT), measuring 200,000 km², is classified as agricultural land and about 30% of that is currently cropped: the average population density of 195 persons/km² (World Bank, 2015) is substantially lower than neighbouring Burundi and Rwanda where land pressure is acute (435 and 471 persons/km² respectively). While most of the country has two crop seasons, production in the north is limited to one. Agricultural production is rainfed to a large extent. About three quarters of agricultural households derive their livelihoods from subsistence rainfed agriculture, with holdings averaging less than 1.5 ha. Only 13% of area is planted with improved seeds compared to 22% for Sub-Saharan Africa, and despite problems of soil fertility, use of fertilizers is among the lowest in the region. Average yields for most food and cash crops being quite low, there is considerable scope for increasing yields, through the adoption of improved farm technologies and management.

4. The agricultural sector is the primary source of livelihood for over 75% of labour force. However, with rates of growth in the sector that have not exceed 3 per cent since 2010 and high rates of macro-economic growth, so the contribution of the agricultural sector to GDP has gradually declined, from around 30 per cent in 2000 to around26 per cent in 2015. Food crop production makes up about half of that and livestock production and forestry are other significant contributing sub-sectors. Over the period 2010-2014, the cash crop and food crop sub-sectors registered average annual growth rates of 1.1%, compared to 2.5% for the livestock sub-sector, -0.7% for agricultural support services, 6.6% for forestry and 0.9% for fisheries. It is only the livestock and forestry sub-sectors that registered a consistently positive growth rates.

5. **Climate change**. Uganda is one of three countries bordering Lake Victoria and about 20% of the area of the country is covered by internal water bodies. The topography varies from mountain ranges to hilly terrain, with extensive grasslands and flatter areas in the north. Uganda has seen an increase in the variability of rainfall over the past ten years, and a rise in extreme climate events,

[23] http://www.monitor.co.ug/Business/Uganda-s-public-debt-to-keep-rising---IMF/688322-3347010-jt15ys/index.html
[24] Revised target http://allafrica.com/stories/201702220478.html

which have included both drought and flooding, with landslides, collapsing structures and windstorms. Climate change analysis for the past ten years shows an increase in temperature of 0.7-1.5 °C, a trend which is expected to continue in the coming decades. Records show a decreasing trend in rainfall[25], but climate models predict a probable increase in precipitation during the short rainy season as well as a potential increase in extreme events. Uganda is considered to be amongst the most vulnerable and least climate resilient countries due to poverty and low-income diversity.[26] Its problems are further compounded by poor soil fertility, land degradation and land tenure patterns.

II. Global, regional and national markets for vegetable oil

6. **Global vegetable oil market**. The outlook for vegetable oils (55% of which comes from soybeans and other oilseeds, 36% from oil palm and the balance from coconut and cottonseed) for the next decade (2016-2025) remains stable[27]. Both demand and supply are expected to grow, and world vegetable oil production will remain concentrated among a few countries (Indonesia and Malaysia) and significant productivity growth still occurs in those countries.

7. Global consumption of vegetable oil is expected to increase at 2.0 per cent over the period 2012-2021, with the use of vegetable oil as feedstock for biodiesel declining slightly from 13% of world vegetable oil demand in 2015 to 12% in 2025, the result of changes in biodiesel policies and expected continued low crude oil prices. In Sub-Saharan Africa, however, a total growth in consumption of 3.3% is projected, this the result of economic growth and changing diets. However, per capita consumption is, and will remain, relatively low: whereas in the developed world as a whole annual per capita consumption is expected to reach 25.6 kg in 2021, up from 24.2 kg in 2009-2011, in SSA it is expected to increase from 9.6 kg per capita in 2009-2011 to 10.2 kg per capita in 2021 – a 0.8% p.a. increase. It is estimated that Africa produces about one third to one half of its needs for vegetable oil, and with increasing demand, imports of vegetable oil into SSA are expected to increase at 4% p.a. between 2012 and 2021, while exports will decline, by over 2% p.a., as more is consumed within the region.

8. **East African and Ugandan vegetable oil market.** Per capita consumption levels for vegetable oil in Uganda and neighbouring countries is consistent with consumption rates across SSA, with Uganda consuming more capita than Rwanda, Sudan, Tanzania and Kenya, but less than Congo DRC (see Table 9). Because of its relatively low cost, the principal vegetable oil import for the East Africa region is CPO which is then refined nationally.

Table 9: Per capita vegetable oil consumption

Country	*Per capita Consumption (kg)*
Rwanda (2013)	2.9 kg/capita
Kenya (2013)	5.9 kg/capita
Sudan (2011)	5.5 kg/capita
Congo DRC (2011)	9.5 kg/capita
Tanzania (2013)	6.8 kg/capita
Uganda (2013)	8.2 kg/capita
Average developing countries	21.0 kg/capita
Average less developed	11.0 kg/capita

Source: Food balance sheets, Source FAOSTAT

9. Across the region, the gap between national production and total demand also remains large, with almost half of all consumption being fed by imports. This suggests that the national and regional markets will be able to absorb as much vegetable oil as can be produced regionally and nationally at a competitive price for the foreseeable future.

[25]McSweeney, C., New, M. &Lizcano, G. 2010. UNDP Climate Change Country Profiles: Uganda. Available at: http://country-profiles.geog.ox.ac.uk/
[26] International Panel on Climate Change, 2000 and Centre for International Governance Innovation, 2007.
[27]OECD-FAO Agricultural Outlook 2016-2025 © OECD/FAO 2016

Table 10: Gap between national vegetable oil supply and net consumption (2014)

Country	National supply	Export (tons)	Imports (tons)	Consumption net (tons)	% imports/ consumption
Congo	81 688	3 732	55 262	133 218	41%
Kenya	594 554	82 185	636 718	1 149 087	55%
Rwanda	43 247	4 411	45 246	84 082	54%
Sudan (former)	270 187	3 151	127 326	394 362	32%
Tanzania	441 035	29 285	321 791	733 541	44%
Uganda	351 624	76 611	267 379	542 392	49%
Total	**1 782 335**	**199 375**	**1 453 722**	**3 036 682**	48%

Source: Food balance sheets, FAOSTAT

10. While in Uganda net domestic production (i.e. total production less exports) of vegetable oils fulfils only about half the national demand, the country's distance from the sea and the high transport costs that push up the price of imported oil favour local production of oil palm and oil seeds.

11. There are about 30 mills in Uganda for sunflower and soybean, mainly in the northern part of the country, including three large-scale mill and a solvent plant, which are operating at about 30% of capacity. The preponderant share of vegetable oil imports is accounted for by CPO, which is refined into vegetable oil locally, by about six processors, two of which are large scale. Uganda, together with its neighbouring countries (DRC, Kenya, Rwanda, Tanzania and Sudan), consumes about 3 million tons of vegetable oil; CPO accounts for the preponderant share of the 1.4 million tons of imports to the six countries.

12. Bidco, the private sector partner for oil palm development under VODP/ VODP2, has recently expanded its Ugandan CPO refinery from 500 t/day to 1,500 t/day; and it estimates that the 28,000 tons of CPO provided currently by Kalangala plantations represents about 2.5% of the CPO it will be refining annually, rising to 10-12% at full production over the next 5-8 years. With the increased production from Buvuma, it will still only be able to fulfil about 25-30% of its requirement to keep its refinery operating at full capacity.

III. Oil palm development in Uganda

13. **Background.** Oil palm is a perennial tree crop with a 25-year cycle, compared with the other oilseed crops that are annual crops. Oil palm trees need suitable rainfall, soil and temperature conditions. The crop requires two-stage processing: within 24 hours of harvest the crop must be milled by a primary processing facility into crude palm oil (CPO); CPO is storable and can be shipped to a refinery, where it is processed into edible oil and soap. Palm oil can be produced at a much lower cost than the other vegetable oils, although the long time required for the trees to reach maturity (4-5 years from initial planting) make start-up cost a barrier to entry. Because of its high yields and the small areas needed for planting, it is financially rewarding for smallholders and can provide steady monthly cash income, if a modern CPO mill is nearby for processing the crop.

14. Optimal growth of oil palm trees is dependent on several factors, with the amount of annual rainfall and its distribution being key. Limited parts of Uganda have ideal conditions for growing oil palm, and the most suitable areas are located in: (i) a narrow belt (25-30 km) along Lake Victoria on the mainland areas and nearby islands; (ii) some areas in the far western part of the country (Bundibugo) and the far north-west (Arua) where rainfall is high; and (iii) some parts of parts of Masindi and Kibale with higher rainfall may also be suitable, along with some areas to the west of Lake Kyoga with wetter soils (to be confirmed). To attain full potential, high yielding drought and disease tolerant varieties must be planted and appropriately maintained. Preliminary assessments suggest there may be up to 100,000 ha of area suitable to oil palm development in Uganda. However, although some research trials of oil palm were conducted by FAO from the 1970s onwards – trials which confirmed that some areas of the country were suitable for the crop, until the 2000s there was no commercial production of the crop in Uganda.

15. ***The Vegetable Oil Development Project (VODP)*** was conceived in the mid-1990s, to reduce Uganda's heavy reliance on importation of vegetable oils, despite the high potential for domestic production, and to address the low intake of vegetable oils by the population. Implemented from 1998-2010, the project: (a) introduced oil palm into Uganda, piloting an innovative 4Ps approach based on a vertically-integrated processor-nucleus estate-smallholder model on the high rainfall

island of Bugala in Kalangala District, and (b) promoted the integration of oilseed crops (principally sunflower and groundnuts) as cash crops into the subsistence food crop farming system in the lower rainfall areas in northern and eastern Uganda. Under the second phase (VODP2), the pilot 4P for oil palm development in Kalangala is being consolidated, and promotion of oilseeds as cash crops has been expanded throughout the Northern regions of the country.

16. Following IFAD Board approval for VODP in April 1997, Government launched a competitive bidding process immediately for contracting a private-sector operator to develop oil palm plantations and processing capacity. Eleven bids were received, one bidder withdrew, and a company was selected. After three years of negotiations with no conclusion, GoU opened negotiations with the second ranked bidder. GoU and Bidco Uganda Ltd. reached agreement in April 2003 for the construction of a 300 mt/day oil palm refinery in Jinja (since increased to 1,500t/day), and the development of 40,000 ha of oil palm plantations in Uganda (capable of providing about 160,000 t of CPO annually) to supply the refinery, including 10,000 ha under a first phase on Bugala Island together with mill(s) for the primary processing of CPO. The first tranche of the investment was a pilot to test the approach of the nucleus estate-smallholder model for developing 10,000 ha of oil palm in Uganda, with 65% of the area under management by the nucleus estate and 35% under smallholders (6,500 ha and 3,500 ha respectively).

17. Overall, the Kalangala investment has demonstrated that oil palm can be grown in areas of Uganda where soil, moisture and temperature conditions are suitable, and that smallholders are viable and credible partners. The model of nucleus estate and smallholder development has provided for knowledge transfer while helping farmers to plant a previously unknown high yielding industrial crop in line with environmentally appropriate techniques and confirmed that national production and value addition is the way forward for the industry countrywide. The investment is now producing an essential food commodity nationally, while creating factory and plantation jobs and improving livelihoods for smallholder producers.

18. A key dimension of the investment's success has been the attention given to environmental issues. An environmental management plan was developed, and included the following key mitigation measures: implementation of a 200-m forest buffer zone along the lakeshore to be left intact to protect the lake from soil runoff; no de-gazetting of protected forests for the planting of oil palm; species enrichment by planting native trees on the lakeshore buffer zone and other areas deemed unsuitable for oil palm; zero-burning on lands being cleared for plantation development; the planting of cover crops incorporated into plantation management; minimum use of agrochemicals; and effluent tanks to treat waste from the CPO mill and the sludge used as organic liquid fertilizer on the plantation. Other waste materials produced during the oil extraction process (e.g. empty fruit bunches) are returned to the plantation as mulch, while palm fibre and shells will be used as a source of energy for firing the boiler. The steam produced is used for generating electricity for the mill, thus reducing the use of fossil fuels for energy. Palm fronds are used as mulch in the plantation. Environmental monitoring takes place through the relevant government agencies and the IMS, and self-conducted environmental compliance audits by OPUL.

19. All oil palm development on Bugala Island by the nucleus estate and smallholders has aimed to follow RSPO principles to ensuring the integration of measures to prevent soil erosion and degradation; silting of the lake; reduced forest cover and biodiversity; potential pollution from agrochemicals; land and water body pollution by oil mill effluent; solid waste mismanagement; and occupational health and safety. While the nucleus estate has respected all RSPO principles, some challenges have been faced in ensuring full compliance by all smallholder OP growers.

IV. VODP institutions

20. ***Bidco Uganda Ltd (BUL)*** is a private company limited by shares under the Companies Act of Uganda, for managing the processing and distribution of its products (vegetable oil and soaps) in Uganda. Bidco has also established *Oil Palm Uganda Ltd (OPUL)* for the development of oil palm plantations in the country. The Kalangala Oil Palm Growers' Trust (KOPGT – see below) holds 10 percent in OPUL. The core activities of OPUL are to: (i) set up oil palm nurseries for the nucleus estate and smallholders; (ii) establish the nucleus estate and a CPO mill; (iii) manage land on behalf of outgrowers; and (iv) provide services and inputs to KOPGT to ensure the successful establishment and maintenance of oil palm by smallholders. BUL is the sole purchaser of CPO from OPUL, and is responsible for processing and marketing the refined products.

21. Bidco Uganda has two main shareholders. The first is *Bidco*, a Kenyan registered company with a focus on the manufacturing and marketing of edible oil, fats and soaps. In 2005, the company became ISO 14000-compliant for its operations in Kenya, Uganda and the United Republic of Tanzania. This means that it has put in place an environmental management system to: (i) identify and control the environmental impact of its activities, products and services; (ii) continually improve its environmental performance; and (iii) implement a systematic approach to setting environmental objectives and targets, achieving them and demonstrating they have been met.

22. The other partner in Bidco Uganda Ltd., responsible for oil palm plantation development, is *Wilmar International Ltd*. Wilmar is one of the leading producers and processors of quality edible oils in Asia, and was a founding member of the Round-table on Sustainable Palm Oil (RSPO), established in 2004 – in part as a response to unfavourable media campaigns for its oil palm development. Wilmar has adopted RSPO principles across all of its operations, and these include: not planting oil palm in protected/forest areas, a zero-burn policy on lands being developed with oil palm, minimum use of agricultural chemicals, maximum use of natural waste for maintaining soil fertility and structure, and integrated pest management. For processing mills and refineries, these principles include ensuring minimum use of fossil fuels, which are replaced by agricultural waste as fuel, effluent treatment prior to recycling, and policies for recycling plastics used by the industry. Since the mid-1990s, In September 2009, the International Finance Company (IFC) of the World Bank released its Audit report on IFC's investments in Wilmar which concluded that "Wilmar's commitment to adopting sustainable practices was a key reason why IFC chose to engage with the company as we seek to set a benchmark for sustainable practices in [the oil palm] sector". More recently, in 2014, Wilmar further strengthened it policies to include "*No Deforestation, No Peat and No Exploitation*" and it requires its suppliers of FFBs, including smallholder farmers to be fully compliant with its policies.

23. ***Kalangala Oil Palm Growers' Trust (KOPGT)***. KOPGT was established in June 2005, a mandate to support oil palm development in Kalangala. In its Trust deed the focus was on its financial responsibilities, which were seen as principally national in scope. KOPGT has been responsible for the management of GoU/IFAD funds for financing smallholder oil palm development, safeguarding oil palm grower loan repayments on behalf of GoU, as well as holding the 10% share of OPUL on behalf of all Uganda smallholder oil palm farmers. At that time the service cost panel and pricing committee were expected to operate at the national level and KOPGT was to represent the farmers. At the local level, the Trust was expected to: (i) provide technical (extension) services and quality control to farmers for oil palm planting, growing and harvesting; (ii) manage in-kind and cash loans to farmers; (iii) receive payments for growers' FFBs from OPUL; and (iv) recover loan repayments from growers, and make net payments for the FFBs to the growers.

24. In its Trust deed, KOPGT was expected to work with all oil palm growers. Smallholder and outgrowers oil palm growers (with less than 2 ha either as individuals or outgrowers) were to benefit from IFAD loan financing; while spontaneous farmers (with more than 2 ha) were expected to use their own funds for oil palm development, while accessing KOPGT services at cost and benefiting from capacity building services provided by the GoU, Kalangala local Government, OPUL and other service providers[28]. All three categories of farmers were expected to be represented by KOPGT in their relationship with OPUL[29]. In practice, KOPGT's intermediary role has been limited to working only with oil palm growers who receive IFAD financing for their crop establishment and maintenance. Farmers with larger areas (over 3 ha) have either had to allocate small portions of their land to many different family members or have simply not grown the crop at all.

25. KOPGT is governed by a "**management board**" which includes the Director General of NARO, the VODP Project Coordinator, a representative of the District Local Council, two representatives of local civic organisation in Kalangala, and three representatives of smallholder, outgrowers and spontaneous farmers, as well as three permanently co-opted members, representatives from the MAAIF, MFPED and the Ministry of Justice. Over the years, the government representatives have stopped participating in meetings, so that the actual representation on the Board has taken on a local character with the three grower representatives, the local NGO representatives and the District Local Council representative being a large majority. Among Board members, there is a lack of

[28] Tripartite Agreement, 28 April 2006, between GoU, OPUL, and KOPGT, Article 7.
[29] KOPGT Certificate of registration as corporate body, 24 June 2005, Section 3(a) and Section 2.

understanding about what is the role and responsibilities of the KOPGT Secretariat (i.e. KOPGT technical staff) and what is the role of the Board and its members.

26. Since 2005, KOPGT has grown to become an organisation with 27 staff and consultants undertaking specific assignments. It has its own offices, fertiliser store (700 m^2) and a vehicle fleet (2 pickups, 6 trucks, 18-seat bus, 1 tractor and trailer, about 10 motorcycles and two boats). In 2010, KOPGT made its first deliveries to OPUL for about USD 85,000 in 2010 which has risen to about USD 3 million in 2016 for about 22,000 tons of FFBs. By 2021, KOPGT will be delivering 50-60,000 tons of FFBs to OPUL, for a value of USD 7-9 million. KOPGT currently runs a loan portfolio of about USD 13 million. In 2016 its total costs amounted to USD 473,000. Of this, its transport services –paid for by the smallholder OP growers – made up 46%, technical support services (field extension) 24%, management and administration a further 24%, and its loan management function 6%.

27. Substantial time and effort have been devoted by VODP-2 PMU, IFAD and KOPGT itself to put in place a transparent accounting system by activity and source of funds as it moves towards becoming fully autonomous. To avoid co-mingling of funds, KOPGT currently operates 8 separate bank accounts and receives funds from five different sources: (i) VODP-2 PMU; (ii) OPUL harvest payments; (iii) growers' deductions to finance transport; (iv) its 30% share of the 10% interest on farm loans; and (v) UDB financing for growers with mature trees to purchase fertiliser.

28. The financing KOPGT receives from VODP-2 covers both loans to oil palm growers and its own administrative costs (operated out of separate accounts). To finance the cost of transport for inputs and the harvest, it makes deductions from farmer loan accounts and OPUL payments for the harvest, which are transferred to its transport account and fully cover the cost of operation and maintenance of its transport services to farmers. Savings to cover the cost of replacement of vehicles are held in a separate account, though the current transport charges need to be increased if KOPGT is to generate the capital to replace its vehicles when needed. OPUL payments for the harvest are made monthly: oil palm growers' loan repayments are debited together with the harvest transport costs, and the net is paid into farmer bank accounts on Bugala island. Farmer loan repayments are held and deposited in a safekeeping account with the Bank of Uganda for financing oil palm development elsewhere in Uganda. KOPGT has been audited regularly as part of the VODP Government audit process, and has completed procurement for its first external audit, which will be undertaken in 2017.

29. KOPGT has introduced computerisation for financial management and reporting, but there remain a number of areas requiring improvement. The existing systems in KOPGT are being increasingly challenged as the harvest grows and need to be upgraded. A robust mobile payments and accounting system for grower transactions is being considered for purchase for KOPGT by VODP-2.

30. ***Kalangala Oil Palm Growers Association (KOPGA)***. In 2009, oil palm growers on their own initiative felt the need for more formal structures; and they formed their own association as a representative organization, to strengthen their own activities and intermediate and negotiate on their behalf with OPUL, KOPGT, financial institutions, etc. All 1,800 or so OP producers in Kalangala are members of KOPGA, which is structured on the basis of farmer representation first at unit (24 of them) and block (7) levels. As oil palm growers, have become more knowledgeable and empowered, they want to work more closely with KOPGT and be further involved in the management and quality of their support services. From 2015/16, VODP-2 has provided governance training to KOPGA, and now they have established their own unit committees and elected their block representatives, three of whom will be the grower representatives on KOPGT's board in 2017. In early 2017, following a learning route trip within Uganda to visit other representative organizations, KOPGA decided to register itself as a cooperative.

31. ***Government of Uganda***. Through the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF) and together with the Local Government Kalangala District (LGKD), the Government is responsible for: (i) ensuring the acquisition and leasing of land to Bidco for the nucleus estate on Bugala Island; (ii) providing the legislative environment to ensure successful project take-off and ensuring compliance with environmental safeguards stipulated by the National Environmental Management Authority (NEMA); (iii) ensuring the formation of an intermediary organization between smallholders and the private sector partner (KOPGT); and (iv) setting up the necessary transportation infrastructure, including the ferry service from Entebbe to Kalangala, and ensuring that the district

road network is operational. The Government has established another PPP with Infraco[30] to upgrade the island's ferry service from Masaka on the mainland, water and electricity supply, district road development on Kalangala. GOU has also put in place national research capacity at the National Crop Resources Research Institute (NaCRRI), to implement a programme of oil palm trials and demonstrations at sites ecologically suitable for oil palm production around the country.

32. ***IFAD***. IFAD's role has been far more than that of a source of development finance. It has acted as a neutral broker, in a way that has been critical to build trust among the different partners. It has facilitated negotiations to reach agreements and resolve disagreements, and it has helped to address the challenges arising and ensured transparency between the partners. This has required considerable flexibility to respond to changing circumstances in order to accompany such a complex development with a wide range of interests to be mediated and aligned. IFAD was called to provide a steady commitment to support the other partners facing challenges and maintain commitment.

V. Policy context relevant to oil palm sector

33. **Role of agriculture.** Agricultural sector development is geared towards attainment of Uganda's long-term development goal outlined in the Vision 2040, of transforming Uganda from a predominantly peasant and low-income country to a competitive upper middle-income country. The Vision 2040 identifies agriculture as: (a) a major contributor to gross domestic product (GDP); (b) a key source of employment; and (c) as a sector whose labour productivity will have to increase. Agriculture is also among the strategic growth opportunities that need to be strengthened to accelerate the growth of the economy. The Vision 2040 is being operationalized through the National Development Plan (NDP II) 2015/16 - 2019/20; that identifies agriculture as one of the key primary growth sectors of the country. The NDP II aims at strengthening the country's competitiveness for sustainable wealth creation, employment and inclusive growth by pursuing a private sector-led, export oriented and quasi-market approach. The NDP II has four objectives, namely: (i) increasing sustainable production, productivity and value addition in key growth opportunities; (ii) increasing the stock and quality of strategic infrastructure to accelerate the country's competitiveness; (iii) enhancing human capital development; and (iv) strengthening mechanisms for quality, effective and efficient service delivery.

34. **Agriculture.** The sector is guided by the National Agriculture Policy (NAP). The overall development objective of NAP 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. The NAP is pursued through six related strategic objectives, namely to: (i) ensure household and national food and nutrition security for all Ugandans; (ii) increase incomes of farming households from crops, livestock, fisheries and all other agricultural related activities; (iii) promote specialisation in strategic, profitable and viable enterprises and value addition through agro-zoning; (iv) promote domestic, regional and international trade in agricultural products; (v) ensure sustainable use and management of agricultural resources; and (vi) develop human resources for agricultural development.

35. The Agricultural Sector Strategic Plan (ASSP) 2015/16 - 2019/20 articulates how investments in the sector will be guided in order to support efforts towards the NDP II goal. The vision of the ASSP is for "*A* competitive*, profitable and sustainable agricultural sector*"; its mission is articulated as "*transforming subsistence farming to commercial agriculture*", and its objective as being to promote food and nutrition security and household incomes through coordinated interventions to enhance productivity and value addition, create employment opportunities, and promote domestic and international trade.

36. ASSP identifies five key elements for achieving these results: (i) ensuring the availability of quality inputs, such as seed and stocking material, fertilizers and other inputs, at farm level; (ii) ensuring availability of and access to water for agriculture production, including the development of irrigation; (iii) continued investment in technology improvement through research for improved seeds, breeds and stocking materials; (iv) reforming the extension system to improve farmers access to technical information, knowledge and skills; and (v) intensifying environmental control measures to

[30]InfraCo is a publicly-funded, privately-managed company promoting infrastructure development in Africa. Its Kalangala funding has reached US$50 million.

halt the decline in soil fertility. ASSP additionally identifies twelve priority and four strategic commodities – one of which is oil palm – which, through a series of actions to develop their value chains, are expected to contribute to wealth creation and employment. It thus highlights a series of public investment priorities in support of the oil palm sector, as well as the intention to develop an oil palm sector policy.

37. **Women and Gender Equality.** The GoU has demonstrated its commitment to promoting gender equality through measures such as: the promotion of gender equality and women´s empowerment in the Uganda Vision 2040 and in its NDP II 2015/16 - 2019/20; ratifying regional and international instruments; and approving laws related to gender equality and women´s rights including the adoption of the Anti-Trafficking in Persons Act of 2008, the Female Genital Mutilation Act and the Domestic Violence Act, both of 2009, and the 2016 National Policy on Elimination of Gender Based Violence in Uganda. The Uganda Gender Policy 2007-2017 points to priority areas of interventions for the promotion of women´s equality.

38. The Ministry of Gender, Labour and Social Development (MGLSD) drives the promotion of gender equality in the country using the country´s constitution and the Gender Policy of 2007 as the key guiding documents. The Directorate of Gender and Community Development works through its representatives at District, County and Sub-county levels to reach out to communities. The Uganda Women Entrepreneurship Programme (UWEP) of 2016, yet to be rolled out nationwide, operates using a family-based approach with the view to addressing gender inequalities within the household, and it provides interest free loans to women organized in groups mostly for women´s engagement in agriculture and value addition.

39. Information received from MAAIF indicates that the ministry still does not have a focal point for gender that captures progress and promotes best practices in gender mainstreaming across all ministry units. However, the ministry has the opportunity to participate in the multisector Forum for Women´s Empowerment[31].

40. **Youth**. The Youth Policy reviewed in 2016 and National Youth Action Plan approved by the MGLSD provide the framework and guidelines for the development of programmes and services targeting youth. Employment opportunities for, and participation of, youth in agriculture continues to be extremely limited however, and many youth are among the ranks of the poor[32]. The Youth Livelihoods Programme (YLP) under MGLSD provides loans to male and female youth: approximately 40% of loans are dedicated to agriculture, especially in value addition.

41. **Nutrition**. Nutrition is a matter of multisector concern in Uganda, reflected in the multisector Nutrition Action Plan managed by the Office of the Prime Minister. A Multisector Coordination Committee involves eight ministries, 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. The corresponding Nutrition Advocacy and Communication Strategy 2015-2019 is the common tool to create awareness among the population on approaches to adequate nutrition. Decentralized District Nutrition Coordination Committees (DNCC) were established in 2014 to involve and coordinate actions at local level related to nutrition.

42. **Decentralisation**. The 1997 Local Governments Act provides the policy and institutional framework for decentralisation in Uganda. The Ministry of Local Government (MoLG) is responsible for the decentralization process. The Local Government Sector Investment Plan 2006-16 (LGSIP), prepared by MoLG and other stakeholders involved in implementing Uganda's decentralisation policy, provides the framework for guiding local government sector investments towards areas that are critical for improving service delivery and good governance, in support of the government's overall goal of poverty reduction. The six areas of focus of the LGSIP are: local government service delivery; political, administrative and fiscal decentralisation; good governance; and local economic development.

43. **Land.** The National Land Policy was approved in 2013, thereby resolving the anomaly of the country having land governance laws without an overarching policy. The policy now provides an

[31] Information received from key interviewees at the MGLSD during NOPP second design mission.
[32] USAID, 2011. Youth Map Uganda: Navigating Challenges, Charting Hope. A Cross Sector Situational Analysis on Youth in Uganda. Volume 1, Main Report.

overall framework for legal and institutional structure for tenure and land governance. The Constitution and the 1998 Land Act (amended in 2010) recognize four tenure systems, namely: customary, mailo, leasehold and freehold and one sub-tenure system: occupancy. In addition to these official categories, there are several other forms of tenancy and occupation (see Annex 2 for more detail). The amended Land Act also provides for the granting of: freehold titles, leasehold agreements, Certificates of Customary Ownership (CCOs), which can be upgraded to freehold titles, and Certificates of Occupation (COs), aimed at tenants on mailo or public land. In practice, few COs have been granted, largely due to a reluctance on the part of landowners because the CO essentially confirms the ground rent rate set in the 1920s. For this reason, leasehold agreements are often preferred. The Act also provides for the registration of group-owned land under Communal Land Associations. The Act provides for women to register land owned directly by them, to inherit land and prescribes consent of both spouses in the transfer of ownership; and it also provides for the co-registration of ownership by spouses. In practice women's land rights remain weaker than men's however. The 2010 Physical Planning Act provides for the formulation of a National Physical Development Plan, regional, district, urban and Sub-County physical development and land use plans that can regulate different and sometimes competing land use.

44. The Ministry of Lands, Housing and Urban Development (MLHUD) is responsible for policy and legislative formulation for land governance, ensuring national standards, maintaining a national land administration system and, in collaboration with the Ministry of Local Government, providing support for the decentralization process. Technical services in land administration and training to District land administration institutions are provided through Ministry Zonal Offices (MZOs). The Local Governments Act provides for the establishment of (a) District Land Offices; (b) District Land Boards (DLBs), responsible for approving and issuing freehold titles and leases for public land and approving CCOs and COs; (c) Sub-county Area Land Committees (ALCs) responsible for determining and marking boundaries, demarcating rights of way and easements, adjudicating ownership and "secondary"-use rights and making recommendations to the DLB for the approval of CCO and CO applications; (d) District Land Tribunals (DLTs), responsible for arbitrating land disputes referred by the Sub-County Courts (LC3); and (e) District registrars, responsible for registering Communal Land Associations and Community Forestry Associations. The Sub-County Chief is designated as the Sub-county Recorder and is responsible, on the basis of the decision by the DLB, for the issuing of CCOs and COs and for keeping records of these. Parish and Sub-county Courts are responsible for mediating and arbitrating land disputes. In practice DLTs are not operating in most districts and DLBs and ALCs tend to be under-resourced.

45. Implementation of land policy is through the Land Sector Strategic Plan Phase 2 (LSSP2 - 2013-2023). It aims to: (i) create inclusive and harmonized policy frameworks for land administration and land management; (ii) ensure efficient management, utilization and protection of land and land-based resources; (iii) improve equity in access to land, livelihood opportunities and tenure security of vulnerable groups; (iv) increase availability, accessibility and affordability of land information for planning and development; (v) ensure transparent land rights administration, accountable and easily accessible institutions, and strengthen systems and capacity for delivery of land services; and (vi) promote a "business approach" to the delivery of land services through multi-sectoral participation. The indicative cost for the plan is estimated to be USD 339 million over a 10-year period, Thus far, the MLHUD has secured USD 54 million (±16% of the total LSSP2 budget) under a World Bank-funded Competitiveness and Enterprise Development Project. The WB is also providing some support for strengthening land administration capacity to municipalities under its Uganda Support to Municipal Infrastructure Development Programme.

46. **Environment.** In response to the severe environmental issues in the country, the GoU has developed over 30 policy and legal instruments related to environment. This large number of instruments has enabled the country to address environmental challenges, but has also resulted in a complex governance situation[33]. These instruments are both sector-specific (such as on fisheries, forestry and energy) as well as cross-sectoral (such as climate change). The development of these policies has been largely guided by the 1992 Rio Convention and the subsequent Multilateral Environmental Agreements to which Uganda is party, such as the Convention on Biological Diversity (CBD), the UN Framework Convention on Climate Change (UNFCCC) and the UN Convention to

[33]Olarinoye and Orecho (2015). Evolution of environmental policies in Uganda and Nigeria: a developing country perspective. Available at: https://fenix.tecnico.ulisboa.pt/downloadFile/563568428721349/

Combat Desertification and Drought (UNCCD). Uganda is furthermore subject to the environmental requirements of the New Partnership for Africa's Development (NEPAD) as well as the Nile Basin Initiative.

47. The 1995 National Environment Act was a key milestone for environmental policy and provided for the establishment of the National Environmental Management Authority (NEMA) In 2014, the National Environmental Management Policy was updated. The new policy resulted from a participatory process and addresses key themes that have emerged in recent years, such as climate change and oil and gas development. It also provides the basis for new environmental tools and procedures, such as the Strategic Environmental Assessment which has already been applied for the oil and gas sector.

48. The Environmental Impact Assessment process in Uganda was instituted by the 1995 National Environment Act and further detailed by the 1998 Environmental Impact Assessment Regulations. Sector-specific EIA guidelines exist for the water and roads sectors. In principle, any project developer is required to submit a Project Brief to NEMA, based upon which NEMA decides whether there is need for developing an Environmental Impact Statement. The project developer is responsible for developing this EIS in accordance with the guidelines, which subsequently needs to be disclosed and approved by NEMA. Regular environmental audits are required to be carried out by NEMA-approved practitioners.

49. **Climate change**. The NDP II states that climate change potentially poses one of the greatest challenges for Uganda to realize its Vision 2040. The primary focus of Uganda's policy response to climate change is adaptation, with mitigation considered a secondary priority. This is a clear statement of policy direction that has implications not only for the institutional architecture of the climate change response but also on the current and future directions of climate finance delivery. Uganda's Intended Nationally Determined Contribution (INDC) submission of 2015 indicates that Uganda has one of the lowest per capita emissions in the world.

50. The GoU National Adaptation Programme of Action (NAPA) (2007) did not articulate policy principles and strategies but provided agreed response actions developed with a participatory approach. Several climate change policy instruments have now been adopted: the National Policy for Disaster Preparedness and Management[34]; the National Policy on Climate Change and Implementation Strategy approved in 2015[35]; and the Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (REDD) Readiness Strategy. With the rolling national development plans, these instruments articulate Uganda's climate change policy.

51. Rural and agricultural finance. According to the 2013 survey of Uganda ("Unlocking Barriers to Financial Inclusion"), the share of the adult population accessing formal institutions (banked and non-bank formal) almost doubled from 28% in 2009 to 54% in 2013. The growth was driven by the increase in the non-bank formal – mostly mobile money services – from 20% to 52% of the population. In the rural sector, 83% of households were found to have access to financial services, from the informal (35%), non-bank formal (32%) and formal (17%) sectors. There is no gender gap in financial access, though youth and older adults are more likely to be financially excluded. A minority – only 35% of the rural population – was found to take credit, and of this, more than half (19%) came from informal sources (and of this, more than half from VSLAs). Only one in every ten borrowers borrowed for agricultural production: major uses for the credit were for the purchase of inputs (54%), followed by hiring farm labour (29%), and purchases of livestock, agricultural land and farm equipment.

52. In 2009, the Government has established the Agricultural Credit Facility (ACF) in the Bank of Uganda (BoU) to work in partnership with 32 participating financial institutions (commercial banks, Uganda Development Bank, microfinance deposit taking institutions and credit institutions) to provide medium and long term loans (up to 8 years) to projects/programmes engaged in agriculture and agro-processing on more favourable terms than would be available using only commercial funds. Through ACF, which is administered by BoU, funds are made available to participating financial institutions at zero interest, to finance up to 50% of the total amount of funds onlent. The financing mechanism requires that the participating financial institutions disburse the whole loan amount to the sub-

[34] Republic of Uganda (2010). The National Policy for Disaster Preparedness and Management.
[35] Republic of Uganda (2012). Uganda National Climate Change Policy (Final version for Cabinet approval). December 21, 2012. Ministry of Water and Environment. Kampala.

borrower at a maximum of 12% p.a. interest, and then applies retroactively to BoU for the 50% GoU contribution. GoU is committed to providing UGX 30 billion annually to BoU for ACF, but the low demand and/or absorption capacity has meant that only about one third to one half of the allocation has been requested by participating financing institutions. For example, in 2016 BOU requested only about UGX 13 billion in 2016, while GoU cumulative contributions since 2009 totals UGX 118 billion.

53. In 2015, the Agriculture Finance Platform, hosted by MFPED and supported by the Uganda Agribusiness Alliance (UAA), SNV Uganda and Economic Policy Research Centre (EPRC), was established. The Platform objective is to strengthen coordination between Government agencies, farmers' organisations, the private sector and development organisations for the improved bankability of farmers and agricultural SMEs. A study on the provision of agricultural finance shows that about UGX 850 billion was made available for agriculture credit in the country in 2014, excluding support provides by development finance institutions such as AfDB, the East Africa Development Bank, aBiTrust etc. The Platform has found that: (a) agricultural products need to be better structured to fit the investments required in terms of grace periods, repayment frequency and duration; (b) microfinance products have been "stretched" to fit agriculture, but they do not work well and so the volume of funds available is less than required; (c) there is a need to re-consider the definition of collateral, and the commitment to buy should give the assurance that is needed for loan repayment by the financial institution; (d) clients need to be well-organised along the value chain, they must be either have knowledge or be getting technical support; and (e) the "off-taker" who is paying the farmer for his production is the channel through which loan repayments should flow to financial institutions.

54. In addition to the 32 financial institutions participating in the BoU ACF, a number of institutions are interested in providing agriculture finance for crop development and processing on advantageous terms. For example, the recently re-structured aBiTrust provides grants to organisations and companies to strengthen their business practices, financial management and accounting and standard operating procedures, as well as loans at very advantageous rates for crop and/or business development. The Private Sector Foundation Unit (PSFU) targets private sector enterprises carrying out agricultural activities in coffee, horticulture, edible oils, grains and pulses, fisheries, They recommended that any investment should focus on getting a reliable market (off taker) and provide an enabling environment for smallholder farmers to produce to meet the market requirements (quality and quantity). They also recommended the need to ensure the market has an opportunity to directly interface with the smallholders for capacity building, quality checks, best practices and other necessary support activities. In December 2016, IFAD and the EU have launched the Yield Uganda Investment Fund aimed at supporting the agribusiness sector. As the Platform builds its influence, the availability of agricultural finance is expected to grow.

55. **Private sector development.** Private sector led development is one of the strategies highlighted in NDP II to achieve Uganda's goal to attain middle income status by 2020. The private sector is expected to contribute 43% of the investment needed, through both PPP initiatives and direct private sector investment. The legal framework for business entities under Ugandan law is shown in Box 1 below. However, doing business in Uganda is still challenging for the private sector, the WB Doing Business report shows that the country is ranking 115 in ease of doing business and 157 in starting a business over 190 economies in 2017. Moreover, despite the important and increasing investments in infrastructures through the GoU budget, its systems of roads, rail, electricity, and water are generally poor, creating a less-than-enabling environment for private sector investment. Access to electricity countrywide is a meagre 15%, and only 6% of the rural population has access to power.

56. In the agriculture sector, NAP sees the private sector as complementing public sector institutions, and having a key role, investing in agricultural production at different scales and in agricultural commodity processing and value addition; participating in technology development, multiplication and dissemination; marketing both inputs and outputs; providing agricultural finance services to support investment in the sector; and advocating for improved policy, regulatory and institutional frameworks that effectively support private sector activities. The ASSP alsostates the important contribution of private sector investment in expediting agricultural commercialisation; and it also presents various opportunities for the private financial institutions to fund innovative activities or get involved in PPPs that promote market-driven production, processing and marketing initiatives.

57. ASSP also recognises the key role to be played by the private sector in the oil palm value chain, by ensuring the necessary economies of scale for production and in assisting smallholders to overcome the various production, productivity, processing and marketing challenges they face. It

explicitly commits GoU to continuing to identify land for both nucleus estate and smallholders; and to assuring the partners (private companies, implementing agencies and smallholders) of the availability of required infrastructure through policy interventions in the industry.

58. **Public Private Partnerships** (PPPs). The NDP II also states that the Government will create strategic partnerships with the private sector through for, among others, investment in infrastructure, human capital, minerals, oil and gas, tourism and agriculture. The 2015 PPPs Act provides a legal framework to regulate the development and implementation of PPPs in the country. The new law's objective is to regulate the procurement, implementation, maintenance, operation, management and monitoring of PPPs from project/programme conception to conclusion. Though the Act fills an important gap, legal reforms are still needed to streamline PPP implementation, the PPP law needs to be enacted and a unit coordinating implementation of PPP programs should be established. Capacity of government departments and agencies to develop, procure and monitor PPP projects needs to be built and public awareness should be created in order to guarantee understanding of the opportunities brought by PPPs and acceptance.

59. **Micro- Small- and Medium- Enterprise (MSME).** The MSMEs Policy developed by Ministry of Trade, Industry and Cooperatives in 2015 defines these enterprises as the engine of growth for the Ugandan economy, employing over 2.5 million, accounting for 90% of the entire Private Sector, generating over 80% of manufactured output and contributing 20% of GDP. The policy aims at stimulating the growth of sustainable MSMEs and contains guidelines to (i) provide enabling environment through policy, legal and institutional coordination framework; (ii) promote research, product/process development, innovation, value addition and appropriate technologies including ICT; (iii) promote product and service standards for quality assurance; (iv) support access to markets and business information services; (v) increase access to credit and financial services; (vi) enhance capacity building entrepreneurship, vocational, business and Industrial development skills; and (vii) enhance gender equity, inclusiveness and environmentally friendly businesses for sustainable development. Promotion of PPP initiatives and MSMEs clustering, association and formalization are mentioned among the guiding principles of the policy.

60. **Investment and fiscal policies.** Foreign investment in Uganda is regulated by Capital Markets Authority Act of 1996 (amended in 2015), the Companies Act of 2012, and the Investment Act of 1991 overseen by the Ugandan Investment Authority (UIA). Ugandan policies, laws and regulations are generally favourable towards foreign investors. The Investment Code allows foreign participation in any industrial sector except those touching on national security or requiring the ownership of land. Ugandan law also permits foreign investors to acquire domestic enterprises or establish greenfield ventures. Licensing from UIA requires a commitment to invest over USD 100,000 over three years. The 2012 Companies Act allows for the creation of single-person companies, permits the registration of companies incorporated outside of Uganda, and provides for share capital allotments and transfers. The UIA has also opened a “dedicated one-stop centre” that aims to help investors to identify investment opportunities; apply and receive the investment license online; pay all the assessed fees; supply details of business registration; apply for a tax identification number; and apply for land titles online. Computerization of the company registry has also reducing the time and number of steps required to start a business.

61. Other measures to encourage investment include fiscal incentives for both domestic and foreign investors[36], particularly for investors whose projects entail significant plant and machinery costs and involve substantial training. A range of annual VAT deferments, deductions and exemptions allows investors to pay no tax at all in the first year of their investment, and usually to pay substantially less than the 30% corporate tax rate in subsequent years. The Government also provides a 10-year tax holiday for investors engaged in export-oriented production and for agro-processing investors located more than 25 km away from Kampala. Other investment incentives are foreseen in four "priority" sectors: information and communication technology; tourism; value-added agriculture; and value-added investments in mineral extraction. Tax payment has been made easier (and tax compliance increased) with the introduction in 2009 by Uganda Revenue Authority (URA) of an “E-Tax” online submission system.

[36] In 2014, Foreign Direct Investment (FDI) was estimated at about USD 1.2 billion and 1 billion in 2015 by the World Bank. The UNCTAD World Investment Report shows that Uganda remains the leading recipient of Foreign Direct Investment (in terms of FDI stocks) in the East African region in 2015)

62. **Standards**. In Uganda standards are drafted and enforced by the Uganda National Bureau of Standards, an agency established, supervised by the Ministry of Trade, Industry and Cooperatives Local standards are developed through the Uganda Industrial Research Institute. Uganda is a member and adopts standards set by a number of institutions and domesticates standards developed by the International organizations. Uganda's standards landscape though remains underdeveloped with gaps in areas like food and agriculture; mechanical and building engineering, metallurgy, energy management, and ICT.

63. **Access to finance.** The NDP II states that extension of credit to the private sector improved over the last decade, with an average credit growth of about 24 % per annum. However, the private-sector credit to GDP stands at an average of 12.0%, while the level of financial intermediation, measured by the ratio of credit to deposits stood at an average of 62.1% during the period 2007-2011, much lower than in neighbouring Kenya and Tanzania. The institutions providing financial services are still few and include about 23 commercial banks; three credit and finance companies; four microfinance deposit-taking institutions (MDIs; 60-80 credit-only MFIs and about 3,500 Savings and Credit Cooperatives (SACCOs). Outside of Ugandan-owned Crane Bank, most of Uganda's largest banks are foreign owned, including major international institutions such as Citigroup, Barclays, Stanbic, Standard Chartered, and Bank of Baroda.

64. In the past years, GoU has been implementing financial sector reforms mainly aiming at improving stability and financial deepening with strengthening the regulatory and supervisory frameworks and enhancement of prudential regulation. However, despite these improvements private sector demand for finance is abundantly unmet in the country, and according to the credit bureau coverage of adult population stands at 6.6% and affordable financing remains out of reach for most small to medium enterprises, the lending rate for low risk customers currently averaging 25%. Competitiveness and innovation are steadily increasing, but lending to the private sector is still relatively low, largely because of perceived high risk (limited collateral) among potential borrowers.

65. In 2009, the Government established the Agricultural Credit Facility (ACF) in the Bank of Uganda (BoU) to work in partnership with 32 participating financial institutions (commercial banks, Uganda Development Bank, microfinance deposit taking institutions and credit institutions) to provide medium and long-term loans (up to 8 years) to projects/programmes engaged in agriculture and agro-processing on more favourable terms than would be available using only commercial funds. Through ACF, which is administered by BoU, funds are made available to participating financial institutions at zero interest, to finance up to 50% of the total amount of funds onlent. The financing mechanism requires that the participating financial institutions disburse the whole loan amount to the sub-borrower at a maximum of 12% p.a. interest, and then applies retroactively to BoU for the 50% GoU contribution.

66. GoU is committed to providing UGX 30 billion annually to BoU for ACF, but the low demand and/or absorption capacity has meant that only about one third to one half of the allocation has been requested by participating financing institutions. For example, in 2016 BOU requested only about UGX 13 billion in 2016, while GoU cumulative contributions since 2009 totals UGX 118 billion.

67. Financial institutions willing to provide financing to farmers, using either resources from BOU or their own resources have developed strict systems of loan appraisal, documentation, monitoring and recovery. All financial institutions and donor programmes providing credit for agriculture follow similar procedures and apply similar conditions. The quality and capacity of the governance of the cooperative/company is the critical determinant for a positive outcome of the appraisal process.

68. In 2015, the **Agriculture Finance Platform**, hosted by MFPED and supported by the Uganda Agribusiness Alliance (UAA), SNV Uganda and Economic Policy Research Centre (EPRC), was established. The Platform objective is to strengthen coordination between Government agencies, farmers' organisations, the private sector and development organisations for the improved bankability of farmers and agricultural SMEs.The preliminary recommendations of the Platform are:

- the structure of agricultural products does not fit the investments required in terms of grace periods, repayment frequency and duration, and should be better structured;
- microfinance products have been "stretched" to fit agriculture, but this does not work well and is outside of formal financial institutions so the volume of funds available is below what is needed to reach scale in crop investments;

- there is a need to re-consider the definition of collateral, and the commitment to buy (a supplier agreement) is gives the assurance that is needed for loan repayment by the financial institution;
- clients need to be well-organised along the value chain, they must be either have knowledge or be getting technical support; and
- the “off-taker” who is paying the farmer for his production is the channel through which loan repayments should flow to financial institutions (farmers actually borrow through their off-takers).

69. Interestingly KOPGT has been assessed as a client of a borrowing institution (UDB) by the Platform during the course of their study on agricultural finance and found to fulfil the criteria of the appraisal process of financial institutions and the above study recommendations: its product has been tailored to its smallholder oil palm growers, it provides both technical advice and monitoring together with its financing, and it is the “off-taker” of farmer production so it repays the loans and then pays farmers the balance of their earnings.

70. In addition to the 32 financial institutions participating in the BoU ACF, a number of institutions are interested in providing agriculture finance for crop development and processing on advantageous terms. For example, the recently re-structured aBiTrust provides grants to organisations and companies to strengthen their business practices, financial management and accounting and standard operating procedures, as well as loans at very advantageous rates for crop and/or business development. The Private Sector Foundation Unit (PSFU) targets private sector enterprises carrying out agricultural activities in coffee, horticulture, edible oils, grains and pulses, fisheries. They recommended that any investment should focus on getting a reliable market (off taker) and provide an enabling environment for smallholder farmers to produce to meet the market requirements (quality and quantity). They also recommended the need to ensure the market has an opportunity to directly interface with the smallholders for capacity building, quality checks, best practices and other necessary support activities. In December 2016, IFAD and the EU launched the Yield Uganda Investment Fund aimed at supporting the agribusiness sector. As the Platform builds its influence, the availability of agricultural finance is expected to grow.

Attachment 1: Legal framework for business entities under Ugandan law

1. **Sole proprietorship** is a business owned by one person. The owner is fully liable in the event that the business incurs liability. A typical example of a sole proprietorship is the farmer who carries on the business of growing a crop for sale and earning income.

2. **Partnership** is defined as a relation between 2-20 persons carrying on a business with a view of profit. It provides the vehicle whereby persons may join in business, each providing capital, labour and skills either together or separately. The liability of members in a partnership is unlimited and every partner is deemed to be an agent of the firm and is bound by the acts and omissions of other partner(s); a partnership is dissolved by the death, bankruptcy and or insanity of the partners; and a partnership cannot hold or own property on its own.

3. **Unincorporated Associations** provide a light arrangement that enable Individuals to join together to conduct business without necessarily going through the process of incorporation of a company. There is no limit to membership; the liability of members is unlimited; the association does not have corporate status; and it therefore cannot make contracts and own property. Associations of more than 20 people cannot carry on business with the main object of gain. A typical example of unincorporated associations is the producer organization (PO).

4. **Cooperative Societies** can be defined as organizations of individuals and groups with similar interests who voluntarily bring together resources such as land, machines and labour with the aim of solving their social and economic problems using collective effort. Agricultural cooperative societies bring together farmers to facilitate purchase of inputs, processing, storage and/or marketing of their produce. A cooperative society, when registered, becomes a body corporate, with perpetual succession, power to hold property, to enter into contracts, to institute and defend suits and other legal proceedings, etc.

5. A society which promotes the economic and social interests of its members in accordance with cooperative principles and which, in the opinion of the Registrar of Cooperatives, is capable of promoting those interests may be registered with or without limited liability; except that a cooperative union or any apex society shall be registered with limited liability. No society shall be registered unless: (i) it consists of at least 30 persons, all of whom are qualified for membership; (ii) in the case of a secondary society, it consists of at least two primary societies among its members; (iii) In the case of a tertiary society, it consists of at least two secondary societies among its members; or (iv) In the case of an apex society, it consists of two or more secondary societies. The lower levels of organization must be registered as cooperatives to join an apex cooperative.

6. **Companies**. A company is a distinct legal entity. Its property is its own and a member cannot claim to be owner of the company's property during its existence. Shares in a company are freely transferable, subject to certain conditions, such that no shareholder is permanently or necessarily wedded to a company. When a member transfers his shares to another person, the transferee acquires all the rights of the transferor in respect of those shares. A company acts through its Board of Directors for carrying out its activities and entering into various agreements. A company can sue or be sued in its own name as distinct from its members. A company is administered and managed by its managerial personnel i.e. the Board of Directors, and shareholders need not be necessarily the managers of the company. A company is characterized by perpetual succession unless it is specifically wound up, and its membership may change. The following types of company are envisaged.

- **Private Companies** enable 2 – 50 people or a small body of partners to carry on a business. It has restricted rights to transfer its shares; and it cannot invite the public to subscribe for any shares or debentures of the company.
- **Public Companies** have a minimum of 7 members, there is no maximum; the public can freely subscribe for any shares or debentures of the company; and there are no restrictions to transfer of shares. Such companies enable the investing public to share in the profits of an enterprise without taking any part in its management. It is designed to facilitate the raising of

capital by enabling a large number of owners to entrust it to a small number of experts and managers.

- **Limited Liability Companies** comprise those limited by shares and those limited by guarantee.
- **In companies limited by shares**, the liability of members is limited to the amount of uncalled share capital. No member of company limited by the shares can be called upon to pay more than the face value of shares or so much of it as is remaining unpaid. Members have no liability in case of fully paid up shares. Companies are formed to enable two or more traders or a small body of partners to carry on a business. In these companies, incorporation is a device for personifying the business and divorcing its liability from that of its members, despite members retain control and share the profits.
- **Companies limited by guarantee** are those formed for purposes other than profit, i.e. for social, business but non-profit purposes. In this case incorporation is merely a convenient substitute for the trust. A company limited by guarantee is registered, with the liability of its members limited by its memorandum of association to such amount as the members undertake to pay if necessary on liquidation of the company. A guarantee company may be a company with share capital or without it. Many organisations such as the Uganda Coffee Farmers Alliance, their depots and producer organisations are registered as companies limited by guarantee.

Annex 2

Poverty, targeting and gender

Annex 2: Poverty, targeting and gender

I. Context

A. Background

1. This annex will focus on providing relevant national level information for Project design. Specific information will be incorporated, as relevant, on those Districts of Central and Eastern Regions identified to date with agro-ecological potential for oil palm development and thus considered as potential for NOPP investment, namely, Kalangala; Buvuma; Mayuge, Masaka, Rakai Buikwe, Bugiri and Namayingo Districts.is

2. **Demography**. Uganda has been referred to as one of the youngest countries in the world because of the high proportion of population under 18 (58%). According to the last census the country´s population was 34.6 million in 2014[37], and it is estimated at over 41 million in 2017. Approximately 77% of the country´s population lives in rural areas, despite the migration which has taken place in the last two decades[38] from rural to urban areas. Migration also takes place between rural areas: during the NOPP design mission's field visit to Buvuma and Kalangala interviewees described how the population has increased over the past 20 years due to progressive waves of migration from the mainland and poorer and conflict affected Regions of the country.

3. The Central Region hosts 22% of the country´s population, with Buvuma and Kalangala Districts being the two least populated Districts..

Table 11: Key data on NOPP target districts identified to date

District	Area (km²)	Total population	Households	Population density (hab/km²)	Households dependent on subsistence farming	Households eating <2 meals / day
CENTRALREGION						
Buvuma	218 *	89,890	25,183	460.4 *	43.9%	10.4%
Buikwe	1,209	422,771	98,153	256 ***	46.7%	12.3%
Kalangala	468**	54,293	20,100	123.9 **	22.0%	14.0%
Masaka	1,158	297,004	75,777	256	42.3%	12.7%
Rakai	3,251	516,309	116,601	159	73.4%	9.5%
EASTERNREGION						
Bugiri	1,041	382,913	74,529	368	80.8%	6.2%
Mayuge	1,075	473,239	95,533	440	74.1%	5.6%
Namayingo	586	215,443	42,942	367	75.5%	9.8%

Source: UBOS, 2016.
** https://www.citypopulation.de/php/uganda-admin.php?adm2id=090*
*** Land area; https://www.citypopulation.de/php/uganda-admin.php*
**** http://buikwe.go.ug/district/population*

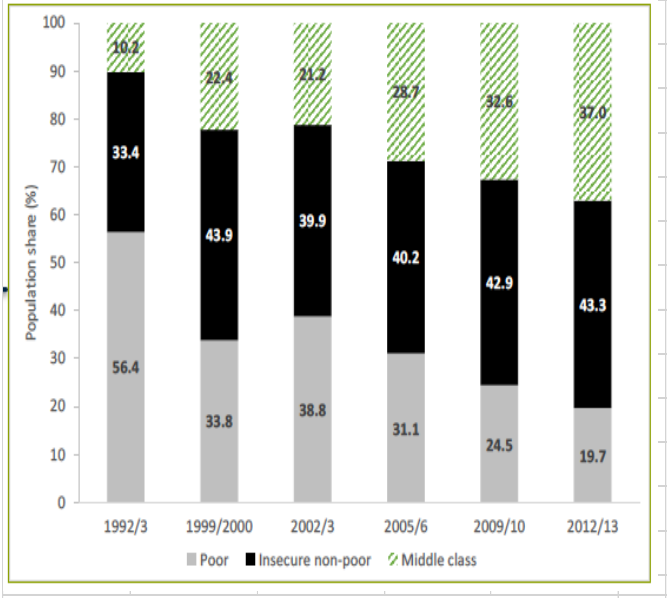
B. Poverty

4. Uganda has made important strides in reducing poverty over the past two decades. According to the GoU poverty has decreased from 56.6% in 1992/3 to 19.5% in 2012/13[39], due to the combined effects of the advent of peace in the north of the country, urbanization, good agricultural policies and favourable weather conditions. However, The Uganda World Bank Poverty Assessment Report (2016) warns that Uganda´s national poverty line values should be 25-30% higher to reflect changes in consumption since 1993 when it was established, and align with international standards. The

[37] Uganda Bureau of Statistics, 2016. The National Population and Housing Census 2014.
[38] GoU, 2015. Second National Development Plan.
[39] The national poverty line in Uganda is based on the cost of meeting minimally required caloric needs (3,000) and basic non-food items. The national poverty line used in the last poverty measurements is Ugandan Shillings 29,505. Uganda Bureau of Statistics, 2014. Uganda National Household Survey 2012/2013.

application of such measures would result in actual poverty levels in Uganda being substantially higher than officially reported.

Figure: Poverty Trends in Uganda 1992 – 2012.



Source: WB, 2016 with data from household surveys.

5. Variations in poverty levels are visible throughout the country. Based on the use of the official national poverty line, around 20% of the total population is considered poor, according to the GoU household survey 44% of households in the Northern Region are poor against 4.7% in Central Region (a figure that is skewed by the influence of Kampala) and 24.5% in Eastern Region. Poverty is consistent among women and men-headed households[40]; however income / consumption poverty is more pronounced in rural areas (89%).

6. In addition to the 20% or so of households in poverty, a further 43% are considered economically active but vulnerable (see Table 3), even if above the national poverty line. Indeed, according to analyses from household panel surveys in Uganda approximately 35% of participating households moved into or out of poverty between 2009/10 – 2010/11. In fact, the percentage that moved into poverty was twice as high as the percentage that made it out of poverty (24.7% vs. 10.7%)[41].

7. The predominantly small-scale nature of agriculture in Uganda reflects the limited ownership of productive assets including land, equipment, knowledge, access to technical support services and access to credit. While it is true that many of the poorest households have access to no or very small parcels of land, having access to land in Uganda does not necessarily mean living above the poverty line as in many instances the land that households have access to is not (profitably) used. Those who have access to more than one parcel of land tend to have it in different places, which are not necessarily contiguous. Not having access to land or cultivating very little land in rural areas can expose rural households to high levels of food insecurity and precarious income levels. Isolation and limited access to markets, together with poor health (mainly chronic disease), low education and high dependency rations are additional factors locking households in poverty.

8. The top expenditure categories for households in Uganda across all socio-economic groups - in order of importance - are food, drinks and tobacco; rent, fuel and energy; transport and communication and education. However, most Ugandans do not only have limited spending capacity, most also face multidimensional poverty, manifested through persistently low standards of living and poor access to education and health care, conditioning access to payment for services. As with monetary poverty, the Central Region displays the lowest levels of multidimensional poverty in the country: however, it stands at fully 54%as compared to the national multidimensional poverty estimate of 73%[42]. Also, while much progress has been made in increasing access to education – mainly primary education – Uganda still ranks 163/188 in the Human Development Index[43].

9. Together, these factors explain poverty and highlight its dynamic and multifaceted nature. Truly addressing poverty in Uganda requires more than only raising household incomes. Addressing agriculture-based poverty in Uganda in the long-term requires addressing bottlenecks and common shocks affecting rural livelihood strategies. This includes increasing access to equipment and inputs to sustainably raise agricultural production and productivity, addressing market imperfections and

[40] Uganda Bureau of Statistics, 2014. Uganda National Household Survey 2012/2013.
[41] Kasirye, I., and Ssewanyana, S., 2013. The Dynamics of Income Poverty in Uganda. Insights from the Uganda National Panel Surveys of 2009/10 and 2020/11. EPRC, Occasional Paper No.35.
[42] Levine, S., Maweki Batana, Y. and Muwonge, J., 2012. A robust Multidimensional Poverty Profile for Uganda. Oxford Poverty and Human Development Initiative, Working Paper No. 55.
[43] UNDP, 2015. Human Development Report 2015: Work for Human Development. Briefing Notes for Countries on the 2015 Human Development Report, Uganda.

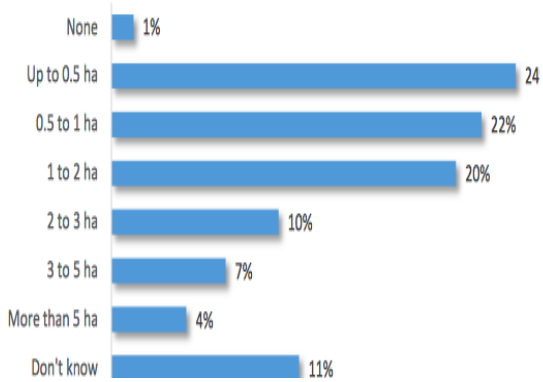
increasing women´s and youth´s active and profitable engagement in the sector. Equally important is to raise smallholder resilience through skills and competence building, support the diversification of income streams to smooth consumption and contribute to household asset building.

C. Rural Livelihoods

10. Uganda is predominantly a rural country; 75% of the population is involved in agriculture[44]. Smallholder farmers produce about 75-80% of the country´s food through a mixed cropping system including *matoke* (bananas), cassava, rice, millet, sweet potatoes, beans, maize in some instances mixed with cash crops. Cash crops account for 7.2% of agricultural activity and fisheries for 5.1% of income generating activities at household level[45].

11. Smallholder farmers cultivate an average of 1.1 ha[46]; however, almost 50% of farmers report only having up to 1 ha. of land; another 20% between 1-2 ha., while only 21% report having 2 ha. of land or more.

Figure 2: Hectares of land owned by smallholder farmers



Source: CGAP, April 2016. National Survey and Segmentation of Smallholder Households in Uganda.

12. Despite documented increase in rural household income levels, Uganda´s agricultural production base remains little changed. Persistent reliance on manual, low-input, low-yield rain-fed agriculture limits production and productivity, renders households vulnerable to shocks and limits their capacity to escape poverty. In 2012, only 22% of communities in the country received technical support from GoU agricultural extension services[47]. In addition, recurrent drought spells, as has been the case in the past two years, are reported to have further affected agricultural production. Meat and milk production, together with cattle rearing have complemented agricultural livelihoods[48].

13. Reliance on one income generating activity – especially if it is agriculture - exposes households to higher risks of staying or falling into poverty, if faced with drought or a reduction in the price of commodities. Approximately half the households involved in agriculture are also engaged in off-farm activities: diversification constitutes a livelihood resilience building mechanism and a mechanism to cope against shocks. However, even when poor or vulnerable households resort to wage labour, the income earned is not always enough to meet household needs[49].

14. **Livelihoods in Project areas.** Fishing was for a long period the economic driver for households on the islands of Kalangala and Buvuma Districts. The encouraging performance of artisanal fisheries attracted migrants from the neighbouring mainland, northern Uganda and neighbouring countries such as Tanzania, Rwanda in the past decades. However, interviewees reached during the design missions indicated that fish stocks in Lake Victoria have seen substantial declines in recent years. As a result, an increasing number of these households have turned to agriculture as a coping strategy. In fact, many smallholders engaged in oil palm with IFAD support in Kalangala (the main island Bugala, and the minor islands Bunyama and Bubumbe) were previously engaged in fisheries.

15. The benefits of engagement in oil palm witnessed in Kalangala – mainly, sharp increase in income levels and expectations of stable incomes in the long term – have raised interest among many

[44] Uganda Bureau of Statistics, 2016. The National Population and Housing Census 2014.
[45] Uganda Bureau of Statistics, 2014. Uganda National Household Survey 2012/2013.
[46] Uganda Bureau of Statistics, 2010. Summary Report on Uganda Census for Agriculture 2008/2009.
[47] Uganda Bureau of Statistics, 2014. Uganda National Household Survey 2012/2013.
[48] *Dietz, T., Foeken, D. Klaver, W, Lelivelld, A., 2013.* Agricultural Dynamics and Food Security Trends in Uganda. Developmental Regimes in Africa Project- Research Report 2013-ASC-2. London-Leiden.
[49] Kasirye, I., and Ssewanyana, S., 2013. The Dynamics of Income Poverty in Uganda. Insights from the Uganda National Panel Surveys of 2009/10 and 2020/11. EPRC, Occasional Paper No.35.

in neighbouring Districts. Expectations are high in Buvuma, with oil palm being regarded by local dwellers as offering higher profitability and resilience.

16. Agriculture has traditionally and continues playing a much more predominant role in the livelihood strategies in the Eastern Region.. Smallholders in Mayuge engage in crop farming; sugar cane is the main cash crop in the area. Interest in oil palm is manifested through the establishment of the Mayuge Oil Palm Growers Association (MAPOGA).

D. Socio-economic characterization of households

17. Households in Uganda can be stratified according to their socio-economic characteristics, namely: (i) poor; (ii) economically active but vulnerable; or (iii) stable middle class. The proportion of households in each socio-economic category have been drawn from the GoU household surveys and the national poverty line.

Table 12: Socio-economic characterization of households in Uganda

Socio Economic Categories	Estimated %	Key Characteristics
Poor Households	20%	• No or access to very small pieces of land; cultivate in average up to 0.5 ha. of land • Livelihood strategies include agriculture and low wage labour provided to better endowed households within communities and beyond • No or basic agricultural tools; no animals or only a reduced number (chickens, could have goats); difficult to access extension services • Low levels of education (none or primary schooling) • Large families / high dependency ratios (average 6.1 people) • Some households are labour constrained • Less than half own mobile phones • Households in this category are more prone to be affected by more frequent spells and more severe levels of food insecurity
NATIONAL POVERTY LINE		
Economically Active but Vulnerable Households	43%	• Cultivate an average of 0.5-1 ha. of land • Have more agricultural tools, access to local seeds (and at times improved yield seeds); some of these households have access to limited extension services available • Households in this category generally have more animals, including chickens, goats and pigs • A large proportion of households have primary or secondary education; some tertiary education • Medium sized families (average 4-5 people) • Livelihood strategies are strongly associated to agriculture with a tendency towards mixed farming, coupled with other income sources • More than half own mobile phones
Stable Middle Class	37%	• Cultivate an average of 1.4-3.2 ha. of land • More likely to have poultry, goats, pigs and are more likely to have large livestock. • Easy access to labour to work on their fields; easier access to extension services (albeit limited), improved seeds and other inputs • Tend to have secondary education but can reach tertiary level • Tend to have smaller families (average 3.4- 5 people) • Livelihoods are often secured through stable wage employment and other income sources even though there is participation in agriculture

Source: Uganda Bureau of Statistics, 2014. Uganda National Household Survey 2012/2013; Uganda Bureau of Statistics, 2012. Uganda Demographic and Health Survey 2011; IFPRI, March 2014. Uganda Agricultural Snapshot 2009/2010.

18. **The socio-economic stratification of households in the Project area** appears to be somewhat consistent with the national level description above, although it is probable that variations be found at individual community level. It is likely that in most areas yet to be targeted with oil palm, the proportion of *stable middle class* strata is smaller, while the proportion of *poor* and/or the *economically active but vulnerable* account for a larger proportion of households than the national average.

19. This was in fact the case in some of the communities visited during the design mission in Buvuma, as expressed by community members and other stakeholders through participatory economic stratification exercises. Interviewees estimated that about 30-35% of the population was *poor*, another 35-40% *economically active but vulnerable* and only between 25-35% could be characterized as the more resilient *stable middle class*. Some interviewees indicated that the ranks of the poor had in fact increased in the last couple of years as a result of changes in the patterns of access to land by some households either due to no longer having access to forests, having sold land for the upcoming oil palm Project and household heads not having taken appropriate measures to ensure continuity of access to land and/or restoration of livelihoods, as well as due to land transactions between individuals beyond Project control. However, the dimension of this situation needs to be better understood.

20. In Bugala Island (Kalangala District), where approximately 25-30% of households have engaged in oil palm, the local economy has been positively transformed. Interviewees here too, indicated that a small proportion of island dwellers has lost access to land affecting their livelihoods and food production capacity for some of the reasons indicted for Bugala, however the proportion and exact causes behind this situation need to be better understood.

E. Social risks / shocks affecting households

21. External shocks, such as adverse weather conditions (drought, late arrival of rain) constitute one of the most important shocks affecting household wellbeing at national level. These external shocks were cited as the number one destabilizing factor by interviewees in Buvuma and Kalangala reached in the context of the first design mission. An equally important threat to agriculture-based livelihoods in Uganda is the fluctuation in the price of agricultural commodities[50].

22. The second level shocks reported by interviewees in the field are migration of the household head and ill health. In repeated instances interviewees reached at community level indicated that a number of households had become vulnerable as women and their children had been left behind by their male partners when out-migrating from Bugala and the main island of Buvuma. Regarding health, no specific health condition was consistently referred to but the country´s HIV epidemic deserves due attention.

23. Food insecurity and malnutrition are multifaceted and constitute both causes and consequences of poverty and shocks. International evidence also indicates that as income streams increase nutritional content of food consumed can be compromised by households due to a combination of factors, including lack of time to prepare balanced and nutritious meals and local association of purchased processed foods with higher social status. As such, malnutrition is considered in the context of this design mission as a potential social risk.

24. Finally, almost all stakeholders interviewed in the context of this design mission expressed their concern as to the consequences of gender inequality in women´s, household and community wellbeing. Concretely, it was identified as an important threat to the equal distribution of intra-household benefits.

25. **Food insecurity**. Food insecurity is most acute in Northern Uganda due to the history of armed conflict in the area. However, pockets of food insecurity do exist throughout the country, resulting from low levels of food production (due to limited access to land, size of landholdings, land being allocated to cash crops, diminishing soil fertility, unstable weather and drought); food losses during post-harvest and rise in food prices. Poor households as well as those with adults with chronic illness – including HIV/AIDS - face higher risk of food insecurity.

26. Dwellers of the Central Region are considered to be moderately food insecure with many risking becoming insecure in the advent of shocks. Moreover, food security is also experienced differently at household level as women have little control over productive resources and the benefits of their work. Conversely, women are ultimately responsible for feeding themselves and their children. Interviewees shared examples such as these also during the fieldwork in Kalangala and Buvuma for the design of this Project.

[50] World Bank https://www.gfdrr.org/sites/default/files/publication/Vulnerable%20to%20Shocks%20-%20Uganda_GFDRR.pdf accessed 25th January 2017.

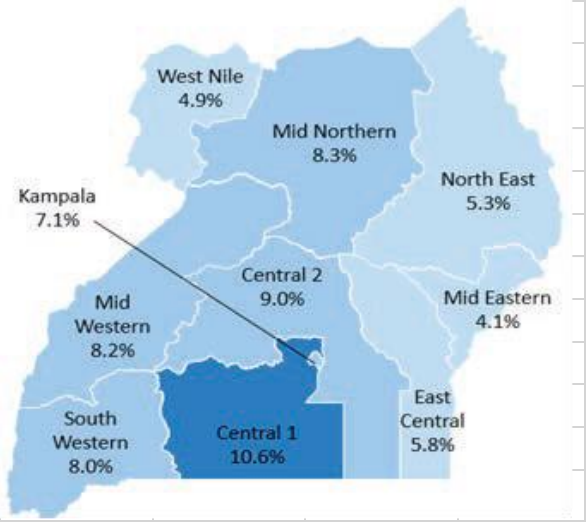
27. **Malnutrition**. Malnutrition affects not only physical development, fulfilling minimal nutritional requirements – especially at an early age - it is also essential for cognitive development; as such it largely determines the opportunities available to future generations. Malnutrition in Uganda directly or indirectly contributes to approximately 60% of child mortality[51]. Disease burden along with limited food *availability,* access and poor *utilization* of foodstuff appear to be the prime drivers of malnutrition in the country. In Uganda, high dependency ratios among poorer households, limited access to land, low agricultural yields, dietary preferences, gender inequality and limited understanding of infant and children´s nutritional needs are some of the underlying causes for malnutrition.

28. According to the recently published Demographic Health Survey (2016) stunting among children under five is at 29%' reflecting poor long-term food consumption patterns among women and children[52]. Adolescent girls are the hardest hit among women in reproductive age in Uganda[53]. Stunting rates are higher in the Northern, Eastern and Southwest Regions as well as in rural areas overall. Greater involvement of men in household responsibilities has in Uganda been seen to be one of the most critical factors in preventing and controlling malnutrition[54].

29. **HIV/AIDS**. Despite the impressive decline in HIV prevalence in the 80s and 90s, the latest data available for Uganda (2011) indicates that the country continues to have the highest HIV prevalence in the East Africa Region. While declining, the national HIV prevalence stands at 7.1% among the general adult population; the Central Region – where much of NOPP operations will take place - being the hardest hit (10.6%).

30. Since 2011, Uganda aggressively intensified bio-medical interventions to fight HIV both in terms of prevention and access to care and treatment services. The number of patients on Anti-Retroviral Treatment (ART) has drastically increased (now around 750,000 patients).Nevertheless, it is estimated that only 51% of Ugandan adults eligible for ART actually are in treatment[55]. New HIV infections and AIDS related deaths have also decreased. Despite the positive trend though, new infection rates continue to be alarmingly high[56]. Interviewees also indicated that adherence to ARV treatment is still an issue of concern

Figure: HIV Prevalence by Region in Uganda



Source: UAC, April 2015.

31. In the last decade, the implementation of interventions addressing behavioural and structural causes of HIV transmission has lagged behind. In Uganda, HIV is mainly transmitted in stable couples (through casual heterosexual sex), sex workers and their clients. High-risk sexual behaviour, including inconsistent condom use, multiple concurrent partnerships and transactional sex[57], stigma and discrimination manifested through non-disclosure of HIV status, explain the state of the national HIV epidemic. In Uganda, gender inequality, including Gender Based Violence, further exacerbated by the consumption of alcohol, constitute some of the most important structural drivers of the epidemic.

32. The country recognizes that specific interventions are required for populations in ´hot spots´[58] (areas with a higher incidence and risk of

[51] FHI360, 2010. The Analysis of the Nutrition Situation in Uganda. Food and Nutrition Technical Assistance Project (FANTA 2).
[52] Uganda Bureau of Statistics, 2017. Uganda Demographic and Health Survey 2016. Key Indicators Report.
[53] GoU, 2015. Second National Development Plan.
[54] FHI360, 2010. The Analysis of the Nutrition Situation in Uganda. Food and Nutrition Technical Assistance Project (FANTA 2).
[55] Uganda AIDS Commission, June 2015. 2014 Uganda HIV and AIDS Country Progress Report.
[56] Uganda AIDS Commission, June 2015. 2014 Uganda HIV and AIDS Country Progress Report.
[57] Research in Uganda indicates that peer and family pressures, poverty and wealth are some of the key factors explaining transactional sex. Samara, S., 2010. *Something for Something, Love: The Motivations of Young Women in Uganda*. Journal of Health Organization and Management 2010; 24(5):512-9.
[58] Uganda AIDS Commission, April 2015. National HIV and AIDS Strategic Plan 2015/2016 – 2019/2020. An AIDS Free Uganda, My Responsibility!

transmission of HIV).In Uganda, fisher folk, and the communities in which they live, are considered as populations at higher risk. According to interviewees interventions targeting populations in these areas are limited. Experience in the country in the 90s is consistent with international evidence indicating that behaviour change requires interventions at multiple levels[59].

33. Unequal gender relations and other vulnerability factors result in HIV prevalence being higher among women than men (8.3% vs. 6.1%, respectively)[60]. However, data from 2013 indicates that the proportion of women with stable viral suppression after six months of initiating ART doubled that of men, meaning that women tend to adhere to ART better than men. Lower enrolment rates in HIV clinical care services and adherence to treatment among men could result in higher AIDS mortality rates among men in the near future[61]. Factoring these behavioural patterns in relation to women´s increased vulnerability to HIV acquisition and men´s behaviour towards HIV care and treatment in Project design is key for the sustainability of NOPP investments in target households. Moreover, the impacts of HIV and AIDS are not only visible at household level; it is foreseen that in 2025 the Ugandan economy will be 39% smaller with HIV/AIDS than it would be without it[62].

F. Land access and tenure security

34. Land tenure arrangements in Uganda are unusually complex. The Constitution and the 1998 Land Act (amended in 2010) recognize four tenure systems, namely: customary, mailo, leasehold and freehold and one sub-tenure system: occupancy. In addition to these official categories, there are several other forms of tenancy and occupation.

35. Most land in Uganda is held under **customary tenure**, most of it unregistered. Customary tenure rights are derived from the use of land and natural resources by families, clans and tribes. They usually balance private or familial rights of access and use with group, clan and tribal common use rights. Typically, families are allocated private rights to crop and residential lands and common use rights are allocated to groups or held by clans or tribes for grazing lands and forests. In pastoralist communities, there is usually more emphasis on group or communal rights but even here certain families or individuals may have greater rights (and responsibilities) to particular areas, for e.g. in the vicinity of a certain water point. Crop farming communities tend to have more emphasis on private familial rights with limited communal land. In areas of high demand there may be very little communal land.

36. The "**Mailo" land ownership** tenure system, unique to Uganda, is prevalent in the central and southern parts of the country covered by the Bugandan kingdom and parts of the Bunyoro kingdom. The system originated at the turn of the twentieth century, when freehold ownership rights were granted by the British colonial authorities to the Bugandan king, various chiefs and nobility over large tracts of customary land (measured in square miles, hence the term "mailo"), effectively turning most of their subjects, who had customary usufruct rights into "**Kibanja" tenants**. In practice though, the original customary owners continued to be considered the owners of the land. Over time both mailo land owners and Kibanja tenants may have sold their rights to others.

37. **Leasehold and freehold tenure** are less prevalent. Leasehold typically involves the leasing of public land to individuals or private sector investors. Freehold tenure was first introduced prior to independence in the late 1950s under the "Swynnerton Plan" in a few pilots. Titles typically remained in the name of the original owner who then granted customary rights to descendants (usually male heirs). Freehold titles were also given to group ranches in the cattle corridor. A second wave in the granting for freehold titles took place in the late 1980s with the granting of freehold titles to public land in areas of relatively low population densities. Today, freehold titles are granted on demand from users who pay for the registration.

38. **"Bona fide" occupants** are people who have lived on the land for more than 12 years prior to the passing of the Act, in other words, since 1983. In addition to Kibanja tenants there are **"licensee" tenants** that are granted temporary use rights typically on a seasonal or annual basis by either

[59] Green, E., Halperin, D., Hogle, J.A., Nantulya, V., 2006. *Uganda´s HIV Prevention Success: The Role of Sexual Behaviour Change and the National Response*. AIDS and Behaviour, VOL. 10 No. 4, July 2066. DOI: 10.1007/s10461-006-9073-y.
[60] Ministry of Health, 2012. Uganda AIDS Indicator Survey.
[61] UNAIDS, 2013. Getting to Zero.
[62] Uganda AIDS Commission, April 2015. National HIV and AIDS Strategic Plan 2015/2016 – 2019/2020. An AIDS Free Uganda, My Responsibility!

owners (including GoU) or Kibanja tenants usually based on a cash or crop payment. They may not grow perennial crops but may use land over a long period of time, eventually also gaining or buying permanent rights. Finally, there are **squatters** – people who may be using land without the knowledge or consent of the owners or Kibanja tenants, but sometimes given permission by someone to use the land. In some cases, squatters may also derive some sort of rights if their occupation is not contested over time.

39. **Women's land rights.** The Act provides for women to register land owned directly by them, to inherit land and prescribes consent of both spouses in the transfer of ownership. The amended Act provides for the co-registration of ownership by spouses. In practice women's land rights remain weaker than men's.

40. **The Project area.** In Kalangala and Buvuma Districts, Mailo tenure, with associated sub-systems of Kibanja tenants, licensees and bona fide occupants is the prevailing system. It is also the prevailing system for most of the mainland areas adjacent to the islands; though customary tenure, characterized mainly by family ownership of residential and crop lands with communal access to grazing lands and forests, is prevalent in most of the other areas being considered for oil palm development. Squatting is also present, it would seem especially at Buvuma. In addition to these tenure arrangements, there are farmers in the proposed areas of expansion that have acquired leasehold or freehold rights to public land – some of this may be land where freehold titles were granted in the late 1980s by the GoU, other land reportedly may have been former group ranch land, and still other land may have been purchased from mailo land owners.

41. In this context, land disputes and competition between land uses take place. Aside from the disputes arising from the acquisition of land for the establishment of nucleus estates at Kalangala, there have been a number of cases of land disputes there, involving oil palm farmers. These include: landowners disputing the status of people settled on their land or the land that they are using; landowners asking for substantial increases in rent or a share of the net income from oil palm; disputes over ownership and use between tenants and within families. KOPGT has been involved in resolving several land dispute cases. In 2015 KOPGT estimated that about 3 cases are referred to them each quarter. Most are disputes between landowners and tenants or intra family inheritance disputes, especially those involving widows and children – which is exacerbated by the prevalence of HIV/AIDS. Such land disputes are common in Uganda and they tend to increase in areas where there is economic development and increases in land values, as has been the case in oil palm growing areas.

42. In summary, the following categories of tenure arrangements are anticipated to be present in the potential areas of NOPP investment: (i) mailo land owners, (ii) freehold title holders, (iii) lessees (either of public land or private land), (iv) Kibanja tenants, (v) tenants on public land (either held by the District, Buganda Land Board or Uganda Land Commission), (vi) licensee tenants or users, (vii) landless people and squatters. Each of these arrangements will require different tenure security measures derived from the current legal framework[63].

G. Women and Youth

43. Women are more dependent than men on small-scale agriculture and low paid wage labour, while men tend to participate more in cash cropping, non-farm wage labour and employment. Women´s disadvantaged position in this respect is due to lower skills and access to opportunities, coupled to the assumption of reproductive, caring and productive responsibilities[64]. Women manage20% of all cultivated land in the country; however, they typically have very limited tenure security. Output per hectare among women farmers is 28% lower than men´s, indicating an important productivity gap between men and women.Women also sell less of their produce in agricultural markets. The factors that most influence the gender gap in agriculture in the country at present are: (i)

[63] Further details in Attachment 2-4: Land tenure security in OP growing communities.
[64] 2009. Gender and Productivity Survey. Analytical Report. https://www.google.es/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwjrk_3tjpDSAhWK1hQKHcD-BgUQFggfMAA&url=http%3A%2F%2Fwww.ubos.org%2Funda%2Findex.php%2Fcatalog%2F24%2Fdownload%2F136&usg=AFQjCNF75o_4j3tZqicwCk4pNd91nOQG7w&sig2=hGzJ_YGgWgZqHwt8aCAOVQ Access 8/2/2017

participation levels in the production and marketing of high value crops (13%); (ii) access to agricultural inputs, equipment and machinery (9%); and (iii) levels of pesticide use (4%)[65].

44. Women in Uganda also tend to have lower participation levels in decision-making around important issues at household and community level[66] further limiting their capacity to transform their efforts into benefits. Domestic violence is another important issue: Uganda is the country with the second highest level of acceptance of domestic violence in Sub-Saharan Africa[67], and over 50% of married women report having been victims of domestic violence[68]. Together these various factors result in women having lower quality of life than men, limiting the possibilities meaningfully contributing to their own personal development, that of their families and their communities. Above all, gender inequality hinders women´s and household fulfilment of its economic potential and wellbeing.

45. Women headed-households (30% of all households in Uganda[69]) are not on average poorer than those headed by men, though they tend to have lower agricultural yields. Also, some face higher structural vulnerabilities limiting their ability to progress[70]; and they can also be harder hit by food insecurity[71].

46. **Youth**. The GoU considers youth to be those aged 12-30[72]. The last census figures (2014) indicate that youth represent approximately 40% of the population (over 14 million people)[73]. Economic opportunities in the agricultural sector and larger rural economy are limited for rural youth in general, and gender disparities result in female youth generally being worst off than their male counterparts. While it is expected that youth are represented in and participate in local decision-making bodies, the extent to which this happens is still very limited. Keeping youth from migrating to urban areas and creating viable income generating opportunities in areas of interest to them will be considered in NOPP´s project strategy.

II. NOPP Targeting Strategy, Measures and Target Groups

A. Targeting Strategy

47. The Project will follow a multi-faceted targeting approach involving geographic targeting along with other targeting mechanisms to support oil palm smallholder farmers and their wider communities in the 'hubs' for oil palm production. A hub is defined as a zone, in an agro-climatically suitable area, within a radius of 30 km around a planned or actual CPO mill, in which a minimum of 3,000 ha of OP production can be assured. It is this radial area that marks the limits of financial viability for the producers.

48. Within the geographic areas selected, NOPP´s targeting strategy is designed along four different tracks: (i) directly targeting households who want to engage in oil palm production; (ii) directly targeting households who want to engage in alternative livelihood activities; (iii) targeting selected beneficiary households receiving livelihood improvement support (oil palm production and alternative livelihood activities) from the Project to mitigate common social risks; and (iv) targeting communities as a whole where oil palm production is promoted by the Project with complementary measures to tackle social risks. Specific measures have been integrated in Project design to promote social inclusion for women and youth.

49. By extending livelihood development beyond oil palm and combining household and community level interventions NOPP is expected to ultimately bring about positive and lasting change among all the inhabitants of communities targeted with oil palm development.

[65] UNWOMEN, UNDP, UNEP and the World Bank Group, 2015. The Cost of The Gender Gap in Agricultural Productivity in Malawi, Tanzania and Uganda.
[66] Uganda Bureau of Statistics, 2012. Uganda Demographic and Health Survey 2011.
[67] World Bank, 2016. The Uganda Poverty Assessment Report 2016. Farms, Cities and Good Fortune: Assessing Poverty Reduction in Uganda from 2006 to 2013.
[68] 2009. Gender and Productivity Survey: Analytical Report.
[69] Uganda Bureau of Statistics, 2012. Uganda Demographic and Health Survey 2011.
[70] World Bank, 2016. The Uganda Poverty Assessment Report 2016. Farms, Cities and Good Fortune: Assessing Poverty Reduction in Uganda from 2006 to 2013.
[71] Uganda Bureau of Statistics, 2014. Uganda National Household Survey 2012/2013.
[72] Ministry of Youth and Sports, 2013. National Youth Policy.
[73] Uganda Bureau of Statistics, 2016. The National Population and Housing Census 2014.

B. Targeting Measures

(i) Geographic targeting:

50. Agro-ecological conditions constitute the prime factors determining suitability for oil palm development, with the driving factor being high and well-distributed rainfall and suitable temperatures. Private sector-run CPO processing mills will be established in locations where at least 3,000 ha of land are available for smallholders to engage in oil palm production within a 30 km radius of the mill.

51. Land with unsuitable soil conditions (stony, hardpan, slopes above 20% or grassy land) will not be considered for OP production; land located in water body buffer zones or encroaching into forests reserves will also be excluded, even if deemed suitable in terms of agro-ecological conditions. As far as possible, plots of smallholder oil palm growers will be clustered into units and blocks to facilitate technical support services and efficient FFB marketing to the mill.

52. A preliminary assessment of suitable areas for oil palm smallholder development led to the firm identification of hubs in part/all of the following Districts for NOPP investment: Kalangala (already developed under VODP and VODP2); Buvuma (hub 1 for NOPP), Mayuge, potentially including parts of Bugiri and Namayingo (hub 2); and Masaka and Rakai (hub 3). The agro-ecological conditions of a small group of additional districts has also been seen as favourable to oil palm, namely: Buikwe, Kiriyandongo, Bugiri and Namayingo. These areas will be considered as for the expansion of oil palm under NOPP for the development of a fourth hub over the Project´s lifetime.

(ii) Direct targeting of households:

53. Direct household targeting will be used to support engagement in oil palm production and engagement / strengthening of alternative livelihood activities among oil palm and non-oil palm-growing households in communities targeted by NOPP with oil palm development. In addition, a selected group of beneficiary households will also be targeted with Household Mentoring activities at household level.

54. **Oil Palm**. The Project will support the 1,810 smallholders already growing oil palm in Kalangala, plus an estimated additional 9,230 households wanting to become oil palm growers in communities within the established reach of four new oil palm hubs. NOPP will use an inclusive targeting approach that enables **economically active households** – even if some of their characteristics result in their being classified as *poor*. Very poor households (who are not economically active) or households without long-standing residence (at least 5 years and with the intention of staying in the community long-term) applying independently for support will not be considered, as experience in VODP2 has shown that households with these characteristics tend to sell their oil palm plots. NOPP will assess and select eligible households to engage in oil palm production according to pre-established criteria, as described in Annex 4.

55. All targeted households will receive technical support in the form of technical training and on-going support from technical support services specifically created to support OP growers. The model used will be based on the successful experience of VODP and VODP2. In the new hubs, all selected households will receive a development loan for oil palm establishment on a maximum of 2 ha per household and the related maintenance for the first 5 years (there will be no new growers in Kalangala, and no expansion of the area under oil palm). Those households wishing to expand their engagement in oil palm production beyond the 2 ha. threshold will be linked to financial institutions – or will use their own resources for expansion, but will continue to receive technical and marketing support on the additional area. It is estimated that around 20% of all new smallholder OP growers will grow more than the 2 ha. financially supported under NOPP.

Table 13: NOPP support provided to target groups for oil palm development in new hubs

Target groups and hectarage supported by NOPP	Specific NOPP support services for oil palm development		
	Technical	Market	Financial
Households from any socio-economic group, meeting the required criteria will receive support for oil palm production for up to 2 ha.	Yes	Yes	<2 ha: development loans
Households targeted for oil palm production who wish to expand their hectarage beyond 2 ha.	Yes	Yes	>2 ha: linkage with relevant financial institutions, as required

56. As part of the selection process, it will be ensured that 30% of OPGs receiving development loan financing will be women and 40% will be youth.

57. All households who become oil palm growers with financial support from NOPP will be required to dedicate land to food crops with the purpose of maximizing the possibilities for household food security.

58. **Alternative livelihood opportunities.** A series of alternative livelihood opportunities will be offered to both oil palm growing and non-oil palm growing households. Forty per cent (40%) of oil palm growers targeted by VODP2 and NOPP (representing 4,416 households) will also receive support in establishing / strengthening additional profitable and sustainable livelihoods activities, with the view to diversifying their income streams to meet any potential income variations in oil palm production. The same type of support will also be offered to 75% of non-oil palm grower households living in the same communities (representing 19,321 households). Thus a total of 23,738 households will be reached through one or a combination of the following activities over the life of the Project:

- Improved food production techniques
- Entrepreneurship and self-employment
- VSLAs

59. Interventions related to the promotion of alternative income generating activities will have higher targets for both women and youth (50%). To be considered as potential beneficiaries under NOPP youth will need to be aged 18-35.

60. **Household Mentoring.** Household Mentoring is a facilitative approach that instils joint visioning and planning capacity and use among all household members with the view to maximize household economic potential. In doing so, it addresses some of the most important risks faced by households, including gender inequality / increase in intra-household tensions potentially resulting from increased incomes, reducing risk of HIV acquisition and promoting positive living among people living with HIV and AIDS, and improved nutritional practices. Household Methodologies have been used in Uganda with IFAD support in the coffee value chain (together with Oxfam Novib) and the DLSP, with great success. PRELNOR has also integrated Household Mentoring in its design.

61. To assist households in OP growing communities to maximise their economic potential and address some of the major risks they face, a sub-set of directly targeted households will benefit from the Household Mentoring package designed for NOPP. Concretely, 25% of oil palm grower households and non-oil palm growing households, as well as 25% of nucleus estate plantation worker households, will be reached by the intervention. Households will be selected through an assessment of the social risks they face and a participatory process carried out by sub-county officials, local leadership and mentors (and in the case of nucleus estate workers, a specific consultation group) according to pre-established criteria.

62. Household Mentoring will be implemented by community trained and supported Mentors who work with selected households, individually, over a period of 12-24 months, after which households “graduate” from the Household Mentoring cycle. Graduation is reached when households have consistently integrated changes identified into their livelihoods and lifestyle. NOPP expects to directly reach 8,065 households with the use of this methodology.

Table 14. Households targeted by Household Mentoring according to social risk profile

Type of Household	Total # to be reached	24 months (Higher Risk Households)	12 months (Lower Risk Households)
• Oil Palm Growers (25%)	2,760	2,070	690
• Households benefiting from support for alternative livelihood activities (25%)	4,830	3,220	1,610
• Nucleus Estate plantation workers (25%)	475	317	158
TOTAL	**8,065**	**5,607**	**2,458**

63. Households that "graduate" from the Household Mentoring will be encouraged to assist other households in their communities through the replication of the methodology. This is consistent with the transformative power of the methodology, where those reached become eager to share their experience with others.

(iii) Community level targeting for social risk mitigation and land tenure security:

64. The communities in Kalangala and the four new hubs are made up of an estimated 36,800 households. NOPP community development activities will target the whole population. Interventions at this level will aim to complement household level interventions, as evidence shows that behaviour change around sensitive issues requires interventions at individual, household and community level. The focus will be placed on key social risks and barriers identified, namely: land tenure insecurity; increased household tensions as income increases; increased exposure to HIV; increased malnutrition among infants, children and adults. The Project will implement the following activities:

- Use of Household Mentoring among community leaders to encourage buy-in and support to the intervention and develop local visions of development for the community as a whole, as well as the individual household
- Use of Household Mentoring among oil palm units to encourage joint planning, collaboration and cooperation, jointly address common challenges at that level and take advantage of opportunities
- Awareness raising / sensitization around key local challenges and priorities related to gender, HIV and nutrition
- Promotion of sports and cultural activities that offer healthy entertainment options – especially to male and female youth – facilitate dialogue with and their engagement in Project activities and promote cohesion
- Support to land centres to provide advice and guidance, as well as facilitate access to land titles among local populations with the view to instil greater land tenure security in target communities

C. NOPP´s Social Inclusion Agenda: Gender and Youth Strategy

65. NOPP will adopt a package of specific internal and Project measures to ensure that all Project interventions promote the inclusion and advancement of youth and gender equality.

66. **Internally,** NOPP will ensure it mainstreams gender and social inclusion within its structure, policies and procedures. Staff will receive training on gender and social inclusion issues to understand the specific needs, vulnerabilities and opportunities of poor households, youth and women. It will also ensure that the cadre of field is reflective of gender targeting quotas (at least 30% of field staff should be women); ensuring that there is also age diversity (30% young men and women). Job descriptions will include gender and social equity responsibilities, as relevant.

67. At the **project level**, as described above, specific targets will be set to reach out to women and youth (30% of OP growers receiving development loan financing will be women and 40% will be youth; for the alternative livelihood opportunities activities, 50% will be women and 50% youth).

Gender and youth sensitive approaches will be used in all stages of the Project, especially to reach out to female youth and women headed households that oftentimes do not have the possibility of accessing development opportunities. Appropriate communication mechanisms will be used to reach out to each group catering to each group´s availability and preferences. All Project activities and operational procedures foreseen will be screened to avoid unintended negative effects on social and gender equity. Moreover, NOPP will actively promote the representation, active participation and leadership of men and women of different ages in all groups created in the context of the Project, including oil palm grower units and blocks. As has been described above, the Project will implement Household Mentoring and other community level interventions that aim to address the most challenging areas of gender inequality in target communities.

68. NOPP will share its gender and social inclusion strategy with implementation partners and include some of the key principles related to the promotion of gender equity as clauses for partners interacting with communities.

69. The Project will establish and maintain dialogue with MAAIF and the Ministry of Local Government in relation to the implementation of household methodologies to ensure that the country policies development processes capitalize from project experience in the use of the Household Mentoring methodology, and that the Project integrates any emerging insights from other programmes using Household Mentoring in the country into project operations. Regular communication will also be established with the MGLSD to ensure that the Project is aware of developments in relation to gender and youth policies, programmes and practice, and is aware of statistics produced on the status of women and youth over the lifetime of the Project. The Project will take such opportunities to also share information on the status of women and youth in target areas and progress made through its operational strategies.

D. Summary of NOPP beneficiaries

70. In the different hubs in which NOPP will operate, it will be reaching a total of 30,837 households through oil palm development (11,041 households), alternative livelihood activities (23,738 households) and household mentoring activities (8,066 households); while the community development activities will be targeted at all households in communities in the OP hubs (36,803 households). For further details, see table 15 below.

Table 15. NOPP Beneficiary households by component by hub

		Component 1				Sub-component 2.1 Alternative Economic Opportunities												Sub-component 2.2 Mitigation of social risk				Total NOPP (excl. Community Development)	
	Total HH in OP communities	Total OP area /a	Av. OP area / producer (ha)	*Total OP growers /a*	Total non-OP growers	Improved Food Production Techniques /b			Entrepreneurship and Self-Employment /c			VSLAs /d			Total HHs Component 2.1			Household mentoring				Total HHs all components	Total beneficiaries all components
						OPGs	Non-OP growers	*Total HHs*	OPGs	Non-OPGs	*Total # HHs*	OPGs	Non-OPGs	*Total # HHs*	OPGs	Non-OPGs	Total # HHs reached	OPGs (25%)	Opps (non-OP growers) (25%)	Nucleus estate workers (25%)	Total HHs		
Kalangala Hub	6 033			***1 810***	4 223	362	1 689	***2 051***	181	1 689	***1 870***	543	1 689	***2 232***	724	3 168	3 892	453	792	238	***1 482***	***5 215***	26 075
Buvuma Island Hub	6 410	2 500	1.3	***1 923***	4 487	385	1 795	***2 179***	192	1 795	***1 987***	577	1 795	***2 372***	769	3 365	4 135	481	841	238	***1 560***	***5 526***	27 630
Mayuge Hub	8 974	3 500	1.3	***2 692***	6 282	538	2 513	***3 051***	269	2 513	***2 782***	808	2 513	***3 321***	1 077	4 712	5 788	673	1 178	-	***1 851***	***7 404***	37 019
Masaka / Rakai Hub	7 692	3 000	1.3	***2 308***	5 385	462	2 154	***2 615***	231	2 154	***2 385***	692	2 154	***2 846***	923	4 038	4 962	577	1 010	-	***1 587***	***6 346***	31 731
Hub 4	7 692	3 000	1.3	***2 308***	5 385	462	2 154	***2 615***	231	2 154	***2 385***	692	2 154	***2 846***	923	4 038	4 962	577	1 010	-	***1 587***	***6 346***	31 731
TOTAL	**36 803**	12 000		***11 041***	25 762	2 208	10 305	***12 513***	1 104	10 305	***11 409***	3 312	10 305	***13 617***	4 416	19 321	23 738	2 760	4 830	475	***8 066***	***30 837***	***154 186***

Assumptions:

/a OPG households are 30% of total households in OPG communities. All OP development on a commercial basis will come through expansion of individual areas supported through the development loans, hence with no incremental effect on the number of beneficiaries.
/b 20% of OPG households and 40% of Non-OPG households will be supported for improved food production techniques
/c 10% of OPG households and 40% of Non-OPG households will be supported for entrepreneurship and self-employment
/d 30% of OPG households and 40% of Non-OPG households will be supported for VSLAs
/e 30% of OPG households and 75% of Non-OPG households will be overall supported under component 2.1; this takes into account likely overlapping of household beneficiaries among the different interventions under this component
/f 25% of OPG households, Non-OPG households and households for nucleus estate workers will be supported through household mentoring; the only incremental effect on beneficiary households is from the households of the nucleus estate workers, which are assumed not benefiting from the other activities.

E. Targeting in Project Planning and Monitoring

71. **Targeting at start-up.** Once the preliminary assessments of the potential area for oil palm development have been completed, NOPP will carry out broad sensitization and mobilization in districts, counties, sub-counties and villages falling under the coverage oil palm hubs to be supported under the Project. Project staff will make specific efforts to reach out to groups within the community that may have lesser access to information, including poorer households, women and youth. During the mobilization phase the Project will explain its purpose, hub planning and implementation mechanisms to be used, interventions, target groups and within these, specific targeting quotas. Eligibility criteria will also be shared, along with information on the selection process, and mechanisms to be used to inform households on the applications which were approved. The Project will also disseminate information on the benefits and risks associated with participation in each of the Project activities, as an important element of its Stakeholder Engagement Management Plan.

72. **Household Selection Process.** Following the sensitization phase, households will be asked to submit their applications for relevant project interventions in line with pre-identified and agreed eligibility criteria within specific timeframes and in well publicized and easy to reach locations within their villages. Local committees will be identified to assess and approve applications received from households within the community. The participation of local representatives, including representatives of village leaders, men, women and youth, together with NOPP staff, will be important to ensure inclusive participation in the process and transparency. Specific mechanisms will be identified to determine final selection of beneficiaries for the following interventions: (i) accessing oil palm financing from IFAD; (ii) intensification of local farming systems; and (iii) accessing self-employment / entrepreneurship promotion activities. The list of selected households will be announced publicly and posted in visible locations within target communities.

73. **Participatory Planning**. Once participating households have been identified, NOPP staff in collaboration with key stakeholders at local / village level, will plan project activities over time in line with feasibility principles identified by the Project. For example, it is advantageous that households in the same location plant oil palm simultaneously to harvesting efficiency, to reduce costs and facilitate the required support services.

74. **Monitoring progress and impacts**. Gender and age disaggregated data (youth – 18-35 years old – versus non-youth) will be collected at all stages of the Project and used to fine tune operational strategies. Beyond progress and impact measurement of all project activities, NOPP will monitor targeting effectiveness and progress in the advancement of gender equality and engagement of youth in target communities through participatory processes at community level.

75. In fact, as part of the training to be provided to NOPP staff, it is expected that field staff in particular, are attentive to critically monitoring if intended beneficiaries are effectively reached and understanding the effects of interventions within each target group. Field staff will also monitor, through participatory processes, the occurrence of any unintended effects of the project on men, women and youth, together with gender relations in target communities. The Project´s mid-term review will also assess targeting effectiveness, and the quality of participatory processes used by the Project, including processes used to monitor targeting performance.

Attachment 1: Targeting checklist

Targeting checklist	*Design*
1. Does the main target group – those expected to benefit most – correspond to IFAD's target group as defined by the Targeting Policy (poorer households and food-insecure)?	NOPP was designed to target both households living under the poverty line and economically active households highly vulnerable to shocks and falling into poverty. Limiting food consumption is a common measure adopted by households in the face of shocks across socio-economic strata in the target area. However, chronically poor and food insecure households will also be directly targeted by the Project.
2. Have target sub-groups been identified and described according to their different socio-economic characteristics, assets and livelihoods – with attention to gender and youth differences (matrix on target group characteristics completed)?	Socio-economic characterization, including a reference to key livelihood strategies and assets – of which land is a key issue in the Project area and for proposed Project activities – has been included in the Project design document.
3. Is evidence provided of interest in and likely uptake of the proposed activities by the identified target sub-groups? What is the evidence (matrix on analysis of Project components and activities by principal beneficiary groups completed)?	The Project is based on the successful experience of the VODP and VODP-2, which includes an oil palm production component with smallholder farmers. During the field visit to the Project area the team witnessed high expectations in the areas visited, including Buvuma and Bugiri, among a range of stakeholders, including communities and government officials.
4. Does the design document describe a feasible and operational targeting strategy in line with the Targeting Policy, involving some or all of the following measures and methods:	The targeting approach and strategy is outlined both in Annex 2 as well as in the Project component descriptions, as relevant.
4.1 **Geographic targeting** – based on poverty data or proxy indicators to identify, for area-based projects or programmes, geographic areas (and within these, communities) with high concentration of poor people;	NOPP will first and foremost promote oil palm development among smallholder farmers. Expected agricultural yields are dependent on adequate levels of rainfall and favourable temperature. As such, these two environmental conditions, which determine suitable geographic locations for oil palm development. The areas identified, while not being the poorest of the country, have an important concentration of poor households given the participation of the majority of the population in smallholder rain fed farming. In fact, an important proportion of the population in the Project target area depends on this activity.
4.2 **Direct targeting** – when services or resources are to be channelled to specific individuals or households;	A target of 30% of women and 30% youth was established for all categories except for households eligible to become oil palm growers with over 2 hectares of land, which will have a lower target of 20% for youth and another 20% for women given the limited number of women and youth owing the amount of land required to participate in Project activities among this target group.
4.3 **Self-targeting** – when good and services respond to the priority needs, resource endowments and livelihood strategies of target groups;	NOPP interventions are in line with the needs and expectations of poor and vulnerable local dwellers in suitable target areas. Moreover, oil palm development aligns with the objective of transforming smallholder agriculture from a low yield low-income base to a productive activity that transforms the rural economy. In addition, the Project is also integrating a second package of livelihood improvement activities to be offered to poor and vulnerable households, women and youth in the same communities in which oil palm growers live, that aim to improve the yields of existing livelihood activities and offer the possibility of participating in new ones (services, specialized production, provision of new skills). Interviewees reached in the target area hold high expectations in relation to the Project, having seen its transformative power in Bugala.
4.4 **Empowering measures** – including information and communication, focused	NOPP mobilization activities will take place both at a community level, as well as among women, youth and poorer households

capacity- and confidence-building measures, organizational support, in order to empower and encourage the more active participation and inclusion in planning and decision-making of people who traditionally have less voice and power;	as these groups do not necessarily have easy access to information. During mobilization information disseminated on the Project will include the advantages and disadvantages of engaging in Project activities, to ensure that households are able to make informed decisions. A critical mass of households directly targeted with livelihood improvement activities (40%) will also receive the support of Household Mentors. The Project will use an adaptation of the Gender Action Learning System (GALS), which VODP-2 refers to as "Household Mentoring". In addition to the set of benefits offered by this methodology in relation to gender equality and empowerment of households to develop and sustain their economic capacity, the version to be used by NOPP will also include empowering measures in relation to HIV/AIDS and nutrition.
4.5 **Enabling measures** – to strengthen stakeholders' and partners' attitude and commitment to poverty targeting, gender equality and women's empowerment, including policy dialogue, awareness-raising and capacity-building;	The following enabling measures will be integrated into the Project: - Training of staff on gender and social inclusion; - Awareness will be raised among community leaders and other members of community structures to get buy-in and so that the transformative nature of household methodologies has the potential to spread beyond targeted households. - Raising the awareness among contractors on the Project´s targeting and gender approach and requiring that key principles be followed.
4.6 **Attention to procedural measures** – that could militate against participation by the intended target groups;	While Project activities are largely self-selective, actual provision of support with IFAD funding is contingent of meeting specific socio-economic criteria. Criteria will be disseminated widely, including reaching out to poorer households, women and youth. Selection of actual beneficiaries will follow transparent procedures.
4.7 **Operational measures** – appropriate project/programme management arrangements, staffing, selection of implementation partners and service providers.	The Project will mainstream gender in its structure, systems and procedures. All staff will receive training on gender and social inclusion consistent with the NOPP design. Field staff will include at least 30% women to ensure that women can be targeted by women. Implementation partners will receive guidance on the Project´s approach to gender and social principles and will be asked to follow key principles. When reaching out to women, staff will be sensitive to their heavy schedules and availability.
5. Monitoring targeting performance. Does the design document specify that targeting performance will be monitored using participatory M&E, and also be assessed at mid-term review? Does the M&E framework allow for the collection/analysis of sex-disaggregated data and are there gender-sensitive indicators against which to monitor/ evaluate outputs, outcomes and impacts?	Yes, provisions have been made to monitor targeting performance by means of participatory processes implemented by NOPP field staff and Mentors. It is expected that the Mid Term Review assesses the effectiveness of monitoring targeting performance efforts. It is expected that the Project collects disaggregated data for men and women (youth and non-youth). Gender sensitive indicators to evaluate outputs, outcomes and impacts will be identified as a result of the Household Mentoring programme.

Attachment2: Gender targeting checklist

Gender checklist	Design
1. The Project design report contains – and Project implementation is based on – gender-disaggregated poverty data and an analysis of gender differences in the activities or sectors concerned, as well as an analysis of each Project activity from the gender perspective to address any unintentional barriers to women's participation.	An analysis of gender inequality is included in the analysis produced for Project design. Project design seeks to address key gender inequality issues identified such as improved access to productive assets, improved participation of decision-making at household and livelihood group level, greater enjoyment of benefits derived from more resilient and productive livelihood strategies. Mobilization and engagement processes integrated in Project design aim to ensure that project related information is shared not only with communities, but specifically also with women and youth, as these two groups often have limited access to information. Also, the Project will ensure it takes into account women´s preferred location for meetings and times for meetings given their multiple responsibilities.
2. The Project design articulates – or the Project implements – actions with aim to:	
- Expand women's economic empowerment through access to and control over productive and household assets;	Yes, the Project includes interventions that will specifically seek to have an effect on expanding women´s economic empowerment. The Project will be using an adapted version of GALS (referred to as Household Mentoring by the precursor Project VODP-2). The Project will also target young women and women headed households with livelihood enhancement interventions.
- Strengthen women's decision-making role in the household and community and their representation in membership and leadership of local institutions;	The Project integrates Household Mentoring as a measure to address important gender imbalances at household level. Also, methods to be used by the Project will warrant that engagement of women in groups related to Project activities involves active participation in discussions, delineation of plans, decision-making, monitoring of progress and targeting effectiveness. NOPP will seek women´s, men´s and youth active participation in all Project related processes.
- Achieve a reduced workload and an equitable workload balance between women and men.	While this is not explicitly articulated as such in the Project document, and given the content of the Household Mentoring to be used by NOPP, it is expected that households directly targeted by NOPP and those indirectly reached by graduates from the Household Mentoring process implemented by the Project will result in a more equitable division of responsibilities between men and women at household level.
3. The Project design report includes one paragraph in the targeting section that explains what the Project will deliver from a gender perspective.	The Project design document includes a paragraph outlining its gender strategy as well as key changes that the Project seeks to achieve in terms of gender equality.
4. The Project design report describes the key elements for operationalizing the gender strategy, with respect to the relevant Project components.	The gender strategy outlines measures to be taken by NOPP to mainstream gender internally and within the Project. The PDR makes reference to key operationalization measures to be considered in the different Project components to operationalize the strategy.
5. The design document – and the Project implements – operational measures to ensure gender-equitable participation in, and benefit from, Project activities. These will generally include:	
5.1 Allocating adequate human and financial resources to implement the gender strategy.	Provisions have been made for training of all NOPP staff on gender and social inclusion. Household Mentoring mentors will receive intensive training and on-going support for the implementation of the Project´s version of GALS. Funding has also been allocated to review the effectiveness and implementation arrangements and process for Household Mentoring. A 30% minimum women hires at field level was integrated the Project´s gender strategy.

5.2 Ensuring and supporting women's active participation in Project-related activities, decision-making bodies and committees, including setting specific targets for participation.	The Project was designed to implement an inclusive targeting strategy, which includes targets for women beneficiaries. Moreover, Project processes will warrant representation of all target groups, as relevant. The Project will support women to enable active participation in project activities and processes.
5.3 Ensuring that project/programme management arrangements (composition of the project management unit/project coordination unit, Project terms of reference for staff and implementing partners, etc. reflect attention to gender equality and women's empowerment concerns.	NOPP´s gender strategy includes gender mainstreaming within the management structure. The Project design document specifies that training will be provided, responsibilities related to the promotion of gender equality integrated in job descriptions and agreements on the implementation of the strategy with implementing partners reached. Further measures will be identified by the PMU with the assistance of an external consultant in year 1 of Project operations.
5.4 Ensuring direct project/programme outreach to women (for example through appropriate numbers and qualification of field staff), especially where women's mobility is limited.	It is expected that at least 30% of all field staff be women. All staff will be trained on gender equality issues. Project design recognizes the multiple responsibilities assumed by women in the target area and other areas of gender inequality. Mobilization and implementation approaches will ensure that women are explicitly reached and that sufficient information is offered to them to make informed decisions about participation in the Project.
5.5 Identifying opportunities to support strategic opportunities with government and other development organizations for networking and policy dialogue.	The Project will maintain dialogue with the MAAIF and the Ministry of Local Government in relation to the implementation of Household Methodologies to ensure that the country policies capitalizes from Project experience in the use of the methodology. Regular communication will also be established with the Ministry of Gender to ensure that the Project is aware of developments in relation to gender policy developments and statistics produced on the status of women over the lifetime of the Project and share information on the status of women in target areas. These communications will also help to guide activities supported at the district level in relation to the promotion of gender equality.
6. The Project's logical framework, M&E, MIS, and learning systems specify in design – and Project M&E unit collects, analyses and interprets sex- and age-disaggregated performance and impact data, including specific indicators on gender equality and women's empowerment.	The M&E system will collect gender disaggregated data on Project activities, to distinguish households single headed household from households with two adults, as follows: - men and women targeted without a spouse (male and female headed households) - women who have a spouse - men who have a spouse NOPP will collect and use information in relation to the following gender equality and empowerment indicators: - For single male or women headed households: more productive and resilient livelihood activities and greater participation in community spaces and decision-making; - Among households constituted by a couple: Increased access and control of to productive assets by women; improved decision-making of women at household and community level including, issues affecting exposure to HIV transmission and food security /nutrition; and more equitable workloads between men and women at household level.

Annex 3

Country performance and lessons learned

Annex 3: Country performance and lessons learned

I. Country programme evaluation

1. **Context**. In 2011/12 IFAD's Independent Office of Evaluation (IOE) undertook the first Country Programme Evaluation (CPE) in Uganda since operations started in 1981. The performance and impacts of IFAD's operations were assessed, and these were fed into IFAD's Uganda Country Strategic Opportunities Programme (COSOP) for 2013-18, presented to the IFAD board in April 2012.

2. **Main evaluation findings**. IFAD had played an important role in supporting the government in its efforts to reduce rural poverty in different parts of Uganda. The Fund was highly regarded by the government and other development partners for its focus on the rural poor; for having contributed to decentralised development processes and for improving incomes among the target groups, thus enabling them to have better lives and food security. However, the effectiveness of the 1997-2011 COSOP was considered not totally satisfactory, as sector-wide programmes joining government and donor efforts for promotion of sustainable rural financial services for the poor and access to land and markets had not been fully developed and as IFAD did not engage enough in poverty reduction in northern Uganda.

3. **Policy challenges**. IFAD's strategic approach and projects/programmes were relevant and aligned to government's Poverty Eradication Action Plan (PEAP) and the Plan for Modernisation of Agriculture (PMA). Since 2006, changes in government policy and strategy, particularly within rural finance (Rural Finance Services Strategy - RFSS) and agricultural advisory services, as well as "stop-and-go" approaches from the government side, had led to debate and some challenges to harmonize IFAD approaches and commitments with new government's policies. The splintering of districts had fragmented local government implementation capacity and some projects/programmes had spread resources too thinly over non-contiguous areas.

4. **Synergies and sustainability**. The CPE found limited synergies among IFAD supported projects/programmes, and sustainability was the lowest rated indicator for IFAD performance. It was argued that a stronger focus on sustainability and ownership could be achieved through clear communication about expectations at project/programme start-up and about exit strategies. If rural populations expect free hand-outs for development such as agricultural inputs, livestock and cheap credit, this cannot be achieved.

5. **Agreed actions with government based on CPE recommendations**. It was agreed that: (i) IFAD should expand the geographic coverage of its operations to the northern region; (ii) IFAD should provide support to commodity value chain development; (iii) a realistic and appropriately resourced agenda for policy dialogue should be defined; and (iv) project/programme results should be strengthened by ensuring synergies among activities within and across projects/programmes financed by IFAD in Uganda, with increasing focus on impact within natural resources and environmental management and human and social capital/empowerment.

II. Lessons from relevant development projects/programmes

Broad lessons learned from current IFAD portfolio

6. The design of NOPP is guided by, among other things, the lessons learnt by the country programme as reflected in the current COSOP, as well as the experiences of other development interventions. These lessons include the following.

7. **A conducive policy framework** is essential for the success of a project/programme. The risk of changes in policy during implementation needs to be factored into project /programme design and appropriate risk management measures identified. Yet conversely, the project implementation experience can generate important lessons that, if back up by knowledge-based information, can offer valuable lessons to government that it can use to establish or strengthen the policy framework for the sector in question. Systematic data collection exercises and vigorous data analysis is a prerequisite for this to be a possibility.

8. **The need to concentrate limited resources**, if significant impact is to be created. Spreading limited resources thinly across wide areas limits impact and is also a burden for coordination. Projects and programmes should, to the extent possible, invest in contiguous geographical areas and focus on

a few strategic interventions in order to maximize impact and avoid spreading financial resources too thinly, both geographically and thematically. This can pose a political challenge, which needs to be carefully managed starting from early design stages. However, effectiveness of implementation is largely dependent on how streamlined the design objectives and components are: therefore, NOPP should focus interventions on one commodity with clear specific objectives and target areas.

9. **The importance of linking rural farmers to markets.** As exemplified in previous and current projects/programmes (including VODP and others in the tea & coffee sectors) linking farmers to markets either through contractual arrangements or/and through improvement in infrastructure, is a catalyst to increased and profitable agricultural production. The partnership of OPG with large-scale private sector players/industries, to whom farmers and farmer groups can be linked to access remunerative markets, quality technical services and inputs), enhances the notion of 'farming as a business' for smallholder producers. PPPs have proved to be a powerful tool to integrate farmers into markets and strong value chains, with the private sector willing to engage in equitable partnerships with smallholders, as long as they can be assured of a stable supply of high quality. The government's role here is critical in ensuring a pivotal effect of public funds to foster a commercial win-win relationship between smallholders and the private sector.

10. **Economic logic for identifying the project area.** In promoting projects that seek to engage smallholder producers in value chains or improve their access to markets, it is essential to ensure that the resources for public economic investment are allocated not by administrative and/or political decision-making, but should instead be primarily determined by the economic conditions and opportunities. Investment must be driven by the location of markets and agro-processing facilities, rather than administrative boundaries.

11. **Support to commodity platforms** offers opportunities for valuable networking but sustaining platforms is challenging. Commodity platforms offer opportunities for coordination and networking across value chains, and enable different players to interact and better understand and value the role played by others along the chain. It is also an approach promoted by MAAIF under ASSP. It is one that will be supported under NOPP.

12. **Avoiding the 'hand-out culture'.** In planning new interventions, the fact that rural populations commonly expect free hand-outs from government for development should be carefully considered. In particular, if support to private sector initiatives such as farmer organisations or community based financial institutions is envisaged, the type and modality of support should be thought through to avoid undermining ownership, the notion of 'farming as a business' and the establishment of commercial relations, and project sustainability.

13. **The need to employ specialised approaches for effective social inclusion** is critical for reaching the poor. While most development interventions, including VODP-2, tend to focus on farmers already in existing farmers' groups, it is realised that many extremely poor farmers are outside the existing groups. The IFAD piloted "household mentoring" approach adopted under DLSP has proved to be a valuable tool for promoting inclusion of very poor households, such as female-headed, HIV/AIDS affected, and more generally those with a heavy burden of many dependents and very limited resources for agricultural production; the approach is based on strengthening the capacity of households for self-assessment of their constraints and empowering them to overcome poverty.

14. However, while community volunteers can support effective social inclusion, at the same time volunteer fatigue can jeopardize the implementation of projects/programmes. Reliance on volunteers especially change agents (or mentors) and functional literacy instructors, who also have their own economic activities to engage-in, limits the time they dedicate to projects/programmes and often their motivation is low.

15. **Flexibility in the design of project/programme interventions** is necessary to encourage regular review, and allow quick response and adaptation of the project strategy to the lessons that are learned and the opportunities that arise, during implementation; a functional M&E system and an appropriate framework for review of objectives and strategies are essential elements to ensure such flexibility. Mainstreaming of project/programme activities and linking with decentralization structures and systems, helps build capacity and enhance sustainability of benefits after project/programme completion. Involvement of local people in their own development, so they can take real responsibility for the interventions and their sustainability over the long term. The high quality of project/programme management has been also an important element in the success of individual projects/programmes.

16. **The need for complementarities with other on-going development initiatives.** The design of NOPP recognises the risk of attempting to address all farmer/community needs in one project. Therefore, NOPP will on the one hand limit the scope of its interventions, and on the other establish linkages with PROFIRA and the Microfinance Support Centre, to encourage farmers to join existing savings and credit cooperatives and VSLAs to meet their needs for savings and agricultural credit. Complementarities and harmonisation will also be addressed through district technical planning committees that bring together the different players in each district.

17. **The sustainability of project/programme benefits** requires a solid institutional framework and therefore long-term investment in strengthening key local institutions, both public and non-public. Working through existing systems at decentralized level enhances the capacity of Local Governments and increases the responsiveness to local needs. By the same token, household level sustainability of project and household investments requires that social risks be adequately addressed at household level.

18. **A clear communication strategy** is essential at all stages of a project/programme, at start-up to manage expectations, build ownership of local stakeholders and buy-in political support; during implementation for proactive sharing of information and exchange with local stakeholders and ensuring inclusiveness and transparency; and towards project/programme closure, with particular focus on exit strategies and sustainability. Proactively sharing the approaches and methods used, and the benefits realised, is also important for preventing uninformed criticisms of the project.

Specific lessons learned from IFAD investment in oil palm development in Uganda

19. The success of oil palm (OP) development in Kalangala provides a strong “proof of concept” as to: (i) the suitability of the agro-ecological conditions in some areas of the country for large-scale commercial OP production; (ii) the viability of smallholders' engagement in oil palm production; and (iii) the value of ensuring attention to appropriate safeguards and mitigation measures for environmentally and socially friendly oil palm investment. The nucleus estate and smallholder model developed on Kalangala encompasses modern cropping technology and provides a guaranteed market for smallholder oil palm growers, and it has proved to be a successful and appropriate partnership framework for sharing of incentives and risks between smallholders and the private sector partner.

20. Perhaps the key lesson from VODP and VODP2 is that, if done right, smallholder oil palm development can have a substantial and transformative socio-economic impact. Not only have smallholder oil palm producers and their families in Bugala seen their incomes significantly increased; employment opportunities have expanded; infrastructure has improved, as have both public services; and as increased incomes have stimulated the local economy, so new investment has contributed to further growth and employment creation. These impacts are described in more detail in Box 1.

21. In addition, however, considerable knowledge has been gained and lessons learned through the experience, notably on oil palm planting and maintenance technologies; how best smallholder OP growers can be organized; how to build partnerships between the public and private sector and smallholder producers; and the roles and responsibilities of each collaborating partner. Over time, trust has been built among the partners involved (Government, Bidco, smallholder farmers and their organisation and IFAD), and this can be capitalised on in the new Project. More broadly, the Kalangala experience has generated lessons that have been drawn on in developing the strategy and approach under NOPP. These include the following.

22. ***Building a solid and credible public-private-producer partnership (4P).*** VODP was the first major 4P in Uganda for agriculture and one of the first for IFAD too. It built an innovative partnership between the private sector, local and national government and farmer organizations. In broad terms, under this arrangement GoU made available land and provided fiscal incentives to leverage the initial investment from the private sector; the competitively selected private investor then developed a nucleus estate and processing capacity, and provided access to seedlings, agricultural inputs and a transparent and reliable market to smallholder OP growers. Through the project GoU improved critical infrastructure and provided the growers with financial, technical and organizational support; this enabled them to plant a new industrial crop up to the same standards as the nucleus estate, and assured them of a market for their produce. In this way, they became suppliers to the CPO mill, and genuine and full participants in the 4P. All parties have learned from the experience to date and are now moving forward with a much better understanding of the challenges to be faced and how to set realistic and achievable objectives in the context of an evolving 4P arrangement.

Box 1. Impact of the Kalangala Oil Palm development model

High-impact investment. The oil palm investment in Bugala has had a notable positive transformative effect on the socio-economic situation of the entire Kalangala District. On an island of about 6,000 households (30,000 people), about 30% (1,800) of them have benefited directly as oil palm smallholders, while another 3,000 people have indirectly benefited through the creation of jobs, of which about 2,200-2,300 by the nucleus estate and mill and 700-800 on the smallholders' fields plots. Oil palm farmers' gross income is about USD 1,300/ha and net income after loan repayment is about USD 700/ha; when loan repayments are completed, income will rise to almost USD 1,500/ha as the yields increase. Not only, but that income offers regular monthly payments and it is reliable and assured. This compares with a pre-investment situation where most of the farmers were growing subsistence crops with very limited market opportunities and where the major economic activity on the island was fishing, the financial returns of which were on a declining trend due to overexploitation of the fishery resource.

OPUL estimates that it was paying farmers about UGX 1.5 billion (about USD 455,000) every month in 2016, and that about UGX 1.0 billion was paid to oil palm growers after loan repayment deductions. This represents an equivalent of USD 3.6 million in net annual payments. This increased level of incomes has had a major knock-on impact of oil palm development on the island. According to the UNDP Human Development Index for Uganda, in 2000, Kalangala district was ranked the 71st poorest district in Uganda, out of 76 districts (Uganda Poverty Status Report, 2014). Preliminary results from an impact study carried out by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and the Uganda Bureau of Statistics (UBOS) in July 2016 show an impressive progress for Kalangala district between 2000 and 2016, both in absolute and relative terms. On Bugala island, 97% of the households reside in dwellings with permanent roofing materials compared to a national average of 69% in 2014 (NPHC 2014). Similarly, 45% of the population use Ventilated Improved Pit Latrines in 2016 compared to the national average of 9% in 2014 (NPHC 2014). Furthermore, today Bugala has 11 primary schools, 2 secondary schools and 3 vocational institutions compared to only 1 primary school and 1 secondary school in 2006. The result is that in Kalangala district 22.4% of the population has attained Secondary Education, which is higher than the national average of 18.5% (NPHC 2014).

Infrastructure investment has accompanied the development of oil palm. The island now has regular and frequent ferry services from two points; a feeder road network of 700 kms compared to only 70 kms in 2000; ongoing upgrading, including paving, of the main island road; and solar generated electricity and clean water supply services, both on a full cost recovery basis and serving more than 30% of the total households of the island. Furthermore, as the overall economy has taken off, private investment for the provision of other services has taken place, such as cell phone infrastructure, resulting in full cell phone coverage for all operators; new petrol stations and the opening of branches by two financial institutions, with 45% of the population accessing financial services in 2016, compared to only 18% in 2006. Hotels and resorts have been built and tourism is emerging as a new, thriving economic resource for the island.

A study undertaken in 2015 by the Institute of Development Studies of the University of Sussex concluded that the oil palm investment in Kalangala has had positive outcomes in terms of the physical assets (such as land, permanent houses, transport means and farm equipment) that farmers were able to acquire; the perception of wellbeing measured by the affordability of school fees and health services due to increased incomes; job opportunities created in the mill and on the nucleus estate; the access to various social services and infrastructure; reduced pressure on the environment for charcoal burning because of alternative sources of livelihoods; and the overall empowerment of farmers in terms of voice and influence in decision-making processes. The study, however, raised some potential risks in terms of food-security in the long-term due to mono-cropping; the pressure on the traditional land tenure systems due to the increased value of land; and the overall exposure of farmers to production risks (weather, crop diseases, etc.).

23. ***Clear and transparent arrangements for trust-building***. 4Ps of the type established in Kalangala are primarily built on trust. Transparent land purchases ('willing buyer, willing seller basis') for the nucleus estate and land titling processes for smallholder oil palm growers promoted this trust right from the start; though there is need to ensure that the acquisition process and outcomes are fully documented. Clearly defined roles and responsibilities, articulated in written agreements, as well as transparent and formal mechanisms for shared governance and decision-making, have also been essential to build trust among the different parties and establish win-win partnerships. A key success factor of the 4P in Kalangala was the transparent pricing formula that tagged the price of fresh fruit bunches (FFBs) paid to farmers to the monthly average CPO price in Malaysia, adjusted to include import transport costs, the actual oil extraction rate and a factory milling constant. This ensured transparency in setting the buying price and protected the farmers from the potential monopoly position of the processor to determine the price. A similar transparent governance mechanism has been established to determine the charges to farmers for the cost of inputs (seedlings and fertilizers). All this has contributed to build credibility and trust around the partnership. This commitment to transparency will be maintained and further developed under NOPP. A critical dimension of this

transparency will be effective communication to OP producers, right from the start, in local languages, to ensure that they understand the guiding principles behind the partnership, as well as their rights and responsibilities.

24. ***Long-term commitment is required***. Time has been a critical element in building the 4Ps. Time was needed to build the trust among the different stakeholders, as inclusive business models require consensus building and alignment of different interests, often under less than favourable policy environments and with slow decision-making in the public sector. Time was required for farmers' acceptance of new technologies and, more generally, for an overall shift in mindset from subsistence to commercial, business-oriented farming. Knowledge building took time, not only for farmers but for all the stakeholders involved; private sector, public sector and IFAD. Finally, time was needed for social acceptance by the local communities, to allow for an informed and consensual process of land purchase and identification of the beneficiaries. NOPP will be able to draw on and capitalise the gains from this long-term effort.

25. ***IFAD's role as trusted broker.*** IFAD's role as a neutral broker has been critical in building the trust among the different partners (GoU, private sector and farmers), by facilitating negotiations to resolve disagreements, helping to address the challenges arising and ensuring transparency. This has required considerable flexibility to changing circumstances in order to accompany such a complex development with a wide range of interests to be mediated and aligned. IFAD was called to provide a steady commitment to support the other partners facing challenges and maintain commitment. This it will continue to do under NOPP.

26. ***Organization of smallholder OP growers.*** For growers to work well with each other, and to develop constructive and effective relationships with both the local technical support service providers that they interface with, and the private sector partner, they need to have strong representative organizations at the block, unit and hub levels, with effective governance and channels for selecting qualified individuals to represent them. Smallholder OP growers are willing to take on responsibilities for quality control and provision of some services – something that needs to be built upon going forward; strong organization can support this process. NOPP will pursue this approach to OP growers' organization.

27. ***Institutional framework for governance and sustainability of oil palm investment.*** A strong sense of ownership by the farmers on the oil palm business and the institutions that govern it has been key to turn them into actual partners rather than beneficiaries, thus ensuring their long-term engagement for the investment. On the other hand, the provision of efficient and effective services to the OP growers is essential to guarantee the profitability of their enterprises. This requires a business-driven institution with appropriate professional and technical capacity, run by professional managers. The right balance needs to be ensured between ensuring a sense of ownership by the OP growers and an appropriate business-oriented operating model, with professional management. NOPP will develop an appropriate institutional framework adapted to the requirements of a national project.

28. ***Planting of oil palm***. In Kalangala, farmers are organized within units and the units are organized in blocks, but each farmer operates individually. When farmers were initially mobilized, they planted oil palm seedlings in very small areas over 3-4 years on their plot. A key lesson learnt is about the need to complete the planting of contiguous areas at once so that the crop ripened together to reach large enough volumes to keep harvesting and transport costs down. The most recent oil palm development on the outlying islands in Kalangala has successfully tested this approach with labour groups planting individual farmer blocks all at once, so the Project will scale-up simultaneous planting in large blocks by smallholders for all future development.

29. ***Technical support for oil palm production.*** Through the Kalangala experience, much has been learned about oil palm planting and maintenance technologies, and smallholder growers have shown themselves well able to adopt these technologies and achieve yields comparable with those of the nucleus estate. However, technical support to new OP growers for planting seedlings and their maintenance needs to be intensive, so that the trees are established properly; and closer collaboration to be promoted with the private sector partner for technical transfer of knowledge to OP growers. The private sector partner needs to be closely involved in the transfer of knowledge to smallholder oil palm growers. Training also needs to be frequent to internalise the required technical practices– particularly the application of fertiliser which determines the capacity to generate more and heavier FFBs; and growers need to be trained from the start to consider OP growing as a commercial business – something that can facilitate a gradual evolution to technical service provision at cost, critical for increased efficiency and sustainability. Financial literacy training (including training about savings

mobilisation) is a critical here. In addition, the technical support and the timeliness of service provision to OP growers are key determinants in farmer attitudes to the Project. These lessons are reflected in the NOPP design.

30. ***Risks.*** The study conducted by the Institute of Development Studies of the University of Sussex raised some potential risks associated with the Kalangala investment, in terms of food-security in the long-term due to mono-cropping; the pressure on the traditional land tenure systems due to the increased value of land; and the overall exposure of farmers to production risks. Other risks identified have been those of increased inequality and associated social issues, including the potential spread of HIV/AIDS. In order to promote broad-based growth in the OP growing communities that enable community members to take advantage of the economic opportunities that emerge in a growing local economy; as well and to mitigate the social risks that can emerge at both household and community levels, there is need to provide economic and social support to other community members, as well as the OP growers. Particular efforts need to be made to reach out to promote the inclusion of youth and women in these activities. Component 2 of the Project is specifically designed to address these issues.

31. ***Environmental and social issues.*** OP development attracts much interest as well as concerns – some of this justified, given its poor record on environmental and social sustainability in other parts of the world. Ensuring that OP development in Uganda conforms to the highest international standards of environmental sustainability and social responsibility – and that smallholder OP growers understand and buy into these issues – is critical; and widely communicating the approaches used and the results achieved is crucial for reassuring stakeholders as to their concerns.

Attachment 1: Lessons learned on land acquisition, conversion and tenure security

1. Under VODP and VODP2, as well as during the preliminary preparation for oil palm development on Buvuma island, considerable attention has been given to land issues and, in particular, to ensuring that there is no negative impact of the projects on the land rights of rural people. This attachment highlights the lessons learned through land acquisition and conversion for oil palm growing, both in Kalangala and Buvuma, as well as through supporting improved land security in Kalangala

A. Lessons learnt from the land acquisition and conversion of land for oil palm growing at Kalangala District

2. Initially land acquisition on Bugala island under VODP-1 was met with considerable concern by residents who feared that they would not receive a fair price for their land. In addition to the delays this caused, there were two major consequences to people's initial reluctance to sell. First, the GoU looked more for district public land that could be used. Hence, about half the land acquired was public land and about half was privately owned mailo land. Second, no land was reportedly acquired that had tenants on it. Where there were tenants, the land was sub-divided and the tenants remained with their existing lands. Similarly, in the case of public land, the land with existing tenants was subdivided and the tenants were left with their lands.

3. Ultimately, the GoU bought 4,194 hectares of land in 69 plots from 50 landowners between 2002 to 2011. In addition to the private mailo land, an equivalent amount of public land was allocated by the District government[74]. No land was purchased from Kibanja tenants. It was reported by the District Agricultural Production Officer that 54% of the landowners (27) who sold land were resident on the island and 46% (23)were absentee landowners. Eighty-seven percent (87%) of the land was purchased more than 10 years ago with 71% of it being purchased in 2002 and 2003. Of those who sold their land 34% (17) are thought to be still residing in Kalangala District, 14% (7) are in Kampala, 10% (5) are in areas relatively close to Kalangala, and 8% (4) are in areas of Uganda further away or out of the country. The whereabouts of 43% of the absentee landowners (10) is not known, 26% (6) are in Kampala, 17% (4) are living in nearby areas and 9%(2) are reportedly overseas. Of the people who sold their land 15% (8) are reportedly now deceased and the whereabouts of 19% (9) is not known.

4. The investments made with the money received is informally known by the District administration and KOPGT for 56% (28) of the landowners. There is information for 89% (19) of the resident landowners. The remaining 3 landowners who were resident at the time and where there is no information on how they invested the money received are now all deceased. There is information on what they did with their money for only 4 of the absentee landowners. Of the 28 landowners where there is information, it would appear that 82% (23) made a positive investment, 3 reportedly misspent the monies received and in 2 cases there was a mixed result.

5. While all land acquired for the nucleus estate was reportedly acquired "free of encumbrance", there are unconfirmed reports that in some cases landowners and district government negotiated with certain Kibanja tenants to swap land so that the land they were using could be used for the nucleus estate. There are no known disputes from these tenants over this land swap. However there have been reported complaints from some people that they lost access to land that they were using and which subsequently was used for the nucleus estate or for smallholder oil palm production. These complaints appear to have either involved: (a) residents in neighbouring fish landing sites or "licensee" tenants that were granted temporary rights to grow annual crops or (b) "good faith occupants" or "squatters" who were using the land without the knowledge or consent of either a landowner, Kibanja tenant or the district government (but who may not have been informed that they were not allowed to use the land).

[74] In total about 8,500 hectares was acquired with 6,225 being leased to the investor. The balance has been used for the buffer zone, infrastructure development and other purposes, including allocating an unconfirmed 400 hectares to landless families.

6. Reference is made to some of these cases in a 2009 Kalangala NGO Forum report[75] and a 2012 NAPE/Friends of the Earth Report[76]. The current status of these complaints was not established for this report but it was reported by Project implementers that at least some of the affected people may subsequently have received land through VODP's support, many of whom are now getting involved in oil palm farming. The NAPE/FoE report also refers to one litigation case that involves a Kibanja tenant alleging that the landowner leased land that he was using directly to the company. While the arrangement was not directly supported by VODP or the GoU, the latter has joined as a respondent in the case. The case has been referred back from the court for mediation between the tenant and landowner but at this stage it does not seem that an agreement has been reached.

7. OPUL is also involved in various land disputes which require Government's support in resolving them. The company reported that there are currently 6 court cases against them. The district government, KOPGT and VODP PMU are of the opinion that the cases should most likely not be brought directly against the company and should in fact be directed to the Uganda Land Commission (ULC) as the GoU remains the owner of the land and, as indicated in the MoU between the GoU and investor, it is responsible for resolving all land disputes and providing the land for the nucleus estate free of encumbrance. There is a general opinion in the district government, the PMU and other people met during various implementation support missions that the charges are being directed at the company because it is a relatively soft target.

8. There are also cases where people were allowed by smallholder oil palm growers to inter-crop food crops with young palm trees, in part as a way of keeping the trees free of weeds. The "inter-croppers" also benefited from the fertilizer application for the oil palm trees while reducing the risk of fertilizer run-off. While not confirmed this may have mainly involved various share-cropping arrangements. These arrangements reportedly contributed to a significant increase in food crop production over the past five to ten years but this contribution is diminishing as the trees reach maturity, resulting in the loss of access to land for food crop production for some communities, especially landing sites and in particular for women living there.

B. Lessons learnt from the land acquisition and conversion of land for oil palm growing at Buvuma.

9. Unlike Kalangala, Buvuma has experience a substantial influx over the past decade or more of people interested to access land so that they can participate in oil palm production. Another difference has been the apparent greater willingness of both landowners and tenants to sell their land, reportedly in part because there is a greater confidence that they will receive a fair price. As a result of these factors a significant amount of land has been purchased from Kibanja tenants and several licensee tenants have also been compensated for land that they were using on a temporary basis – albeit possibly for a relatively long period of time.

[75] Kalangala District NGO Forum (March 2009). A Study to Identify Key Issues for Engagement about the Oil Palm Project in Ssese Islands Kalangala District: A Case Study of Bugala and Bunyama Islands in Kalangala District. With support from Siemenpuu Foundation.
[76] NAPE (April 2012). A study on Land Grabbing cases in Uganda. Supported by Friends of the Earth International.

10. The land acquisition process was initiated at Buvuma in 2012 and was at an advanced stage in 2014 when Wilmar, one of the principal partners in Bidco, indicated that they did not wish to establish a nucleus estate until they'd done their due diligence in line with their new "No Deforestation, No Peat and No Exploitation" policy[77]. However, the GoU continued with the land acquisition and in 2016 the investor indicated that they were now in a position to continue with the establishment of the NE. To date, about 6,922 hectares of land have been acquired for the Nucleus Estate at Buvuma, of which about 80% is mailo land. Of this land, the acquisition and compensation process had been completed for about 5,114 hectares, which has been offered to the investor by the Uganda Land Commission. The acquisition of a further 1,808 hectares is expected to concluded in 2017 and limited further acquisition is expected in 2018. Assuming all of the land is acquired, about 5,000 hectares is expected to be available for planting for the nucleus estate, with the balance being allocated for infrastructure development, the buffer zone, marginal land and other use, including allocating land for vulnerable people with less land.

Box. Overview of the land acquisition and compensation provisions and procedures

1. Land for the nucleus estates has been acquired by the Gou and leased to the investor "free of encumbrance". The land acquired is held by the Uganda Land Commission who have thus far provided, in the case of Kalangala, 99 year leases to OPUL the national subsidiary company established for Kalangala. Although most of the land acquisition has been done prior to the approval of IFAD's SECAP guidelines, the procedures followed by the GoU are considered broadly in line with the SECAP guidelines pertaining to resettlement and economic displacement and for community consultations and agreements. The acquisition has been guided by Uganda's 1995 Constitution, the 1998 Land Act (amended in 2010) and associated legislation. Uganda does not have a National Resettlement Policy, however, in addition to the aforementioned regulatory framework, Uganda is a signatory to International conventions and treaties, international guidelines such as those issued by World Bank (The World Bank Operational Policy 4.12, Framework of November 2002) and has followed the guidelines derived from these frameworks.
2. A high-level national task force was set up by the Prime Minister to oversee the land identification with representatives from Treasury, MAAIF, MWLE (later MLHUD), Solicitor General, NEMA, Uganda Investment Authority, Bugala Local Council, District Agricultural Officer and the VODP's PMU. The Terms of Reference of the TF included: identifying suitable land, identifying land owners/occupants and other encumbrances, obtaining copies of titles and title reference numbers, formulating MoUs and other relevant documents necessary for land acquisition, establishing the cost of lease or outright purchase, facilitating consultations and any other activities necessary for land acquisition. A set of guidelines was produced by the VODP PMU, which has been regularly updated.
3. Key provisions for land acquisition have been that land is acquired on a willing buyer, willing seller basis and people have the option of receiving a cash payment or in-kind alternative piece of land. However, cash payment appears to have been the preferred option for both sellers and the government. Land has been valued at market value which is determined by the rates for different districts prescribed by the Chief Government Valuer. Property and land improvements have also been valued according to the standards prescribed by the Chief Land Valuer. All land acquisition and compensation at Buvuma was preceded by community consultations involving all relevant stakeholders. Grievance procedures were put in place and records of key consultation meetings and purchase and compensation agreements have been kept.
4. In the case of "mailo" landowners, the land has been purchased as a voluntary sale and no additional provisions have been made in the form of compensation for improvements (which are included in the sale prices) or for relocation allowances. On Bugala no land was purchased from tenants but at Buvuma the Kibanja / tenants' rights have been purchased by government on a willing buyer / willing seller basis and additional compensation for improvements and relocation allowances have been paid to both Kibanja and Licensee tenants and in certain cases to other occupants. The relocation or "disturbance" allowance was estimated at 30% on top of the total valuation for the land plus improvements.

[77] See: http://www.wilmar-international.com/wp-content/uploads/2012/11/No-Deforestation-No-Peat-No-Exploitation-Policy.pdf,http://www.wilmar-international.com/wp-content/uploads/2014/05/Wilmar-Policy-Q1-2014-Progress-Report-FINAL.pdf,http://clients.squareeye.net/uploads/tft/TFT-Wilmar-second-progress-reportFINAL.pdf

11. By January 2017, about 55 landowners had sold their land and 3,200 tenants residing on both mailo and public land had sold their use rights and received compensation. This includes both Kibanja and licensee tenants. It is expected that once all the land is acquired, up to 80 land owners and about 5,000 tenants would have been involved. By December 2016, USD 17.8 million had been spent or committed for finalizing the land purchase and compensation payments. It is estimated that up to USD 27 million could be required to acquire the remaining land, potentially representing a significant investment into the local economy. In the case of landowners, they receive an outright cash payment based on an agreed sales price and no further support has been provided for their resettlement. In the case of land purchased from Kibanja tenants, they received between 40% – 60% of an agreed sale value with the landowner receiving the balance. However, an additional compensation and a "disturbance allowance" (30% of the sales value) is also paid to the Kibanja tenants. In the case of "Licensees", they receive compensation for any improvements, are allowed to harvest their crops and receive a relocation allowance. Initially (2013), the payments were made to the landowners with the expectation that they would then make the payments to the tenants, however, for reasons given below, this was later changed and payments were made directly to the tenants.

12. A reported 60% of the mailo landowners (33) who have sold their land do not reside on the island. Of the landowners on the island, some have reportedly invested their money in other businesses, mainly transport, but most intend to go into oil palm growing using other land that they own. Many of the owners not living on the island live in districts on the mainland opposite the island such as Mayuge and Mukono. Several of them have indicated their interest to start investing in oil palm growing there while some have invested in other businesses. Similarly, it was reported that many, possibly the majority of tenants have retained some land on the island to participate in oil palm growing and have kept some land aside for food crop production. Many have also invested in other economic activities, mainly in transport provision, merchandise trading, provision of hotel services, pharmacies and / or in education and new housing. However, a large number, possibly more than half, have reportedly also purchased land off the islands. Most appear to have purchased land in districts which are opposite Buvuma (Mayuge, Mukono, Bukwe, Jinja and Bugiri Kamuli) or on other islands in the Buvuma District. Many have apparently indicated their interest to do palm oil production, several continue to commute to Buvuma and work on land there and at least some have indicated their expectation that they would benefit from employment on the nucleus estate. It is estimated that about 5% of the tenants have gone back to their areas of origin in districts such as Luwero, Mbale, Soroti, Katakwi and Masindi.

13. Although records of major community consultation meetings and of all sales and compensation agreements have been kept, the PMU has not kept records for all meetings and has not always kept a record of all the people attending meetings. Nor have the records of consultation meetings been signed by participants. These requirements have been considered beyond the time and resources available to the PMU and district government, given the sheer scale of the number of meetings that have been held. While it would appear that in many cases people have invested their money well, the PMU and others have reported that there have been various concerns and complaints received. Many have involved complaints that the valuations were not properly done. It would seem that many if not all of these types of complaints have been addressed on an ad hoc basis. There have also been reports of complaints that landowners did not adequately compensate tenants for land lost from money received for this purpose. This involves cases from 2013/14 when payments were made directly to landowners with the expectation that they would pay the tenants. These cases have reportedly been resolved – often with the GoU making further payments to the tenants. There have also been reports that some tenants may have felt that they had no choice but to sell their land given that this is a government Project, however these allegations have not been verified. Of greatest concern perhaps, there have been reports of cases where husbands have taken the money received and abandoned the family. The extent of these cases is not known but it would appear that they also mainly involve payments made in 2013/14. Subsequently the PMU introduced a requirement that both spouses should sign the sales and compensation agreements and following this, encouraged spouses to open a joint bank account to receive the monies. It was reported by the VODP PMU that since 2015 almost all payments have been made into joint bank accounts.

14. Aside from the people directly involved in the sale of land for the nucleus estate, there appears to be little information available regarding the possible impact on the land access and livelihoods of other people in the wider community. Further, since smallholder farmers interested to participate in oil palm growing are still being identified, it is not possible at this stage to precisely quantify the impact

that the conversion of land to oil palm growing by smallholder farmers could have on other users, especially those that may have been using some of the land on a temporary basis but for a long period of time. This could include licensees, "good faith occupants", squatters and others residing on neighbouring land or residents of land sites or market centre that have little or no other land. Although there is little information on the possible impacts, the introduction of oil palm growing will result in a substantial conversion in land use. Depending on the amount of land allocated for the nucleus estate and brought under smallholder production, the total amount of land under oil palm production could range from 50 to 59% of the total land area of the island. Forest reserves make up a further 21% of the land area, leaving about 20 to 30% for other uses. Lessons learnt from Kalangala suggest that initially access to land by those currently using it on a temporary basis may improve in the short to medium term, assuming they are able to enter into similar inter-cropping arrangements with oil palm growers. However, as the oil palm trees mature it is anticipated that their ability to do this will decline.

Box. Review of land acquisition process to date

In June 2017, IFAD financed a consultancy study to review the land acquisition process to date in Kalangala and Buvuma. The draft report includes:

i) An evaluation of VODP / NOPP SECAP compliance for land acquisition in Bugala and Buvuma;

ii) Suggested safeguards for future land acquisition and resettlement for NOPP;

iii) Practical recommendations to offset identified shortfalls in the land acquisition process to date that can be implemented post valuations in Bugala and Buvuma islands; and

iv) A Stakeholder Engagement Framework.

The report draws on ground research in Buvuma and Kalangala Districts, key informant interviews in Kampala and the desk research, which included the February 2017 IFAD Note on Land Acquisition[1] and recommendations contained in the "Audit" reports. Additionally, the Constitution and various Ugandan laws were reviewed, as well as the EIAs undertaken for both Programmes. The following paras. are drawn from the executive summary of the report.

Five issues were considered before undertaking a compliance assessment of the land acquisition compliance for VODP1 and VODP2.

i) The VODP programmes are a GoU initiative, however VODP was designed to fully comply with national laws and the World Bank's environmental and social safeguard policies of 2002 (OP4.12);

ii) IFAD played no part in the land acquisition in 'willing buyer / willing seller' process;

iii) There was no conditionality clause in either Finance Agreement that required the GoU to undertake the Land Acquisition process according to international best practice;

iv) The various finance agreements between The Government of Uganda (GoU), and IFAD for VODP (1998) and VODP2 (2010) were signed before the introduction and implementation of the 2014 SECAP IFAD's safeguard policy.

v) Finally, bearing in mind the above points, a retroactive assessment of whether the processes used to acquire land were sufficient to meet the broad principles of the IFAD's SECAP.

Large-scale projects can give rise to potential adverse social impacts that are sensitive, irreversible and affect a broader area than the sites subject to physical intervention. SECAP guidelines have been introduced as safeguards for IFAD funded projects. These include a) avoidance of displacement, b) impact assessments undertaken prior to commencement of the Project, c) FPIC, d) livelihood restoration e) improvement of those affected by the Project, f) user-friendly grievance mechanisms, g) accurate record keeping and finally h) continual monitoring and evaluation.

The land acquisition process was undertaken by the GoU, for VODP1 and VODP2 and compares well with SECAP guidelines. EIAs were undertaken, a Resettlement Policy Framework (RPF) was defined in accordance to the World Bank and EIA Approval Certificates were issued before the VODP1 project began; Land was acquired on a 'willing buyer' and 'willing seller' basis. Free, Prior and Informed Consent (FPIC) was achieved through: i) Initial sensitisation, ii) valuation of willing sellers and iii) disclosure of values was disclosed prior to final agreements being signed. Finally, a grievance mechanism was put in place and M&E has been carried out by both OPUL and IFAD consultants. IFAD's aim to support poor rural dwellers was delivered through the outgrowers programmes and jobs, goods and service suppliers for the nucleus estate in Bugala, Kalangala District..

Additional measures were introduced by the VODP PMU including the provision of compensation for licensees, extra disturbance allowances for both tenants and licensees. There was also proactive responsiveness as issues arose: Tenants were paid separately to landowners to ensure they received their monies, gender sensitivity was included to ensure spouses opened joint bank accounts as joint signatories and banks provided additional sensitisation on money management.

The conclusion is that the land acquisition process for VODP/VODP2 was broadly compliant to SECAP.

Suggestions for Improved Practice for Future Land Acquisition under NOPP. *Notwithstanding the above statement, there is room for improvements as described in the planned roll out of the NOPP PDR. Additional suggestions would include:*

- *A more robust screening, baseline and participatory impact assessments in the Project area of influence prior to land acquisition, with special attention to the landless and roaming livestock keepers; and the mitigation plans developed for impacts including Land Use Plans.*
- *The financing agreement for NOPP should include conditionality clauses for any further land acquisition that meets best practice safeguards of:*
  - *GoU laws and policies*
  - *SECAP for IFAD and FAO provisions;*
  - *Wilmar International's safeguards which follow the Round Table Sustainable Development of Palm Oil (RSPO).*
- *Livelihood development to skills training start earlier rather than later;*
- *Access to employment and goods and service supplier contracts are planned and co-ordinated between BIDCO HR Dept., the PMU and the local District Officers liaise to ensure local employment and avoid influx;*
- *Improved record keeping and soft copy records in one central place to build institutional memory.*

Practical Post Valuation Recommendations for VODP/VODP2. *The NOPP Project Design Report has enumerated a range of innovative initiatives that will be introduced in the near future. These will further offset some of the unforeseen impacts during the initial land acquisition and optimise directly and indirectly opportunities emerging from the Programme.*

In Bugala, Kalangala District, it is evident there has been an increased well-being for the communities, due to the Project, with improved infrastructure including roads and solar power reaching many people/communities, and access to more jobs and livelihood diversification.

There have however been criticisms on a range of fronts, with NGOs accusing BIDCO, (the estate and factory owner), of grabbing land, paying small wages, having workers in poor living conditions, lack of health and safety and outgrowers being paid minimally for their crops. Regardless of whether these accusations are true, the 'perception' is that they are, and better communications and transparency are encouraged.

*A **Stakeholder Engagement Framework**[1] has been developed, to ensure transparency and accountability in programme operation, engage the full range of stakeholders in formulation, implementation and monitoring of programmes/projects. It includes the following sections:*

1 Introduction
2 The Framework
3 Define the Programme Vision
4 NOPP Stakeholder Engagement Management Plan (SEMP)
5 Legislative Review
6 Project Stakeholders
7 Previous Stakeholder Engagement
8 SEMP Moving Forward
9 SEMP Engagement Planning
10 SEMP Engagement
11 Participatory Engagements
12 Tool Kits for Communications
13 NOPP Empowerment Components
14 Grievance Mechanisms
15 Types of Monitoring and Reporting
16 Financial Resource
17 Resources

15. **Implications for the development of a national Project for the oil palm sub-sector and the expansion of oil palm growing into new areas.** Beyond Kalangala and Buvuma, NOPP will support the expansion of oil palm growing into new hubs in/around Mayuge, Maska and possibly Masindi and Kiriyandongo in western Uganda. it is unlikely that similar land acquisitions will be supported under NOPP. However, land may already have been acquired by investors who wish to partner with the Project[78] or the GoU may support land acquisition for private sector investment in mills and / or nurseries. Hence the GoU recognizes that a set of operational guidelines are required for land acquisition and compensation for oil palm growing for: (a) assessing how land was acquired either by potential private sector partners in the Project or by the GoU and the appropriateness of compensation and other mitigation measures that have been introduced; (b) assessing the potential negative impacts of a conversion of land for oil palm growing on land access and livelihoods; (c) developing, implementing and enforcing plans, or where these plans exist but have shortcomings, remedial actions, for mitigating against any negative impacts; (d) undertaking inclusive consultation and agreement reaching processes for land acquisition and compensation, following the principle of free, prior and informed consent (FPIC), including establishing clear and enforceable grievance procedures; and (e) setting up systems for documenting and storing key information on processes followed and agreements reached and for monitoring and assessing the implementation of mitigation measures.

16. The guidelines will be developed under VODP-2, prior to the start-up of NOPP. Training will be provided under both VODP and NOPP for implementers, other responsible government agencies, NGO service providers and community leaders on the application of these guidelines. VODP PMU will also produce reports on the land acquisition processes at Kalangala and Buvuma, including the mitigation measures taken for people who may have been negatively impacted by the sale of land for the nucleus estate or by the conversion of land for smallholder oil palm growing. The reports will also specify further measures to be introduced under either VODP-2 or NOPP. For Buvuma the PMU will continue to add information on the remaining landowners and tenants that sell their land and will monitor and assess the impact of the moneys received as part of the Project's normal M&E systems. The information gathered at both Kalangala and Buvuma will also help with the targeting of potential NOPP beneficiaries. The VODP PMU will also enhance the sensitization process with people selling their land to include aspects such as enterprise development and financial literacy, prioritizing those that may have been negatively impacted for support under NOPP. In addition, mitigation measures will be included under NOPP to ensure that any land that may be acquired or converted for OP growing, and which could be associated with NOPP, is acquired or converted in a way that does not impact negatively on the tenure rights or livelihoods of the existing users. Measures will include: (i) identifying and supporting the adoption of alternative livelihoods opportunities, including at Kalangala and Buvuma; (ii) supporting physical and land use planning as a basis for accommodating different land use needs; (iii) strengthening tenure security measures, including identifying land for women, youth landless and vulnerable groups; (iv) providing civic education on the land policy and related laws, land dispute resolution support and legal advice, mapping of land parcels in OPG communities and facilitating land registration; and (v) strengthening of District land administration institutions and PMU capacity.

C. Lessons learnt from VODP and elsewhere in improving tenure security

17. **Land purchase by tenants.** With an increased income various Kibanja tenant farmers have started negotiating with landowners to buy the land outright from them. Equally, with an increase in land values and recognizing the rights of tenants, landowners are increasingly willing to sell their land. Tenants have indicated to KOPGT and the VODP PMU that they need advice in negotiating sales agreements with owners. In two cases, it was reported that landowners may be represented by several descendants who do not always agree on the land sales conditions and terms.

18. **Land allocation to land-needy households.** Various portions of public land or mailo land purchased at Kalangala have been allocated to women, youth and landless groups. In total about 1,000 hectares of land acquired at Kalangala were used for infrastructure development or set aside

[78] For example, one potential investor partner was granted a lease by the Uganda Investment in Authority in 2000f or about 1,600 hectares of land that was formerly used by the Ministry of Defense. Another potential investor in Rakai District was reportedly granted a freehold title to about 4,800 hectares (tbc) in the late 1980s.

for community facilities, food crops, grazing and for oil palm production. The exact amount of land allocated to needy households is not known but is estimated at around 600 – 700 ha.. The largest allocation being made (about 340 ha.) is on the outlying islands of Bubembe and Bunyama where around 120 households have been allocated about 2.8 ha. each (7 acres).

19. **Options for improving tenure security of tenants on public land**. Options could include the issuing of Certificates of Occupancy (COs) but as mentioned above this has challenges and the granting of long-term (49 year) leases is preferred. Leasing arrangements between tenants on District, Buganda Land Board and ULC held lands would need to be harmonized.

20. **Mapping of farmers' lands.** With the support of the VODP PMU and the Global Land Tools Network, KOPGT has assisted farmers to map their lands under oil palm production. Farmers and KOPGT have reported that this has been very useful for them, especially in providing an accurate measurement of the amount of land they have, which has been useful for them in estimating input and productivity. The mapping and associated data capture on tenure has provided a good basis for farmers to register their land. Several farmers requested that the exercise should be expanded to include other farmers and land not under oil palm discussion. It has been suggested by district government, KOPGT and the VODP PMU that the role of the District Lands Office and Lands Board in supporting the surveying and registration of land should also be strengthened.

21. **Proposals for the establishment of land legal advice centres.** The land dispute and other tenure issues mentioned above highlight the need for improving information dissemination and sensitization for farmers of their land rights and responsibilities, and to strengthen local dispute-resolution mechanisms. KOPGT has played a positive role in trying to resolve disputes but this is putting increasing demands on their time and resources. A proposal was developed by the Uganda Land Alliance (ULA) to establish a land legal advice centre to deal with land tenure issues by KOPGT, VODP PMU, District Land Board, the ULA and others. ULA has supported about 12 similar centres in other parts of the country and the ULA Secretariat has indicated their interest to support the establishment of centres at Bugala and Buvuma. Typically, the centres, which are registered as CBOs, are supported by the ULA Secretariat or its members for a period of around 3 to 5 years after which, if they are found to be useful, district governments have taken on the financing of the centres. The centre could: (i) support civic education on laws related to land rights; (ii) provide legal advice to farmers and other members of the community on land issues; (iii) assist land owners and tenants to negotiate land purchases; (iv) assist in land dispute mediation; and (iv) provide advice on land registration. ULA has been unable to raise the funds needed to finance the proposal; however, KOPGT, KOPGA, VODP PMU, District Land Board and ULA have continued to indicate the importance of establishing such centres both for Kalangala and Buvuma.

22. **Implications for NOPP.** Farmers, in particular tenant farmers, have indicated their interest in registering their land rights, and options for granting tenants on public land leases will explored. Decisions over the most suitable options will be made by farmers themselves following the principle of free, prior and informed consent. Physical and land-use planning will also be supported as a basis for identifying areas most suitable for oil palm production, forest reserve areas and other land uses. While some support was provided to the District Land Board in Kalangala under VODP, district land administration institutions in both Kalangala and Buvuma are relatively under-resourced, and the Ministry of Lands, Housing and Urban Development (MLHUD) has not secured sufficient resources under its Land Sector Strategic Plan to systematically register land throughout the country. Hence NOPP will continue supporting the low-cost surveying and support measures for registering of farmers' land parcels, including at Kalangala. Support will also be provided for strengthening district and sub-district land governance institutions. This should complement the support planned by MLHUD under its land sector strategic plan. The support will include support for the establishment of land legal advice centres that can provide civic education and dispute-resolution services as well as support farmers in land transactions. The centres will be registered as community-based organizations (CBO) but will be closely linked with the district administration. As an immediate priority, the centres will be established to provide support for Kalangala and Buvuma districts.

23. **Measures for strengthening tenure security under VODP and NOPP.** The measures for strengthening tenure security under NOPP, described in more detail in Annex 4, include the following: (i) Capacity building support on mitigation measures for land acquisition and land conversion for oil palm growing, including for Kalangala, Buvuma and new areas of OP growing; (ii) Support for physical and land use planning to better regulate different land uses in oil palm growing communities,

including for: food crops, oil palm growing, settlements, infrastructure and facilities. This will include landing sites, plans should include identifying areas for food crop production at market centres and fish landing sites; (iii) Strengthening and tenure security measures, including: civic education and public sensitization on land rights; dispute resolution support and legal advice; support for mapping of land parcels and land registration and (iv) Support for decentralized land administration, including for the establishment of independent para-legal advice centres.

Annex 4

Detailed NOPP component description

Annex 4: Detailed NOPP component description

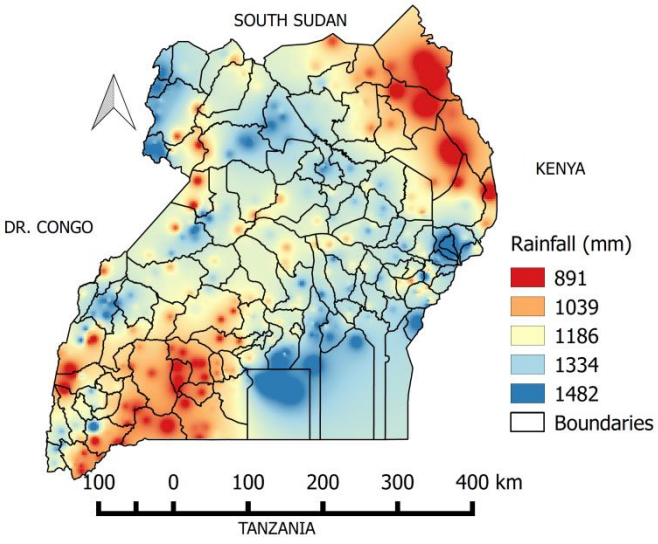
A. Background

1. The Kalangala investment has demonstrated that oil palm can be grown in areas of Uganda where conditions are suitable, and that smallholders are viable and credible partners. The model of nucleus estate and smallholder development has provided for knowledge transfer and confirmed that national production and value addition is the way forward for the industry countrywide.

2. **Private sector/driven, smallholder production/based model**. Based on the Kalangala experience and in order to develop a modern oil palm industry, GoU will promote a private sector-driven model that promotes smallholder oil palm production and modern crude palm oil (CPO) processing with qualified private sector partners. Since obtaining large areas of land for nucleus estates is extremely time-consuming and costly, the approach for investment in oil palm development under NOPP will be based on mobilizing smallholder producers to grow the crop. Thus, while replicating in Buvuma island the successful processor-nucleus estate-smallholder model of Kalangala and opening the partnership to other private sector investors, NOPP will represent a key step in a long-term process and commitment towards a model based on smallholder production. Specifically, it will increase the area of OP cultivated by smallholder growers from 4,700 ha to 22,700 ha, and proportion of the total OP area in Uganda under smallholder production from 40% to around 70%.

3. The selected private sector partners will be responsible for providing inputs to smallholders (seedlings together with fertiliser and other inputs) along with technical knowledge for crop establishment and maintenance, as well as on Environment, health and safety (EHS) practices, in line with RSPO social and environmental principles. Smallholders Oil Palm Growers will be supported to run their holdings as a business implementing best known industry practices. NOPP will interface with the private sector partner(s) on behalf of smallholder OP growers and support the development of infrastructure, the provision of technical services and financing support, within a sustainable collaboration framework for the long-term sustainability of the industry.

Figure 1: Rainfall map of Uganda



4. **Areas suitable for oil palm**. Optimal growth of oil palm trees is dependent on several factors, with the amount of annual rainfall and its distribution being key. Limited parts of the country have ideal conditions for growing oil palm, and the most suitable areas are located in: (i) a narrow belt (25-30 km) along Lake Victoria on the mainland areas and nearby islands; (ii) some areas in the far western part of the country (Bundibugo) and the far north-west (Arua) where rainfall is high; and (iii) potentially some parts of Masindi and Kibale with higher rainfall may also be suitable, along with some areas to the west of Lake Kyoga with wetter soils (to be confirmed). To attain full potential, high yielding drought and disease tolerant varieties must be planted and appropriately maintained.

5. **Hub approach and private sector partners.** NOPP support for smallholder OP production will take place in 'hubs', defined in terms of their agro-ecological and environmental suitability and commercial viability. Each hub will constitute a minimum production area of 3,000 ha within a 30 km radius of a CPO mill site. At Project design stage four specific hubs have been identified: Kalangala, where OP production both on the nuclear estate and smallholder growers' plots is already under way, and two CPO mills process the FFBs; Buvuma, where a nuclear estate, smallholder production and a CPM mill are all planned; Mayuge (part or all of the district and possibly part of Bugiri and/or Namayingo districts); and Masaka/Rakai. A fourth hub will be selected according

to the criteria defined above and the availability of Project financing. This hub is expected to be in or around Kiriyandongo or Buikwe. The current private sector partner Bidco/Wilmar has confirmed its interest processing production from OP growers in the hubs to be established in Mayuge and Masaka/Rakai, so long as there is a minimum of 3,000 ha of oil palm planted to justify the construction and operation of mills there. For Kiriyandongo, Mukwano has already established a nucleus estate and the area will be monitored to determine whether or not smallholder investments can be justified given the risk of extended dry periods in that area.

6. **Targeting Smallholder Oil Palm growers.** The Project will provide support to households who are interested in becoming oil palm growers and their communities in targeted oil palm hubs. The principal targeting mechanisms will include: (i) setting an upper limit (2 ha or 5 acres) for area of oil palm per household to be supported by the Project development financing (this financing is to cover crop establishment and maintenance over a 4 year period and fertilizer for 5 years, until the palms mature) in order to target the active poor, limit the Project cost per beneficiary, and increase the overall number of Project beneficiaries; (ii) inclusion of women and youth as oil palm smallholders, including promoting their access to land use (target of 30%); (iii) clustering smallholder oil palm growers into units and blocks; (iv) promoting the safety, health and welfare of oil palm farmers and their workers.

7. In Mayuge, Masaka/Rakai and Hub 4 a minority of the households are expected to have more than 2 ha to dedicate to OP production. It has been assumed that this group would make up around 20% of the OP growing households, and as such they would be able to establish on average an additional 4.1 ha of OP, beyond the 2 ha. This group will be supported with NOPP financing up to the 2 ha threshold; beyond this area, they will be expected to either access commercial financing or draw on their own resources to meet the establishment costs. The Project will link these producers to financial institutions and provide them with technical support services.

8. **Mobilisation process**. Smallholder OP growers will be identified on the basis of a participatory district mobilisation process explaining the criteria for selecting land, the focus on supporting mainly poorer (poor and non-poor but vulnerable) households with 2 ha or less, and the social inclusion processes. The approach will be that of encouraging self-targeting to mobilise oil palm growers into their district associations, based on grouping into units and blocks, and possibly the size of holding (Sub-Component 1.1). The mobilisation process will explain that the aim is to help them establish oil palm growing as a business on their holdings. The formation of hub-level associations, based on lower level structures at unit and block levels, will be the first step in helping future oil palm growers: (a) to synchronise the planting of their land to oil palm; as well as (b) to put in place their governance structures for accessing technical inputs and services for their oil palm businesses.

9. **Institutions for supporting oil palm growers**. Under the programmatic approach to be promoted under NOPP, a series of current project-specific institutional arrangements need to be modified. There are three sorts of institutions at stake here: a yet-to-be-established national-level trust, which would have responsibility for the provision of development loans to smallholder OP growers in all hubs; providers of technical support services at the hub level; and organizations of smallholder OP growers themselves.

10. The Kalangala Oil Palm Growers Trust (KOPGT) currently operates as the intermediary between OPUL (Bidco) and smallholder OP growers on Kalangala, providing both development loans for OP establishment and technical support services to the growers. At this stage, its functions relative to smallholder development financing need to be scaled up nationally. Part of KOPGT will thus be transformed to become a national-level Uganda Oil Palm Growers' Trust (UOPGT – or similar), and it will continue to mediate the provision of financing to smallholder oil palm growers in the country, with long/term loans to the growers financed with NOPP resources plus loan repayment flows from VODP/VODP2. Following the restructuring of KOPGT, the trust will start anew as an entity with national coverage (Sub-Component 3.1).

11. The provision of technical support services to smallholder OP growers in Kalangala – currently also under KOPGT – will be institutionally separated from the provision of financing, so as to ensure greater financial transparency and facilitate working with smallholders; and in the other hubs too, a separate body would be established for the provision of these services. In all hubs, these technical support service bodies would be gradually migrated to come under the eventual control and ownership of the smallholder OP producers themselves.

12. At the same time, the Project will support the smallholder OP growers in each hub to establish their own organizations that can – amongst other things – interface with the private sector partner and represent their members' interests on the FFB pricing committee; promote best practices for production and supervise their members; and offer alternative financial services to their members. With time, these will take on an independent legal personality, as decided by their members (Sub-Component 1.2).

13. Thus, in Kalangala, NOPP will continue the work of VODP2 to support the institutional strengthening of the Kalangala Oil Palm Growers Association; and continue to improve the efficiency of the technical support services body (currently under KOPGT), which will gradually be transformed into a separate body that could eventually be fully owned by KOPGA and fully recover its costs. In all other hubs, it will: (a) establish light, independent hub-level technical support service bodies (initially termed 'start-up teams', so that farmer mobilisation can be started quickly; (b) strengthen the organization of smallholder OP growers and assist them to register as legal entities, to which the technical support service bodies will respond, and which they could possibly eventually own; and (c) ensure the delivery of development loans to the smallholder OP growers from UOPGT, through local hub-specific windows that it will establish.

14. **Environmental concerns**. In a sector where, globally, there have been major and largely justified concerns about environmental management, the use of most advanced environmental and social standards at all levels of this long-cycle value chain form the foundation for the sustainable growth of the sector and improved smallholder livelihoods. Bidco and Wilmar, the private sector partners, are committed to the environmental and social principles of the Round-table on Sustainable Palm Oil (RSPO) and will be implementing these in all future investments under NOPP; and thus sustainability represents an agenda shared by Bidco / Wilmar, Government and IFAD (as well as, with time, the smallholder OP growers and organizations themselves). It is explicitly incorporated into the Project design through a series of hub-specific activities, focused on preventing environmental damage and introducing operational Environment, Health and Safety (EHS), as well at national level, focusing on longer-term strategic issues through a Strategic Environmental Assessment (Sub-Component 1.1, 1.2 and 3.3).

B. Project Objectives

15. **The overall goal** of the National Oil Palm Project is inclusive rural transformation through oil palm cultivation in Uganda.

16. **The specific development objective.** To achieve this goal, the Project's specific development objective is to sustainably increase rural incomes through the establishment of an efficient oil palm industry that complies with modern environmental and social standards.

17. **Outcomes and outputs.** The outcomes that would make the achievement of the development objective possible are summarized below, together with the related Project components and action areas:

Component 1: Scaling-up investment in smallholder oil palm development: Sustainable supply chains for oil palm growers are established.

- 1.1 Development of smallholder oil palm plantations
- 1.2 Development of OPG organizations
- 1.3 Establishment of support infrastructures

Component 2: Livelihoods diversification and resilience: Household livelihoods are diversified and resilience increased.

- 2.1 Alternative economic opportunities
- 2.2 Mitigation of social risks

Component 3. OP Sector Development Framework: An enabling environment is created for sustainable scaling-up of oil palm investment.

- 3.1 Policy and institutional support for OP sector development
- 3.2 Strengthening of national capacity for OP research

C. Project Components

COMPONENT 1. Scaling-up smallholder oil palm development

18. Under Component 1, NOPP will establish sustainable win-win partnerships between smallholder oil palm growers and private processors, through the development of about 15,000 ha of oil palm of new production in four new hubs and the consolidation of production on the existing smallholder OP plots in Kalangala. Adding to the current 1,800 or so smallholder OP producers in Kalangala, an additional 9,000 or more smallholder producers[79] will take up the crop in the new hub areas. Under Component 1, the Project will support the development of the smallholder oil palm plantations; it will develop and/or strengthen organizations of smallholder OP producers and the technical support services critical to enable them to produce efficiently and sustainably; and it will ensure the construction and maintenance of a hub-specific road network, which will facilitate the delivery of inputs and FFB.

Sub-component 1.1. Development of smallholder oil palm plantations

A. Development of New Hubs

19. Here, the objective will be to enable around 9,230 smallholder producers in four separate hubs to establish a total area of 15 000 ha of oil palm, over an eight-year period from 2019/20.

20. In the first of the new hubs, on Buvuma Island, the aim is to enable about 1,920 smallholder growers to develop 2,500 ha of oil palm. This area, plus the 5,000 ha on the nucleus estate[80]to be developed by the private sector, will result in a total of about 7,500 ha of oil palm on Buvuma. The other three hubs will all be made up exclusively of smallholder plantations and will all be larger, since in none of these is there the land constraint found in Buvuma. In Mayuge, an estimated 2,690 growers will plant a total of 5,700 ha; and in both Masaka/Rakai and the fourth Oil Palm Hub[81] 2,310 growers will plant a total of 4,900 ha (see Table 16).

[79]Of whom 40% women and 30% youth.

[80]Plus a further 500 ha will be developed for nursery, mill and other infrastructures. Development of Buvuma island by both the private sector partner and for smallholder oil palm growers will be the first step in this hub's development process. Agreement was reached between GoU and the private sector partner (Bidco Wilmar) in August 2016, and land handover for the nucleus estate has been initiated and is expected to be completed by December 2017.

[81]The selection of the fourth hub has not yet been definitively made. This may be in Kiriyandongo (where an estate of about 300 ha was planted from 2000 onwards), but only after a thorough assessment of the impact of the recent drought on its suitability for smallholder oil palm development. If the Kiriyandongo hub is assessed to be suitable for smallholder oil palm development, then there will have to be detailed negotiations with the new private sector partner about the roles, responsibilities and investments expected from each of the parties. In this case, the agreement reached will include the most important elements of the current agreements, such as the provision of high level technical assistance by the private sector partner, the implementation of the price formula and service cost panel, and the establishment of technical support services and a Trust window for providing financing.

Table 16: OP growers and area to be developed

Hub	*Dev. Financing (<2 ha)*			*Commercial / own financing (>2ha)*			*Totals*	
	OP area	*OP growers*	*Av. OP area / producer (ha)*	*OP area*	*OP growers*	*Av. increm. Area (ha) / HH*	*Total OP area (dev. and comm.)*	*Total OP growers*
Kalangala Hub	-	***1 810***		-				***1 810***
Buvuma Island Hub	2 500	***1 923***	1.3	-			2 500	***1 923***
Mayuge Hub	3 500	***2 692***	1.3	1 105	538	2.1	4 605	***2 692***
Masaka / Rakai	3 000	***2 308***	1.3	947	462	2.1	3 947	***2 308***
Hub 4	3 000	***2 308***	1.3	947	462	2.1	3 947	***2 308***
TOTAL	12 000	***11 041***		***3 000***	***1 462***		***15 000***	***11 041***

21. Of the total 15,000 ha, an estimated 12,000 ha will be planted on 11,040 or so individual smallholder plantations in areas of 2 ha or less, supported by NOPP-financed development loans. In Mayuge, Masaka/Rakai and Hub 4, it is assumed that around 20% of the total 7,300 or so smallholder OP producers in these hubs will have additional land to dedicate to oil palm production, and in total they will plant a further 3,000 ha, which will be financed either from commercial loans which NOPP will assist them to access from interested banks, or from their own funds. On average, this additional planting is expected to take place 2 years after the initial planting.

22. As shown in Table 17, the first smallholder development to be supported will be on Buvuma island in 2019/20. This will be followed by the Mayuge hub in 2020/21, the Masaka hub in 2021/22 and a fourth hub in 2023/24. In each of the hubs the smallholder plantations funded by development loans (up to 2 ha per producer) will be rolled out over a period of 2 years. Speed in planting will be necessary to roll out the planting within 2 years; however, this will be essential to ensure the synchronization of the FFB coming on stream and the establishment of the CPO mill (there must be guaranteed minimum volume of FFB to make the establishment of a mill viable, and if planting is spread over a number of years there could be a situation where the first FFBs to come on stream do not have a mill to process them).

Table 17: Roll out of smallholder oil palm planting

	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total
Buvuma		1 250	1 250								2 500
Mayuge- development loans			1 750	1 750							3 500
Mayuge- commercial loans/own-financing					553	552					1 105
Masaka - development loans				1 500	1 500						3 000
Masaka- commercial loans/own-financing						474	473				947
Hub4- development loans						1 500	1 500				3 000
Hub4- commercial loans/own financing								474	474		948
Total	**-**	**1 250**	**3 000**	**3 250**	**2 053**	**2 526**	**1 973**	**474**	**474**	**-**	**15 000**

23. ***The Oil Palm Hub Development Plan.*** In the new OP hubs, a different approach to that of Kalangala will be followed for the provision of the technical services provided to smallholder farmers. A comprehensive Oil Palm Hub Development Plan (HDP) will be compiled for each new hub by the PMU team, based on data and information that has been captured from the proposed site. This Plan will outline in detail the areas to be developed and will sub-divide the hubs into blocks and further into units (to ensure speed of planting, it will be of critical importance to synchronise the planting within

blocks and units). The HDP will also lay out the design and location of smallholder plantations and infrastructure, outline the resources needed, specify the tasks required, and identify the persons and institutions responsible for developing the new oil palm hub. The details of the plan must include; activity schedules, resource requirements, specification of the works, and a detailed budget. A project management software package to organize and track work will be purchased and staff in charge be trained on its use.

24. The HDP will be a product of several preplanning assessments and studies addressing the key criteria under each of the components, so as to ensure that the Plan is practical and realistic and achieves the NOPP objectives. These studies will include amongst others that may be necessary

a) a district-level "Rapid Physical Planning Assessment", to assess what the situation is with the wider land use and physical infrastructure, what the plans are for their future development and what the implications of a significant conversion of land to OP growing may have on the wider development of the district.

b) a survey to identify nursery and mill site and major roads, undertaken by the PMU/ start-up team;

c) a survey of farmers willing to cultivate oil palm to confirm the availability of a minimum of 3,000 ha of plantable land within a radius of 30km from the mill site, undertaken by the PMU/ start-up team;

d) an assessment of existing farmers' organizations and existing technical service providers, undertaken by the PMU (see also Sub-component 1.2.(b));

e) environmental and social impact assessments and plans, undertaken by a specialised service provider contracted by the PMU (see below);

f) a land use plan for the plantations, including identification of units and blocks, and roads, undertaken by the start-up team;

g) a defined process for oil palm grower identification, mobilization and registration, coordinated by the PMU; and

h) a review of the farmers' land tenure status, carried out by the District PPDs and facilitated by the PMU.

25. ***Environmental and social assessments and plans, and compliance with RSPO.*** Once the areas for smallholder OP development have been identified and an in-principle agreement has been reached on developing the area, environmental and social impact assessments (ESIAs) and related studies will need to be undertaken and approved by both the National Environment Management Authority (NEMA) and IFAD. The assessments serve to identify key risks and mitigation strategies, and are an important tool towards zero deforestation and informed decision-making by farmers and government.

26. For Buvuma Island, the ESIA has already been completed, approved and disclosed[82]. The private sector partner will carry out an additional High Conservation Value (HCV) assessment for smallholder areas as well. This assessment particularly serves to ensure compliance with the RSPO Principles and Criteria.

27. For other new hubs under NOPP, an effort will be made to streamline the various environmental and social assessments needed in a way that maximizes usability by the key actors involved – farmers, OPG organizations, DLG and the NOPP PMU – while ensuring compliance with GoU, IFAD and RSPO policies. To do so, the HCV assessment will as far as possible be integrated into the existing procedure for carrying out ESIAs, while bearing in mind that the former needs to be carried out by licensed assessors, which are currently not available in Uganda.

28. The ESIA consultant will, under the supervision of the PMU EHS Officer and with technical support from the private sector partner, be requested to identify smallholder areas of high probability of HCV. Those areas identified will in turn be subject to an additional review by the HCV assessor who will be recruited with the assistance of the private sector partner. Eventually, the HCV

[82] Consultation and disclosure has been done at local and national level, and the ESIA is also disclosed on the IFAD website at https://www.ifad.org/topic/gef/secap

assessment may be fully integrated into the ESIA process when local licensed capacity becomes available.

29. Similarly, the various plans that result from the assessments (Environmental and Social Management Plan (ESMP), High Conservation Value Management Plan, Biodiversity Offsetting Plan) will be integrated into a single plan that is user-friendly and realistic, while meeting the requirements set and addressing the most important risks. This simplification of procedures is in line with ongoing global initiatives aimed at lowering barriers for smallholder farmers to produce certified commodities[83], and the private sector partner will assist in the process. IFAD missions will provide support to review the assessment, planning and monitoring process based on early experiences and adjust where necessary, using the latest guidance available.

30. Finally, to allow for a constructive debate on oil palm development, a Stakeholder Engagement Management Plan will be developed prior to NOPP start-up. This will: (i) identify key stakeholders; (ii) set standard operating procedures for stakeholder consultation and information disclosure; and (iii) set up a grievance management system. It will draw on the Stakeholder Engagement Framework found in Annex 12, Attachment 5.

31. Further detail on the requirements related to sustainability of oil palm production in terms of assessments, monitoring and audits, including RSPO compliance, can be found in the SECAP Review Note, Annex 12, Attachment 1.

32. ***Mobilisation and registration of smallholder oil palm growers***. The first step will to engage with the local district. The PMU with the assistance of the district agricultural production officer, will identify the farmer organisations and their members. OP growers will be identified on the basis of a participatory district mobilisation process which will explain the criteria for selecting land for oil palm development. Such land should have suitable soils and rainfall, no rocky areas, no hard pans, no wetlands, no encroaching on protected forests or on other people's land, not be within 200 meters of lake, no farming on steep slopes of 20 degrees or greater, and the need to keep enough area to also grow food crops. There will also be need to respect the environmental regulations for crop establishment in accordance with RSPO standards.

33. The approach of the Project will be to encourage all farmers to consider oil palm, with a focus on promoting the majority participation of households with 2 ha or less. The importance of social inclusion at the household level (ensuring opportunities and benefits for youth and women), respect for the environment and the need for future oil palm growers to actively participate in learning a range of new skills and attitudes, will be part of the initial mobilisation process.

34. The Project will mobilize oil palm growers into a hub-level association, based on grouping into units and blocks. These will form their basic organisational link for interfacing with the technical support services provided by the start-up team. Once farmers have expressed their initial interest (by their attendance at meetings and initial sign up with the district), the mobilization into groups and the association will begin. Farmers will be trained in governance and roles and responsibilities of the association right from the start. The associations will receive governance training right from the start so that they elected their leadership, organise themselves into relevant unit and block committees and choose their lead farmers.

35. ***Ensuring the productivity of smallholder producers***. After the smallholder producers have been identified and registered, they will be trained. Training will be provided by the start-up team's extension specialist with support from the PMU agronomist. There will be foundation training provided at the start-up team's site. Thereafter, the extension officers will follow up with farmers and provide refreshment training in the field during the time in which palm planting and maintenance activities are being carried out.

[83] The RSPO is currently in the process of simplifying some of the requirements for smallholders, for instance on planting procedures (http://www.rspo.org/smallholders/). The HCV Network is similarly working on a simplified HCV approach for smallholders (https://www.hcvnetwork.org/about-hcvf/hcv-for-smallholders).

Box 1: Required training topics for smallholder oil palm producers

- Planting materials and nursery
- Land preparation, drainage, water harvesting and terracing
- Soil management
- Field planting
- Immature Oil palm maintenance
- Mature oil palm maintenance
- Palm oil processing (very basic)
- Basic Plantation accounting

36. Drawing on the materials in the Standard Operating Procedures (see below), a training manual will be compiled by the PMU team with support from an oil palm expert and the private partner. The training manual will be a guideline document for the extension workers, explaining the learning objectives and the syllabus to be used. It will serve to ensure that the same consistent message is given out to farmers.

37. This will go in hand with an oil palm hand book aimed at smallholder growers. This handbook needs to be developed by the same team, and also in conjunction with a learning specialist. The handbook must be produced in English as well as the local language. The topics covered will include those found in Box 1. The hand book should be simple and easy for farmers to understand and use. They should be produced in A5 size so that they easy to carry in the field. The farmers will be given these handbooks to keep as a point of reference. Health and Safety and the use of plant protection products

Box 2. Standard Operating Procedures

SOPs are a set of step-by-step instructions compiled by an organization to help all the actors involved carry out routine operations. SOPs aim to achieve efficiency, quality output and uniformity of performance, while reducing miscommunication. SOP's also communicate a specification and set of benchmarks to the actors. These benchmarks can also be used to measure progress and performance and track the affectivity of the operations.

38. For the ongoing expansion and management of the oil palm hubs, the PMU will require a set of orderly procedures that serve as a frame work to guide PMU staff, start-up team, smallholder OP growers and other parties involved on how the tasks, and specifically the field activities, defined in the HDP should be carried out. For this a set of standard operating procedures (SOP) will be developed. By doing this, the PMU and Start-up team, as well as the farmers will quickly be able to identify constraints or possible problems in the operating system of the hub.

39. Achieving high FFB yields and oil extraction rates at the mill are vital to keeping the oil palm production viable and to drive expansion by all actors in the Project. It is essential that the smallholder OP growers implement good agricultural practices, and that they receive the guidance they need to do this. In addition to good agricultural practices a high level of organisation is required to ensure a smooth routine flow of inputs to the farmer and ripe, quality FFBs to the mill. So, both agronomy and field husbandry practices must be supported by well-organized logistics. A clear set of SOPs will go a long way towards achieve this goal.

40. For example, OP growers will need guidance on when to harvest, how to harvest, what to harvest. The SOPs will serve as the terms of reference for producers, extension officers and management, and it will be the responsibility of the extension team to educate and communicate these SOPs to the producers. To provide guidance and a baseline from which to begin, a list of several draft SOPs has been included in this document (see Annex 11). These SOPs should be taken into account when designing the HDP: the start-up team, extension teams and smallholder producers should use these as a starting point and build on them.

41. The extension team, with support from the PMU agronomist, will monitor and review the effectiveness of the SOP's, and propose changes and improvements to them if necessary, so that producers can be updated with new techniques or procedures. It will be the responsibility of the PMU team to improve and update these SOP's periodically, and too then disseminate the new information so that the improved practices and procedures are adopted and implemented by the hubs.

42. ***Environmental Management Campaigns*.** Increased economic activity increases pressure on the environment, which is in most parts of Uganda already experiencing significant deforestation, land degradation and loss of habitat and biodiversity. The project will support Environmental Management Campaigns in each of the Project areas to halt further degradation and to protect those areas that are found to be of high conservation value. The exact contents and focus of each of the campaigns will be

determined during Project implementation, based on the findings of the ESIA and related studies and fulfilling the needs identified in the Environmental and Social Management Plan. Activities may include: (i) reforestation and enrichment planting, (ii) promoting alternative energy technologies for domestic use, such as improved cooking stoves or briquette making, (iii) stakeholder dialogue with sub-county administrations on alternative revenue streams to charcoal, (iv) biodiversity offsetting, (v) demarcation of forest reserves. The activities will in principle be outsourced to NGOs and supervised by DLG staff.

43. ***Recording and Monitoring*.** The NOPP needs good reliable and timely information to be able to manage and monitor implementation performance. Monitoring and recording all field husbandry activities will be vital for overseeing the good management of the smallholder plantations. A monitoring and recording system will be put in place for each hub, and the information generated fed back to the PMU and collated onto a central database. All information pertaining to field husbandry and the use of inputs will be recorded at farmer, Unit and Block level.

44. The M&E and Learning Manager, supported by the M&E Officer and in collaboration with the Operations Manager and his/her team, of the PMU will be responsible for designing the hub-specific system and linking it to the larger Project M&E system. The system will also be taught to those responsible for managing the key functions of the producers' organizations, so that the habit of gathering and recording data is developed at this level. Based on the information, a quarterly report should be produced – principally for internal, management purposes. The report outline should include:

- General overview
- Roads maintenance and construction
- Progress of clearing and planting of the different units and blocks
- The use of inputs such as fertilizers and crop protection products
- Development of the juvenile palms, mortality, culling replanting etc.
- Field husbandry
- Production of FFBs
- Logistics – movement of inputs and FFBs
- Progress of training and extension reports
- Challenges and possible solutions

Implementation of Sub-component 1.1.A

45. ***A start-up team*** will be established in each new hub, under the PMU. The role of the start-up team will be to oversee the implementation of all activities related to the development of the smallholder plantations under component one: it will be responsible for implementing the plan and providing the specified technical services to the smallholder producers for the establishment of their plantations.

46. The start-up team will report to the PMU Operations Manager, and be supported by the PMU line staff – particularly the Oil Palm Agronomist, the Project Engineer and the Financial Manager. Local government will also be engaged and assign a representative of the district agricultural office to the start-up team to help facilitate the work with farmers and the related daily planning etc. of hub activities. Consultancy services may be employed from time to time for additional support if required.

47. The start-up team will be led by the Plantation Establishment Manager, and will include a Roads, Terracing and Infrastructure Officer a Planter and Lining Gang, an Agronomist / Extension Specialist, Extension Officers, a Logistics and Inventory Specialist, Stock Controller, Accountant, Clerk and Credit Officer (draft terms-of-reference for all these staff are shown in Annex 5, Attachment 3.) Given the need for the Plantation Establishment Manager to have substantial experience in OP plantation management, the appropriate candidate is likely to be recruited from SE Asia – the private sector partner will be able to assist in the identification of suitable candidates. The Agronomist / Extension Specialist and extensions staff will require training to build their capacity and become a source of knowledge for the small holder farmers in the NOPP. It is proposed that they attend the 4-month intensive diploma for oil palm plantation management and technology presented in Malaysia, by the Malaysian Palm Oil Board. Then the Agronomist / Extension Specialist and

extension officers should spend a further 6 months on one of the private partners oil palm plantations to gain exposure of the daily operations on the estates and see the field husbandry and agronomy applied in practice.

48. The start-up team will operate from the period when the hub infrastructure is being established until the area financed under the development loan has been planted and the associated roads and infrastructure have been completed. Broadly speaking, the services they will provide will be based upon the following areas:

- Extension and agronomy services to smallholder OP producers
- Logistics services
- Inventory management of fuel, fertilizers and other inputs
- Roads and terracing of plantations
- Managing accounts and credit control.

49. In particular, the team will take the lead in managing and organising the daily tasks involved in:

- Construction of roads,
- Clearing of land,
- Marking out of farmers' fields,
- Ensuring good agricultural practice in the planting of the oil palm,
- Making sure oil palms and other inputs are delivered on time to farmers fields on time
- Overseeing the synchronised planting of the smallholder plantations, according to the blocks and units.

50. The team will be physically based adjacent to the oil palm nursery and CPO mill established by the private sector, but on a separate titled piece of land (10ha). These premises will be the point from which the start-up team operates. On it there will be constructed an office and warehouse of suitable size for the storage of fertilizers and other inputs. It will also be a venue for farmers training and other community related NOPP activities. The site will fall under the ownership and administration of the PMU. When the start-up team have completed their work and moved out, the producers' organization will be given the use of the building. Being adjacent to the CPO mill will facilitate good communications between the producers' organization and the private partner and contribute towards a strong partnership.

51. As the oil palm hub is being developed, support will be provided to assist the smallholder OP producers to form their own associations. Technical, management and administrative training will assist the organizations to build their capacity. Once the start-up team has completed its task of planting out the oil palm hub and the associations have attained a level of maturity, they will be registered – either as companies or cooperatives (according to their preference). They will gradually take over the responsibility for managing the delivery of the technical support services, and – as the FFBs come on stream and they are able to generate an income from the oil palm – for the financing of the services too. As the producers' organization finances an increasing share of the technical support services, so the technical staff in the start-up team (agronomist and extension specialist, logistics and inventory specialist and the accountants) will be transferred to the producers' organizations. The PMU will oversee this transition process and will have at least one representative on the board of the organization to ensure that the transition happens smoothly. This will be a permanent position until such time as the producers' organization, now registered, is financially independent.

B. Kalangala Hub Consolidation

52. There are 4,424 ha of established smallholder oil palm plantations on Kalangala's main island (Bugala) and the outlying islands, and while an additional 300 ha are still to be planted, this will be carried out during the remaining period of VODP2. Under NOPP therefore, there will be no expansion in the area under OP production in Kalangala.

53. Instead, the objective of the Kalangala hub consolidation exercise under NOPP will be to increase the productivity of the current smallholder plantations and improve on the effectiveness and efficiency of technical support services delivery and extension services. The ultimate goal is to increase the farmers FFB yields, and reduce the operational costs of the technical service delivery by

streamlining the services, and then migrating them to become the full responsibility of the producers' organizations themselves. While doing this all actions taken must be in compliance with RSPO standards. It is the responsibility of the PMU to guide the KOPGA and the smallholders to ensure that these standards are adhered too.

54. ***Increasing OP Productivity***. For the time being, yields of smallholder OP growers in Kalangala remain below those of the nucleus estate. According to the assessments of the team for NOPP final design mission, and based on discussions with smallholder producers in their plantations, not all the appropriate procedures and correct field husbandry and agronomy practices are being implemented in the field, suggesting that collaboration between the KOPGT extension services and the producers needs to be strengthened and that KOPGT's current ratio of about 260 farmers per field officer potentially needs to be improved. Furthermore, there were reported to be logistical challenges in terms of supplying the farmers with inputs, and it was indicated that the fertilizers were sometimes delivered behind schedule. Similar logistical challenges were reported relative to the in-field transport of FFBs to collection points and further on to the mill.

Box 3. Oil palm yield determinants

The **"Site Yield" (actual yield)** is the yield obtained from the **"genetic yield potential"** of the oil palm, which is affected by variable site factors for palm growth and yield, like soil type and texture, slope and climatic conditions which will determine a **"site potential"** and number of **"management factors"**, such as land preparation, planting, fertilizer, maintenance, harvesting and collection system, as well as other agronomic inputs, which will finally give the **"site yield"** (actual yield).

The **production capacity** of an oil palm field **starts from the very beginning** with the planting of well selected seedlings with a **high genetic yield potential,** in a well-prepared land at the optimum planting moment. The best management practices given to the young seedling in the first two years will be determinant for the production level in the first years of production.

A continuous attention has to be given to the principles of '**yield making'** and **'yield taking'**. **Yield making** is related to producing more fresh fruit bunches (FFB) in the field, whereas **yield taking** is ensuring that available FFB are efficiently harvested and transported to the mill. Yield-taking practices have an almost immediate effect after their implementation. On the other hand, there is a time lag between the implementation of improved agronomic yield-making practices and their impact on yields.

The yield-making practices will influence the growth speed of the oil palm, total number of flowers, number of female flowers, **the number of floral abortion and bunch rot and failures**. For this, an analysis of agronomic practices able to affect the site yield potential needs to be done continuously ("yield gap analysis"). Yield gap analysis enables to identify weak areas in management approach to eliminate and replace by good yield-making and yield-taking practices (**"Best Management Practices"**). Four yield gaps can be defined:

a. Yield gap due to a **bad plantation establishment**, which results in a prolonging of the planting cycle including; nursery seedling selection, period of planting, bad land preparation, handling and Transport of seedlings (nursery – field), improper planting, incorrect nutrient management in the initial years, initial poor maintenance practices
b. **Incorrect nutrient diagnosis: r**epresentativeness of leaf sampling unit (LSU). And incorrect nutrient diagnosis.
c. **Inadequate crop agronomic management: f**ield upkeep resulting in competition in nutrients, light and water; bad accessibility to the tree and to the bunch; inadequate mineral fertilizer application (optimum fertilizer at the best moment in the best place).
d. **Poor crop recovery: i**nadequate harvesting organization, bad harvesting and collection of all ripe bunches and loose fruits and poor roads.

55. In order to: (a) determine with greater precision what the current situation is on the ground in terms of both producers' agronomic and husbandry practices, and the delivery of support services, and (b) draw up a set of recommendations as to how to address the problems identified, an in depth technical review will be carried out. This will be done during the remaining period of VODP2, and will provide a more detailed basis for an operational work plan under NOPP. Terms of reference for the technical review are in Attachment 1.

56. In broad terms, the focus now needs to be on raising yields to their maximum potential through good agronomic practice and total recovery of the FFB from the field. Reflecting this, the messages need to be focused on: (i) "yield making" through the introduction of "best management plots" with the

consistent and timely fertiliser application; and (ii) “yield taking” through better identification of ripe bunches, their timely harvesting and collection to avoid oil losses.

57. To improve the productivity of the smallholder plantations, the following must be done.

- Basic field husbandry practices need to be correct according to industry best practice and inputs need to be supplied on time.
- Improving the effectiveness of the current extension system. Extension officers need to be up skilled and held accountable.
- Productivity increases need to go hand in hand with good harvesting practices to increase the percentage of economic yields that are recovered. Farmers need to be trained further on when and how to harvest their fruit bunches so that under and over ripe bunches are not rejected by the mill. Better identification of ripe bunches, their timely harvesting and collection to avoid oil losses
- Procurement and logistics in the provision of inputs to the famer is key to achieving higher yields.

58. The SOPs in Annex 11 offer further guidance on all of the above.

59. At the same time, to improve the efficiency and reduce the cost of delivery of FFBs to the CPO mills, the following must be done (and again, SOPs for a number of these activities are presented in Annex 11):

a) As the trees mature and reach full production, using moderate average yield assumptions (12 t/ha for smallholders), the FFB harvest should reach about 50,000 tons per annum by 2021 and peak of about 60,000 tons per annum is expected to be reached by 2025. If average yields reach 15 t/ha, then these estimates will be even higher. The increasing volume of FFB will require corresponding increased transport capacities. The PMU should seek to involve independent service providers and agree a cost through the service cost panel. A more robust administrative and IT system will be needed to improve on the administration of the services provided to oil palm growers and ensure timely payments for their FFBs and to independent service providers.

b) The logistics behind the removal of fresh fruit bunches can be improved, and with the additional volumes coming on line this will be needed. Logistics need to be planned and well organized, with synchronized harvesting per units and blocks to facilitate the collection of the FFBs by the trucks. More efficient FFB delivery systems should be put in place. The current fleet of trucks is not efficient for the task at hand. The fleet should be retro fitted with removable skips. This will improve on the delivery times on the smallholders FFBs to the mill, and so improve the oil extraction rate and thus the value of the FFBs.

c) The road network, although much improved, remains a major limitation. Smallholders are challenged by the transport of the FFBs to the collection points. It is recommended that a detailed assessment of the location of collection points and network of the field access roads be conducted to determine which areas need improvement and an expanded network of field access roads and collection points. A report and plan for improving the road network must be compiled by the PMU or KOPGT in this regard.

d) In addition to the road networks, more efficient ways of moving the FFBs to the collection points need to be explored, such as the use of carts or a boda boda and trailer. The current use of wheel barrows is labor intensive and in efficient. That said, poor land preparation may be a limiting factor to adopting alternative methods. In this case the cost benefit of improving in field pathways needs to be assessed. Lessons learned will be of great value and can be adopted by the new hubs.

60. ***Environmental issues*****.** There are a number of specific environmental management issues to resolve. For example, there are still issues with farmer encroachment on the buffer zones. The KOPGT will be strengthen for better environmental impact management, and there will be regular meetings with farmers and reporting back. Under NOPP, all farmer fields that are in the buffer zones will be mapped and identified so that a crop management system with no use of agrochemicals including fertiliser will be instituted.

61. Environment, health and safety (EHS) for farmers/workers remains a major issue. Agricultural work is hazardous and oil palm as a crop brings its own hazards with field maintenance, pruning, harvesting and FFB loading. A safe operating system will be developed together with OPUL with pictures for farmers including harvesting and pruning and the personal protective equipment (PPE), and the importance of not using child labour. OPUL will also provide for support on the development of the safety talks and safe operating procedures. Training on the correct handling and use of crop protection products must be instituted.

62. Building on on-going EHS improvement efforts under VODP2, the EHS activities under NOPP for the Kalangala hub will focus on:

a) Roll-out to new areas in the hub. EHS practices will be introduced to new OPGs joining KOPGT through training days. DLG staff of new districts will be trained on expected impact and mitigation strategies, and if need be facilitated to carry out environmental monitoring.

b) Becoming an EHS Learning Centre. As new OPG organizations will come to learn from the Kalangala experiences with regards to EHS, the Kalangala OP Hub will be strengthened to become an EHS Learning Centre. The staff of the technical support service organizations will be trained to give presentations and demonstrations on EHS aspects, and learning materials will be developed.

Sub-Component 1.2.Development of OPG organizations

(a) Technical support services (TSS)

63. **In the four planned new hubs**, the provision of technical support services for oil palm plantation establishment will be provided for, initially under the PMU in the form of a hub-specific start-up team.[84] This start up team will oversee all activities related to the planting of the oil palm. These activities will be financed through the development loan to the smallholders. Within this framework mechanisms will be put in place right from the start for the eventual full recovery of costs of services provided. Accounting systems required for prompt preparation of harvest payments to oil palm growers.

64. The size and composition of the TSS teams will be partly a function of the availability, quality and affordability of private sector OP-related service providers present in the hubs. The idea will be to keep the TSS light in terms of numbers of technical team members, starting out with a “lean-and-mean” arrangement that will serve to fill the main service provision gaps for the successful establishment of new OP gardens. To this minimal arrangement, supplementary technical team members may be added at any stage as and when the need arises. In order to arrive at a timely understanding of the service delivery situation in the new hubs, a survey will be undertaken as part of preparing the OPHDP (see above.) The Project will finance the establishment, operation and technical training of the TSS team

65. In each hub, farmers’ organizations will be established, and following support from the Project, they will be expected to get to a stage where they can be registered (either as companies or cooperatives). Once registered, they will gradually take on a greater role relative to the oversight and financing of the TSS teams; eventually, it is expected that they will be self-financing entities, owned entirely by the smallholder OP growers’ organizations which will pay the salaries of the TSS staff.

66. **In Kalangala**, where the KOPGT has provided technical services to the OP growers, the challenge is to assist KOPGT to move away from ‘project mode’ and instead to operate in ‘private sector mode’. The main shift is managerial and ‘cultural’ in nature, and is already being introduced in a gradual manner. There are a number of relatively easy adjustments that can be made starting immediately. For example, the KOPGT budget formats should be changed. These should no longer look like project budgets, as is currently the case, but like private company budgets, separating operational (OPEX) and capital (CAPEX) expenditure items, and so on. The Uganda National Chamber of Commerce and Industry and/or Agricultural Business Initiative (ABI; see http://abi.co.ug/) can give further backstopping in this context, and Uganda Co-operative Alliance (UCA) also has strong experience in this regard and is expected to initiate these changes under the ‘Professionalising of KOPGT’ activity under the ToRs of its current contract with VOPD2.

[84] The TSS will not be set up as trusts but either as teams that form part of the PMU staff of NOPP, or as NGOs.

67. The move from KOPGT to a Kalangala Hub technical support services entity will be informed by an 'internal technical and operational review' of KOPGT to be conducted prior to NOPP start-up (see Attachment 1 for the terms-of-reference).[85] One of the main expected outputs from this review will be a compendium of sector-wide reference prices covering the whole range of goods and services delivered and/or facilitated by KOPGT, quality benchmarks, and performance standards. The benchmarks and other information and data will then need to be widely validated, and, especially, communicated to all OPGs in Kalangala. The aim will be to assess the full costs of goods and services including indirect costs such as, for example, depreciation and planning for the replacement of material and equipment, storage and handling, average losses, insurance, etc. Once this information is available, a precise action plan can be drawn out for KOPGT's institutional transformation. This process will commence under VODP2.

68. In the short to medium term, a number of actions could be taken to increase farmers' sense of control over, and involvement in, agricultural extension. To increase the responsiveness of field officers, joint work planning should be introduced, as well as tools such as extension diaries, scorecards, etc. Farmers will be asked to sign off on field officer visits, and in turn will be held accountable by KOPGA block leaders to follow-up on extension recommendations.

69. Lines and mechanisms of accountability should be further strengthened, and incentives such as, for example, performance premiums for the most effective field officers, can be piloted. Starting immediately, OPUL should become more directly involved in recommending good practices aimed at closing the nucleus-OPG productivity gap to KOPGT field officers. To this effect, the service cost panel will keep a constant channel of communication open with the private sector partner (adding more of an advisory role to the panel).

(b) Development of farmer organisations

70. During the roll-out process in the new hubs, the Project will assist oil palm growers to form hub-level associations, built upwards from the units and blocks, to form their interface with the technical support services provided by the start-up team. The OP growers will be trained in governance and the roles and responsibilities of the association, and assisted to organise themselves into relevant unit and block committees and choose their lead farmers. The associations will be encouraged to start the formalisation of their legal status as soon as possible, and to register, in whatever legal form they will consider as most appropriate. The speed at which this process can take place will vary considerably hub by hub. In Kalangala, KOPGA is ready to register as a cooperative shortly – a process being supported by the Ugandan Cooperative Alliance (UCA); in Mayuge a representative Mayuge District Oil Palm Growers' Association has already been established; while in the other hubs this process will likely be much slower.

71. As soon as the TSSs are established, NOPP will explore the options for enabling the growers' associations to play a role in their oversight and to gradually assume their ownership of the TSS; though this will depend in part on the speed with which the associations assume a formal legal status. The process for getting the TSS services paid for by the growers will also be a gradual one: it will start with transport services (a service that OP growers in Kalangala already pay KOPGT for) and continue with minor expenses such as paying for inputs, hiring of labour groups etc; and as the growers start to generate an income from the oil palm, they will be able to play a greater role in financing the TTSs' operations. Eventually they are expected to become self-financing entities, owned by the smallholder OP growers' organizations. An appropriate governance and legal framework will be established to ensure ownership of the producers' organizations over the TSS teams.

72. Capacity building for the producers' associations will be conceived as a "rolling" programme. It will be implemented by Uganda Cooperative Alliance (UCA), which is already supporting KOPGA under VODP2, in collaboration with resource persons (e.g., from OPUL, ABI, etc.) on specific technical topics (extension, value chain logistics, etc.). The UCA will be directly contracted by the PMU (subject to appropriate justification – see Annex 8) in collaboration with resource persons on specific technical topics (extension, value chain logistics, etc.). The capacity building programme will be an integral part of the HDP and its results will be tracked in this context. Depending on the capacity and maturity levels of existing farmer organizations and private sector OPG-related technical service

[85] However, as confirmed by OPUL management during meetings with the NOPP final design mission, extension in Kalangala could alternatively be delivered by OPUL at cost.

providers in the new hubs (to be determined in the course of the process to develop the HDP), some or all of a long list of topics shown below in Table 18 below will be addressed.

Table 18: Training plan on capacity building of farmer organisations

Year 1	Year 2	Responsibility/ Comments
Build the capacity of FO leaders & members at all levels in governance and business management	Continue to build the capacity of FO leaders & members at all levels in governance and business management	UCA/needed every time new FO leaders are elected
Build the capacity of FO leaders at all levels and members in Financial management and Record keeping	Continue to build the capacity of FO leaders at all levels and members in Financial management and Record keeping	UCA/needed every time new FO leaders are elected
Train FOs and their members to mobilise resources, establish systems to ensure financial sustainability and formulate short and medium-term sustainability plans	Continue to build the capacity of the Units and Blocks in participatory planning, monitoring, evaluation and development of action plans	UCA/ABI
Build the capacity of the Units and Blocks in participatory planning, monitoring, evaluation and development of action plans	Monitor and backstop the newly formed organisation at all levels of FOs, i.e. units, blocks and district level to ensure efficiency and effectiveness in service provision to members	PMU/UCA
Train FO members on how the pricing committee and service cost panel works	Build the technical capacity of the leadership and management of the new organisation to ensure business efficiency for maximum benefit to OPGs	UCA/TSS
Train FO leaders/extension focal points on extension logistics, technical standards, accountability, joint planning, scorecards, etc.	Support management to ensure all operations reflect the new institutional set-ups and are guided by implementation plans and budgets	UCA/OPUL/TSS
Train FO leaders/transport focal points on transport and loading logistics, weigh bridge functioning, tracking of FFB from gardens to mill, accountability, joint planning, etc.	Build the capacity of FO and their affiliate SACCOs to build systems that will foster increased participation of members for effective, improved financial access to OPGs, and development of financial products to suit OPGs	UCA/OPUL/TSS UCA /Comp 2 service providers/ PROFIRA
Train FOs and their members/focal points on EHS	Continue to build the capacity of FO leaders & members at all levels in governance and business management	PMU/TSS/OPUL
Organise sessions for FO/TSS and key stakeholders to train them on the different options for institutional and governance frameworks, together with their pros and cons	Continue to build the capacity of FO leaders at all levels and members in Financial management and Record keeping	UCA/MoJ
Facilitate exposure visits and meetings for FO and key OP to learn from various FO institutional frameworks for them to select an appropriate one for OPGs in their hub	Continue to build the capacity of the Units and Blocks in participatory planning, monitoring, evaluation and development of action plans	PMU/UCA
Guide OPGs to determine a new institutional and governance framework for smallholder OP management	Monitor and backstop FOs at all levels, i.e. units, blocks and district level to ensure efficiency and effectiveness in service provision to members	UCA/MoJ PMU/UCA
Facilitate a review of the legal implication for the new organisational structures and develop a roadmap for guiding the implementation of the new structure	Build the technical capacity of the leadership and management of the new organisation to ensure business efficiency for maximum benefit to OPGs	PMU/UCA
Guide the development of the new FO constitution and enactment of lower-level organisations' by-laws and operational guidelines, defining the mandate of FO with input from blocks and units	Support management to ensure all operations reflect the new institutional set-ups and are guided by implementation plans and budgets	UCA
Support the formalisation of the established FOs under the new institutional framework and facilitate their	Build the capacity of FOs and their affiliate SACCOs to build systems that will foster	UCA/MoJ UCA/Comp 2

registration	increased participation of members for effective, improved financial access to OPGs, and development of financial products to suit OPGs	service providers/ PROFIRA
Guide OPGs in operational establishment and set-up of the approved new institutional framework		UCA/MoJ
Support new FOs to put in place a structure that clearly delineates roles and functions of the different bodies and their affiliate groups at blocks and unit levels		UCA
Guide the development of operational policies, including a board manual that clearly specifies leaders' eligibility criteria, roles and functions of all organs in the board		UCA
Facilitate the development of business and strategic plans and align them to FO plans to reflect the new institutional set-ups with detailed implementation plans and budgets		TSS/UCA
Facilitate the establishment of apex federations of farmer organisations in each hub		PMU/UCA
Train apex federation staff on their roles and functions		UCA
Facilitate meetings of the FO/TSS and key stakeholders to discuss adoption of prepared strategic and business plans		PMU/UCA
Monitor and backstop FOs at all levels so as to ensure efficient and effective service provision to members	Train FOs and their members/focal points on how to procure technical services and negotiate longer-term contracts with service providers	PMU/UCA/ABI
Build the capacity of FOs and their affiliate SACCOs to build systems that will foster increased participation of members for effective, improved financial access to OPGs, and development of financial products to suit OPGs		UCA

73. **Environment, Health and Safety (EHS).** OP growers' associations will have a crucial role to play to ensure the occupational health of farmers and workers, as well as to ensure a minimal negative impact on the environment.

Box 4. Environment, Health and Safety

Environment, Health and Safety (EHS**)** is the term used in industry to describe the collection of policies and procedures that aim to reduce environmental impact, avoid negative impact on the health of farmers, workers and neighbouring people, and guarantee safety of farmers and workers as they carry out their duties

74. Recognizing the paramount importance of achieving these objectives, most commercial oil palm plantations employ a dedicated EHS officer who ensures that EHS is mainstreamed into the operations, by preparing Standard Operating Procedures related to EHS, training workers and monitoring compliance. Comprehensive guidance for EHS in the oil palm sector has been developed by the RSPO (see Annex 12, SECAP Review Note). For NOPP, key EHS aspects include: (i) use of Personal Protective Equipment (PPE) when carrying out work on the farms and in the mill; (ii) Clear guidance on land clearing techniques to minimize negative impact on the environment and minimizegreenhouse gas emissions; and (iii) use of environmentally-friendly palm management practices such as use of cover crops, appropriate application of agrochemicals, and prevention of soil erosion.

75. The introduction of good EHS practices by the growers' associations in new Hubs will be based on the lessons learnt on Kalangala. The set of activities will comprise:

(a) **Capacity building of OPG organizations.** Each newly formed association will undertake an exchange visit to Kalangala to understand the importance of EHS, to familiarize themselves with RSPO-compliant EHS standards, to learn about implementation challenges and to identify ways to overcome these challenges. The associations will assign one of their members to be an EHS focal point; develop a Code of Conduct that includes EHS principles and a complaints redress procedure; and adopt simple monitoring tools developed by

NOPP. To promote a shared responsibility for EHS, the associations will introduce self-regulation and self-monitoring of EHS practices at the unit and block level, including the development of bylaws and sanctions for specific acts of non-compliance.

(b) **EHS training days.** The growers' associations will take the lead in organizing a twice-yearly EHS training day, initially supported by the PMU EHS officer. Each training day will consist of ½ day of theory and ½ day of field demonstration, and will be technically guided by the private sector and NOPP EHS officers. OP growers will be required to attend the training when joining the organization and once every year onwards to be kept up to date on the latest EHS guidance. Priority EHS topics include: safe storage and handling of agrochemicals; buffer zone management; use of personal protective equipment; and first aid training. Some Best Management Practices (BMPs) that minimize negative environmental impact may also be included in the training, such as sustainable land clearing and planting techniques, cultivation of cover crops or intercrops and fertilizer application minimizing runoff. Where need be, OPG organisations may introduce more frequent events (such as a "safety Thursday") where key recurrent issues are taken up.

76. ***Implementation***. All EHS activities will be led by the NOPP EHS officer, in close collaboration with the OPG organisation's EHS focal point, relevant DLG staff and the private sector EHS officer for each hub who will together form the EHS Practitioners Group under NOPP and meet on a regular basis. The NOPP EHS officer will have the overall responsibility to deliver on the NOPP work plan in terms of capacity building. He/she will therefore train DLG staff in the natural resources section on expected impact and mitigation strategies, as well as on environmental monitoring, focusing on forest reserve protection and water quality monitoring. He will also train the growers' associations' staff, as well as support the EHS training days. The private sector EHS officer will provide technical guidance on EHS topics. DLG staff will also participate in the capacity building and training exercises and provide technical support with regards to the implementation of Government procedures. Environmental management campaigns will be outsourced by the PMU to private companies or NGOs, under the day-to-day supervision of the DLG staff. The NOPP EHS officer will also coordinate regular audits, in collaboration with NEMA, involving external experts responding to needs as identified by IFAD and Government.

Sub-component 1.3. Establishment of support infrastructures

77. **Road Construction Target:** In the four new hubs, the Project will construct and maintain access and farm roads critical for oil palm development, production and marketing, ensuring the delivery of inputs to the farmers and of FFBs to the mill, as well as the access of the technical service providers to the farms. Based on the experience in Kalangala, it is proposed that for every 100 ha of smallholder oil palm developed, about 2 km of access and 6 km of farm roads will be built.[86] Therefore the estimated length of access and farm roads per hub is as shown below:

Table 19: Estimated length of access and farm roads to be constructed

Name of Hub	Area (ha)	Access Roads (km)	Farm Roads (km)
i) Buvuma	2,500	50	150
ii) Mayuge	4,605	90	280
iii) Masaka/Rakai	3,947	80	240
iv) Hub 4	3,947	80	240
TOTAL	**15,000**	**300**	**910**

78. **Phasing of Road Construction:** Drawing on the lessons of Kalangala, access and farm roads will be delineated and constructed prior to the commencement of OP planting in each unit and block.

[86]For Kalanga hub, there are about 100 km of roads on Bugala and 40 km each in Bunyama and Bubembe that are yet to be constructed under VODP2. If they are not completed under VODP2 with IFAD financing, then assurances should be sought from GoU that these roads will be financed by the Government as part of its contribution to NOPP.

This approach would ensure that farmers do not plant in the areas earmarked for roads and would facilitate the transport of seedlings and fertilizer for crop establishment. Farmer participation during the demarcation of roads is crucial to avoid future litigation but also that some farmers might lose more land. It is recommended that road design and construction are started one year prior to the scheduled year for OP planting. Below is the table showing the phasing of the road construction.

Table 20: Phasing of Road Construction

	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total
Buvuma access roads	25	25									50
Buvuma farm roads	75	75									150
Mayuge access roads		35	35	10	10						90
Mayuge farm roads		105	105	35	35						280
Masaka access roads			30	30	10	10					80
Masaka farm roads			90	90	30	30					240
Hub 4 access roads					30	30	10	10			80
Hub 4 farm roads					90	90	30	30			240
Total	100	240	260	165	205	160	40	40			1210

79. **Road design:** The roads will be designed in accordance with the Ministry of Works and Transport design manuals and specifications. Access roads will be designed and constructed to class III district roads standard as per the district roads design manual of the Ministry of Works and Transport. The farm roads will be designed with a carriageway width of 3.5 meters which is sufficient to allow passage of one truck in one direction at a time. Apart from the width of the carriageway, other cross-sectional elements of the farm road will be similar to those of the district class III road. During design, due consideration should be given the fact that the roads should be motorable throughout the year and should offer sufficient stability to enable carrying of heavy loads. The design of roads will, as much as possible, be done by the PMU with the assistance of district engineers. For skills/expertise that may not be found within the PMU and the districts, individual consultants or firms will be contracted to augment the design team.

80. **Road Construction and Supervision:** Construction of access and farm roads will either be contracted out to private sector contractors on the basis of a competitive procurement process conducted in accordance with the relevant IFAD/GoU regulations/procedures; or it will be directly contracted to the private sector partner, OPUL/Bidco, where appropriately justified (see Annex 8) – according to the local context. Supervision of road construction will be done by the PMU and District Local Governments.

81. **Road Maintenance:** The Project will fund the maintenance of farm and access roads prior to the start of the harvesting phase; however, once the farmers have started harvesting and selling their oil palm fruits, they will be fully responsible for maintaining their farm roads, following training that they will receive on the aspects of road maintenance. The districts, with the support of the PMU, will train farmers/their workers on road maintenance and continue as an advisor to the farmers on how best to manage their roads. Districts are also expected to take over the access roads for maintenance using government funds. Road maintenance will include two types of interventions; (i) Routine maintenance which involves grass cutting, pothole filling, side drainage cleaning, offshoot cleaning and culvert cleaning. It is recommended that routine maintenance is done twice a year. (ii) Periodic maintenance which involves reshaping of the road to restore its camber and side drains, spot gravelling, and repairs/replacement of damaged culverts. It is recommended that periodic maintenance is done every 3 to 4 years depending on the intensity of rainfall, terrain and traffic volume.

82. **Fertilizer Stores and Hub Offices Buildings**. In each hub the Project will finance the provision of fertilizer storage capacity of approximately 15,000 ton capacity (as at Kalangala), constructed either as a single store (as at Kalangala) or a series of smaller ones located to minimise transportation of fertilizers over long distances (as will likely be the case for Mayuge hub). It will also construct in each hub an office building for the start-up team/technical support service provider. Construction of the fertilizer stores and office buildings will be contracted out to private contractors.

83. **Water transport**. The current Buvuma ferry is too small for the growing needs of the island. Government is in the process of rehabilitating the old Bukakata ferry and expects it to be operational by end-2017. Government may consider procuring a new ferry and landing sites for Buvuma using the resources of the IFAD loan for VODP2 – subject to all payments being made by the completion date of 31 December 2018. For the transport between Buvuma Island and Mayuge, the GoU needs to examine solutions for linking Buvuma Island to Mayuge. Regarding the ferries for the outlying islands of Kalangala, both the landing sites and the ferries themselves can potentially be financed under the IFAD loan for VODP2, subject to the expenditures being fully incurred prior to December 2018,. In the event that the ferries and landing sites are not procured using the IFAD loan prior to the expiry of the VODP2, then government will have to fully fund the provision of water transport services. Provision is made for this expenditure in the Project budget.

84. ***Implementation*.** The roles and responsibilities of the various stakeholders in the establishment of the support infrastructure has been stated in each of the aspects described above, and a summary of the roles for every stakeholder is given below.

Table 21: Roles of the Various Stakeholders in Road Maintenance

Stakeholder	Responsibility
NOPP/PMU	Ensure construction of access and farm roads, fertilizer stores, hub office buildings and support maintenance of constructed roads for the period prior to harvesting of FFBs.
MoWT/UNRA	Ensure establishment and improvement of water transport services.
District Local Governments	Assist the PMU in design and supervision of construction of roads, fertilizer stores and office buildings. Train and advise Farmers/Farmer organizations on the technicalities of road maintenance. Consider taking over some access roads for maintenance.
Farmers or OPG Organisations/ Associations	Participate in demarcation of roads before construction. Maintain access and farm roads from the time they start harvesting FFBs.

COMPONENT 2. Livelihoods diversification and resilience

85. Oil palm investment has proved to have positive outcomes not only on the engaged smallholder OP growers and their families, but on the entire community where oil palm development takes place in terms of capacity to acquire physical assets, pay school fees and health services, job opportunities created, access to infrastructures and overall empowerment of farmers. On the other hand, some risks have been identified in connection with oil palm development in terms of the inability of some local households to take full advantage of the economic opportunities emerging; as well as possibility of long term food and nutrition insecurity due to mono-cropping, higher pressure on the traditional land tenure systems, and the overall exposure of farmers to production risks (weather, crop diseases, etc.). Moreover, the increase in the income flows and the migration of the seasonal workers brought by the oil palm investment brings a higher risk of HIV transmission. There is also need for the smallholder OP growers to strengthen their capacity to properly manage higher and regular income.

86. The component aims to maximize the positive impacts of the Project in the oil palm growers' communities. It will do so by promoting sustainable and inclusive livelihoods opportunities for oil palm and non-oil palm growers – both agricultural and non-agricultural; while also mitigating the potential social and land tenure related risks. The implementation of the component's activities will be linked to the roll-out of the Project in the different hubs, and it will target the communities that will be progressively engaged in oil palm production either directly or indirectly.

Box 5. Oil Palm Grower communities.

Oil Palm Grower communities in the context of NOPP are defined as communities directly targeted by the programme for the development of oil palm production activities. Following NOPP design, these same communities will be positively impacted by additional activities in the areas of strengthening alternative livelihood activities, inclusive community development initiatives and the promotion of land tenure security.

Oil Palm Grower communities will be comprised mainly of OP and non-OP growing households and people with land in the community who do not reside there but who participate in oil palm production through the engagement of third parties.

87. Activities will be implemented in OPG communities, both at household and community levels to improve or diversify income generating activities to generate benefits for the wider community, but also provide a safeguard to sustain oil palm investments over time. Proposed activities will specifically target, women (50%), youth (50%), and households with no/little land with the use of gender and age sensitive approaches.

Sub-Component 2.1 Alternative economic opportunities

88. Evidence from Kalangala shows important impacts of the OP value chain development on both the smallholder OPGs and their communities, including increased[87] expenditures for basic needs, especially education, health and food, for hiring labour for OP garden maintenance and harvesting, but also in assets like housing and transport. The development of the smallholder OP sector has spill-over effects in the surrounding communities, translating into increased economic opportunities for those that can tap into the increased demand for labour, goods and services. However, some community members with limited assets (human, natural, financial, physical and social), may remain excluded and vulnerable if not actively supported to be engaged in alternative livelihoods.

89. Sub-component 2.1 will seek to ensure that all community members are able to capture the range of opportunities arising from the introduction of the new cash crop, and so to maximize the positive impacts in the OPG communities, through promotion of sustainable and inclusive livelihoods opportunities for both OP and non-OP growers. It will support improved food and agricultural production, and entrepreneurship and self-employment; and as a linked initiative, it will promote the development of community-level rural financial institutions (village savings and loans associations and savings and credit cooperatives).

90. The specific opportunities will be identified and validated progressively using a participatory approach that engages public and private sector and civil society. They will be evaluated in terms of their feasibility (integration into existing value chains, profitability) viability (the opportunity must either satisfy a need or solve a problem and must have market demand) and inclusiveness (capacity to be adopted by the beneficiaries, to create employment and to contribute to poverty reduction through the inclusion of low income communities). Suitability of the identified economic opportunities for vulnerable groups such as women and youth will be a primary selection criteria. More broadly, the opportunities promoted will depend on the asset levels of the target group/s: human (skills, knowledge, experience) physical (assets and inputs), financial (savings, credits/debts), social (networks and connections, kinship, relations of trust and mutual support) and natural (environmental resources, land, water, etc.).

91. Because of the foreseen demand for food crops and the lower availability of land, the approach used for the farm livelihoods will focus on enhancement of production and yields through skills development and access to inputs. Both the farm and off-farm livelihoods will be promoted through support to self-employment and micro and small-scale entrepreneurship, provision of business incubation and mentoring and access to finance. Sustainable and climate-smart agriculture practices will also be promoted in all the rural livelihoods identified and facilitated.

[87] Impact and Productivity Study for the Oil Palm Component (VODP2/MAAIF– Dec. 2016) and field observations.

92. The sub-component is targeted primarily at those households within the OP growing communities that do not directly benefit from the oil palm investment and that have the potential to take advantage of the economic opportunities emerging along the different phases of OP development[88]: an estimated 74% of these households (19,321) in the five hubs (the four new ones, plus Kalangala) will participate in at least one of the activities offered. However, the activities will also be open to OP growers too, and an estimated 40% of them (4,416) will participate in at least one of the activities.

Table 22: Target population for Sub-component 2.1

	Sub-component 2.1 Alternative Economic Opportunities											
	Improved Food Production Techniques			Entrepreneurship and Self-Employment			VSLAs			Total HHs Component 2.1		
Hub	OPGs	Non-OP growers	***Total # HHs***	OPGs	Non-OPGs	***Total # HHs***	OPGs	Non-OPGs	***Total # HHs***	OPGs	Non-OPGs	***Total # HHs***
Kalangala	362	1 689	2 051	181	1 689	1 870	543	1 689	2 232	724	3 168	3 892
Buvuma Island	385	1 795	2 179	192	1 795	1 987	577	1 795	2 372	769	3 365	4 135
Mayuge Hub	538	2 513	3 051	269	2 513	2 782	808	2 513	3 321	1 077	4 712	5 788
Masaka / Rakai	462	2 154	2 615	231	2 154	2 385	692	2 154	2 846	923	4 038	4 962
Hub 4	462	2 154	2 615	231	2 154	2 385	692	2 154	2 846	923	4 038	4 962
TOTAL	2 208	10 305	12 513	1 104	10 305	11 409	3 312	10 305	13 617	4 416	19 321	23 738

(a) Intensification of agricultural/food production

93. Intensification of agricultural/food production in OPCs aims at actively promoting food productivity to meet increasing demand for high value food items, with reduced availability of land and household labour. Support will be provided to non-OP and OP growers to increase their assets and incomes through enhancing sustainable crop and livestock productivity and profitability, applying climate-smart agriculture practices within farming systems adapted to specific land access conditions, and strengthening their linkages to local markets for their products. Specific activities will include the following.

94. ***Provision of quality extension services.*** The Project will leverage on the available resources and skills of OPG technical support services in tandem with available LG agricultural extension services. Specifically, it will offer: (i) trainings to extension workers (about 36 both from OP Hubs and from LG in agricultural innovations, climate-smart agricultural practices and their dissemination through participation in training sessions (1 week per year) and exchange visits (2); (ii) access to agriculture information for extension workers through leveraging on the available ICT and partnering with mobile platforms (e.g. Agromarke, VetAfrica, FIT Uganda, etc.) to provide access to information to local farmers.

95. ***Farmer-led trial plots*** will be established to enhance farmers' agricultural skill development, using the Farmer Field Schools (FFS) approach on community groups of 25/30 participants centred around priority agricultural enterprises of their choice. This activity will comprise: (i) identification and training of about 36 facilitators to guide the 466 FFS groups. The training will last 2 weeks, involving also the oil palm hub extension officers and the District extension workers; (ii) establishment of one farmer-led trial plots per FFS per annum for season-long learning and dissemination activities; (iii) training of one lead farmer per FFS for 1 week in Year 1 and subsequently 2 refresher trainings for 2 days in Year 4 and Year 7; and (iv) exchange visits and monthly follow-up and activity planning meetings with Hub and Districts' Extension workers. These lead farmers will be selected by consensus from each FFS group and will preferably host the farmer-led trial plots.

96. ***Access to quality and improved agricultural inputs*** for short season field/horticultural crops and small livestock production by: (i) organisation of specialized local seed producer groups for improved drought tolerant (OPV) varieties (establishment of one seed multiplication plot for every 10 FFS groups, provision of inputs and training of about 141 farmers (3/group) in seed production techniques); (ii) support to village agricultural input shops by providing technical support to the

[88] Impact and Productivity Study for the Oil Palm Component (VODP2/MAAIF– Dec. 2016) and field observations.

interested beneficiaries in starting an input shop; and (iii) organization of fairs & business linkages events where producers and inputs suppliers can meet and negotiate, with facilitation from the Project staff.

(b) Promotion of self-employment and small-scale entrepreneurship

97. Micro- and small-scale businesses increasingly play a critical role in creating off-farm employment opportunities for the growing rural population and including them into mainstream development. However, subsistence entrepreneurs often lack entrepreneurial aptitude and traits, as well as skills and social capital and have limited access to financial services and products and face an adverse business environment with underdeveloped markets for inputs and outputs. In order to overcome these barriers, training, access to finance, advisory and mentoring services, and networking will all be promoted using an incubation/hand-holding approach that can guarantee tailored support and match-making of the beneficiary with the best-fit livelihoods opportunity and the preparation for successful adoption of the opportunity.

98. Village Savings and Loans Associations (VSLA) have helped millions of rural poor to save money and access credit.[89] VSLAs offer a completely sustainable approach that builds on traditional mechanisms for informal group savings, and they have proven to be very successful, showing repayment rates among the highest in the microfinance industry. A recent, multi-country evaluation of VSLAs estimated an average 33% increase in savings for VSLA members. Women with access to VSLAs were observed to be much more likely to take out a loan for commerce, and were significantly more likely to own a business. Income from businesses increased as well. To respond to the challenges that many households in the OP areas are expected to face in accessing finance, NOPP will support the development of VSLAs and more formal Savings and Credit Cooperatives (SACCOs) to enable them to save more easily and access investment and working capital for their on- and off-farm small- and micro-enterprises.

99. The Project will provide support to identify and develop micro and small rural enterprises to re-establish, consolidate and diversify people's livelihood sources towards sustainable household income in OPG communities. Specifically, the two sets of activities will facilitate the establishment and financing of local business opportunities in the OP hubs. They will include the following.

(i) Establishing business incubation services:

- **Scoping and validation of business opportunities** considering criteria of viability, feasibility, inclusiveness and desirability and promotion of livelihoods opportunities within key value chains. This activity will involve the organisation of workshops (at least one per district in the target area), and engaging stakeholders and representatives from public & private sector, including civil society, with the aim of identifying the main assets (5 capitals) available, the community vision of development and specific livelihoods opportunities to be promoted.
- **Prototyping of business opportunities**. Selected opportunities will be evaluated to determine their viability and simple business models and their financing plans developed, involving sector experts. Many of the micro- and small business opportunities will have been identified by the beneficiaries themselves; however there may be some that have especially high potential in terms of viability and inclusiveness, but that are not easily captured by the target beneficiaries because of their innovativeness in the area or their specialised technical or managerial skills requirement. As part of the approach, NOPP will pitch solutions to potential entrepreneurs and facilitate the implementation of the initiative through technical support and business modelling.
- **Trainings in Business skills development including**: (i) 48 trainers (6 per district) to be trained for 2 weeks to deliver the skills modules foreseen by the Project; (ii) training of beneficiaries in entrepreneurial mind-set creation, business modelling, business planning, management, and basic numeracy and accounting and basic financial literacy. Depending on initial skills level and endowment of assets, the beneficiaries eligible to be supported to establish small scale livelihoods and OPGs will be engaged in a more intensive training. 20% of the OP growers will be selected to participate in the trainings based on their interest, and

[89] VSLAs are a self-selected group of people, (usually unregistered) who pool their money into a fund from which members can borrow. The money can be used to initiate small business activities and is paid back with interest, causing the fund to grow.

among them priority will be given to those having less land dedicated to the cultivation of food crops and having below average size of land dedicated to OP compared to other OP growers in the same district.

- **Individual and group mentorship sessions** (2 group sessions per beneficiary) by local entrepreneurs engaged in successful livelihood activities acting as mentors to support the new livelihoods interventions.

(ii) Improved access to financial services:

- **Promotion of Village Savings and Loans Association (VSLA)**through:
    - selection and training (5 days) of community based trainers (CBTs) from the selected OPCs, using the VSLA Care manual to enable them to promote, guide and monitor at least 6 saving groups per year within the OPCs; the CBTs will promote saving groups mainly among non-OP growers specifically reaching out to women and youth to sensitize them to join and will encourage participation in the groups also of members coming from OP households (minimum 20%);
    - the CBTs will receive monthly facilitation for three years and will promote VSLAs in the first two years[90]and monitor them in the third year;
    - provision of bicycles to the CBTs for reaching the promoted VSLA groups; and
    - provision of VSLA tool kits to the groups (record books, stationaries, one metallic cash boxes, locks, members passbooks, stamp/Ink pad, rubber stamp, rulers, pad locks).
    - monitoring of VSLA performance, using the management information system (MIS) and, after the first two cycles, promoting linkages between VSLAs and RFIs to open savings accounts for VSLAs and so access extra funds.
- **Establish mechanisms to reduce Rural Financial Institutions' (RFIs) risks** to lend to the program beneficiaries. Depending on the availability of financial organizations (SACCOs, MFIs, CBs, etc.) the Project will establish different mechanisms to facilitate access to finance to the targeted beneficiaries to run and grow their livelihoods. The activities under this sub-action include:
    - assessing the presence, capacity, geographical reach and services offered by RFIs in each district (data available from the PROFIRA program on SACCOs will be used) in the targeted areas and demand/supply constraints and identify possible partnerships with different RFIs within the target area;
    - providing technical support for the implementation of identified partnership strategies with selected RFIs to fill the demand-supply gab mainly for bankable clients of the target beneficiaries. The support might be provided in partnership with PROFIRA in case SACCOs falling under direct PROFIRA support will be selected as partners in the NOPP Project implementation.

Implementation of sub-component 2.1

100. Overall responsibility for the agricultural/food production activities will lie with the Operations Manager in the PMU. Implementation will be supported through LG extension services, which will be strengthened/equipped for that purpose. The PMU will provide budgetary support to LG extension staff to oversee FFS activities, establishment of farmer-led trial plots and ensuring access to quality and improved agricultural inputs. In each District covered by NOPP, the District Agricultural Officer (DAO) supported by extension staff based at sub-county level, will supervise and monitor the activities of FFS facilitators, in liaison with the oil palm growers' trust associations, under the overall oversight of the PMU.

[90] The CBTs will facilitate the saving groups through a preparatory phase during which general information is provided to key community stakeholders and prospective savings group members; an intensive phase of about 12 weeks where the 6 VSLA training modules are delivered and the savings groups elect their leaders, adopt their constitution, and establish the rules and procedures that govern financial activities; a development phase of 12 weeks during which the CBTs visits the groups during loan meetings; a maturity phase when the group is independent and the share out of funds take place.

101. Overall responsibility for the activities to promote self-employment and small-scale entrepreneurship will lie with the Institutions, Enterprise and Finance Officer in the PMU. Activities will be implemented by specialised business development services providers, to be recruited in each hub by the PMU in consultation with the relevant DLGAs. Organizations will be invited to bid *individually or as part of a* consortium that has experience in the relevant areas to be addressed or can mobilize the relevant expertise within their network of partners. They will be selected based on their proven experience in financial and non-financial BDSs, and they will have performance-based contracts of 2 years renewable after a positive evaluation of the results achieved. They will be expected to physically locate staff in the incubation centres in each of the hubs[91]. The MTR will decide whether it would make sense to create MSME associations for economies of scale and sustainability.

Sub-Component 2.2. Mitigation of Social Risks

102. Rapid economic development in rural areas where poverty is widespread can lead to a variety of social risks, at both household and community levels. These can include increased intra-household tensions and vulnerability, increases in high-risk sexual behaviour, and a range of manifestations of social fragmentation. In the context of development project/programme interventions and/or private sector investment, these social risks need to be addressed and mitigated.

103. Stakeholder consultations – including with communities – during the two NOPP design missions in 2017 confirmed the need for the Project to integrate a set of measures to mitigate the potential social risks that may arise as a result of Project interventions. Towards this end, NOPP design combines two sets of activities under sub-component 2.2 which will complement the oil palm and non-oil palm livelihood enhancement activities in NOPP target communities. A first set of activities thus focus on household- and community-level sensitisation and empowerment; while a second set will aim to improve the land access and tenure security of different land users who are part of NOPP's target groups (OP and non-OP growers; landowners, tenants and customary owners; women, youth, landless people and other vulnerable groups). In all cases, activities will be implemented in a phased manner, and hand-in-hand with the core Project activities. Specific interventions are as follows:

(a) Household- and community-level sensitisation and empowerment

104. ***Household Mentoring.*** Common barriers limiting households´ economic development identified in NOPP target areas include the limited participation of women in decision-making at household level; unequal access and control of productive assets, opportunities and benefits; increased exposure to HIV; and the potential for malnutrition among certain household members to increase. These risks not only increase household tensions and vulnerability, but can also hinder the possibility of households exploring their full socio-economic potential and / or compromise the long-term sustainability of the benefits generated by the Project.

105. The Household Mentoring intervention integrated in NOPP design is inspired by best practice under the Gender Action Learning System (GALS)[92]. The methodology facilitates – rather than prescribes – participatory life and livelihoods planning through a joint self-assessment of resources, challenges and identification of practical solutions by household members. As such, it is household members themselves who identify the actions (including changes) they would like to integrate into their lives and embed them in their "household vision" and plan. Households receive "soft" support until they have made sufficient progress to "graduate" from the Household Mentoring process.

106. GALS has been used by IFAD and other agencies in many parts of the world with equally successful results[93]. In Uganda, GALS has been used at the household and farmer cooperative level by Oxfam in the coffee value chain (Bukonzo Joint) with inspiring results. Its use at the cooperative level has shown that it enhances collaboration among households involved in common value chains through the development of joint "visions", and it promotes cooperation in addressing common challenges and taking advantage of common opportunities[94]. Similar household methodologies have been successfully integrated in several projects/programmes in Uganda to encourage participation

[91] The IFAD co-financed PROSPERER in Madagascar is a good example of a project with a successful experience in establishing hub-type MSME incubation centres (called 'GUMS') with private sector experts providing decentralised non-financial BDS based on a PPP arrangement; it could serve as further inspiration to NOPP.
[92] Linda Mayoux, September 2014. Gender Action Learning System: GALS Overview.
[93] IFAD October 2014 a. How to Do Household Methodologies. Gender Targeting and Social Inclusion.
[94] Oxfam, 2014. Rocky Road to Diamond Dreams: GALS Phase 1, Visioning and Catalising a Gender Justice Movement. Implementation Manual V 1.0.

among marginalized and vulnerable households.[95] Their use has produced benefits such as: better distribution of household and productive tasks among household members; more equitable decision-making by men and women on key household issues, including how to use money earned by all household members; improvements in household relations, overall wellbeing and self-confidence; and ultimately increased household income. All of these outcomes will contribute directly to the success of Components 1 and 2.1.

107. NOPP will build on the interventions initiated in Kalangala by VODP2, using the term "Household Mentoring" to reflect the primary focus of the intervention at household level. In a context with high degrees of gender inequality, as is the case in rural Uganda, household members will be encouraged to analyse prevailing barriers, including common areas of gender inequality and wider household relations limiting their potential. The involvement of both parents and their sons and daughters in the process can also contribute to creating economic opportunities for youth. Household Mentoring support under NOPP is expected to last between 12-24 months among target households, depending on if households have a low or high social risk profile (see below).

108. Following IFAD´s experience with GALS and other household methodologies, households that "graduate" from the Household Mentoring will be encouraged to assist other NOPP beneficiaries and other households in their communities to make better use of the resources available to them and so improve their livelihoods and wellbeing. As such, graduates will assume a role similar to that assumed by Community Mentors. The adoption of such an approach has been seen to be consistent with the transformative power of the methodology, where those reached become eager to share their experience with others. The pool of "NOPP Household Mentoring graduates" will thus become the vehicle for other households to also gain from IFAD investments. The approach to be promoted under NOPP thus encompasses both direct and indirect targeting. At the same time, the approach is expected to contribute to strengthening existing mechanisms of community solidarity and support in target communities.

109. Understanding that individual behaviour change around sensitive issues such as gender roles, sexual conduct and entrenched nutritional practices needs to be supported a conducive environment, the intervention will also target community leaders (in the communities targeted). Also, given that oil palm producing households will also group at the oil palm unit level, where collaboration between households will generate cumulative benefits for all members, the intervention will also be implemented at that level.

110. Given that NOPP will start its engagement with Household Mentoring by finalising the Household Mentoring cycle started by VODP2 among oil palm smallholder households in Kalangala District, and given that the experience will inform the roll out of the intervention in all other oil palm hubs to be covered by NOPP, an external performance assessment of the intervention has been integrated in Project plans at the end of the first 24-month household mentoring cycle. The assessment will help to fine-tune the technical approach and implementation arrangements to maximize positive impacts on households before expanding the use of the methodology in other geographic areas to be targeted by NOPP. The existing *Guidelines for Household Mentoring* will be reviewed accordingly to integrate any relevant recommendations emerging from the assessment.

111. Households will be selected from those targeted with oil palm and non-oil palm livelihood improvement support, as well as households constituted by workers of the nucleus estate plantations in Kalangala and Buvuma, through a participatory assessment of the social risks they face, carried out by sub-county officials, local leadership and mentors according to pre-established criteria. In the case of the nucleus estate workers, the assessment will also include corresponding oil palm nucleus estate investors and potentially a "plantation workers consultation group" created for this purpose.

112. It is expected that NOPP will target approximately 8,066 households, or 25% of NOPP targeted oil palm growers, non-oil palm growers and oil palm plantation workers from nucleus estates in Kalangala and Buvuma. It is expected that approximately 70% of these (5,607 "higher risk" households) will requiring a full HH Mentoring cycle of 24 months, while the remaining 30% (2,458 "lower risk" households) will be reached through a lighter and shorter version of the methodology for a period of approximately 12 months.

[95] IFAD, October 2014 b. Case Study Household Mentoring Uganda. Gender, Targeting and Social Inclusion.

113. ***Supplementary sensitization activities at community level (HIV/AIDS, gender, and nutrition*).** NOPP will support additional district level efforts in the areas of HIV/AIDS, gender and nutrition efforts to complement the Household Mentoring approach. Activities will focus on supporting on-going efforts in expanding information, awareness and behaviour change promotion related to gender equality, HIV/AIDS and nutrition in target areas. These activities aim to complement individual and household level activities with the view to supporting the consolidation of (social) norms consistent with those promoted by the Household Mentoring approach at all levels. Specific issues that could be identified within each of the areas of social risk include the following:

- *HIV/AIDS*. Information on HIV prevention in the context of increased HIV exposure due to higher presence of sex workers, the influx of male migrants, etc; demand creation for HIV testing and HIV clinical care and treatment services / positive living (for people living with HIV); prevention transmission from mother to child; information on HIV services available in target locations; HIV testing and enrolment for HIV positive patients; the importance of adherence to clinical HIV care services and treatment , especially in the context of migrating populations; stigma, discrimination and disclosure; household approach to HIV care and treatment.
- *Gender equality*. Information on the benefits of gender equality for women, men, households and society; laws and national policies promoting gender equality; information on the incidence and prevention of defilement and other forms of abuse of girls and women; programmes for the promotion of women´s empowerment; services available for girls and women victims of gender based violence; avoiding early pregnancies.
- *Nutrition.* Information to understanding the multidimensional causes of malnutrition; information to understand the invisible consequences of stunting (impaired cognitive development); information on locally available nutritious foods for consumption; tips on food conservation techniques; importance of equal distribution of food among household members; minimal nutritional requirements of pregnant women; improved infant and child feeding practices to avoid child malnutrition; supplementary feeding services available at health facility level or other for malnourished children; tips on local food preparation methods to maximize nutritional content of foods.

114. Awareness raising activities at district / community level will be assessed and chosen in line with pressing challenges and key priorities identified by Sub-County Community Development Officials in coordination with NOPP PMU, and all activities to be supported by the Project will be carefully coordinated with other stakeholders to ensure accuracy, complementarity and avoid overlaps and gaps.

115. ***Promotion of Sports and Culture.*** NOPP will provide support for the promotion / expansion of sports and cultural activities identified by local community members (male and female), which could include: football, running, song and dance and other similar entertainment activities. The intervention aims to instil healthy lifestyles especially among the ranks of the youth who are easily attracted to alcohol abuse and other forms of risk-loaded entertainment, as well as offering female youth an opportunity to participate in healthy entertainment activities of their choice, given that community led sports and entertainment activities can tend to focus on young males. The promotion of activities such as sports is expected to generate additional positive results as mechanisms facilitating engagement with youth in other realms such as discussing, assessing and jointly identifying livelihood opportunities for both male and female youth in the rural communities where they come from, halting rural-urban migration, improving access to productive assets, reducing idleness, and serve as a channel for community cohesion where overall participation of youth in community affairs is increased.

116. In as much as the promotion of these entertainment activities seeks to fill a gap in local communities, it will also be used by NOPP to engage with and disseminate Project opportunities among youth.

(b) Improved land access and tenure security

117. ***Participatory land use planning*** will be used to identify and accommodate different land uses in oil palm growing communities, namely for oil palm, food crops, settlements, infrastructure and facilities; and focusing in particular on the needs of women, youth, landless people and other vulnerable groups. This will include building consensus and agreement in communities on different land use needs, including the conversion of land to oil palm production; taking into consideration the

rights of existing owners and users to decide on the use of their lands but also recognizing that their use can impact on the livelihoods of others.

118. The starting point will be a light "Rapid Physical Planning Assessment" that will be conducted as part of the HDP process. This will broadly define existing and planned land use and infrastructure; and it will provide a framework for oil palm growing development in a District and the integration of this into District plans. It is an approach developed by the Ministry of Lands, Housing and Urban Development's Physical Planning Department (PPD), precisely for the kind of investment and land use change envisaged under NOPP, and the exercise will be supported by the PPD, District and Sub-County physical planning committees and District physical planning teams.

119. The land use planning exercises will also be closely linked with other activities, such as: the mapping and suitability assessments of land pledged by farmers to be used for OP production mentioned in Sub-component 1.1; the household mentoring activities mentioned above; and the land acquisition and tenure security measures described below. The exercises will combine iterative "bottom-up" community-based participatory planning processes with "top-down" District or area-based government planning processes so as to realistically match community aspirations with more macro level development plans and vice-versa.

120. Geographic areas potentially suitable for OP have already been pre-identified according to climate, rainfall and soil suitability; on the basis of which the first three new production hubs have already been selected (located in Buvuma, Mayuge[96] and Masaka/Rakai). The geographic coverage of the planning exercises at hub level will depend on the anticipated area of Project influence and impact associated with the different hubs and production centres (CPO mills). The focus of the land use planning under the Project will be the area in the 30 km radius around the planned CPO mills, though the possible impacts of other existing and planned land uses in a wider area will also be considered – for example, adjacent commercial sugarcane growing areas or possible areas of urban or industrial expansion. As such, the hub land use planning exercises are not expected to cover whole Districts, though they may cut across more than one District, depending on the location of the mill and OPG areas. Most likely the exercise will cover several Sub-Counties possibly located in more than one District.

121. The mapping and surveying of suitable OP land under Component 1 will determine the extent to which farmers are clustered together, providing the basis for planning units and blocks and for identifying the location of the mill and nursery. Following on this, the road network requirements for OPG will be planned and mapped. The assessment of the land being pledged by farmers will also consider land that the prospective OP farmers have available for food and other agricultural production and other income generating activities that they may be involved in. This in turn will help determine the potential for future expansion of OP farming in a hub.

122. The hub land use plans will also identify other crops being grown in the area and the possible support that may be required for this. Fish landing sites, market and settlement centres and plans for their development will also be identified. This will include identifying plans for the development of public facilities such as schools and health centres and infrastructure for electrification, as well as areas for food crop production in the proximity of fish landing sites and settlement areas that risk losing access to land converted to OP production[97]; and gazetting market centres, settlement areas and landing sites and formulating by-laws. Where possible, land will be identified for landless households and in particular women and youth. Drawing on the experience of Kalangala[98], in Buvuma this is expected to involve allocating surplus land not utilized for the nucleus estate.

[96] The Mayuge hub could also include farmers in neighbouring Bugiri.

[97] Often residents in fish landing sites and small market centres and settlement areas access land for food crop production from other farmers on a temporary basis. Lessons from Bugala suggest that when OP is first grown their access can improve for a period of time as they are often allowed to grow food crops between young palms in exchange for keeping the ground free of weeds, etc. This access can subsequently be lost when the OP trees mature. However, there could be further opportunities for livestock grazing/browsing that are under exploited. As fish landing sites or smaller settlement areas become more established (sometimes reflected in the provision electricity), they can be gazetted and become permanent.

[98] In Kalangala about 1,000 of land that was acquired for the NE, buffer zone, infrastructure and other purposes was used for community facilities, crop farming for fish landing sites and about 400 hectares was allocated to vulnerable households, mostly for OP growing. It is anticipated that a similar amount could be allocated at Buvuma but this can only be confirmed once unusable (rocky) land is identified and land is allocated for the NE, infrastructure and the buffer zone.

123. Community participation in the land use planning exercises will build on the farmer and community mobilization aimed at identifying farmers interested in growing oil palm, described under Component 1. It will also be supported by complementary activities such as the formation of producer organizations; the household mentoring described above; and the civic education and sensitization on tenure security measures described below. Sensitization on the need for integrated plans aimed at accommodating different land uses will be done from the outset, starting with District, Sub-County and community leaders and expanding to involve farmers and other community members as they become aware of the Project and involved. Women, youth and other vulnerable groups will be actively targeted to contribute on their land use needs, first through public meetings and then through focus group discussions. Plans will be reviewed and approved at Sub-County and District public meetings.

124. Subject to community approval, the draft land use plans will be submitted to Sub-County and then District Planning committees for their approval, in line with the Physical Planning Act[99]. As part of planning process, financing plans will be developed, which could be supported by various line departments and others, including other development projects or programmes, NGOs, communities and the private sector. NOPP will be expected to contribute to these financing plans, as will any private sector investor associated with the Project. In accordance with the Physical Planning Act, the formulation of land use plans will also involve participatory processes for developing District and Sub-County by-laws for regulating future land use. The implementation and enforcement of land use plans will be monitored by Sub-County and District planning committees.

125. ***Capacity building on mitigation measures for land acquisition***. The land acquisition for the nucleus estate, buffer zone and infrastructure at Buvuma is expected to be completed under VODP2. It is unlikely that similar land acquisitions for the establishment of nucleus estates will be supported under NOPP. However, land may already have been acquired by investors who wish to partner with the Project[100] or the GoU may support land acquisition for private sector investment in mills and nurseries. Furthermore, land may be acquired by the GoU and granted to investors for nucleus estates for oil palm growing outside of NOPP.

126. While land acquisition for the nucleus estates at Kalangala and Buvuma has been done on a willing buyer, willing seller basis, the GoU has a responsibility in both places for ensuring that: (i) decisions and agreements are reached after widespread sensitization and consultation following the FPIC principle ; (ii) accessible records are kept on consultation processes and agreements reached; (iii) people receive fair compensation that allows them to invest in other opportunities that would leave them at least in a similar condition as before; and (iv) accessible and known grievance procedures are in place, should any concerns emerge regarding the land acquisition processes. This is particularly true in the case of the tenants that sold their land in Buvuma where the GoU is also providing a displacement allowance.

127. For new areas of expansion under NOPP, the GoU has a responsibility for ensuring that where land was either acquired by an investor who wishes to partner with the Project or by the GoU for an investor, that this was done in line with the principle of 'free, prior and informed consent' and does not negatively impact on the pre-existing users' land rights or livelihoods or if this does occur, that they were adequately compensated.

128. To address these issues, the following sub-activities will be undertaken, some of which will be initiated under VODP2 prior to NOPP start-up and then followed through under the Project:

- *Review of the land acquisition processes at Kalangala and Buvuma.* In 2017, the VODP2 PMU will produce a report on the land acquisition processes at Kalangala and Buvuma, including the mitigation measures taken. The report will specify further measures to be introduced. For Buvuma, information will continue to be collected on the post-payment livelihood decisions made by the compensated households. This will be used for continued monitoring under NOPP; it will also assist the targeting of the potential beneficiaries under the alternative livelihoods activities supported under NOPP.
- *Development of and training in operational guidelines for land acquisition.* A set of "due diligence" guidelines for land acquisition and compensation for oil palm growing will be

[99] Sub-County planning committees are comprised of elected Councillors whereas District committees are comprised of district technical officers that report to the District Council.

[100] This could be the case, for example, at Kiryandongo.

developed by the VODP PMU for use by NOPP implementers and others. This will offer guidance for: (a) assessing how land was acquired either by potential private sector partners in the Project or by the GoU and the appropriateness of compensation and other mitigation measures introduced; (b) assessing the potential negative impacts of a conversion of land for oil palm growing on land access and livelihoods; (c) developing, implementing and enforcing plans for mitigating against any negative impacts; (d) undertaking inclusive consultation and reaching agreement for land acquisition and compensation, following the principle of FPIC, including clear and enforceable grievance procedures; and (e) setting up systems for documenting key information on processes followed and agreements reached and for monitoring and assessing the implementation of mitigation measures. Training will be provided under NOPP for Project implementers, other responsible government agencies, NGO service providers and community leaders on the application of these guidelines.

129. ***Land tenure security measures.*** Land tenure security measures will be supported for all people in oil palm growing communities. The following sub-activities will be undertaken:

- *Civic education and public sensitization* will be provided to communities that may be involved in or more immediately affected by oil palm growing. This will include providing information to: community and farmer leaders, councils members, district land administration staff and representatives (DLOs, DLBs, ALCs) and other district government staff, paralegals / community volunteers, CSOs, etc. Women and youth will also be targeted. Current tenure situations will be analysed by communities, information will be given on the current policy and legal framework and opportunities for strengthening tenure security will be identified, based on the local tenure systems. Emphasis will be given to securing the rights and access for women, youth and vulnerable groups.
- *Local land dispute resolution and legal advice* will be provided. Dispute resolution will support existing community processes but will also provide legal advice especially to vulnerable groups, in particular women. Support will also be in preparing wills and in facilitating land transactions (both sales and rental agreements).
- *Support for land registration* will be limited to providing advice on appropriate options for registering land, and facilitating linkages with district and zonal land offices of the MLHUD. Additional resources for land registration will either be leveraged from the MLHUD, or farmers and other community members will be expected to pay for land registration services, including the mapping of land parcels, as per normal practice. Options for formalizing and registering land rights will depend on the local land tenure systems. For example, in mailo landowning areas of Kalangala and Buvuma and certain adjacent mainland areas, it is anticipated that either lease agreements or rental contracts could be granted to tenants, and freehold titles could be granted to landowners, including tenants that purchase land they've been using from mailo landowners. In Mayuge hub, Western Uganda and elsewhere the issuing of Certificates of Customary Ownership (CCOs) or freehold titles may be more appropriate. For all registration options, the recognition of co-spousal ownership will be actively encouraged, in line with the requirements of the law.

Implementation of Sub-Component 2.2

130. Overall responsibility for managing the activities under sub-component 2.2 will lie with the Social Development Officer of the PMU. He/she will be supported by: (a) an international consultant experienced with approaches for gender and social inclusion used by IFAD to build the capacity of NOPP staff; (b) a Ugandan Household Mentoring Specialist to design, establish and support the Household Mentoring programme; (c) a Regional Household Mentoring Specialist to carry out the assessment of the Household Mentoring pilot on Kalangala; and (d) a consortium of NGOs/consultancy firms to implement the activities on HIV/AIDS / gender / nutrition awareness raising in target oil palm communities. Draft TOR for all of these are included in Attachment 2.

131. ***Household Mentoring*** activities implemented under NOPP will be based on those supported under VODP2, after the implementation of a pilot phase in 2017-2018 among oil palm growers in target communities in Kalangala. Consistent with the arrangements established under VODP2, implementation of Household Mentoring will be the responsibility of District Authorities in target Districts, specifically the Community Development Officers at County level. Implementation arrangements will involve coordination between relevant Sub-County Community Development

Officers and Community Mentors, who are members of the community trained on GALS / Household Mentoring, who will actually deliver the methodology.

Box 6: Household mentoring implementation: Process and Costs

Household mentoring implementation process.

1. **Training of community mentors**. Intensive 2-week training by specialized Ugandan trainer (12 training-days). Costs involve:
   - Food/accommodation: USD 21 /mentor/day.
   - Transport costs of mentors: USD 7 /mentor.
   - Training material: USD 5 /mentor.
   - Trainer associated costs: USD 2 /day/trainee, includes transport, accommodation and meals.
2. **Implementation of Household mentoring activities.** Trained mentors provide support to a group of 10 households with the support and oversight of county and sub-county community development officers. Costs include:
   - Mentor subsidy: USD 2.5 /day x 22 work days.
   - Bicycles for mentors: USD 69 /mentor.
   - Stationary and material: USD 30 /mentor/year. Could include a bag, writing material, notebooks and folders to ensure proper organization and follow up of activities and submission of brief reports.
   - Fuel and other operating costs: USD 50 /month/Community Development Officer per in charge of managing the Household mentoring programme in the target communities.

132. Mentors will receive a monthly 'fee' (to be defined) for Project related responsibilities, plus a bicycle and basic working material (bag, pens, notebook, etc.). Sub-county Community Development Officers will provide on-going support and oversight to Mentors to ensure that quality standards are met – especially in respecting the facilitative nature of the mentoring process towards expected results. Each mentor will be responsible for 10 households at any point in time (OP growers, non-growers and plantation workers within nucleus estates in Kalangala and Buvuma).Community Development Officers will in turn oversee and support a total of 10 Community Mentors each.

133. Households will be targeted by Household Mentoring activities as soon as they are identified as Project beneficiaries in Components 1 and 2.1. Coordination mechanisms will be put in place between implementers of in charge of livelihood improvement activities and the Community Development Officers at local level to ensure coordinated and timely implementation of activities.

134. **Sensitization activities (HIV/AIDS, gender, and nutrition).** The PMU will work with District Governments and/or local CBOs working in each location to assess and identify persistent information gaps and priority awareness raising needs related to gender equality, HIV/AIDS and malnutrition, ensuring alignment with topic specific policy guidelines from the GoU. This intervention is expected to complement household, unit and community level activities implemented in the context of the Household Mentoring intervention

135. All interventions will be well coordinated with interventions implemented by the Project at household level through the Household Mentoring approach, and aligned to national sector plans and programmes. Moreover, an assessment of existing and planned activities in each of these areas will be carried out for each of the target Districts to ensure that activities planned are well coordinated, complement and reinforce each other, and reflect local issues and priorities.

136. ***Promotion of sports and culture*.** Local Government Authorities (LGA) and/or local CBOs will be engaged in the identification, planning, organization, coordination and implementation of sports and cultural entertainment activities in the communities targeted by NOPP in consultation with female and male youth of different socio-economic strata. Potential options to be assessed could include football, volleyball, as well as traditional drumming, song and/or dance, among others. Funding would cover minimal expenses to announce, implement and reward activities with low-cost options and cover minimal expenses of specialized staff.

137. ***Participatory land use planning.*** The land use planning process will involve a range of stakeholders, including the NOPP PMU, as well as the MLHUD's PPD, District government departments, District and Sub-County Councils, NGOs, private sector investors, private sector service providers and above all, farmers and the wider communities. The MLHUD's PDD will facilitate the

district-wide "Rapid Physical Planning Assessments" and the incorporation of OP hub land use plans into Sub-County and District physical and land use plans, approved by Sub-County and District planning committees. These activities will also be supported by the District PPD's, supervised by the MHLUD PPD.

138. The initial community and farmer sensitization and mobilisation for identifying prospective OP farmers and the surveying, mapping and assessment of land presented by them will be done by the NOPP PMU. District PPDs, collaborating with hub OP service providers, para-legal Land Centres (see below), NGOs, farmer associations and others will facilitate community level participatory land use planning. Local community fora will be used for broadening stakeholder engagement in this. Where necessary, additional support could be provided by private sector or NGO service providers, procured either through single source or competitive tenders or contracts. This support could be for a range of services, for example: compiling information on topography, soil types, infrastructure, etc.; producing spatial data and maps; surveying and mapping land use areas or land parcels for OPG; providing training in the use of GIS and GPS or participatory land use planning; and facilitating land use planning processes at community level. Funds will be transferred from the PMU to MLHUD to support the processes mentioned above, including the recruitment of relevant service providers.

139. Subject to a final agreement between the VODP PMU and the MHLUD, it is expected that the Rapid Physical Planning Assessments and the surveying, mapping and assessment of land pledged by farmers will be completed in Buvuma and Mayuge under VODP2 (see Attachment 1). This will include identifying sites for the nursery and mill and plans for the development of access roads. The further elaboration of land use plans is expected to continue in Buvuma and Mayuge and to include Kalangala after NOPP start-up as community mobilization and participation is extended for other land uses and livelihoods opportunities. Land use plans for Buvuma, Mayuge and Kalangala are expected to be finalized by the end of 2019. Land use planning for new hubs is expected to be phased in after the first MTR.

140. ***Capacity building on mitigation measures for land acquisition*.** Short-term consultancy support will be provided under VODP for the review of the land acquisition processes at Kalangala and Buvuma and to provide training for implementing improvements at Buvuma. The consultant will also support the formulation of the "due diligence" guidelines and, under NOPP, will provide training on these. The guidelines will be developed in close collaboration with the MLHUD. The NOPP PMU will recruit a consultant on a retainer contract for a 5-year period, to strengthen its capacity and oversight of land acquisition and compensation processes and the implementation of mitigation plans and to manage a Geographic Information System (GIS).

141. ***Land tenure security measures.*** Activities will be implemented through "Land Information and Resource Centres" – essentially para-legal advice centres providing focused support on land tenure security. The "Land Centres" have been supported in other parts of the country through the Secretariat and various members of the Uganda Land Alliance, and they are now included in the second phase of the GoU's Land Sector Strategic Plan. They are registered as Community Based Organizations and typically located close to the district administrative offices. The Land Centres will work closely District Lands Offices, District Land Boards and Area Land Committees.

142. A private sector or NGO service provider, competitively selected, will establish and manage the Land Centres; as well as training paralegals, District land administration institutions and others in civic education, dispute resolution and land registration requirements, etc. The Land Centres will be supported for a five-year period through an IFAD country grant. After this, if still considered sufficiently useful, it is expected that they will be financially supported by the District government and the MLHUD, as has been done with similar centres in other parts of the country. A decision on this will be made at the MTR. While 3 centres are budgeted for, 2 centres will initially be established at Kalangala and Buvuma. For the short term, Mayuge will be supported from the Buvuma land centre and Masaka/Rakai from the Kalangala centre. Once additional hubs have been confirmed, the service will be extended to these. This could include strengthening an existing office in Masindi or supporting the establishment of an office at Mukono.

143. Support will be provided to District Lands Offices, District Land Board and Area Land Committees to enable them to more effectively play their role in strengthening tenure security. Support to DLOs will include the provision of transport and computer equipment and to the DLBs and ALCs the support will mainly be for the conducting of meetings and field investigations.

144. In general, as with the support provided for physical planning and for strengthening land acquisition procedures, the support provided by NOPP for tenure security measures will be harmonized with that provided by MLHUD under its land policy implementation plan. This is expected to include support from the MLHUD zonal offices covering NOPP areas of intervention. An MoU agreement between the NOPP PMU and MLHUD, to govern the scope of their collaboration under NOPP, will be signed during start up.

Component 3. OP Sector Development Framework

Sub-Component 3.1. Policy and institutional support for OP sector development

145. **Rationale and objectives.** NOPP is supportive of the long-term country's *Vision 2040* for a transformed Ugandan society from a peasant to a modern and prosperous country. It is consistent with the Second National Development Plan 2016-20 (NDPII), which highlights agriculture as one of the three priority sectors in Uganda's drive to achieve middle-income status by 2020. Its key strategies to achieve rural transformation focus on industrialization and export-oriented growth through value addition and agro-processing; strong public/private/partnerships (PPPs) for sustainable development; and private sector led growth and a quasi-market approach – all strategies to be pursued under NOPP.

146. Above all, NOPP will contribute to the achievement of the goal of the draft Agricultural Sector Strategic Plan 2015-20 (ASSP), to transform subsistence farming into commercial agriculture through coordinated interventions to enhance productivity, value addition and trade. ASSP identifies twelve priority and four strategic commodities – one of which is oil palm – which, through a series of actions to develop their value chains, are expected to contribute to wealth creation and employment. It thus highlights a series of public investment priorities in support of the oil palm sector, as well as the intention to develop a *"sector policy to guide consolidation and expansion in the country".*

147. Component 3 aims at establishing a conducive framework for sustainable scaling-up of oil palm investment. It is focused on assisting to GoU to establish the enabling conditions for the long-term development of the oil palm sector, during and beyond the implementation period of NOPP. It would draw on the experience gained under VODP and VODP2; it would be linked to, and build on outputs generated under Components 1 and 2 of NOPP; and it would focus on developing a framework to promote, guide and regulate investment by the public and private sectors and smallholder OP producers – effectively an oil palm sector development framework. Such a framework would be built through two sub-components: (i) 3.1 Policy and institutional framework for national OP sector; and (ii) 3.2 National technical knowledge base for OP development.

Sub-component 3.1. Policy and institutional framework for national OP sector

148. The output of Sub-Component 3.1 is the establishment of an enabling policy, legal, strategic and institutional framework for the inclusive and sustainable development of the oil palm sector. The framework would seek on one hand to sustainably increase the national supply of palm oil, while on the other ensure affordable prices for consumers, get the best incomes for oil palm growers, implement best social protection practices, safeguard the environment and take into account climate change

149. Responding to MAAIF's intention to develop a sector policy, the Project will support a nationally-owned process to develop a set of enabling policies for oil palm sector development; it will also assist GOU to establish the long-term institutional arrangements required for promoting and regulating the sector, including the creation of an oil palm stakeholder platform for policy dialogue and business development; and it will leverage commercial financing to the oil palm sector. The process for developing the framework will be an incremental, step-by-step one, built upon extensive consultation among the various stakeholders in the sector.

150. Activities would actually start during the remaining period of VODP2, with the preparation of broad vision for the sector, indicating the planned scale and location of OP production and the broad areas of public sector support, as well as a road map for the preparation of an eventual OP strategy. Drawing on the strategic elements identified so far the Project would carry out two broad sets of activities:

(a) Policies for oil palm development

151. **Development of policy, bill and strategy framework.** The first step would be the development of a national policy that will promote the sustainable and equitable development of, and regulate, the sector. Elements of the rationale for the policy framework are described in Box 7.

Box 7: Rationale for an oil palm sector policy framework

The framework would enable GoU to establish clarity as to its intent in a sector that requires a 25-year investment, in order to promote the sustainable and equitable development of, and regulate, the oil palm sector. Specifically, it could serve to:

- Articulate a vision of a sustainable modern oil palm industry, based on promoting modern CPO processing with qualified private sector partners supplied principally by smallholder oil palm production.
- Define the respective roles and responsibilities of the public and private sectors and producers, as well as promote partnerships (4Ps) and govern relations between them.
- Incentivize investment by processors and smallholder producers
- Promote modern, efficient CPO processing technologies
- Promote effective forms of organization among smallholder oil palm producers, for enhanced production, marketing and representation
- Promote knowledge creation / development of technical expertise in the sector, in terms of education and training, and R&D
- Ensure the sustainable environmental management of sector and adequate response to climate change, both adaptation to its effects and mitigation of greenhouse gas
- Promote transparent, equitable land acquisition and secure land tenure
- Ensure social safeguards and promote associated community development
- Ensure that all investments in the sector conform to the provisions of RSPO, including its EHS systems
- Ensure that all economic actors in the sector comply with the defined principles

152. **The process would be led by MAAIF/PMU**. It would involve the recruitment of a consultant charged with day-to-day responsibility for the process; and the establishment of a Task Force, or Technical Working Group, to provide guidance and steerage to the process. While the Task Force should have membership drawn from the different stakeholder in the sector, it should remain sufficiently small to ensure that the process moves forward. The eventual policy would draw strongly on evidence, and to make this possible the Task Force would commission the conducting of a series of relevant background studies and analyses, such as those included in Box 4. These studies would provide the basis for discussion within the Task Force and for broader consultation, and they would be expected to lead to the process of drafting the policy itself.

Box 8: Potential studies to be conducted during policy formulation process

- Initial background research paper, clarifying the justification and rationale for the policy and its objectives
- Screening of potentially relevant / related legislation and analysis of their implications for OP sector policy
- Analysis of best practice in other OP producing countries, their policy frameworks and the impacts of those frameworks
- Analysis of experience and lessons learned from OP sector in Uganda
- Analysis of lessons learned from other commodity-based policies in Uganda
- Assessment of the experiences of, and value for, other countries that have developed a National Interpretation of the Principles & Criteria of the Roundtable on Sustainable Palm Oil (RSPO).

153. Drawing on the experience of other policy development processes in Uganda (for example, the 2010 National Sugar Policy, the 2013 National Coffee Policy and the 2016 Agricultural Extension Policy), the process would be a consultative one, involving the conducting of extensive consultations at the various states of policy development, both at national and local levels. Participants would be drawn from the relevant ministries and agencies of GoU (MAAIF, NEMA, MTIC, MOW, NARO,

MoFPED, MLHUD/ULC, UNRA, Local Government); development partners, private sector actors in the oil palm value chain (Bidco, Mukwano, others); OP producers and their organisations; NGOs and other service providers. The process for developing the policy will be a complex one, involving many steps (see Table 23 below).

154. The initial steps in the process might thus look as follows: (i) Task Force meets to approve selection of consultant policy analyst; (ii) consultant prepares background research paper; (iii) Task Force meets to review paper, and commission additional work as appropriate; (iv) additional studies conducted, by consultant and/or others; (v) Broad public consultation on papers and identification of policy priorities; (vi) Task Force reviews papers and offers policy recommendations; (vii) Consultant prepares first draft of policy; (viii) Further consultation and Task Force review of draft policy; and (ix) Consultant prepares revised draft of policy.

155. Following the drafting of the policy, a linked investment strategy and costed implementation plan to operationalise the policy would also be prepared. Its purpose would be to provide clarity and guidance as to how GoU, initially supported by NOPP, can provide financial and technical support for oil palm development, both in those areas already identified for that purpose under the Project and in those areas not-yet-identified, where requests for support from investors, processors and producers may emerge during the course of implementation. The framework would thus define the criteria – agro-climatic, agronomic, economic, social and environmental; as well as a clear process and procedures that could be applied in assessing potential NOPP investments.

Table23: Steps in process of building the development framework for the OP sector

Step	**Proposed / required**
Formation of Task Force, or Technical Working Group, to guide policy process	*Proposed*
Extensive consultations at national and local levels	Required
Preparatory / background studies	*Proposed*
Drafting of policy document	Required
Drafting of strategy and costed implementation plan	Required
Conducting of a Regulatory Impact Assessment (RIA)	Required
Submission of draft policy, strategy and costed implementation plan, and RIA to MAAIF's Top Policy Management for review / approval	Required
Submission to MoFEPD to obtain a Certification of Financial Implication (CFI)	Required
Submission of documentation (draft policy, strategy and costed implementation plan, RIA and CFI, plus a Cabinet Memo) to the Cabinet Secretariat for approval	Required
Final consideration and approval by Cabinet	Required
Official launch of policy and outreach	*Proposed*
Preparation of a "Principles of the Bill" document, and submission to Cabinet for reviewed/approval.	Required
Cabinet Secretary to issue an instruction to the First Parliamentary Counsel in Ministry of Justice to draft the Bill	Required
Exposure visits to OP growing countries for members of Parliamentary Agricultural	*Proposed*

Committee	
The draft bill reviewed by the Parliamentary Agricultural Committee	Required
Parliamentary debate and approval of Bill	Required
Official launch of Bill, approved as Act, and outreach	*Proposed*
Establishment of institutional mechanism to provide a framework for regulation and administration of oil-palm sector-related matters	Required

156. Approval of the policy and strategy would require the conducting of a Regulatory Impact Assessment (RIA) and the submission of these documents to MAAIF's Top Policy Management for approval, and then to MFPED in order to obtain a Certification of Financial Implication (CFI). Once issued, a complete package of documents (draft policy, strategy and costed implementation plan, RIA and CFI, plus a Cabinet Memo) would be submitted to the Cabinet Secretariat for its approval, prior to final consideration and approval by Cabinet. Following approval of the policy and the investment strategy, they would be officially launched – with an explicit intention of using these documents as an opportunity to stimulate private sector and smallholder interest in investing in the sector.

157. Drawing on the experience of the National Sugar Policy, following Cabinet approval of the policy, it is anticipated that ***a Bill*** to provide the legal basis for the regulatory dimensions of the policy would also be required. This would require the preparation of a "Principles of the Bill" document, which would be submitted to, and reviewed by, Cabinet. Following approval, the Cabinet Secretary would issue an instruction to the First Parliamentary Counsel in the Ministry of Justice to draft the Bill. The draft bill would then be reviewed by the Parliamentary Agricultural Committee, prior to Parliamentary debate and approval of the Bill.

158. NOPP would provide support to the entire process for developing, advocating and promulgating the policy, the bill and the investment plan (summarised in Table 8). It would finance all required expenditures associated with the process: at this stage this is expected to constitute consultancies, stakeholder consultations and communications, as well as targeted learning visits for policy makers and parliamentarians to major oil palm producing countries in West Africa and/or South East Asia.

159. ***Strategic Environmental Assessment.*** An important dimension of the overall sector policy framework will be the development of a Strategic Environmental Assessment (SEA). While each oil palm development area will be subject to an ESIA, the programmatic and national character of NOPP also warrants a more forward-looking assessment. An SEA is a policy instrument to reach a technically informed consensus on broad environmental issues related to a (sub-) sector, as opposed to the ESIA which looks in detail at the impacts of a proposed Project at a specific location. The SEA will be carried out at the start of NOPP, and will seek to answer questions related to cumulative impact of upscaling palm oil development in the country. While the focus of the SEA is on environmental issues, the assessment will also look at the social aspects of the environmental issues and try to address those where feasible. Issues to be addressed in this exercise include (i) a country-wide agro-ecological suitability assessment and zoning exercise; (ii) exploring environmentally sustainable target levels of palm oil production at country level; (iii) establishing environmental guidance for the entire palm oil palm cycle including grower and site identification, planning, development and operations; (iv) providing guidance with regards to the interpretation of RSPO principles and criteria with regards to national policies and procedures; (iv) outlining strategies to conserve areas of High Conservation Value (HCV) and High Carbon Stock (HCS); and (vi) identifying weaknesses and gaps in current government legislation, strategies and implementation capacity. The SEA will inform GOU's strategies and policies, guide NOPP's capacity building efforts, and reduce the workload for and improve the quality of each subsequent ESIA.IFAD will be closely involved in the development of this SEA, through joint development of TORs and review of deliverables.

(b) Institutional arrangements for oil palm sector

160. ***National institutional arrangements.*** The policy is also expected to propose an institutional mechanism to provide a national framework for the development, regulation and administration of oil-palm sector-related matters, beyond the implementation period of NOPP.

161. Given the relatively limited scale of, and potential for, oil palm production in Uganda (relative to e.g. coffee or sugar), only light governance arrangements would be required. Nevertheless, a **multi-stakeholder Board** would likely be needed, served by a **Technical secretariat**. One possible option here may be to convert the future NOPP Steering Committee into the Board (with expanded membership if necessary) and the PMU into the secretariat. In addition, a number of other already-existing government institutions would play important roles in the implementation of the different dimensions of the policy. The Project would support the establishment of the institutional arrangements, along these lines or according to an alternatively agreed proposal.

162. The **Uganda Oil Palm Growers' Trust (UOPGT)**, with its key role to mediate the provision of financing to all oil palm growers in the country, would be the third, critical element of the institutional architecture. Following the restructuring of KOPGT, the Trust will start anew as an entity with national coverage under NOPP. Essentially it would retain only the farmer loan administration function, continuing to mediate the provision of financing to all OP growers in the country, using NOPP funding (and loan repayment flows from loans issued under VODP/VODP2) for investing in smallholder oil palm developments (less than 2 ha / household) and, potentially, funding from financial institutions for larger smallholder growers. In addition, it will: (a) safe keep GoU/IFAD farmer loan repayments for GoU; (b) hold 10% share of OPUL and other private sector partners on behalf of smallholder OPGs; and (c) sit on the national pricing committee and national service cost panel. Furthermore, it could, depending on the national level vision for the future institutional and policy configuration of the sector, also take on other strategic tasks.

163. At the hub level, it will maintain one staff in the former KOPGT in Kalangala and will open local windows with one staff each in the four new Hubs. The local windows will: (a) appraise, in collaboration with the TSS agency/Secretariat, the loan applications of locally registered farmers for establishment of OP plantations; (b) manage loans to farmers and loan recovery; (c) receive OPUL payments on behalf of growers, deduct OPGs' loan repayments and make payments to their accounts (this function is to be transferred to farmer organisations over time); and (d) sit on local pricing committees and local service cost panels (where applicable).

164. In addition, NOPP will support the establishment of an oil palm stakeholder platform. ASSP proposes to establish and support at least ten commodity platforms for periodic information sharing and discussion of issues pertaining to particular commodity value chains. The commodity platforms are intended to provide a forum for sharing of information and engagement among stakeholders for identifying and addressing challenges along the value chain of the specific commodities.

165. NOPP would support this objective in the context of oil palm. Building on the multi-stakeholder consultations associated with the policy development process, the Project would support the transformation of the consultation forum into an industry platform. This platform, which would take into account the lessons learned under the Uganda Oilseed Subsector Platform (OSSUP), would meet on a regular basis to discuss problems and constraints facing the industry and propose the necessary policy responses. Participation would be broad, involving relevant agencies of Government, the private sector processing sector, smallholder oil palm growers and their representatives, banks/financial institutions and other service providers, NGOs and the development partners. The Project would support the facilitation of meetings of the Platform and the associated follow-up, and the conducting of studies or policy analysis for which a need is identified.

Box 9: Some lessons from the OSSUP experience

The Uganda Oilseed Subsector Platform, created under VODP, has a mandate to address systematic issues affecting the development of the oilseed sub-sector in Uganda. OSSUP is a voluntary, loose network of private, public and civil organization committed to working together and creating coordination mechanisms both to enhance the competitive position of local sourced sunflower and processed vegetable oils, and create stable conditions for pro-poor development in the sub-sector.

- OSSUP offers its members services in the following 6 areas: (i) sub-sector intelligence; (ii) inclusive finance to business linkages; (iii) inclusive business to business linkages; (iv) evidence-based advocacy; (v) export promotion management; and (vi)learning, sharing and knowledge management.
- It has 4 main activity areas: (i) multi-stakeholder platform meetings (regional and national); (ii) inclusive business to business brokering; (iii) inclusive finance to business brokering; and (iv) learning, sharing and knowledge management.
- Meetings of the platforms take place quarterly, and are facilitated by a number of local facilitators, who are in turn supported by the NGO SNV.
- There are between 30 and 40 participants per meeting, and while some early participants have ceased to attend, others have joined the platform.
- The meetings of the platform are only one part of a larger, more continuous process: between the meetings, there is considerable follow-up carried out in the other 3 activity areas identified above.
- Effective facilitation of the platform is critical. Neither Government, nor any of the individual players in the VCs, are well placed to play this role; and it is a role best played by a neutral broker.
- The platform is seen to have:
  - helped the different stakeholders in the oil seeds VCs to understand each other's perspectives, and to build trust between them.
  - been particularly useful for helping to solve blockages in the VCs, and for building B2B (business to business) and F2B (finance to business) relations between participants
  - been less effective as a forum for ***policy*** discussion, in that – to date at least – the participants have preferred to focus on more concrete business-related issues

166. ***Engagement of financial institutions.*** Under VODP, development financing for oil palm was needed because the crop was unknown and the commercial financial sector had no experience and no appropriate long-term loan products to offer to smallholder OP growers. As a result of VODP/VODP2, much more is known about the crop, and its viability, and the information that banks need in order to make decisions about lending and to develop suitable, targeted products is now emerging. The approach for delivery of financial services to smallholder OP growers under NOPP will therefore be a twin-track one, drawing both on development and commercial financing.

167. On one hand, NOPP will continue the development financing arrangement that has worked well under VODP/VODP2, to finance the input and cash requirements of the smallholder OP growers. In order to maintain the inclusive approach of the Project, expand the number of beneficiaries to the maximum possible and limit the overall cost per beneficiary, the development funding would be available up to a maximum planted area of 2 ha per smallholder producer. The loans, to be provided through KOPGT (or its successor), will be, as under VODP, for seeds and other inputs over five years, and for cash requirements for maintenance over four years. Producers will sign agreements to access both types of financing and will commit to using good OP-growing technologies and to sell the entirety of their production to the private sector partner at the price established by the pricing formula. The loan repayments on these long-term development loans financed with IFAD funding will continue to be calculated as a percentage of monthly earnings, with 33% deducted for loan repayment from smallholders' oil palm earnings.

168. On the other hand, the Project will, as a key step towards establishing a sustainable (post-Project) approach to financing OP establishment, seek to bring financing from the financial institutions to the OP sector. Discussions the NOPP design team held with a number of commercial banks in Kampala suggested that they are interested in the sector. In particular, they recognise that, although an agricultural enterprise, it is relatively low risk, because of both the reliable and regular harvests that the crop offers and the marketing arrangements that strongly support 100% loan repayment. At the same time, they do not yet know enough about the OP enterprise model, the likely risks and the

transaction costs they would face; and they currently have no ready-made suitable longer-term financial products to offer the growers, or lending methodologies adapted to the sector.

169. Under NOPP therefore, the PMU would work with the financial institutions in order to stimulate their entry into the OP sector, as suppliers first and foremost of long-term credit for OP establishment. They would also be encouraged to think of OP growers as a growing market segment for other banking services, including savings and short-term credit (both OP- and non-OP-related). Efforts would aim at informing the banks about the sector – its production cycle, the marketing arrangements, its requirements in terms of investment and working capital etc.; confirming its viability for smallholder growers and thus for lenders to the sector; identifying potential risks; and assisting interested banks to develop lending products specifically targeted to the unique characteristics of the sector.

170. The key basic assumptions of the planned expansion of the OP cultivation area under NOPP, which is to be funded with self-financing or commercial bank loans, are:

(a) On top of the 12,000-ha expansion to be funded by the Project, commercial financing would finance an additional 3,000 ha in those three hubs that are appropriate for this type of expansion.

(b) In the three suitable hubs for commercial expansion, a total of 7,300 smallholders would receive Project finance for 2 ha of new OP plantation each.

(c) Of these 7,300 smallholders, 20%, or 1,460, would further expand their OP area with commercial financing or self-financing, each planting an average additional area of 2.1 ha to their original 2 ha of OP.

(d) The average cost of establishing and maintaining one hectare of OP over the first five years in the proposed expansion areas is projected to be USD 3,500. The total costs of establishing 3,000 ha of new OP plantations would be USD 10,500,000.

(e) It is projected that the financial institutions would cover 70% of these costs (total USD 7.35 million) and the growers would finance 30% (USD 3.15 million). The financial institutions' share would consist only of seedlings and inputs to be disbursed all in kind; the share of farmers could include also seasonal labour, to be paid in cash.

(f) The expansion of the OP growing area with self-financing or commercial bank loans would start only after each participating farmer has first established a maximum 2 ha plantation with Project funding. This means that these commercially financed operations are expected to start around 2020, which gives the NOPP staff and rural finance consultants enough time to plan for these operations with the commercial banking sector.

171. To finance the above described expansion, financial institutions would have to develop a long-term loan product, which they do not currently have and of which they do not have experience from any other crop. While various optional designs could be used, basically this loan product should be a long-term loan of around 10 years' duration, with a 4-5 years' grace period. This is a demanding type of a product for Ugandan banks, requiring long-term capital to be committed to a rain-fed agricultural operation with a very long grace period. A major challenge for the NOPP staff and hired experts would be to convince the banks of the substantial advantages and risk-limiting factors when investing in OP production. These include:

- Effective arrangement for the hypothecation of crop and direct deductions for repayment at the source;
- One-buyer market without options for side-selling;
- Contractual arrangement guaranteeing markets and appropriate pricing of produce;
- Borrowers with above-average income and assets for a rural setting, including – in the case of every borrower – two ha of OP, already planted with development support. These characteristics would create room for effective "total household income-based approach" in the design of the grace period and loan duration structure;
- Limited transaction costs for banks as the TSS organization (currently KOPGT) and the processing company take care of most of the accounting and distribution functions;

- Effective technical and extension support to all borrowers throughout the repayment period by NOPP;
- Substantial opportunities for more banking business with deposit and short-term loan products; and
- Limited direct financial support to the participating banks from the NOPP budget in the form of capacity building and other start-up services for branches in the OP production areas.

172. Notwithstanding the positive and risk mitigating factors, attracting the banks to finance (a substantial share of) the planned 3,000 ha of OP will require pro-active, professionally conducted work with the financial institutions. Project activities in support of the objective of stimulating financial institutions' participation in the financing of the expansion of OP production will include the following:

(a) Regular dialogue with interested banks, to understand in greater detail the nature of their interests and concerns with regard to the OP sector; explain the main characteristics and features of the sector; and provoke their interest in investment;

(b) Based on the initial dialogue with the banks, the conducting of a comprehensive 2-month banking business case study in OP production, towards the end of PY1 with the support of Senior International Banking Expert, to identify and assess the key technical, organizational and financial features of the OP sector and its funding requirements, to respond to the banks' major concerns, and to develop a practical action plan for banks' participation in the financing of OP production under NOPP

(c) Support for field visits, to enable interested representatives of the banks to visit Kalangala, see the impact of oil palm production on the local economy, and talk to the key players involved in the value chain (Bidco, KOPGT, KOPGA);

(d) The conducting of targeted studies for individual banks that are interested in committing to the sector, to develop specific banking products (eligible costs, grace period and repayment schedule, interest rate etc) and delivery/repayment methodologies (which may draw on the already-existing value chain relationships);

(e) The provision of limited operational support to those banks that commit to start lending operations in any of the Project hubs. This might include provision of short-term technical assistance, training of staff, or other (limited) contributions to start-up of banking services to OP growers; and

(f) Dissemination and marketing seminars/workshops in the hubs where banks have expressed interest to work, and product review workshops with farmers.

173. These activities would be managed by the Institutions, Enterprise and Finance Officer in the PMU.

Implementation of Sub-component 3.1

174. Responsibility for implementing much of Sub-component 3.1(a) will lie with MAAIF, which may delegate the PMU NOPP to take charge on a day-to-day basis. While it is critical that the Project Manager remains engaged and retains overall responsibility for the policy development process, day-to-day responsibility would be delegated to the M&E and Learning Manager. He/she would in turn be supported by: (i) a national consultant policy analyst, who will be responsible for leading the oil palm development process; and (ii) a national consultant facilitator for the oil palm stakeholder platform. Additional policy analysis emerging from the two sets of activities would be conducted by additionally-recruited individual consultants recruited for the purpose. Responsibility for the development of the Strategic Environmental Assessment would be delegated to the PMU's EHS Officer; while the activities to engage the commercial banking sector in the oil palm sector would be managed by the Institutions, Enterprise and Finance Officer in the PMU.

Sub-Component 3.2. Strengthening of national capacity for OP research

175. **Oil palm knowledge**. Oil palm is still a new, little known and understood crop in Uganda, although since its introduction in Uganda, a considerable (technical) knowledge and initial learning have been gained in the country. KOPGT, for instance, became a local organization with an oil palm sector knowledge which was gained through hands-on experience in oil palm development, collaboration with nucleus estate, palm oil processor and research institutes, and knowledge sharing with regional and international oil palm organizations. NARO also became a good source of knowledge on local environmental conditions and their interaction with oil palm growth, while conducting research trials for the VODP. OPUL too gained a solid knowledge in oil palm production in Uganda in addition to its international and regional knowledge and expertise. Management of accumulated knowledge and learning however was very limited.

176. With the start of a national project for oil palm, there should be a concerted effort to develop the oil palm knowledge base, in line with similar knowledge bases in the country for other crops such as coffee and sugar. It is risky to extrapolate knowledge about oil palm from other countries because of the unique features of the country's natural environment, especially the relatively high-altitude location, where temperatures are lower than in most other oil palm growing areas of the world. Due to the unique nature of the Ugandan environment, national oil palm researchers will have to learn specifically about how the crop grows and the challenges it faces in Uganda. NOPP will support this process of building an institutional knowledge base through support for: (a) knowledge management; (b) priority research activities relative to oil palm production, and (c) training and capacity building.

177. The Project will support strengthening of **knowledge management** through improved documentation, production, dissemination and use of knowledge products. NOPP will also facilitate identification of knowledge gaps and development of strategies and mechanisms for filling these gaps, including through participation oil palm sector stakeholders and organisations in knowledge networks and study tours for technical knowledge sharing. The product of this Knowledge Management should be the production of an oil palm growers' guide for Uganda. As new information is gathered, the guide should be updated. An online version should also be made available. Consideration could be given to creating a Mobile Phone Application that could be used to disseminate information to the growers.

178. **Oil palm research priorities**. With the availability of the oil palm research team in NARO, work on research should be scaled up. Research focus under NOPP will be as follows:

- Pests and diseases surveillances and their control methods, with emphasis on integrated pest management systems. Pests of focus will be Rynchophorous sp. and Oryctes sp. which are known to be endemic in Uganda. Diseases of interest will be Ganoderma sp. (basal stem rot) and leaf blight;
- Development of best agronomic practices for optimal use of fertilizers (types and quantities) as there have been several incidents of deficiencies recorded in addition to intercropping for farmers;
- Agronomic practices aimed at yield increases on smallholder farms on Kalangala to be rolled out to other smallholder areas;
- Collection and analysis of the oil palm growth and yield including trials to evaluate the time from pollination to ripeness maturity and maturity to fruit rotting in Kalangala to inform optimum harvesting conditions;
- Multi-locational provenance trials using simple and robust trial designs to be conducted with material from various parts of oil palm growing areas within Africa and SE Asia to identify the most suitable material for Uganda conditions; and
- Set-up linkages with other oil palm research centres in Africa and Southeast Asia for training and acquisition of planting material for breeding trials with material from these oil palm growing areas.

179. **Oil palm trials for new hub identification**. Oil palm research trials are being carried out in Mayuge (2006), Bugiri (2008), Buvuma (2-2008), Kibale (2-2008), Masindi (2000 & 2006), Kituza (1971, 2000), Masaka (2008), Budibuggo (1971), Namulonge (2015), Gulu (2016). The areas covered by research trials should be doubled and include other potential areas like West Nile. But before doing

so it is essential that the current trials are managed scientifically. For this they will require additional resources to improve the accuracy and reliability of the data being captured from the trials. Better maintenance schedules and data capture is required. Furthermore, since a key parameter is evaluating the genetic x environmental interaction, it is essential that all trials sites be equipped with automated weather stations. The resources must be made available to the research team for more frequent monitoring of these trials. Seedlings from the Mukuwano farms can also be added in areas in the north along the Nile valley. Trial plots of 0.5 ha should be planted in these communities to establish the growth characteristics of the oil palm and confirm that it can be successfully grown under such environment, given the less-than-ideal conditions for oil palm growth recently observed in the drought situation.

180. In order to ensure successful planting of oil palm in such areas, water retention techniques and other cultural practices should be observed, including land preparation to break subsoil due to prolonged use of ploughs, use of drought tolerant planting materials available in West African research stations, use of water absorbent gels during planting to prolong use of water by the plants, and use of potassium fertiliser formulations to help water retention and ensure better stomata closure during extreme stress situations such as high water deficit situations. Water harvesting techniques should also be used.

181. Finally, it is important to note that oil palm research is currently under the Research Programme for essential oils and other crops. Given the importance of the crop, a dedicated research and development programme within NARO will be established and supported under NOPP.

182. **Training and capacity development**. The dimension of training and capacity building under NOPP in part addressed under Sub-components 1.1 and 3.2. However, it is a broader strategic issue, critical to the success of the oil palm sector, and it needs to be reflected in the sector policy framework to be developed. The objective will be to ensure that oil palm growing knowledge will be fully imparted in a continuous manner and will become like any other strategic crop in Uganda Oil palm training and capacity development will be directed:

- **Farmers**. Oil Palm farming will continue to be new until a generation of famers have passed through its entire cultivation cycle and it becomes mainstream crop in Uganda, like coffee. The training of OP growers supported should aim at enhancing their knowledge to get the maximum returns from their oil palm holdings: this will mean continuous education on all aspects oil palm cultivation from land preparation to harvesting, including pest and diseases identification, crop management and observation, including close collaboration with oil palm researchers and field officers.
- **Researchers:** A long term research and training plan should be developed by NARO aimed to train researchers in key disciplines, especially on oil palm agronomy, physiology, protection (entomology and pathology) to build local knowledge about oil palm. This could eventually be financed with Project resources, or as part of a national strategy for oil palm development. There should also be collaboration with regional and international public and private oil research institutions for learning and use of research facilities as required. NARO is strongly encouraged to engage with the Malaysian Oil Palm Board, where staff can be trained, and to participate in conferences such as the International Palm Oil Congress and Exhibition (PIPOC), where they can gain knowledge and exposure of the oil palm industry.
- **Extension officers**: Extension officers are key to oil palm knowledge dissemination and they should be given iterative education on oil palm agronomy from the private sector partner. On-the job training in OPUL nucleus estates in Uganda and training in other oil palm producing areas in West Africa and Asia offer opportunities to enhance their knowledge.
- **Lecturers/students** at secondary and tertiary levels. More people with knowledge of oil palm will be needed as the industry scales-up, so oil palm agronomy should be included intocurriculums for all levels of agricultural education to ensure continuity in oil palm education at both secondary and tertiary levels of education to build skills.

183. ***Implementation.*** Overall responsibility for this sub-component will lie with the Operations Manager of the PMU, while NARO will be responsible for directing the research programme. This team will also work closely alongside the private partner. The senior management of the PMU must approve the R&D budgets. It will be the responsibility of the PMU Agronomist to gather and collate the research findings from NARO. Working with the M&E and Learning Manager and his/her team, these

research findings must be documented and disseminate to the extension workers and small holder farmers. They should be disseminated through periodic training and updating of the standard operating procedures for oil palm in Uganda. The PMU agronomist should publish an Annual R&D progress report.

Attachment 1: Preparatory activities to be undertaken under VODP2

Activities under VODP2 have been planned to maximize the use of resources for oil palm development and ensure a seamless transition to NOPP. Agreement has been reached with the Government to ensure that certain activities are completed under VODP2 in preparation for NOPP, as follows:

Kalangala Hub

- Conduct a technical and operational review of KOPGT (ToRs already drafted). The review will focus on the efficiency, effectiveness and cost of the services provided to the farmers by KOPGT and the other costs incurred by the small holders under the current production model. It will thus assist in the planning and structuring of finance to cover the cost of these services. It will also contribute to the establishment of national industry benchmarks for performance standards applicable to service provision in the oil palm sector.
- Support KOPGT in establishing a mobile-based payment and accounting system for oil palm growers.

Buvuma Hub

- Complete the land handover to Bidco for the Buvuma Island nucleus estate by the end of December 2017 and finalize the related land titling by the end of June 2018
- Setting up a system for documenting and storing key information on processes followed and agreements reached.
- Provide Bidco with the approximate locations of smallholder oil palm areas on Buvuma Island to enable them to carry out HCV and HCS assessment studies.
- Place the order for seedlings (and pay the related advance) for the first 1,250 hectares of smallholder plantations in Buvuma.
- Finalize the agreement with Bidco for the 10% share in the future company responsible for developing the nucleus estate and mill on Buvuma.
- Recruit the Buvuma Start-up Team and procure the necessary logistic and equipment.
- Initiate the elaboration of the Hub Development Plan for Buvuma, in particular: (i) the identification, registration and mobilization of oil palm smallholders; and (ii) the 'Rapid Physical Planning Assessment'.

Infrastructure[101]

- Complete the construction and rehabilitation of access and farm roads in Kalangala:100 km on Bugala and 40 km each in Bunyama and Bubembe.
- Complete the infrastructure (landing sites) and procure the related ferry services for water transport in Kalangala (connecting Bunyama and Bubembe to Bugala) and Buvuma (connecting the island to mainland).

Environment, Health and Safety[102]

- Develop a comprehensive EHS training programme, including curricula and material for training days as well as EHS standard operating procedures, jointly with the private sector EHS officer;
- Implement the EHS training programme in Kalangala and review for necessary adjustments before replication to other hubs;
- Procure the service provider for the ESIA, ESMP and related studies for Mayuge Hub.
- Develop the Terms of Reference for the SEA in collaboration with IFAD and NEMA.

[101] In case any of these investments will not be completed under VODP2, assurance shall be sought from GoU for appropriate counterpart funding under NOPP.
[102] The implementation of these activities will be under the responsibility of the Environment, Health and Safety Officer to be recruited under VODP2 (see below under Programme Management).

Household Mentoring[103]

- Review and finalize the existing Household Mentoring Guidelines to mainstream HIV/AIDS and nutrition behaviour change elements, as well as to integrate activities with community leaders (in communities targeted) and oil palm production units;
- Support the relevant DLG Community Development officers to prepare all relevant documentation and lead the process of identifying, recruiting and training the Community Mentors.
- Implement the Household Mentoring activities in Kalangala and review for necessary adjustments before replication to other hubs.

Project Management

- Recruit one Environment, Health and Safety Officer and one Sociologist, as staff positions to be continued under NOPP.
- Finalize the process of assessment of current VODP2 interested staff against the positions for NOPP and make recommendations for suitable appointments as well as for positions to be advertised.
- Prepare a draft of: (a) manual for Project operations, financial and human resource management; (b) oil palm guidelines by updating the current ones to reflect the rollout and oil palm hub strategy of NOPP; (c) a framework for the Hub Development Plan (drawing on the matrix in Annex 11);. and (d) the various standard operating procedures for oil palm development (drawing on those defined in Annex 11).
- Develop a Stakeholder Engagement Management Plan, based on the framework provided in Annex 12, Attachment 5.

[103] The implementation of these activities will be under the responsibility of the Sociologist to be recruited under VODP2 (see below under Programme Management).

Attachment 2: Draft terms of reference for consultants and service providers to support sub-component 2.2

(International Consultant). Technical Support in the Integration of Gender and Social Equity - NOPP

The National Oil Palm Project (NOPP) will be implemented from 2018 and 2027 with support from the International Fund for Agricultural Development (IFAD). The Project is fully committed to mainstreaming gender mainstreaming within its management structure, systems and procedures as well as promoting social and gender inclusion. NOPP was designed based on successful approaches used by IFAD in projects in Uganda and beyond, such as catering interventions to the needs of youth, women and households of different socio-economic groups. The Project will also integrate the use of the Gender Action Learning System (GALS) adapted to the local context (referred to as Household Mentoring).

NOPP seeks to hire an international consultant experienced with approaches for gender and social inclusion used by IFAD to build the capacity of NOPP staff. The consultant will facilitate a training session among all NOPP staff and key partners and work with NOPP managers to identify key measures that need to be taken into account by the Project to ensure that its systems and procedures promote social and gender inclusion. The consultant will:

(i) Provide a 3-day training catered to Project context and design. Key content issues to be covered include:
   - Basic gender concepts
   - Internal and programmatic gender mainstreaming
   - Common areas of gender inequality and impact of gender blind development on Project outcomes and sustainability of benefits among targeted households
   - Understanding socio-economic differences at community level
   - The situation and role of youth in Uganda and need for specific targeted interventions
   - Key policies and programmes promoting gender and social inclusion in Uganda
   - Basics of Household Mentoring (as per Project Design Document)

(ii) Facilitate a session to identify key social and gender inclusion measures to be integrated in Project human resource management principles, systems and procedures.

(iii) Produce a concise social and gender inclusion manual covering key issues addressed in the assignment. The document should constitute a concise reference document summarizing basic topics covered in the assignment, including a list of measures identified by to mainstream social and gender inclusion within the management structure, systems and procedures.

Consultant profile: (i) At least 3 years of experience in managing or supporting the promotion of gender and social inclusion in IFAD projects or programmes, including the Gender Action Learning System; (ii) Previous experience in Southern / Eastern Africa; (iii) Proficiency in English.

Household Mentoring Specialist – NOPP (6-9 month consultancy)

The National Oil Palm Project (NOPP) will be integrating the Household Methodology in Project activities with the view to address barriers limiting households´ economic potential and the promotion of gender equality. It is expected that the use of Household Methodologies will enable households to better organize themselves and the use of their resources to achieve better livelihood outcomes, which can be sustained over time.

NOPP seeks to hire a Ugandan Household Mentoring Specialist who can provide consultancy services, as follows:

(i) Review Household Mentoring Manual developed by VODP2 to integrate HIV/AIDS, nutrition considerations, ensure alignment with NOPP design and integrate activities at the oil palm unit level;

(ii) Develop, prepare and implement a skill based training plan to build the capacity of community level mentors;

(iii) Support the process of recruiting Household Mentoring mentors in relevant locations in the District of Kalangala;

(iv) Document and advise NOPP and relevant County and Sub-County Community Development Officers how to organize, coordinate, support and oversee community level mentors;

(v) Provide on-going technical support to the NOPP and implementing team (2 visits over the first 6 months of integration of a Social Development Officer);

The candidate will be expected to: (i) be trained in the use of Household Mentoring; (ii) at least 3 years of training experience on participatory methodologies at community level; (iii) At least 2 years' experience in implementing or supporting Household Mentoring activities, including experience in Uganda; (iv) understanding of behaviours to promote HIV prevention and intersection between gender and HIV; and (iv) speaking relevant local languages will be an advantage.

Household Mentoring Specialist – NOPP - Evaluation of the Household Mentoring Pilot in Kalangala District.

The National Oil Palm Project (NOPP) will be integrating a locally adapted version of the Gender Action Learning System, herein referred to as Household Mentoring in Project activities with the view to address barriers limiting households´ economic potential and the promotion of gender equality. It is expected that the use of Household Methodologies will enable households to better organize themselves and the use of their resources to achieve better livelihood outcomes, which can be sustained over time.

NOPP will initiate its engagement in Household Mentoring by giving continuity to activities implement to a Household Mentoring pilot designed and implemented by the Vegetable Oils Development Project (VODP2) in Kalangala, more specifically, on the islands of Bugala, Bunyama and Bubembe. It is expected that VODP2 implements the first 12 months of the 24-month Household Mentoring cycle, and that NOPP implement the second half of the cycle (months 12-24 of the cycle with the same households). Implementation will be coordinated and implemented in the field by the same mentors and supervisors, what will change is the Project in which the activity is embedded.

Upon completion of this pilot with the "graduation" of mentored households at the end of NOPP year 1, NOPP plans to conduct an evaluation of the pilot experience in Bugala. The evaluation seeks to identify areas that require improvement to reach established goals, and to adapt the Household Mentoring Guidelines as well as fine tune implementation arrangements in place, as needed. NOPP seeks to hire a Regional Household Mentoring Specialist, who can provide short-term consultancy services, as follows:

(i) Design an evaluation methodology to capture Project effectiveness, lessons learnt and best practices with the use of participatory methods involving key players in the implementation of the Household Mentoring approach in NOPP;

(ii) Implement the evaluation, under the premises described above;

(iii) Share findings and discuss recommendations with key stakeholders, including a reduced number of mentors involved in the implementation of the approach in Bugala;

(iv) Review and adapt the existing Household Mentoring Guidelines in line with findings and NOPP objectives.

The candidate (F/M) will be expected to: (i) be trained in the use of Household Mentoring; (ii) at least 3 years of training experience on participatory methodologies at community level; (iii) at least 2 years' experience in implementing or supporting Household Mentoring activities, including experience in Uganda; (iv) experience in participatory evaluation; it will be an advantage to have previous experience in evaluating Household Mentoring interventions; and (v) speaking relevant local languages will be an advantage

ToR for implementation of actions related to HIV/AIDS / gender / nutrition awareness raising activities

NOPP will invite local governments and CBOs to bid individually or as part of a consortium for the implementation of program interventions on HIV/AIDS / gender / nutrition awareness raising in target oil palm communities.

Specific duties. The implementer will be responsible for the management, implementation, monitoring and reporting of the relevant sub-action(s) according to the work plan and budget agreed in the contract. Implementers will be expected to cover the following issues for each of the areas of intervention:

- **HIV/AIDS awareness**: The implementer will align to efforts underway to promote HIV prevention and management related behaviour change at household level through the implementation of household mentoring activities, with the purpose of facilitating widespread dissemination of accurate and comprehensive information at community level to support behaviour change among individuals, households and communities in relation to HIV and AIDS. The intervention will be implemented in all oil palm communities targeted with NOPP investment. Information to be disseminated could include (in alignment with interventions implemented at household level with NOPP support as part of Household Mentoring):
    - Modes of transmission of HIV
    - Behavioural barriers to HIV transmission
    - Living positively with HIV
    - Care and treatment services available in the area
- **Promotion of gender equality:** Messages to be disseminated at community level should be identified through rapid gender inequality assessments carried out in each location by the implementing body (local government or CBO). Potential issues that could be identified for community level dissemination could include:
    - Equality of rights of men and women; dissemination of specific laws protecting the rights of women
    - Benefits of women exerting their rights: when women exert their rights everyone in the household and in the community wins
    - Promotion of key rights: access and control over productive resources – especially land, women´s living free of gender based violence, men and women´s right to equally participate in decision-making at household and community level
    - Services available for legal and psychosocial counselling of women (including any existing services for women victims of domestic violence)

  This intervention will complement other interventions seeking to promote gender equality and women´s empowerment through NOPP´s targeting strategy and the use of Household Mentoring approach at household level. The Household Mentoring Approach will work at the individuals within households and household members jointly to facilitate the identification of barriers that limit the household´s economic potential. Through this participatory methodology households will identify the behaviours that they wish to change – including those through which gender inequality are manifested. Issues such as women´s lack of control over productive resources, limited participation in decision-making, involvement in lower income or unpaid activities, women´s overstretched schedules, gender based violence and limited and at times inappropriate time to rest, among others, are likely to be identified as issues by households.
- **Nutrition awareness raising**: The implementer will conduct rapid nutritional assessments of poor nutrition practices among target communities related to identify priority messages to be disseminated in coordination with NOPP supported Household Mentoring activities and other interventions which could be taking place at community or health facility level related to nutrition. The assessments should at least include the following issues among households of different socio-economic categories:

- Foods available and accessible to households in different times of the year
- Food conservation/storage techniques used
- Distribution of food among household members
- Pregnant and lactating mothers' food intake levels (Dietary diversity scores)
- Infant and child feeding practices
- Common food preparation methods
- Availability and access to supplementary feeding at health facility level or other

Information packages will be developed to progressively cover all key issues identified address the most pressing issues identified above.

Implementers will test all messages to be disseminated for accuracy of understanding among different groups at community level (men and women of different ages and socio-economic groups) before actual implementation. The main method to be used will be community meetings using participatory approaches. However, other methods could be considered if appropriately justified.

Annex 5

Institutional aspects & implementation arrangements

Annex 5: Institutional aspects & implementation arrangements

I. Background

1. Past experience and implementation of partnerships within VODP2 shows the importance of striking the right balance between direct implementation by Project management and outsourcing implementation to independent agencies or private service providers. Particular lessons learned were (a) that the PMU proved to be too small to handle the administrative tasks required – especially regarding procurement; and (b) the expectation that other projects/programmes and agencies would be available and willing to implement various components proved unfounded.

2. Overreliance on a demand-driven approach seeking subsidized services and grants resulted in slow take-up due in part to the lack of a well-established market, a culture of seeking free services, and inadequate scope for pro-active implementation by Project management.

3. Contracting private agencies to implement certain activities had the disadvantages of being costly and adding another layer that sometimes made problem-solving more difficult, though it had the advantage of being able to hold the contractors responsible and terminate the contracts as needed.

4. In light of these lessons, NOPP is designed to provide adequate scope for delivery of services by competent providers on a competitive basis, to promote sustainability as well as cost effectiveness, while giving Project management clear responsibilities and adequate staffing to take primary responsibility for implementation, whether directly or through contracted services, as appropriate. The Project will also provide for overall oversight and coordination through mechanisms that involve agencies directly concerned with Project implementation as well as consultation with complementary projects/programmes.

II. Institutional responsibilities and project management

5. The Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) will be the lead ministry for NOPP, and will work with other line ministries and Government agencies as needed to ensure smooth and effective Project implementation. In line with Government policy, NOPP is a Project with private-sector-driven approach aimed at establishing sustainable business linkages between private companies and smallholder oil palm growers for promoting the production of palm oil nationally. MAAIF will be responsible for and lead the process for putting in place the national policy framework for oil palm development. NOPP will be responsible for coordinating with the private sector partner(s) and developing smallholder oil palm in areas that have been identified as suitable for the crop.

6. **Project Steering Committee (PSC).** A Project Steering Committee (PSC) will be provide overall guidance on Project activities and ensure coordination between different government agencies. It will be established and chaired by MAAIF. The PSC will also be responsible for providing strategic guidance to the Project implementation strategy, overseeing Project planning, reviewing each Annual Work Plan and Budget (AWPB) and Procurement Plan prior to submission to the Fund, and reviewing implementation progress and impact. It will also provide high level advice and address key issues raised by Project management on which it requires guidance. The PSC will also work in close collaboration with the Policy Task Force (see Component 3) to ensure appropriate and timely coordination with other initiatives to strengthen the oil palm sector. The PSC shall meet two times in a year and on an ad-hoc basis as and when necessary.

7. The PSC membership will include representatives from agencies and organisations that are actively engaged in the development of the oil palm sector, including representatives of the public sector (MAAIF, MFPED, NARO, NEMA, Ministry of Trade, Industry and Cooperatives (MTIC); Ministry of Works, MLHUD/ULC, UNRA, Ministry of Local Government, Ministry of Justice, Ministry of Gender, Labour and Social Development (MGLSD); as well as representatives of the future UOPGT and OP grower organisations. PMU will act as secretariat of the PSC. In addition, IFAD, as the lead funding agency, will be invited to attend as observer, as needed.

8. While the PSC will be an inter-ministerial body, the Project will establish other mechanisms to ensure collaboration and policy dialogue with the private sector, farmers' organizations and other interested stakeholders. In particular, the oil palm stakeholder platform (Sub-component 3.1) that is expected to grow out of the policy consultations will provide a forum for broader consultation and policy dialogue among the different stakeholders in the sector.

9. **The Project Management Unit** (PMU). MAAIF shall establish a Project Management Unit (PMU) to handle all Project management and administrative aspects, implement some sub-components, and contract implementation of others. The PMU will also be responsible for financial management, procurement, monitoring and evaluation, and knowledge management. The PMU will take over responsibilities for oil palm development from the already-existing PMU for VODP2.

10. NOPP represents a considerably larger and potentially more complex intervention than VODP2, and there is need to strengthen the current PMU in order to enable it to offer technical leadership in the areas covered by the Project and effectively manage implementation. With an expanded staffing profile comprising 12 professional officers, a new organizational structure is needed. Under NOPP four units or divisions will be established, each with divisional managers, for Operations, for M&E and Learning, for Finance and Administration and for Procurement and Disposal. Under this new arrangement, the Project Manager will have only three direct reports, plus a Secretary. This will lighten the Project Manager's day-to-day management responsibilities, and enable him/her to dedicate more time to the critical representative role required under a Project of this sort.

11. The Operations Manager will manage the following staff: (a) an Oil Palm Agronomist, (b) an Environment, Health and Safety Officer; (c) a Project Engineer; (d) an Engineering Assistant; (e) a Social Development Officer; (f) a Plantation Establishment Manager; and (g) an Institutions, Enterprises and Finance Officer.

12. The M&E and Learning Manager will manage: (a) a KM and Communication Officer; (b) an M&E Officer; and (c) M&E Assistants (one per hub).

13. The Finance Manager will manage: (a) an Accounting Officer; (b) an Accounts Assistant; and (c) an Office Administrator.

14. The Procurement and Contracts Manager will manage a a Procurement Officer.

15. Draft terms of reference for these positions are provided in Attachment 2. All staff will have medical insurance coverage, and GOU will finance its share of the National Social Security Fund (NSSF) contribution.

16. Reporting initially to the PMU, in each of the four new hubs, a Hub Start-up team will be established. Each one will be headed by the Plantation Establishment Manager (para.11), and will comprise a Roads, Terracing and Infrastructure Officer; a Planter; a Lining Gang; an Agronomist/extension specialist; Extension Officers; Logistics and Inventory Specialist; an Accountant; and a Clerk and Credit Officer. The staff of the team may remain in the hub where they provide the start-up support, to become members of the technical support services organization, in which case new staff will be recruited to the team; or they may transfer from one hub to the next as they come on stream.

17. While NOPP builds heavily on the successful implementation of the two phase of VODP, it has different thematic scope as well as institutional and implementation arrangements. The structure of the PMU reflects the differences above and as such it is not appropriate for the current staff of the VODP2 PMU to be automatically reconfirmed under NOPP. At the same time, NOPP would definitely benefit from some of the capacity and expertise built under VODP2. For this, a rapid and transparent process for identifying suitable candidates for the NOPP PMU from the current existing staff in VODP2 will be used, following the positive similar experience in ensuring a smooth transition between other IIFAD-financed projects in Uganda, such as RFSP and PROFIRA. The process will entail the following:

- First, the current VODP2 staff will be free to apply to the new posts (professional and support) under NOPP. Subject to them having the required qualifications and experience for the post, they will be interviewed by a panel set up by the Government in consultation with IFAD and proposed for appointment as appropriate.
- Second, in the event that no suitable internal candidates could be identified for a PMU post, the post will be publicly advertised and a competitive selection process will be followed, with interviews by the same panel above.

18. All staff confirmation, recruitment and contract renewal will be subject to prior approval by IFAD, both at shortlist stage and before final appointment. The process should start early 2018 to ensure a smooth transition between VODP2 and NOPP.

19. The positions of Environmental, Health and Safety Officer and Sociologist, which are already needed under VODP2, will be recruited as soon as possible under VODP2 and carried forward in NOPP.

20. The PMU will be located in an office in Kampala adequate to accommodate its officers. The office will be provided with the necessary equipment (information technology equipment and furniture) and logistical support to enable the officers to effectively undertake their respective duties.

21. The role of the PMU will be to promote oil palm development and provide field support to oil palm growers, and manage NOPP activities financed by IFAD loan funds in accordance with IFAD's General Conditions. It will have the following broad responsibilities:

a) Promoting commercial, smallholder-driven oil palm growing in the country and of global best practices for oil palm production and processing;

b) Establishing and managing activities in OP-growing communities to create alternative economic opportunities and mitigate social risks associated with rapid economic development;

c) Providing leadership on behalf of MAAIF in the development of the national policy framework for oil palm;

d) Ensuring that targeting mechanisms relative to the inclusion of poor rural households, and in particular marginalised groups such as women and youth, are addressed for all Project activities;

e) Managing the relationship with the existing private sector partner for smallholder oil palm development, and the establishment of new relationships with other private sector partners, promoting effective business and field relations between them and smallholder oil palm growers, and resolving possible bottlenecks as they emerge;

f) Guiding the transformation process of KOPGT including: (a) the scaling up the trust function of KOPGT to the UOPGT as a national institution, and the opening of "local Trust windows" within the hubs; and (b) the transformation of the KOPGT secretariat as a producer-owned Technical Support Services organization.

g) Supporting the establishment, strengthening and eventual registration of efficient, representative organizations of smallholder OP growers at hub level;

h) Supervising and managing development financing provided through the Trust (or any successor organization) for oil palm development to ensure the long-term credibility and sustainability of the Trust;

i) Monitoring the re-flows from oil palm growers on Kalangala and ensuring their re-lending to other oil palm growers in Uganda through local Trust windows;

j) Promoting the entry of commercial financial institutions into the oil palm sector and encouraging them to provide long term credit for oil palm establishment by smallholder producers;

k) Leading the establishment of efficient Technical Support Services for smallholder oil palm growers in the new oil palm growing hubs, and managing their transfer to eventual ownership by smallholder OP growers' organizations;

l) Ensuring the implementation of environment, health and safety protection measures by the individual oil palm growers, the hub Technical Support Services and the private sector partner(s);

m) Managing relationships with districts and oil palm grower associations;

n) Coordination with relevant GoU agencies to ensure the construction of access and farm roads and the provision of adequate lake transportation between Bugala and the mainland and Buvuma and the mainland;

o) Developing and implementing a communication and knowledge management strategy to support relations with the public, media, Project partners, civil society and farmers and oil palm growers;

22. In all of these areas, the PMU's principal roles and responsibilities will be to:

(i) Manage for performance the Project activities and IFAD loan and grant funds in accordance with IFAD's General Conditions;

(ii) Liaise with line ministries and other agencies working with the Project as required for ensuring smooth implementation;

(iii) Prepare consolidated annual workplans and budgets (AWPBs) for the Project and submit them to MAAIF and IFAD for comments and approval;

(iv) Procure goods and contract service providers as required, in a timely fashion as required for effective Project implementation, and in accordance with GOU and IFAD procedures;

(v) Putting in place, manage, supervise and monitor performance-based contracts with service providers for the different activities;

(vi) Disburse and control the flow of funds for various contractual and partnership agreements, and ensure timely submission of justification documentation for the smooth flow of funds;

(vii) Ensure gender, youth and poverty targeting and support in line with GoU and IFAD policies and monitor targeting effectiveness;

(viii) Monitor and evaluate physical and financial progress, and develop an efficient knowledge management and Project communication system with all involved partners; and

(ix) Submit Project implementation progress and financial reports to IFAD and GoU in a timely manner.

23. **Implementation responsibilities.** While the PMU will be responsible for guiding and managing Project activities, implementation on the ground will be the responsibility of different institutions. These will include: (a) the NOPP-specific hub start-up teams; (b) local government – the District Local Government Authorities (DLGAs); (c) the private sector – both the private sector partner(s) and financial institutions; (d) civil society organizations – the Uganda Oil Palm Growers' Trust and the OP producers' organizations; and (e) contracted service providers (private companies, NGOs) and individual consultants. The responsibilities for managing and implementing the various Project activities are shown below in Table 24.

Table 24: NOPP management and implementation responsibilities

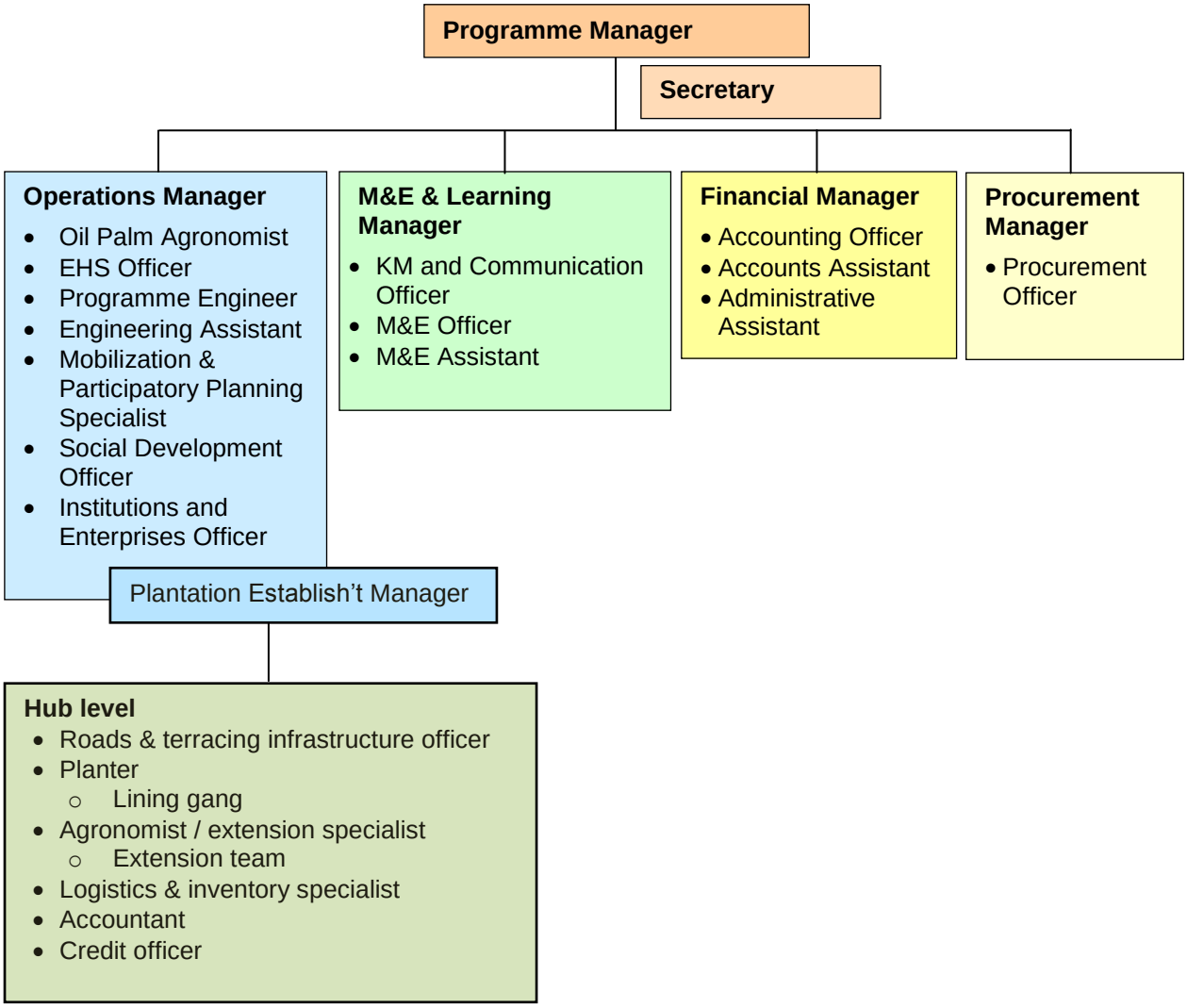
Component / activity	Responsibilities within PMU	Implementing partners
Sensitization and mobilization of OP communities	Plantation Establishment Manager/ Start-up Teams	DGLA
1. Scaling-up investment in smallholder OP development		
1.1 Dev't of smallholder OP plantations		
Oil Palm Hub Development Plan	PMU team, Plantation Establishment Manager	Private sector partner, DLGA
Environmental and social assessments	Environment, Health & Safety Officer	Private sector partner, contracted service provider
Land suitability assessment	Oil Palm Agronomist / Plantation Establishment Manager	Contracted service provider (soil analysis)
Farm mapping/ block grouping	Plantation Establishment Manager / Oil Palm Agronomist	Hub Start up team, DLGA
Crop development	Plantation Establishment Manager / Oil Palm Agronomist	Hub Start up team, DLGA
Financing OP establishment	Institutions, Enterprises and Finance Officer	UOPGT, financial institutions
1.2 Development of OPG organizations		
Farmer organization	Institutions, Enterprises and Finance Officer	Contracted service provider
Tech. support service organiz'ns	Plantation Establishment Manager	Hub start-up team
Environmental health & safety	Environment, Health & Safety Officer	Hub start-up team, private sector partner
1.3 Establishment support infrastructures		
Roads	Project Engineer	DLGA / contracted construction co. or private sector partner(s) / producers' organizations
Buildings	Project Engineer	Contracted construction company

Ferries	Project Engineer	Min. of Works / UNRA
2. Livelihoods diversification and resilience		
2.1 Alternative economic opportunities		
Intensification agric./food prod'n	Operations Manager	DLGA
Incubation of SMEs / savings and loans promotion	Institutions, Enterprises and Finance Officer	Contracted service provider(s)
2.2 Mitigation of social risks		
Household mentoring	Social Development Officer / consultant HH mentoring specialist	DLGA
Community activities	Social Development Officer	DLGA / contracted service provider
Promotion sports and culture	Social Development Officer	DLGA / contracted service provider
Participatory land use planning	Social Development Officer	MLHUD PPD / other stakeholders
Cap. building/land acquisition	Social Development Officer	Consultant
Land tenure security measures	Social Development Officer	Contracted service provider
3. OP Sector Development Framework		
3.1 Policy & institutional support for OP sector development		
OP policy development	M&E & Learning Manager / KM & Communication Officer	MAAIF, other stakeholders
Institutional arrangements	M&E & Learning Manager/ KM & Communication Officer	MAAIF, other stakeholders
OP stakeholder platform	M&E & Learning Manager / KM & Communication Officer	All stakeholders with interest in OP sector
3.2 Strengthening of national capacity for OP research		
OP research priorities	Operations Manager	
Training and capacity dev't	Operations Manager	
3.3 Environment, health and safety (EHS) systems for OP development		
Strategic Environmental Assess't	Environment, Health & Safety Officer	Contracted service provider(s)

24. Critical for ensuring the efficient and effective provision of services by contracted service providers is being sure as to the number and competence of agencies able to provide the needed services. The Project design exercise has confirmed the adequacy and capacities of the institutions and service providers available to provide the anticipated services, particularly under Sub-component 1.2 and Component 2. To guarantee proper performance monitoring and reduce the risk of non-delivery of the desired results by the selected organizations, service providers' contracts will be bound to a detailed delivery schedule comprising of output and outcome indicators, annual budgets, work plans, Project management guidelines, procedures and operating practices for Project execution, that will be developed in the design phase together with monitoring and reporting tools to be used.

25. **NOPP implementation guidelines.** NOPP implementation readiness will be enhanced by a series of operating procedures that will build on those of VODP2, and that will be prepared prior to NOPP start-up. The VODP2 PMU will contract out the preparation of the first draft of (a) Project operations, financial and human resource management manual; (b) up-date of the current oil palm guidelines to reflect the rollout and oil palm hub strategy of NOPP and the business approach of the Project for promoting oil development; and (c) criteria for the selection of oil palm growers and households to benefit from alternative livelihoods activities; targeting mechanisms and how cross-cutting themes will be addressed (sustainable land management and land tenure, environment, gender, youth, and HIV/AIDS).

Attachment 1: Organizational chart for NOPP



Attachment 2: Draft Terms of Reference for key PMU staff

Position
1. NOPP Project Manager
2. Operations Manager
3. Oil Palm Agronomist
4. Environment, Health and Safety Officer
5. Project Engineer
6. Engineering Assistant
7. Mobilization &Participatory Planning Specialist
8. Social Development Officer (sociologist)
9. Institutions, Enterprises and Finance Officer (socio-economist)
10. M&E & Learning Manager
11. KM and Communication Officer
12. M&E Officer
13. Financial Manager
14. Accounting Officer
15. Office Administrator
16. Procurement and Contracts Manager
17. Procurement Officer

1. Project Manager

Draft Terms of Reference

Reporting to the Permanent Secretary MAAIF, the Project Manager will have overall responsibility for ensuring that the Project achieves its expected outcomes and development objective He/she will lead the management team and staff of the PMU, 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 Project planning, both through the annual work plan and budget (AWPB) process and on a day-to-do basis; management of Project implementation; and monitoring and reporting on physical and financial progress.

b) Directly supervise and support the work of the three section managers: the Operations Manager, M&E and Learning Manager and Finance Manager, plus the Procurement Manager; 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 Operational and Financial Management Manual; (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 on time.

d) Identify and guide implementation of training programmes for PMU staff, including technical and management aspects; and equipment/technology packages;

e) Coordinate recruitment of Project administrative and support staff in accordance with procedures detailed in the Project guidelines.

f) Provide strong leadership role in the various activities under Component 3.1, “Policy and institutional support for OP sector development”.

g) Ensure collaboration and networks with relevant organizations for effective Project implementation.

h) Coordinate and facilitate networking and liaison with other stakeholders that provide complementarily and synergy to the Project activities, aims and objectives.

i) 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.

j) Act as the principal spokesperson for the Project; disseminate its objectives, activities and achievements, and its role relative to oil palm development in Uganda more broadly, as authorized by MAAIF.

k) Act as the Secretary to the Project Steering Committee, Impact Management System, and Land Task Force and ensure implementation of the recommendations of the committees.

2. Operations Manager

Draft Terms of Reference

Reporting to the Project Manager, the Operations Manager will have overall responsibility for planning and managing the operational activities under Components 1 and 2 of NOPP. He/she will also be expected to support those policy- and institution-related activities supported under Component 3. The Operations Manager will lead the team of the operations section, and guide and supervise the work of the team members.

The Operations Manager's specific responsibilities and duties will include the following.

a) Co-ordinate and supervise all activities relevant to oil palm development under the Project, and oversee the implementation of the Livelihoods diversification and resilience component.

b) Manage the process of developing section-level work plans and budgets, based on the inputs of the team members of the operations section, and ensure that these are coherent and comprehensive and adhere to the objectives of the Project

c) Define the roles of the various technical staff working on Components 1 and 2 in the planning and implementation of activities in each hub, and plan, organize and supervise their work.

d) Assure quality control of Project activities, including supporting field teams, reviewing work deliverables, and providing value-added feedback.

e) Manage and monitor progress during each phase of hub development.

f) Lead the process of engaging with the local districts & community to source and identify small holder farmers willing to participate in the NOPP

g) Ensure the coordination of NOPP activities with relevant ministries, DLGA's and private partners

h) Coordinate and arrange institutional capacity building to develop the formation of farmer led cooperatives and associations in the oil palm hubs

i) Oversee the acquisition of land for NOPP private partners and infrastructure developments

j) Oversee the land use planning and tenure security activities

k) Support the NOPP Project Manager and carry out any other tasks as requested.

3. Oil Palm Agronomist

Draft Terms of Reference

Reporting to the Operations Manager, the Oil Palm Agronomist will have responsibility for overseeing the successful planning and implementing of the Oil Palm Development Component of NOPP, as well as supporting the agricultural production activities under sub-component 2.1.

The Oil Palm Agronomist's duties and responsibilities will include the following:

a) Provide guidance to the planning team on the suitability of the land for oil palm production

b) Provide technical support in the establishment of oil palm plantations

c) Develop and oversee the implementation of standard operating procedures (SOP) for planting and field husbandry by the extension team

d) Make recommendations for suitable fertilizer regimes based on soil samples of smallholder plots

e) Monitor and liaise with UNBS and any other regulatory body on quality of agro-chemicals and other farm inputs and advice accordingly.

f) In close collaboration with the Knowledge Management Specialist, collate and package information from other institutions and agencies involved in oil palm development for use by farmers, staff and stakeholders.

g) Liaise with NARO and Private Partner on oil palm R&D requirements and feedback latest research findings into the SOP's

h) Collate and document all new information about the agronomy of oil palm in Uganda and produce a quarterly report

i) Carry out a training needs assessment and develop curriculum for farmer training

j) Monitor and evaluate the performance of oil palm plantations and make recommendations for improvements

k) Assist the M&E and Learning group to develop methods for collection, analysis, storage and dissemination of oil palm production data

l) Provide technical support to other team members as requested

m) Supervise and support the District and Sub-county Local Governments in implementing the Intensification of agricultural production activities under sub-component 2.1.

n) In close collaboration with other PMU staff, district and other implementing agencies compile sectional progress reports, work plans and budgets.

o) Any other duties related to the Project's activities, as may be assigned by the Operations Manager.

4. Environment, Health and Safety (EHS) Officer

Draft Terms of Reference

Reporting to the Operations Manager**, t**he primary responsibility of the EHS Officer will be to ensure that good EHS practices are followed by all smallholder OPs supported by NOPP. To do so, the NOPP EHS officer will collaborate closely with the Private Sector's EHS officers in the setting of technical standards, and provide guidance to the OP Hub's EHS focal points in terms of organizing EHS days and further follow up. The NOPP EHS officer will be responsible for convening the EHS Practitioners Group and collecting relevant data to inform the Impact Monitoring System. Finally, the EHS Officer will be responsible for the effective execution of ESIAs and the SEA.

Specific tasks for the EHS officer include:

a) Procure consultants to carry out ESIAs, including ESMPs, for each new location where NOPP support will be provided, and to ensure that these are in compliance with GoU procedures and IFAD's SECAP. Oversee that ESIAs are disclosed in a manner that local stakeholders can access the information, are submitted to NEMA and IFAD in time, and approval by NEMA and IFAD is provided prior to any oil palm development taking place.

b) Jointly with the Private Sector EHS Officer and the respective OP Hub EHS focal point for each of the Hubs: (i) develop tailored EHS Standard Operating Procedures (SOPs) based on those used by the Private Sector partner; (ii) train OP hub EHS focal point in introducing measures for self-governance, such as bylaws and penalties at block or unit level; (iii) develop simple monitoring tools for monitoring uptake of EHS SOPs such as scorecards; and (iv) provide regular support to OP Hubs to address barriers in the uptake of EHS SOPs;

c) For the Kalangala OP Hub and jointly with the NOPP KM Officer, lead the development of training material and training programmes in order for the Kalangala OP Hub to become an EHS Learning Centre;

d) Convene and chair regular EHS Practitioners Group meetings to discuss common issues in implementing EHS issues and to identify ways to overcome these;

e) Collect and synthesize M&E information related to the uptake of EHS SOPs, and compliance with RSPO P&C, to be presented to the Impact Monitoring System;

f) Convene and facilitate meetings of the Impact Monitoring System and present issues identified by the EHS Practitioners Group;

g) Procure and manage a consultant to carry out the SEA, provide guidance from NOPP perspective and facilitate the active participation of key NOPP stakeholders in the development of the SEA

h) Collaborate closely with the NOPP M&E Officer and the KM Officer to (i) ensure implementation of the Stakeholder Engagement Plan, (ii) ensure that relevant EHS information is included in the overall Project reporting; and (iii) ensure that relevant knowledge products such as flyers and short videos are produced to help the further uptake of EHS practices.

5. Project Engineer

Draft Terms of Reference

Reporting to the Operations Manager, the Project Engineer will have responsibility for overseeing the successful planning and implementation of the civil works activities in the Project.

The Project Engineer's duties and responsibilities will include;

a) Plan and design civil works of such projects as roads, ferry landing sites, buildings etc, to ensure they are built according to professionally drafted plans.

b) Provide technical back-up and advice to farmers and local governments to plan for farm infrastructure in Project areas.

c) Ensure approval of new projects is duly done by Municipal/ City/ District authorities before projects are implemented.

d) Prepare terms of reference for the feasibility studies for new investment projects.

e) Work closely with users and Procurement unit in making annual work plans/budgets and Procurement plans.

f) Develop scope of work including specifications, bills of quantities, TORs, architectural and work drawings of all civil works related projects.

g) Pre-review and post-review of the bidding documents especially regarding the technical specifications and plans of work.

h) Participate in bid evaluations for supplies, works, and services.

i) Supervise civil, mechanical and electrical works for constructions, operations and maintenance activities at project sites.

j) Review and recommend requests for contract variations for timely and necessary action, issue any required variations or change orders.

k) Supervise and monitor civil works service providers to meet all performance and delivery obligations.

l) Ensure inspection of works, evaluate contractor invoices and interim certificates before contractors are paid.

m) Ensure contract management records are kept and archived as required.

n) Manage handover and acceptance procedures, submit reports on the progress or completion of the contracts as required.

o) Prepare reporting formats, checklists and guidelines, as necessary to facilitate, supplement and document for construction work as well as various activities envisaged.

p) Prepare status reports(monthly, quarterly progress reports,progress briefs) on construction work implementation.

q) Undertake other duties and responsibilities related to Project work as directed by the Operations Manager.

6. Engineering Assistant

Draft Terms of Reference

Reporting to the Project Engineer, the Engineering Assistant will assist the Project Engineer in planning and implementation of the civil works activities in the Project.

The Engineering Assistant's duties and responsibilities will include to:

a) Carry out field surveys and data collection for purposes of preparing plans and designs for civil works projects such as roads, ferry landing sites, buildings, etc.

b) Supervise civil, mechanical and electrical works for constructions, operations and maintenance activities at project sites.

c) Work with local governments to train farmers on maintenance of access and farm roads

d) Supervise and monitor civil works service providers to meet all performance and delivery obligations.

e) Work with farmers and local governments to plan for farm infrastructure in Project areas.

f) Prepare drawings, bills of quantities and specifications for civil works related projects.

g) Participate in bid evaluations for supplies, works, and services.

h) Inspect works, review contractor's invoices and interim certificates and recommend to the Project Engineer for certification.

i) Keep contract management records and close file on completion of all contract obligations.

j) Prepare reports on the progress of the works as required

k) Undertake other duties and responsibilities related to Project work as directed by the Project Engineer**.**

7. Mobilization & Participatory Planning Specialist

Draft Terms of Reference

Reporting to the Operations Manager, the Mobilization and Participatory Planning Specialist will lead the Project's outreach to smallholder farmers and their mobilization as participants in Project activities, and for the development of the Oil Palm Hub Development Plans. In this, he/she will work closely with other members of the Operations team in the PMU, the members of the Hub Start-up team, and the district local government.

Specific responsibilities will include to:

(a) Reach out to the identified communities in the OP hubs to explain the Project's scope and the opportunities it offers to rural households, both as OP growers and as participants on other Project activities.

(b) Identify, mobilise and register smallholder OP growers, giving attention both issues of capacity and of social inclusion.

(c) Identify the preparatory activities, assessments studies needed to feed into the OP Hub Development Plan; determine responsibilities for conducting them; and oversee the conducting of them.

(d) Draw up the requirements of the Hub Development Plan, define the responsibilities for its different elements, manage the drafting of inputs, and take responsibility for its overall preparation.

(e) Use the Hub Development Plan as a basis for providing guidance to the Hub Start-up team as to their required activities, phasing etc.

(f) Provide training on NOPP-specific outreach and mobilization of farmers to PMU and Hub-Start-up team members, as well as district local government staff.

(g) Monitor implementation progress of Hub Development Plans.

(h) Undertake other duties and responsibilities related to Project work as directed by the Operations Manager.

8. Social Development Officer (sociologist)

Draft Terms of Reference

Reporting to the Operations Manager, the Social Development Officer is responsible for ensuring high standards of social performance of NOPP operations at all stages of the project cycle. This will entail managing all social activities considered under the Project, using data and learning from the field to fine-tune Project strategies, and feeding Project learning around social inclusion, youth and gender mainstreaming to local and national policy dialogue.

The specific duties and responsibilities of the Social Development Officer will include:

a) Guiding and overseeing community sensitization processes, ensuring that key information reaches all intended target groups, that beneficiary selection is transparent and in line with pre-defined criteria and that all target groups participate in relevant Project decision-making processes.

b) Managing the effective implementation of NOPP´s gender and youth strategy in close coordination with other team members.

c) Providing support to team members responsible for Component 1 and Sub-Component 2.1 to ensure that Project strategies promote social inclusion and avoid unintended negative social consequences.

d) Identify emerging opportunities to reach male and female youth and the promotion of gender equality and wider social inclusion in Project activities.

e) Liaising with local stakeholders regularly to disseminate information about social risk mitigation activities considered by NOPP, seek alignment and coordination of NOPP social processes and interventions in target communities and assess collective progress. Specific areas or intervention include: the fight against HIV/AIDS, promotion of food security, addressing malnutrition, gender equality, effectively targeting women and youth, inclusive participation in local governance processes.

f) Manage the process of identifying service providers and partners to implement relevant Project activities (NOPP Sub-Component 2.2); provide oversight and support towards expected results of each specific intervention.

g) Ensure that information from the field and data generated by the Project, as well as learning's captured from supervision missions and other reviews are used to fine-tune Project strategies.

h) Participate in national level fora related to youth empowerment and gender equality so as to ensure that NOPP is aligned with emerging policies and lessons learnt from other projects and programmes and actively shares best practices and lessons learnt to feed into policy development processes.

i) Any other duties as may be assigned from time to time related to the Project´s social performance.

9. Institutions, Enterprise and Finance Officer (socio-economist)

Draft Terms of Reference

Reporting to the Operations Manager, the Institutions, Enterprise and Finance Officer will be responsible for three broad sets of activities: (a) supporting the financial operations of KOPGT and the related processes of institutional development and transformation (the national trust, the support service providers and the farmers' organizations); (b) managing those activities under sub-component 2.1 to enable households to identify and develop small and micro rural enterprises, through both the establishment of incubation centres in each of the hubs and the promotion of savings and loans through local financial organizations; and (c) working closely with commercial and development finance institutions in Uganda, with a view to incentivizing them to offer credit and other financial services for oil palm growers and OP growing communities.

The specific duties and responsibilities of the Institutions, Enterprise and Finance Officer will include:

a) Support KOPGT in performing its development credit functions: e.g. assist it to streamline the farmer loan ledgers, develop and ratify its operational manuals, and train OP producers in credit management and financial literacy.

b) Monitor the growth and quality of the loans portfolio to ensure compliance to agreed policies and procedures, and routinely review oil palm loans given and follow up loan repayment by producers according to the repayment schedule

c) Oversee the roll out of the farmers management information system (MIS) and farmers loan statement and its replication, and guide the development of a loan monitoring and reporting system for integration in the NOPP M&E system.

d) Monitor the financial re-flows from oil palm growers on Kalangala and ensure their re-lending to other oil palm growers in Uganda through local Trust windows.

e) Guide the implementation of the road map for the institutional transformation of KOPGT, to its new status as a national-level trust, or similar.

f) Support the development and management of the hub-level support service providers, and guiding and supporting their transformation into farmer-owned organizations/companies.

g) Manage the activities to establish and build the capacities of organizations of smallholder OP producers.

h) Guide and supervise the implementation by contracted organization(s), of those activities under Sub-component 2.1 for establishing business incubation services for SMEs and for promoting improved access to financial services.

i) Develop and conduct training activities aimed at promoting a culture of savings among the targeted population.

j) In partnership with PROFIRA and rural financial institutions, design and implement a strategy to promote lending to the NOPP target group for enterprise development.

k) Develop and implement a financial linkage strategy aimed at enabling the financial institutions to accurately assess the risks of offering long-term and seasonal credit to smallholder OP growers.

l) Assist interested banks and other financial institutions to develop financial products (and other services), and lending procedures and methodologies, tailored and targeted to the requirements of smallholder OP growers beneficiaries.

m) Identify knowledge gaps and organize exposure visits and training platforms for the banks and other financial institutions to get better understanding of the oil palm business/sector.

n) Develop and implement approaches to support the Hubs in making known to the targeted rural households the financial products available for oil palm and enterprise development.

o) Provide support in ensuring that updated information on commercial bank lending is reflected in the MIS, and in collaboration with the M&E Officer monitor the growth and quality of the loans portfolio.

p) With the participating banks conduct reviews of lending experience as it emerges, and assist them to modify their products and methodologies as necessary to align them to the evolving changes and achievements in the oil palm sector.

q) Any other duties as may be assigned from time to time.

10. Monitoring & Evaluation and Learning Manager

Draft Terms of Reference

The M&E coordinator 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; and for the communication of Project activities, achievements and lessons learned. He/she will also have specific responsibility for managing, and managing Component 3.1, "Policy and institutional support for OP sector development".

Specific tasks of the M&E and Learning Manager will include:

a) Working in collaboration with other PMU 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.

b) Guide, support, supervise and monitor the work of the M&E Officer and KM and Communication Officer.

c) Support the M&E officer in designing of the central M&E system that will serve the NOPP needs during the Project implementation and will eventually become the national oil palm sector database. This will require working in close coordination with all stakeholders to assess the data and information needs for the national oil palm 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.

d) 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.

e) 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, with an interest in oil palm development in Uganda.

f) Manage on a day-to-day basis the various activities under Component 3.1, "Policy and institutional support for OP sector development".

g) Lead, guide and coordinate the Project annual work planning and budgeting process.

h) Ensure timely preparation of quarterly and annual Project progress reports. Analyze the progress reports and identify lessons learned and potential bottlenecks for Project implementation, if/when relevant, and inform the Project management accordingly.

11. Monitoring and Evaluation Officer

Draft Terms of Reference

Reporting to the M&E and Learning Manager, the Monitoring and Evaluation Officer will be responsible for the establishment and operation of a sound monitoring and evaluation system in line with the Project objectives and approachthat ensures systematic and regular collection of a high-quality data and timely availability of such data for the Project management, the oil palm sector, IFAD task team and other decision makers.

The Monitoring & Evaluation Officer's duties and responsibilities include the following:

a) Supported by a short-term consultant, and in close collaboration with the M&E and Learning Officer, develop a web-based central M&E system for NOPP that on one hand can be used to measure achievement of outputs, outcomes and Project impacts; and on the other can serve as a data base for the oil palm sector as a whole; and ensure systematic and regular collection of relevant data.

b) Develop guidelines for implementation of the M&E activities, for use by staff at different levels of implementation of the Project, including data collection, processing, recording, reporting and knowledge management.

c) Guide, support and supervise the M&E assistants, identify their training needs and organize training for them, and ensure that they receive the required support.

d) Coordinate an efficient operation and maintenance of the central M&E system and ensure that the system can produce reliable data whenever a need for such data arises.

e) Ensure that the Project's Logical and Results Frameworks are updated with reliable information and data and submitted to the IFAD in timely manner.

f) In consultation with the M&E and Learning Manager, facilitate the preparation of activity-based annual work plans and budgets: organize and facilitate the Annual Review Workshops, AWPB Workshops, supervision missions and other technical backstopping missions.

g) In consultation with the M&E and Learning Manager, coordinate the preparation of, and disseminate, the Project's periodic progress reports.

h) Design and prepare terms of reference for baseline, mid-term and impact assessment surveys, and guide and supervise the external agencies sub-contracted for implementation of such assignments.

i) In coordination with the PMU technical team, identify relevant thematic study areas, plan and supervise the implementation of the studies and/or survey, review the resulting reports, and provide a first level of quality control on these.

j) In coordination with the PMU technical team and OPGTs, develop a survey methodology for the oil palm yield monitoring and ensure its timely and periodic monitoring.

k) Coordinate timely implementation and reporting of environmental and social assessments and monitoring.

l) Undertake an assessment of M&E staff training requirements and organize short training courses for the Project team and stakeholders, as needed.

m) Contribute to the preparation of the Project Implementation and Financial Manuals.

n) Any other duty related to the Project's activities as may be assigned by the M&E and Learning Manager.

12. Communication and Knowledge Management Officer

Draft Terms of Reference

Reporting to the M&E and Learning Manager 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 then develop and implement creative communication strategy for NOPP.

b) Continuously review and improve the Project communication strategies and materials to ensure effectiveness.

c) Develop, manage and fulfil a demanding 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.

d) Provide functional direction to special events and in particular with reference to activities in the oil palm component, such as product launch, oil palm production, commissioning of works with special emphasis on effective use of the media.

e) Prepare user-friendly information sheets that detail key facts and figures about oil palm development.

f) Identify potentially contentious issues related to oil palm development, and deal with them through planned approaches that are appropriate to the target audiences (including the media).

g) Liaise with MAAIF communication unit staff and advise NOPP Managers / officers on media engagement.

h) Synthesize reports and write thematic case studies, lessons learned and stories about successes emerging from NOPP implementation; package them and ensure that they are shared within the country programme, with Government and other development partners in and outside Uganda.

i) Support the oil palm 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 sharing are fully embedded in Project management and implementation.

k) Design and implement training activities for Project staff, government partners and other NOPP 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 Manager.

13. Financial Manager

Draft Terms of Reference

Financial Controller's duties and responsibilities include:

a) Contributing to the preparation of the Project Implementation and Financial Manuals.

b) Ensuring 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.

c) Facilitating the timely disbursement of funds to the various accounting units.

d) Compiling the SOEs for PMU, the districts, headquarters and other implementing agencies for submission to the Ministry of Finance Economic Planning and Development.

e) Liaising 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.

f) Preparing financial reports and advising the Project Manager on the Project's financial status and trends.

g) Ensuring adherence to Government of Uganda's financial practices and circulars as issued from time to time.

h) Facilitating and ensuring that external auditors are availed all necessary documents during the audit as detailed in the loan agreement.

i) Any other duty (related to the Project's activities) as may be assigned by the Project Manager.

14. Accountant

Draft Terms of Reference

Reporting to the Project Financial Controller, the Accountant will be responsible for maintaining an efficient and accurate Accounting function.

The duties and responsibilities of the Accountant will include:

a) Assist in the preparation of Annual Work Plans and budgets (AWPBs).

b) Prepare monthly reconciliations of the Bank and Cashbook.

c) Prepare monthly accountability schedules of individual advances.

d) Make appropriate accounting entries for PMU payments in the accounting system.

e) Receive and review accountabilities for funds advanced to officers to carry out Project activities.

f) Carry out proper filling of all accounting documents.

g) Maintain an accurate fixed asset register.

h) Prepare payment vouchers according to the approved AWPBs.

i) Follow up daily payments between PMU and MAAIF.

j) Help in the reconciliation of the Special Account.

k) Assist in the preparation of monthly, quarterly and annual financial reports.

l) Perform any other duties assigned by the supervisors.

m) Ensures all payments and related transactions are kept up to date on computerized accounting system.

15. Office Administrator

Draft Terms of Reference

Reporting to the Financial Manager, the Administrative Assistant will provide administrative support to the NOPP.

Duties and responsibilities of the Administrative Assistant will include general clerical, receptionist and Project based work. Specific responsibilities include;

a) Answer telephones and transfer to appropriate PMU staff.

b) Perform general clerical duties to include: photocopying, faxing, mailing (sign for and distribute courier packages), filing, compiling, transcribing and distributing minutes of meetings.

c) Maintain hard copy and electronic filing system for the Project.

d) Coordinate and maintain records for PMU staff office space, phones and office keys.

e) Maintain and distribute PMU staff weekly travel schedules.

f) Responsible for logistics including booking of accommodation in Kampala and in the Project area.

g) Schedule meetings/calendar events and remind the relevant persons on the meetings.

h) Open, sort and distribute incoming correspondence, including faxes and email.

i) File and retrieve organizational documents, records and reports.

j) Arrange for the repair and maintenance of office equipment.

k) Assist Project Manager, Communication Officer, M & E Officer in special events, commissioning of works, product launch, annual review workshops etc.

l) Carry out other duties as may be assigned by the Financial Manager.

m) Oversee all aspects of general office coordination.

16. Procurement and Contracts Manager

Draft Terms of Reference

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) Planning and controlling procurement activities of the Project.

b) Liaising with other staff of the PMU and compile all procurement requirements of the Project.

c) Preparing periodic reports to Contracts Committee, PPDA and other stakeholders.

d) Ensuring compliance and conformity with legal and regulatory framework governing public procurements.

e) Providing timely advice to the Project Manager, contracts committee and other stakeholders on matters relating to procurement and disposal.

f) Liaising with the Project Manager and Financial Controller to ensure availability of funds for procurements and timely payment for procurement commitments.

g) Preparing solicitation/Bid 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 by the Project Manager.

17. Procurement Officer

Draft Terms of Reference

Reporting to the Procurement and Contracts Manager, the Procurement Officer's specific duties and responsibilities will include:-

a) Sourcing for quotations from suppliers;

b) Receive purchases and check requests from throughout the Project;

c) In liaison with the Administrative Assistant, order office supplies;

d) Prepare purchase orders;

e) Maintain contact with vendors regarding orders and coordinate purchasing;

f) Receive, inspect, and distribute procured goods and equipment and files damage claims with suppliers;

g) Conduct annual project inventory, prepare inventory listings to include the location and status of all equipment;

h) Evaluate the quality and appropriateness of supplies and equipment; conduct cost/quality comparisons prior to submitting requests to the Financial Controller;

i) Confer with PMU staff to determine purchasing needs and specifications for simple supplies.

j) Perform related work as required.

Attachment 3: Draft terms of reference for hub start-up team

Plantation Establishment Manager

The Plantation Establishment Manager reports to the PMU Operations Manager and has overall responsibility for the development and planting out of the oil palm hub as per the oil palm hub development plan.

This position requires a person who has had min 10 years' experience in managing agricultural projects and experience in the setting up of oil palm plantations. It is likely that the person to fill the position will be sourced from the oil palm sector in South East Asia. The sector private partner may be of assistance in identifying suitable candidates for the post.

Specific responsibilities will include:

a) Monitor daily hub development operations in blocks and unit, ensuring that all activities are implemented on time and according to specification, and within budget

b) Develop work plans for the different parts of the hub development plan in coordination with the different PMU line managers.

c) Lead and coordinate the hub development activities: Road& bridge construction, Land clearing, terracing, planting, logistics and transport of inputs and seedlings, extension and training

d) Ensure efficiency of the start-up teams activities in achieving their objectives.

e) Provide guidance to the start-up teams staff

f) Plan, monitor and control the role out of the oil palm hub for all component 1 activities

g) Provide monthly reports on the progress of the hubs role out

h) Set up SOP documents and policies to guide and govern work activities and the use of PMU resources together with the PMU Operations Manager

Roads, Terracing and Infrastructure Specialist

Reporting to the Project Engineer, the Roads, Terracing and Infrastructure Officer will assist the Project Engineer and Plantation Establishment Manager in the planning and implementation of the civil works activities in the Project. The Roads Terracing and Infrastructure Officer duties and responsibilities will include;

a) Carry out field surveys and data collection for purposes of preparing plans and designs for civil works projects such as roads, ferry landing sites, buildings, etc.

b) Supervise civil, mechanical and electrical works for constructions, operations and maintenance activities at project sites

c) Work with local governments to train farmers on maintenance of access and farm roads

d) Supervise and monitor civil works service providers to meet all performance and delivery obligations.

e) Work with farmers and local governments to plan for farm infrastructure in Project areas.

f) Prepare drawings, bills of quantities and specifications for civil works related projects.

g) Participate in bid evaluations for supplies, works, and services.

h) Inspect works, review contractor's invoices and interim certificates and recommend to the Project Engineer for certification.

i) Keep contract management records and close file on completion of all contract obligations.

j) Prepare reports on the progress of the works as required

k) Undertake other duties and responsibilities related to programme work as directed by the Operations Manager

Planter

The Planter will report to the plantation establishment manager. The planter will provide direct oversight and organization of the layout and planting of smallholder plantations. This post should be filled by an individual with experience from within the oil palm sector in Uganda. It is likely that skilled staff can be attracted from the current plantations in Kalangala; though if not, he/she will need to be sourced from the oil palm sector in SE Asia. The private sector partner may be of assistance in identifying suitable candidates for the post.

Specific responsibilities will include the following:

a) Manage a team of lining staff, directing and ensuring that the plantations are laid out correctly according to industry standards

b) Liaising with farmers and extension staff to ensure that resources are on the ground to dig the holes for the palms

c) Check the small holder fields have been cleared and prepared according to industry standards

d) Ensure synchronized planting of all blocks and units

e) Ensure the correct amounts of fertilizers are applied at planting

f) Compile daily and weekly progress reports on the areas planted

g) Compile daily and weekly planting programs to guide the rest of the team

Lining Gang

The Lining Gang will report to the planter. They will be responsible for the lay out and marking of the planting holes for the small holder oil palm plantations.

Agronomist / Extension Specialist

The Agronomist / Extension Specialist will report to the Plantation Establishment Manager, as well as liaising directly with the oil palm agronomist in the PMU. The specialist, who should have at least 5 years' working experience, will be expected to educate and be a source of knowledge and technical support to farmers and extension staff on the good agricultural practices of oil palm.

a) With the technical support of an oil palm expert, compile an extension officers training syllabus, to be used for the training of extension workers in the field under the NOPP

b) Provide and distribute knowledge to farmers and extension staff about oil palm

c) Train and supervise extension staff and train farmers

d) Ensure that the correct field husbandry and agronomy practices are being implemented in the plantations by farmers and extension staff

e) Liaise with the logistics and inventory specialist as to where and when and what inputs are required.

Extension officers

The Extension Officers will report to the oil palm agronomist and extension specialist. The officers, who should all have a minimum of 5 years' experience working directly with farmers and hold an agricultural qualification, will have as their main responsibilities to:

a) Provide direct oversight to farmers on the agronomy and field husbandry practices

b) Conduct in field training sessions on the correct use and application of fertilizers and crop protection products

c) Ensure OHS standards are being followed and implemented by farmers

d) Monitor and evaluate the progress and successful establishment of the oil palm plantations.

e) Provide support to the lining team, and oversee the planting exercise of the oil palms by the farmers.

f) Plan and coordinate the gap filling exercises with farmers

Logistics and Inventory Specialist

The Logistics and Inventory Specialist will report to the plantation establishment manager. The overall objective of this role is to ensure that planting material and inputs are supplied on time, to specification and in the required location, and to control and record the movement of stock. Multiple locations and a fleet of vehicles with different operations will require good planning and a high level of organisation. Specific responsibilities will include:

a) Manage and control the movement of all planting materials, inputs and diesel

b) Ensure that adequate stock is available at all times according to the programs requirements

c) Plan and control and register the distribution of all inputs to small holder farmers

d) Ensure that all stock is safe and secure at all times

e) Maintain stock register/bin cards

f) Conduct daily inventory control of all items in stock

g) Compile daily and weekly stock usage reports

h) Provide quarterly forecasts

Accountant

Reporting to the PMU Financial Manager and the plantation establishment Manager, the Accountant will be responsible for daily administration of financial and accounting practices of the Hub. Specific responsibilities will include the following:

a) Develop accounting and financial management systems and reports

b) Perform accounting duties as directed, including budgeting and costing control

c) Compile and control budget, with analysis of monthly reports against budgets

d) Interpret the statistical and accounting information to appraise operating results in terms of cost, budgets, and policies of operation, trends and increased profit possibilities

e) Analyse and interpret monthly operating or project performance against budget

f) Assist management in preparing documentation for budgeting and financial reporting procedures

g) Maintain general ledger

h) Calculate cost pricing of work in progress and stock items

i) Cost and price stock items, including in-progress and finished products

j) Produce daily and periodic cost statements

k) Prepare and maintain accounting documents and records

l) Prepare bank deposits, general ledger postings and statements

Credit Officer

The credit officer will report to the PMU Financial Manager. The credit officer's responsibilities are to evaluate and authorize loans to smallholder farmers under NOPP. The credit officer should work along with the UOPGT and Private partner. Specific responsibilities to include:

a) Appraise the loan applications of locally registered farmers for establishment of OP plantations;

b) Manage loans to farmers and loan recovery;

c) Receive OPUL payments on behalf of growers, deduct OPGs' loan repayments and make payments to their accounts (this function is to be transferred to farmer organizations over time);

d) Put in place a verification system to check actual FFB yield forecast against FFB delivery in order to flag side selling;

e) Develop a system to keep records on repayments and track FFB delivery to the mill;

f) Identify smallholders that default on loans and advise the PMU; and

g) Produce documentation to advise borrowers on financial status and payment system.

Annex 6

Planning, M&E and learning and knowledge management

Annex 6: Planning, M&E and learning and knowledge management

1. The M&E and Learning Unit of the Project Management Unit(PMU) will have responsibility for the preparation of the annual work plan and budget, progress monitoring, results and risks M&E, reporting, knowledge management and communication. To implement this range of activities, its existing M&E team will be strengthened, to comprise an M&E & Learning Manager, who will be supported by a Knowledge Management (KM) and Communication Officer, an additional M&E Officer for the national office in Kampala, and one M&E assistant for each oil palm development hub. However, M&E will be a part of the job of all PMU members, and so the M&E & Learning Manager will work closely with all of them in defining the M&E framework and analysing the data generated.

2. **Planning**. The GoU financial year runs from July to June, and its budgeting cycle starts in September for the financial year commencing the subsequent July. Planning and budgeting under NOPP will be integrated into the GoU performance-based budgeting process, while simultaneously responding to IFAD's requirements; and it will be based on Annual Work Plans and Budgets (AWPBs) that will form the backbone of Project planning. These, together with the Logframe's quantified results-based indicators and NOPP MIS input/output database, will be the primary basis for monitoring the Project's progress.

3. The PMU will have overall responsibility for the AWPB process. The process will be one that offers the opportunity for flexibility in the management of the Project, so as to better achieve the Project's outcomes. The AWPB itself will be based on the annual implementation plans for the different sections of the PMU, and it will offer the opportunity for Project Manager and the PMU team to reflect on the lessons from the implementation experience of the previous years; in the light of this, propose the activities and associated expenditures required to achieve the intended Project outcomes; and structure the AWPB accordingly.

Results-based Monitoring & Evaluation (M&E)

4. The M&E system under the Project will be based on the Logical Framework of the Project and in full compliance with IFAD's Results and Impact Management System (RIMS); and as such it will allow for both performance monitoring and impact evaluation. The existing VODP-2 M&E system will be strengthened to respond to the new programmatic approach for oil palm sector development, and to consolidate results and lessons in a centralized M&E system; the detailed design will be carried out in PY 1. The system will be designed to allow for interlinkages with the agricultural sector M&E, and as such, it will support the overall M&E systems of MAAIF and GoU. In doing so, the Project will use the existing M&E system of VODP-2.

5. The M&E system will also draw on a consolidated NOPP management information system (MIS), designed to be capable of providing a reliable and complete set of data support sectoral decision-making, programming and planning and to assess and demonstrate impacts of sector investments. This will integrate as far as possible electronic capture and storage (database) of Project data, and operationalise an efficient collection, analysis and retrieval of Project-related technical and implementation information. The presentation of data will be web-based, with a dashboard that presents the Project achievements and sector progress, while also feeding the internal and external Project communication activities.

6. On the one hand, the M&E system will have a very Project-specific function. In broad terms it will serve to enable the PMU to monitor its physical and financial performance and to adjust its strategy accordingly, particularly through the AWPB process. All data related to participation of the target group will be disaggregated by gender and age (youth versus non-youth) and, thus, a very specific purpose will be to monitor the Project targeting strategy and to fine tune this as necessary. On the other hand, the system will be designed to allow its evolution into the M&E system for the entire Ugandan oil palm sector, including both public and private sector, and incorporating land use, environmental and social (and including EHS), and other relevant issues.

7. The system will incorporate data, information and knowledge relevant for effectively monitoring the sector on a day-to-day basis: this will be based on an aggregation of data that starts at the level of the individual OP producer. Building on the already existing farmer information system, the system will make it possible to map, and to track the field husbandry activities and the production and

performance of, each individual producer. Data will be aggregated at unit, block and hub levels, and the information generated fed back to the PMU and collated onto a central database.

8. In terms of methodology, a mixed methods approach to M&E will be adopted, which will draw on and combine quantitative and qualitative methodologies. M&E tools and approaches that are cost-effective, practical and, wherever possible, participatory will be adopted to promote transparency and sustainability of the M&E system, and ensure a triangulated assessment that draws on the voices of the beneficiaries themselves, as well as national and district implementing agencies, district level government, oil palm support organizations and involved private sector enterprises. Such approaches can also strengthen the capacities of oil palm growing communities and their organizations to engage in discussions around the Project and so increase their ownership over it and their agency.

9. Major building blocks of the M&E system will include: (a) impact evaluation, reflected in baseline, mid-term and final impact assessments (with separate and distinct assessments for each hub); (b) a Project Completion Report, to review implementation performance, to be submitted to IFAD within 6 months of Project completion; (c) outcome assessments, conducted every two years; (d) a Mid-Term Review (MTR), conducted towards the end of the Project's fifth year, which will serve to review progress and performance, identify bottlenecks and issues, and recommend possible adjustments to the content and financing of the Project components, the targeting strategy, and the implementation responsibilities and approaches over the remainder of the Project period; and (e) Project progress monitoring, through (for GoU) quarterly and (for GOU and IFAD) semesterly and annual progress reports, which will present Project's physical and financial progresses structured by components and sub-components and its conformity with the implementation schedule, indicate compliance with legal provisions, and highlight key implementation issues.

10. To conduct the full range of M&E activities envisaged, provision will be made for the recruitment of a consultant at Project start-up to assist with re-designing the M&E framework and strategy, designing the baseline survey and developing methodologies for monitoring oil palm yields and farm practices; additional support may be provided in subsequent years. Further provision is made to contract out the conducting of the baseline survey for each hub, as well as those at mid-term and completion; for the outcome assessments; and for thematic studies, on specific topics to be defined during the course of implementation. Further provision will be made for an exposure visit for the key M&E officers of the PMU and MAIFF to a country with a sound M&E system for the oil palm sector and capacity building on M&E for participants involved in M&E activities.

11. In addition to the M&E system as a whole, an Environmental and Social Management System (ESMS) has also been integrated into the design of NOPP, in a way that places emphasis on the smallholders' adoption of good practices in EHS. This is described in more detail in Annex 12, Attachment 6.

Knowledge management (KM).

12. The KM function in the Project will draw heavily on the data, information and analysis generated by the M&E function, and it will in turn serve a number of key purposes; among them: (a) bringing operational experience to national policy processes; (b) analysing implementation experience and lessons learned, to inform the PMU and enable it to make strategic and operational decisions based on evidence; and (c) documenting best practice and Project successes, to communicate to different sorts of Project stakeholders (from farmers at one extreme, to advocacy NGOs at the other) using a range of different media.

13. The tools used will be appropriate to the purpose: 'policy briefs' or 'learning notes', documenting best practices, lessons learnt and failures, will be used for policy dialogue and sharing with stakeholders and other projects/programmes. A regular short NOPP e-newsletter to Project stakeholders, implementers and trainers will be developed to share experience and highlight new learning notes. Within NOPP, the strong people-private-public partnership (4P) will allow for upgrading technical and operational knowledge and practices on smallholder oil palm development in Uganda, but also to build gradually appropriate technical expertise in this area at all levels, from fields to decision-making levels. NOPP will also facilitate identification of knowledge gaps and development of strategies and mechanisms for filling these gaps, including through participation oil palm sector stakeholders and organisations in knowledge networks and study tours for technical knowledge sharing.

Communication

14. The need for an effective communication strategy, and function, is paramount under this Project. On one hand, NOPP involves working with many different stakeholders, including OP growers, non-OP growing households in OP growing communities, the larger OP growing communities, the private sector partners, local government, contracted service providers, national government agencies, etc, at different levels from villages to ministries. This requires that NOPP reaches out to all of them, informs and engages them, and ensures their interest and commitment to the Project's success. On the other, and on the basis of the experience of VODP, NOPP is likely to be a Project that attracts public interest, scrutiny and potentially suspicion. Globally, oil palm development has been heavily criticised for the unsustainable environmental practices and flaunting of the land rights of local communities, in some cases with good justification. In Uganda, VODP has been discredited by some (inaccurate) media reports and activists claiming that it has cleared forests in violation of the terms of the country's environmental regulations, it has promoted land-grabbing and it has resulted in the pollution of Lake Victoria with fertilizers and other agrochemicals. NOPP's response has both to ensure that its environmental and social practices are beyond reproach; and to communicate these, as well as the real benefits of oil palm development in Uganda, to interested parties.

15. As part of the process of designing NOPP, a communication strategy has been drafted, and its main elements follow. The **main objective** of this strategy is to address this challenge and aim to:

- proactively engage and build awareness of NOPP among audiences
- demonstrate that oil palm investment is transforming the life of the smallholder farmers and their communities
- change the behavior and perceptions of some donor communities operating in Uganda and some NGOs and activists
- ensure the oil palm out-growers and non out-growers understand what the project is doing in their communities and their respective role.
- identify key audiences and create targeted messages accordingly

16. **The audiences** will be segmented so the NOPP messages can be tailored and therefore outreach target audiences much more effectively. The following groups constitute broad audience and are considered "targets" for communication on NOPP. The goal is to actively transmit them positive messages of oil palm investments' benefits; how rural transformation can occur rapidly with such investments. Below is a brief analysis of each audience.

17. Primary audiences will include:

- **Beneficiaries and the local communities**: they are one of the primary audiences. NOPP needs to share information with them, consider their point of view and promote their participation to ensure the Progamme's sustainability. Particular attention to non-OP growers. Regular sensitization meetings should be organized by the PMU to clearly explain to them the benefits of oil palm and the impact on their communities.

- **Uganda Government (Office of the Prime Minister, Ministry of Finance, Ministry of Agriculture, Fisheries and Animal Health, Ministry of Local Government, Ministry of Foreign Affairs, District Local Governments, etc.) and Parliamentarians**: Uganda's political elite should have a clear understanding of NOPP – particularly since Parliamentarians are responsible for approving NOPP before it can be implemented. Both the executive and legislative branches of Government are important for ensuring the successful development of oil palm investments in the country. They should be regularly briefed about NOPP through appropriate channels.

- **Development Partners operating in Uganda**: will be an important audience. They influence the local development agenda and, to some extent, the opinion of the Government and civil society organizations. NOPP must clearly communicate to them the results, impacts and best practices of oil palm investments in Uganda and; frequent contact should be maintained with this community. They should also be invited to visit the ongoing and future oil palm activities

to allow then to see first-hand the impacts of the oil palm on the livelihoods of the smallholder farmers.

- **Non-governmental organizations (NGOS) and civil society organizations (CSOs)**: NGOs and CSOs are important audiences because they are listened to by donors, governments and the general public. To successfully implement NOPP, dialogue with these communities is important, particularly the environmentalists and the activist. They should be fully briefed about the oil palm activities, the impacts and given a chance to visit the hubs.

- **Media**: journalists and editors of the local and regional media are the priority target audience. The media are both an audience and a tool for reaching the remaining audiences. Most journalists will write their own pieces based on the information provided; so they need to be provided with as much relevant information, videos, photographs and resources people as possible, with a very clear focus on NOPP key messages. Interviews with project staff and/or field trips should be organized periodically. They need to be informed properly since they are opinion leaders for most Ugandans and are listened to by the political elite as well as the general public. The Project Communication Officer needs to sensitize journalists through organized field visits, to improve the media's understanding of NOPP.

- **Financial institutions/Banks**: NOPP will adopt an explicit strategy to engage financial institutions in the provision of financial services to the oil palm sector. They should therefore also be specifically targeted by the Project's communication efforts, to support that strategy and make clear the potential value of the oil palm sector to the banks.

18. Secondary audiences will include the following:

- **Private sector**: the private sector more broadly, ranging from global corporations to local foundations, small businesses and individuals, can also be valuable advocates for NOPP.

- **Academia**: outreach to universities may benefit the successful implementation of NOPP.

- **General public**: although this group is not involved directly in NOPP, it is important to keep general public informed on the impacts of the project

19. **Messages**. The basis for any effective communication is a set of strongly elaborated, clearly defined messages. Key messages should be defined and incorporated into NOPP daily activities in order to enable the partners and key NOPP staff to confidently and efficiently act as communicators for NOPP. The core messages must be repeated constantly keeping in mind that a good communication includes storytelling. Below are a few examples of messages which NOPP can build on for specific audiences and opportunities to maximize impact.

Box 1 - Key communication messages

- **We are fully convinced that the NOPP** will be another very successful example of a public private partnership, creating economic opportunities for smallholder farmers and thus contributing to improving their livelihoods and reducing rural poverty in Uganda.
- **Land was acquired by the Government** on a willing-buyer willing-seller basis and will lease to the private sector.
- **Oil palmhas been more effective** than most commodity crops in reducing poverty, because of the high returns per hectare.
- **Oil palmis a highly sustainable**, energy-efficient crop, generating nearly 10 times the energy it consumes.
- **Oil palmuses less land** than other oilseeds such as rapeseed, sunflower and soybean, which require twice or three times as much land to produce the same quantity.
- **Oil palmplantations that are only** replanted once every 25 years sequester more carbon than other oilseed crops that require annual replanting.
- **Oil palm produces less carbon emissions** than other biofuel sources such as soybean and rapeseed.
- **Oil palm is energy efficient** because milling is powered by the waste of the processed fruits.
- **Oil palm plantations funded by IFAD** are not developed on protected areas.
- **NOPP will link smallholder farmers to an agro-industrial processor**, provide poor farmers with a sustainable livelihood and improve the infrastructures in their communities. Many men, women and children of poor farming households will benefit from a new source of income.
- **Domestic oil palm production** is top national priority to the Government.
- **IFAD and BIDCO share the same concern about Ugandan's poorest people** and share the same objectives of increasing the well-being and living standards of poor people.
- **Smallholder farmers participating into NOPP** will be receiving a fair price for their fruit.
- **IFAD works very closely with the Ugandan Government**, ensuring that all its projects including NOPP help poor rural people to adhere to national laws and regulations and involve local farmers and communities.
- **BIDCO applies the highest environmental standards** in all its activities. For example, its refinery in Jinja is in compliance with ISO 14000 standards, and development of oil palm plantations has been in compliance with all of the provisions establishment by the Ugandan National Environment Management Authority (NEMA).
- **IFAD, through field presence and constant monitoring** of its operations, can also ensure that NOPP complies with the highest standards for natural resources management and environmental conservation No protected forest areas or wetlands will be planted with oil palm trees, and a 200-metre protection border to the lake will be rigorously respected.
- **BIDCO contributes to the Government's Prosperity** for all programmes through: value addition, promoting an on-farm productive activity and engaging in HIV/Aids prevention and health programmes, and is supporting a number of socio-economic programmes.
- **IFAD and the Government of Uganda** have worked together for over 35 years in improving the lives and increase the incomes of poor farmers.
- **The consumption of fats and oils in the diet of Ugandans** is less than 50% of what is required. BIDCO provides highly-needed nutritious oil and hygiene products to Ugandans at a price every family can afford. It is the only such company actively reaching out to poor consumers in rural areas.

20. **Communication channels and tools**. One-off efforts have a very short shelf-life. Once the best communication channel is identified for each audience, it should be regularly fed with updates on NOPP's work. The following channels of communication are identified to be the most appropriate to communicating NOPP’s key messages, activities, results, impacts and best practices to the audiences based on the goals to be reached:

- **Media (Newspapers, Magazines, Televisions, and Radios etc.)**: it is important to use the power of media to promote NOPP. All communication materials related to NOPP, such as press releases, backgrounders, newsletters, factsheets etc., should be shared with targeted national, regional and international (based in Uganda) media toencourage them to cover the NOPP activities. Offering interviews to media with the representative of the partners of NOPP (Government of Uganda, IFAD and BIDCO) and organizing press trips to the project areas will also contribute to increase the visibility of NOPP. NOPP Communication Officer should have an updated list of contacts of the major Media in the country including the correspondents of the international media based in Uganda and build a good working relation with them.
- **Press release**: is a strong tool to communicate with media. Press releases should be issued for all newsworthy activities and events where NOPP has a strong and positive message to share.
- **Web**: to reach audiences such as governments, development partners, private sector, media etc., it is essential that NOPP has its own web site with up-to-date information. NOPP Communication Officer should be given access to upload or modify information on site.
- **Video**: feature stories are strong advocacy tools. Video should be produced based on the impacts of NOPP that will present the greatest potential for media interest and pickup.
- **Photos**: a picture is worth more than thousand words. There is the need to have updated and new pictures to document NOPP activities and impacts. A photo mission should be organized to take pictures all long the project life.
- **Social media**: social media channels present a good opportunity to promote NOPP's work and to reach variety of audiences. Facebook is a powerful tool to interact with the young people. NOPP should create its Facebook page managed by the Communication Officer. Twitter is the fastest way to disseminate information. The majority of people on Twitter follow some form of news account, journalists the most popular. Social media is not all about interactivity. The importance of trusted information sources remains paramount even in Twitter. Identifying key Ugandan journalists active on Twitter and engage them will help in increasing the number of advocates. A Twitter account should be created for NOPP. NOPP Communication Officer is already active on Twitter through his personal account. NOPP relevant stories and successes should be promoted through the project official social media channels accounts.
- **Storytelling**: stories from the field are appealing for journalists and donor governments. When NOPP starts, we need to identify more stories from its activities and share these with our audiences through our various channels of communication.
- **Rural radio**: this is the number one communication tool in the context of the areas. Effective use of this tool will help to reach our beneficiaries and share information on NOPP. It will also help raise awareness about the project in rural communities. Some key rural radios can be identified and partnered with them.
- **Posters (drawing) and drama**: is a power tool to be used to share information with the stakeholders in rural areas especially those that cannot write.
- **Internal communication**: is used to facilitate the flow of information within all the project stakeholders, including the staff and beneficiaries. It is the Project manager's responsibility to ensure that each stakeholder fully understands the project and the roles of those involved. The Project manager should regularly and pro-actively identify any gaps in the information, resolve any image problems, and find ways to communicate with their stakeholders on a regular basis.

21. **Communication plan.** The success of this communication strategy will depend on its implementation, hence the need for a communication plan (summarized in Attachment 1 as a road map for the next 24 months). A good communication plan should not be ambitious but should take into account the resources and communication tools available and accessible.

22. **Risk management and mitigation**. Based on the experience of VODP2, much work has been done to correct the negative perception on the oil palm investment – land grabbing and environmental issue. Although local media's perception of the Kalangala oil palm project has changed dramatically,

NOPP partners – GoU, IFAD and the private sector BIDCO – should be prepared for eventual attack from some international NGOs and activists when the Project kicks off. When there is an emergency that has an impact on the partners' image during the implementation of NOPP, it will be managed jointly and in close collaboration so they can speak with the same voice by:

- setting up a crisis management task force composed of the Project Coordinator, IFAD Country Director and the Manager of BIDCO Director COM, Field Communication Leader, Strategic Communication Leader, Director ESA, Regional Economist/Portfolio Adviser, Regional Communication Officer for WCA, NOPP Communication Officer and BIDCO Communication Officer.
- monitoring from all side media articles related to NOPP reputation in the region,
- evaluating the situation and proposing an appropriate response under the guidance of the task force,
- generating appropriate reactive lines for the potential spokespersons – NOPP Project Manager, IFAD Country,
- No partner should speak on behalf of another one if there was no prior agreement
- If it is an emergency that impact only IFAD's reputation, the Communication and the Regional Directors should be alerted. In this specific case, IFAD will apply its crisis management policy in place.

23. The effectiveness of the communication strategy will be assessed on the basis of simple parameters such as:

- feedback from internal and external audiences on activities, communication materials and experience sharing,
- increase in the media coverage on NOPP activities,
- more awareness about NOPP amongst our audiences,
- during the visit of the Project areas, the Communication Officer should ask participants whether they thought the visit was useful, what their thoughts are about NOPP and how they think the visits could be improved. Then build their comments into the next visit,
- when giving media interviews on NOPP, the Communication Officer should ask journalists whether the responses were relevant, if they need more time or further information.
- knowledge and understanding of the audiences, of NOPP work in the context of the Ugandan government's poverty eradication efforts"?

24. Once the communications strategy has been finalized and approved within the PMU, the Communication Officer will share the document internally so that staff are conversant with the content. For implementation, each PMU staff should be aware of their own communications responsibilities and specifically lines of communication are established.

Attachment 1: National oil palm communication road map 15 July 2017 – 15 July 2019

Communication Activities	Audiences	Deadline	Responsibility	Budget
Sensitization about the project by Technical assistance service providers using posters or drama etc.	Local communities: oil palm out growers and non-growers	To start no later than end July 2017	Ministry of Agriculture/VODP2	To be defined
Call the Agriculture sectorial working group meeting in Kalangala followed by field visit	Development partners working in Uganda	By end of Nov 2017	Invitation through the Government of Uganda	Each participant will bear own cost
Media trip to Kalangala	National media and International media	By 10 Dec 2017	VODP2	VODP2
Press release upon the approval of NOPP	National media	Mid-Dec 2017	IFAD COM/VODP2 COM	At no cost
Setup a feedback mechanism system	Local communities: oil palm out growers and non-growers	End – Dec 2017	VODP2/IFAD COM	To be defined
IEC/NOPP Materials development /dissemination	Government Official Parliamentarians Government Official Parliamentarians Development partners Media Private sector NGOs Financial Institution Academia Beneficiaries General public	Jan to Feb 2018	VODP 2	To be defined
Building of NOPP Facebook page	Government Official Parliamentarians Development partners Media Private sector NGOs Financial Institution Academia Beneficiaries General public	By March 2018	VODP2/NOPP Communication Officer	At no cost
Media training in Kampala for all the partners of NOPP (IFAD-NOPP staff and BISCO) handled by Professional Trainer to speaking one voice when talking about NOPP and during an unforeseen risk	IFAD Country Director IFAD Country Programme Officer VODP/NOPP Project Manager VODP/NOPP Monitoring Evaluation Officer VODP/NOPP Communication Officer BIDCO Manager BIDCO Communication Officer	By March 2018	IFAD Communication Division can help in identifying a suitable Professional Trainer	NOPP
Building of NOPP Web site	Government Official Parliamentarians Government Official Parliamentarians Development partners Media Private sector NGOs Financial Institution Academia Beneficiaries	By March 2018	NOPP Communication Officer	NOPP

	General Public			
Launching of the Poverty mapping using PIALA methodology	Government Official Parliamentarians Government Official Parliamentarians Development partners Media Private sector NGOs Financial Institution Academia	April 2018	NOPP	At no cost
Informal presentation of Poverty mapping using PIALA methodology to national media and international media based in Kampala	National media International media in Kampala	By the first week of May 2018	NOPP	Refreshment for journalists NOPP
Posting of Poverty mapping – PIALA methodology on the Facebook and on the Web site	All audiences	By the first week of May 2018	NOPP	At no cost
Publication of the first newsletter on NOPP	Government Official Parliamentarians Development partners Media Private sector NGOs Financial Institution Academia General public	First week of June 2018	NOPP	Layout Proofreading Printing costs
Media trip to Kalangala	National media and International media	By Mid July 2018	VODP2	VODP2
Loan signing of NOPP loan agreement	National media and International media	By end July 2018	IFAD	At no cost
Preparation of panels for the project sides as visual identity	Beneficiaries and local community General public	By the end of Aug 2018	NOPP	NOPP
Publication of the second newsletter on NOPP	Government Official Parliamentarians Development partners Media Private sector NGOs Financial Institution Academia General public	First week of Nov 2018	NOPP	Layout Proofreading Printing costs
Launching of the impact assessment on local economy by University of California David using Lewie methodology	Government Official Parliamentarians Development partners Media Private sector NGOs Financial Institution Academia	First week Feb 2019	NOPP	At no cost

Informal presentation to national and international media based in Kampala of the impact assessment on local economy by University of California David using Lewie methodology	Media	First week of March 2019	NOPP	Refreshment for journalists NOPP
Publication of the third newsletter on NOPP	Government Official Parliamentarians Development partners Media Private sector NGOs Financial Institution Academia	First week of March 2019	NOPP	Layout Proofreading Printing costs
Posting of the impact assessment on local economy by University of California David using Lewie methodology on the Facebook and on the Web site	All audiences	By the second week of May 2018	NOPP	At no cost
NOPP Start-up workshop in Uganda	Government Official Parliamentarians Development partners Media Private sector NGOs Financial Institution Beneficiaries	By 15 July 2019	IFAD NOPP	IFAD NOPP

Annex 7

Financial management and disbursement arrangements

Annex 7: Financial management and disbursement arrangements

I. Context and GoU fiduciary requirements

1. ***Integrated Financial Management System (IFMS).*** The GoU is rolling out its Integrated Financial Management System (IFMS). This rollout includes development projects such as VODP2 and, therefore, NOPP. VODP2 is slated to be rolled on with effect from fiscal year 2017/18. Another IFAD funded project PROFIRA has already been rolled on IFMS while PRELNOR is in advanced stages. The Accountant General's office, Ministry of Finance Planning and Economic Development, has developed an IFMS module meant to cover all the financial management needs of a development/ donor funded project such as NOPP. GoU's ultimate intention is to phase-out stand-alone, off the shelf accounting packages given that IFMS will be able to handle both disbursement and accounting requirements. However, the experience under PROFIRA is that it is yet to be practically proven that indeed IFMS projects module can handle the basic project accounting demands including among others generating expenditure trends component-wise, category-wise, and financier-wise. There is not yet any project (whether IFAD financed or not) where the IFMS project module has been tested in terms of its ability to handle project accounting demands in the basic key dimensions. What is known is that IFMS is proving to be a powerful disbursement tool enforcing the required segregation of duties and budget discipline (at GoU budget coding level). In the interim, projects like PROFIRA are supplementing IFMS with simple off the shelf accounting packages. Under this arrangement, IFMS performs as the disbursement tools and the stand alone accounting software is used to generate financial reports in the various requirement dimensions. This is meant to be a stop-gap measure until such a time it is practically proven that IFMS can handle project accounting demands. As part of final acceptability of IFMS practical demonstration of handling First in First Out Exchange rates will be necessary.

2. ***Treasury Single Account (TSA***). As an extension to the roll-out of IFMS, GoU is moving towards the Treasury Single Account (TSA) approach thereby phasing out the multitude of bank accounts including for development/ donor funded projects. This is meant to enhance GoU's fiscal management. The TSA arrangement was reviewed extensively during the design of PRELNOR and IFAD agreed to the arrangement subject to some safe guards especially at the local government's level. Therefore, NOPP is supposed to be the second project into the TSA arrangement. Briefly, under the TSA arrangement, each development partner such as IFAD will have one holding accounting held at Bank of Uganda to receive all funds for the entire portfolio. Through specific project coding within IFMS and approved budget estimates, the received funds will be earmarked/ tagged to the respective project and thereafter "swept" into the consolidated fund (TSA). IFAD agreed to pilot test the TSA arrangement using PRELNOR. The process has been rather slow. PRELNOR is not yet rolled on IFMS and being the only one using the holding account it is currently operating not differently from conventional designated account; basically the TSA is yet to be effected for this project in its second year of implementation.

3. As part of NOPP design, a Financial Management Assessment (FMA) has been done in accordance with guidelines provided by IFAD's Financial Management Division (FMD). The assessment was based at the PMU of VODP2 Kampala because NOPP will be adopting similar processes and procedures. There are some modifications to account for transactions under component 2 and the increased number of hubs under component 1. The PMU-based assessment was combined with the mission's prior understanding of the operations of similar structures as will apply under NOPP such as the Kalangala Oil Palm Growers Trust (KOPGT), MAIIF processes, GoU's move to the use of Treasury Single Account (TSA), and district level disbursement arrangements.

4. In accordance with FMD guidelines, this annex has been arranged under the following headings:

- Summary of financial management arrangements covering: (i) the strengths and weaknesses of the FM arrangements; (ii) overall financial management risk rating; (iii) the capacity constraints that will need to be addressed; (iv) any suggested operating changes; and (v) proposed exceptions to IFAD's general conditions.

- Project financial profile
- Implementing and participating organizations with fiduciary responsibilities
- Inherent risks and country issues
- Project control risks with suggested mitigations

II. Summary of financial management arrangements

5. The ***strengths and weaknesses*** in the FM arrangements are summarised below

Strengths	Weaknesses
• In the existing PMU there is a qualified and experienced Financial Controller (FC), an accountant and assistant accountant. • The FM team has been trained and have experience in IFAD disbursement processes. • There is adequate segregation of duties in the proposed use of IFMS under NOPP. For a payment to go through IFMS, each stage requires an online approval by the concerned officials. No payment can be processed by a single person at alone. • Simple off shelf accounting software will supplement any reporting needs that cannot be handled by IFMS.	• Under component 2 dealing with financial management at district level will create some accountability challenges as experienced in other projects. Some remedial actions have been proposed. • At hub level, the relatively young Farmer Organisations (FOs) will be relying on technical service providers to manage funds/ disbursement of loans to farmers. Similar challenges as experienced under KOPGT in its initial years are anticipated. • If MAAIF does not delegate the payment processes to the PMU through the IFMS system, the long delays faced under VODP2 may recur. Payment lead times of 1-2 months have seriously affected disbursement under VODP2. • If the National Oil Palm Trust is not formed expeditiously with authority to retain and manage loan reflows, the target of 12,000 ha for smallholder oil palm growers may not be achieved.

6. The following ***capacity constraints*** will need to be addressed. There are also a few operating changes that will be needed:

- The young Farmer Organisations (FOs) at hub level will initially need to be supported in financial management. The proposed technical support will include an accountant and credit officer.
- There is need for the Permanent Secretary (PS), MAIIF, to delegate payment processing authority to the PMU using IFMS in order to reduce on the delays in payment processing cycle.
- The participating districts that will be managing funds (mainly under component2) that are not on IFMS tier 1 will have to open specific NOPP bank accounts.
- For NOPP to operate within the TSA arrangement, Ministry of Finance as the official borrower will have to provide assurance to IFAD that any unused funds already "swept into the TSA" at the end of fiscal year will not lapse as is usually the case for mainstream government funds.
- Under the TSA arrangement, IFAD will relax the requirement for physical bank statements to be attached to withdrawal applications (supporting form 104). Printouts from IFMS certified by a designated official (s) to confirm fund balances will work in lieu of conventional bank statements.

7. ***Overall financial management risk rating*****.** Uganda's inherent risk is **high** as measured by Transparency International's Corruption Perceptions Index (CPI).The 2016 Transparency International Corruption Perception Index for Uganda score rating was 25 (High Risk), same as the 2015 index. Uganda's ranking was 151stout of 176 countries in 2016 and ranked 139thout of 168 in 2015. In the World Bank's Ease of Doing Business 2016 Report, the ranking of Uganda (out of 190 countries) improved from 135 in 2015 to 115 in 2016.IFAD's rural sector performance score is also a high risk (3). At project level, the assessment shows a high risk. Appropriate mitigation measures have been designed such as supplementing IFMS with simple off the shelf accounting software, technical services to support the young

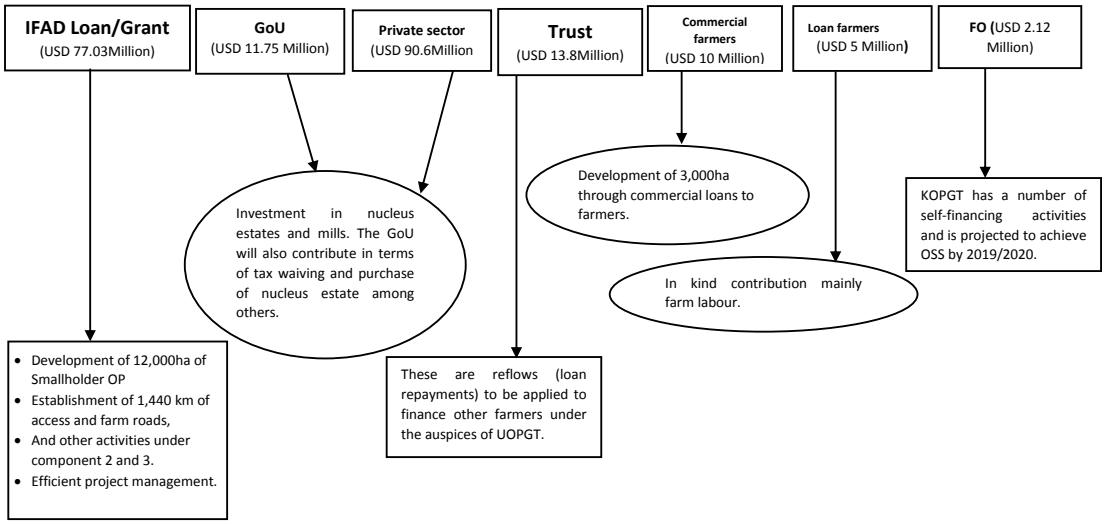
Farmer Organisation at hub level, profiling of IFMS at project level to be a disbursement condition among others.

8. There are no proposed exceptions to IFAD's general conditions except for the fact that a conventional designated account will be replaced with a pooled Treasury Single Account as already agreed between IFAD and GoU in the process of approving PRELNOR project. The audit opinions on the operation of the designated accounts will be slightly rephrased to reflect the TSA arrangement.

III. Project financial profile

9. ***Project costs and financing.*** The total cost of NOPP inclusive of taxes and duties is estimated at USD 210.4million (UGX 814.5 billion), including a base cost of USD 207 million (UGX 734.8 billion), price and physical contingencies of USD 3.46 million (UGX 79.7 billion). This includes both the 'development' activities, focused on smallholder OP producers and rural communities, and the costs of the nucleus estate and associated oil mills. See Chart 1 below for financing plan.

Chart 1: Financing Plan



10. ***Retroactive financing.*** NOPP will be a follow-on project to VODP2, which still has a lot of funds to disburse. Therefore, there is no need for retroactive financing under NOPP, since urgent and critical activities such as the environmental assessment in Mayuge will be financed under VODP2.

11. ***Start-up advance****.* IFAD encourages the use of a start-up advance for related activities. An amount of USD 500,000 is proposed and can be disbursement after entry into force.

12. ***Accounting for beneficiaries' contribution.*** Smallholder oil palm farmers are expected to contribute land on which to develop their oil palm farms and 25% of labour in-kind. Spontaneous farmers are expected to contribute their own funds to develop oil palm. These will be consistently quantified and reported upon given that they have been included in the NOPP financing plan.

13. ***NOPP expenditure centres.*** Project expenditures are to be spent at different implementing levels as follows. The funds flow chart as described in Attachment 1 takes into account this spread of implementing centres.

14. The following will be the key NOPP spending units and/ cost centres:

- PMU
- Farmer Organisation (FO) at Kalangala
- FO at Buvuma- supported by technical service providers

- FO at Mayuge hub
- FO at hub 3- supported by technical service providers
- FO at hub 4- supported by technical service providers
- Each of the participating districts (component 2)
- Uganda Oil Palm Growers Trust (UOPGT)

15. In line with IFAD's standard expenditure categories, the following are the categories that will be used in schedule 2 to the financing agreement. 10% from each category will be deducted and put under unallocated line to be reallocated as implementation progresses.

	IFAD Loan	IFAD Grant	Brief description of eligible activities USD 000
	USD	USD	
I. Credit and Guarantee Funds[104]	23,753	-	Development loans to farmers from year 1 to year 5 to cover farm oil palm investment costs. Year 5 will cover only fertilizer support. Included is also some provision for Access to Alternative farm/non-farm livelihoods opportunities
II. Works	7,803	-	Includes farm roads, access roads and fertilizer stores
IV. Goods, Services and Inputs[105]	32,712	1,209	Various and cuts across all components
V. Vehicles[106]	2,046	-	Mainly covers the trucks for oil palm development
VII. Salaries and Allowances	6,974	-	Not only PMU, but also hire staff supporting farmer organizations at the hubs, as well as Policy and institutional framework for national OP sector and National technical knowledge base for OP
VIII. Operating Costs	2,453	-	Various and cuts across all components
Unallocated			
	75,830	**1,209**	

[105] Includes equipment, materials, and consultancies, contracts for service provision, training and workshops.
[106] This includes ferries and water barges

IV. Implementing and Participating Organizations with Fiduciary Responsibilities

16. The ***Lead Project Implementing Agency*** (LPA) will be the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) through a dedicated Project Management Unit (Unit) and is accountable to the Parliament of the Republic of Uganda. The Permanent Secretary of MAAIF will, therefore, be the accounting officer to Parliament for NOPP funds. The roles and responsibilities of the other implementing organizations/ centres are explained below.

17. The ***Project Management Unit (PMU).*** The PMU will be the overall accounting hub. The PMU as the overall accounting hub will be responsible for:

a) Budget consolidation ensuring a bottom-up approach and timely submissions for inclusions in GoU overall approved budget estimates;
b) Procurement planning, execution and support service;
c) Disbursement of funds through IFMS (including advances to other implementing centres),
d) Management of withdrawal applications;
e) Financial reporting and audits will be consolidated and handled through the PMU.
f) Any requests for No Objection to IFAD will emanate from the PMU.

18. ***Farmers Organisation (FO)***. Oil palm farmers within a given hub will be organised and supported to grow into a strong Farmers Organisation (FO).Given that these will be initially young FOs, they will be supported by Technical Service Providers. Their financial management roles will include:

a) Overseeing the farmers loans approval cycle in accordance with set criteria and processes
b) Management of input stores (fertilisers and agro-chemicals)
c) Disbursement of inputs in kind to farmers and ensuring famers loan accounts are debited for inputs received (fertilisers, agro-chemicals, seedlings)
d) Disbursement of cash loans for farm maintenance ensuring respective farmer loan accounts are debited

19. ***Districts***. Participating Districts have some activities under component 2 Sustainable livelihoods. This complicates the financial management somehow but is not avoidable. Unfortunately given that hub3 and hub 4 have not yet been firmly identified, it is difficult to assess whether these districts are already on IFMS or not. Overall it appears most of these districts are on a lower version of IFMS such that follow-up of advances will require opening of specific NOPP bank accounts. The basic role of the participating districts will be to receive and to account for activity tagged advances in line with instructions from the PMU. The PMU will provide suitable templates to enable the districts to provide acceptable accountabilities of advances received.

20. ***The Uganda Oil Palm Growers Trust (UOPGT).***This is the consolidation point for receiving and revolving farmer loan repayments throughout the country. A mechanism will be established whereby all loan repayments in line with the pricing formula are passed on to UOPGT which essentially will be a Fund. The UOPGT will be set-up as an autonomous Fund able to make investment decisions including on-lending to emerging oil palm growers in such a way that the value of the reflows are not eroded by inflation. Both the Farmer Organisations and UOPGT be audited as going-concern entities by private auditors appointed by their respective AGMs as recommended by the respective Boards. In addition, the Auditor General in the process of auditing the NOPP will be at liberty to access everything concerning the transactions of the Farmer Organisations and UOPGT

V. Financial Management Risk Assessment

A. Inherent Risks and Country Issues

21. Uganda's inherent risk is high as measured by Transparency International's Corruption Perceptions Index (CPI).The 2016 Transparency International Corruption Perception Index for Uganda score rating was 25 (High Risk), same as the 2015 score of 25. Uganda's ranking was 151st out of 176 countries in

2016 and ranked 139th out of 168 in 2015. In the World Bank's Ease of Doing Business 2016 Report, the ranking of Uganda (out of 190 countries) improved from 135 in 2015 to 115 in 2016.IFAD's Rural Sector Performance also shows a high risk (3).

22. 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

23. 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

24. The last Public Expenditure and Financial Accountability (PEFA) assessment report was issued in 2012 based on progress for the period from Nov/Dec 2008 to Jun/July 2012. Weak performances were identified in the following areas::i) lack of budget credibility and related expenditure arrears still significantly high; ii) completeness and oversight of donor financed project reporting to MoFPED; and iii) payroll controls and transparency, competition and complaints mechanisms in procurement. On the other hand, the areas of accounting, recording and reporting were timely due to the rollout of IFMS with comprehensive and reliable financial statements at an acceptable level, although not in full compliance with international standards. There were improvements in cash management and in the closer follow up of external audit recommendations in management letters and final response. A major PFM reform programme FINMAP, co-ordinated by MOFPED, financed by GoU and five development partners, in which WB is supporting specific activities, is underway since July 2011 and expected to be complete by June 2017.

B. Project Control Risks

. Summary of FM Risks and Mitigating Actions

	Initial Risk Assessment	Proposed mitigation in section	Final Risk Assessment
Inherent Risk			
1. TI Index (25)	-	-	H
2. IFAD's RSP (3)			
Entity and project design			
1. Use of Treasury Single Account (TSA) possesses some risks	H	VI-C	H
2. Need to submit AWPB for the following FY in August (2 month after implementation of current year)	H	VI-B	H
Control Risks			
1. Organisation and Staffing	H	VI-A	M
2. Budgeting	H	VI-B	H
3. Funds Flow and Disbursement arrangements	H	VI-C	H
4. Internal Controls	H	VI-D	H
5. Accounting systems, Policies and Procedures	H	VI-E	M

6. Reporting and Monitoring	L	VI-F	L
7. Internal Audit	M	VI-G	L
8. External Audit	L	VI-H	L
NOPP Fiduciary Risk @ Design	**H**		**M**

VI. Financial Management and Disbursement Arrangements

A. Financial Management Organization and Staffing

25. ***Context/ planned arrangement*.** Under this area, the objective is to ensure that staff will be adequate in terms of numbers, skills, capabilities and experience. The following staff positions have been provided for to ensure adequate financial control environment.

a) ***PMU***
- Finance Manager
- Accountant
- Assistant Accountant

b) ***Farmer Organisation within each hub***
- Accountant
- Credit Officer

c) ***District level***
- Designated Project Accountant (PA)

d) ***Uganda Oil Palm Growers Trust-*** TBD

26. ***Fiduciary risk analysis.*** The option of using Farmers' Organisations (FOs) to run NOPP operations at hub level was assessed from a fiduciary risk perspective. The experience VODP is that using young FOs starts off with a number of challenges and risks that gradually get resolved with substantial implementation support. In addition, dealing with districts generally creates expenditure justification delays. Given these considerations, the initial risk is assessed as high.

27. ***Proposed mitigation*s.** (i) The young FOs will be supported with technical services which will include an Accountant and Credit officer all initially financed under the project. (ii) To ease follow-up of expenditure justifications, the participating districts will be required to designate a part time project specific Accountant (PA). (iii) Even with these measures, advances to districts will be specific activity tagged as opposed to general advances.

28. ***The residual/final risk.*** The proposed mitigation measures put the residual risk to medium level. This is because even though staff to support the FOs at hub level may be selected competitively this does not guarantee a total elimination of the risk of managing public funds at young FOs that will still be setting up their structures.

B. Budgeting

29. ***Context/ planned arrangement*.** NOPP 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/ appropriations. 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 Project Monitoring and Evaluation Officer of the PMU will coordinate the budget preparation processes with financial controller taking charge of budget synchronising.

30. ***Fiduciary risk analysis.*** Sometimes there can be significant differences between the AWPB for which IFAD eventually expresses 'no objection', and the budget that gets posted in the IFMS. This creates

disbursement challenges given that IFMS can block any payments that are not in the approved budgets. This is caused by timing differences which are difficult to reconcile. The GoU planning calendar requires the elaboration of the budget estimates by August; 10 months before the implementation period which is a bit too early. In many cases by the time the budget is appropriated by parliament there can be unexplained cuts/ reductions in expenditure estimates to fit within the Medium-Term Expenditure Framework (MTEF) for line Ministry. This element of uncertainty sometimes results into discrepancies between the AWPB on which IFAD has expressed No objection and that appropriated by Parliament and loaded into the IFMS system. The initial fiduciary risk assessment is, therefore, considered as high.

31. ***Proposed mitigation*s.** It is difficult to find mitigation apart from emphasizing that this issue should be brought-up at loan negotiations and specific assurances be sought that project budget estimates will not be arbitrarily cut by the Ministry of Finance, Planning and Economic Development as long as significant amounts of the loan/grant remain undisbursed.

32. ***The residual/ final risk.*** The final risk under the area of budgeting is still maintained as high.

C. Disbursement Arrangements and Flow of Funds

33. ***Context/ planned arrangement*.** Within the TSA arrangement, All funding sources appearing on the financing plan will be disbursed on a parallel basis. IFAD grant will be disbursed for specific activities including establishing Para-legal centres on land tenure in the three hubs. See funds flow chart.

34. **As explained above, t**he GoU has requested to gradually move to the Treasury Single Account (TSA) approach, thereby phasing out the conventional designated and operational bank accounts. TSA can only work where Integrated Financial Management System (IFMS) has been rolled-out and there are many districts that are still off IFMS. During the design of PRELNOR 2-3 years ago, GoU had just introduced TSA and IFAD agreed to the modalities. To date, PRELNOR is still not under IFMS although transactions have been done using alternative ways (Online Banking System which connects to Bank of Uganda).

35. ***Fiduciary risk analysis.*** If NOPP is to be implemented under the TSA arrangement, then the overall risk assessment is a High Risk because:

a) Any delay in rolling out IFMS will delay disbursements in NOPP.
b) Under TSA arrangement, both NOPP and PRELNOR funds will go through the same IFAD holding account. If the TSA/IFMS arrangements are not yet fully firmed up by the start of NOPP, disbursement challenges are foreseen. Such challenges have not been experienced by PRELNOR because so far it is the only project using the holding account. In essence, for PRELNOR, the holding account is synonymous to the conventional designated account.
c) In public sector, at the end of a fiscal year (30 June each year), any unspent expenditure warrants/funds lapse. IFAD has to again obtain assurance that any project funds at the end of the financial year will not lapse like the mainstream public funds.
d) As already noted above, even with the TSA, there will still be operational accounts at the districts and for each FO at the respective hubs. These sub accounts will receive advances from the TSA system. The expenses from DLSP and PRELNOR revealed the difficulties that arise from the delays by districts to justify advances thus unnecessarily clogging the replenishment cycle.

36. ***Proposed mitigation*s.** Under NOPP, the key remedies and/or start-up activities will include:

a) At loan negotiations IFAD will obtain key assurances to mitigate the risks above failing of which the conventional designated and operational accounts in Bank of Uganda should be the fall-back position.
b) Training of the designated district, hubs and PMU accountants in the IFAD NOPP disbursement arrangements in the context of the TSA.
c) NOPP has to feature in the National budget estimates of FY 2018/2019 because IFMS cannot process any transaction unless there is a budget-line from the GoU printed budget estimates.

37. ***The residual/ final risk.*** The final risk under the area of funds flow is still maintained as high given the delays in rolling out IFMS and the anticipated TSA challenges for which specific assurances will be sought by IFAD at loan negotiation.

D. Internal Controls

38. ***Context/ planned arrangement*****. The following factors contribute to an increased internal control risk: (i)** The increased oil palm hubs under NOPP (could be 4); (ii) the nature of the loans to farmers, that is, in-kind deliveries including seedlings, fertilisers and agro chemicals plus cash advances for farm maintenance all having to be systematically debited to farmer loan accounts; (iii) the difficult of having a fixed farmer loan amortisation schedule because loan repayments are based on a FFB yields and US dollar hedged prices among others. Under component 2, dealing with districts compounds the pressure on the need for a strong internal control environment.

39. ***Fiduciary risk analysis.*** The experience under KOPGT has shown that the control risk is high when dealing with large inventories being delivered to oil palm growers. The overall assessment is a high-risk level. Projects usually pay more attention to cash accounting and less to procured inputs such as fertilisers and agro-chemicals. The extent of potential pilferage in inventories is not easy to control compared to cash/ bank transactions.

40. ***Proposed mitigation*****s.** The following are will be necessary to enhance the control environment at hub level:

a) Each hub will have a credit unit separate from finance right from onset.
b) Accounting systems at hub level will be set-up on accrual basis and not cash basis from onset.
c) Use of inventory tools such as delivery notes, store issue vouchers, bin cards will be computerised right from start of hub operations.
d) Banking arrangements as developed under KOPGT will be replicated.
e) Advances to districts and hubs will be strictly specific activity tagged as opposed to general advances.

41. ***The residual/final risk.*** The pressure on the control environment will remain high even with the above proposals at least for the first three years of implementation. Managing inventories in such a wide spread structure will need to be monitored much closer through continuous improvements in the internal control environment.

E. Accounting Systems, Policies and Procedures

42. ***Context/ planned arrangement*****.** These will be detailed in a Financial Management Manual (FMM). IFMS and TSA have been explained above and the fact that projects are coping by doing double work: using a standard alone accounting package to meet accounting requirements while IFMS is used as a disbursement tool.

43. ***Fiduciary risk analysis.*** Although demos by the Accountant General's office are convincing that IFMS can also handle project accounting requirements, this has not been practically tested on any project. The TSA arrangement comes with some challenges as explained above. The initial risk is, therefore, also assessed as high. Most projects such as PRELNOR are always constrained in the first year and end-up initially using microsoft excel to process financials. This creates opening balance challenges later on when a proper double entry accounting software is installed. For handling farmers' loan, KOPGT has been using specifically customised software called *Pearl*. The Pearl system under KOPGT has been very good on handling FFB sales but has had issues that have involved bringing the software supplier many times.

44. ***Proposed mitigation*****s.** (i) Under NOPP, the use of MS excel sheets to process financials by the PMU is prohibited from day one. A simple off-shelf accounting package will be installed at PMU with ability to generate expenditure trends by component, category, and activities in both USD and UGX will be a disbursement condition. (ii) At hub (FO) level, a specialised farmers' loan software that is able to handle FFB sales will be used. (iii) At district level, the accounting will be kept simple, essentially to account for

activity tagged advances that will be received from PMU; therefore, the NOPP will not impose any accounting software at that level.

45. ***The residual/ final risk.*** With the above mitigations, the risk under this area is a medium risk.

F. Reporting and monitoring

46. ***Context/ planned arrangement*****. At consolidated project level,** the financial reporting will comply with International Public-Sector Accounting Standards (IPSAS) - Cash basis. However, at hub level, Farmers Organisations will account on an accrual basis in accordance with International Financial Reporting Standards (IFRSs). FOs will be audited as going concern entities by auditors appointed at the respective AGMs by recommendation of the Board. The NOPP auditors will also have access to all transactions of the FOs. The FOs will be fully farmer-based organisations. This is because FOs are going-concerns that will be handling farmers' loans and inventories that cannot be expensed. However, retiring advances received from the PMU will be on a cash basis. Therefore, the reporting and monitoring at hub level will be set-up as independent going-concern organisations able to produce corporate reports including statement of financing position (balance sheets), income statements (profit and loss statements), cash flow statements, statement of changes in equity, explanatory notes all on compliance with IFRSs. IFAD will, in addition, to the annual audited financial statements require interim financial reports on a six-monthly interval. The templates and formats will be detailed in the Project Implementation Manual. For management decision and control, detailed monthly management accounts will be used at all levels.

47. ***Fiduciary risk analysis.*** With Farmer Organisations using IFRSs while the PMU and overall project is on IPSAS cash basis, some none-cash transactions may erroneously be included in expenditure justifications from the FOs. However, this risk is low given the KOPGT experience.

G. Internal Audit

48. ***Context/ planned arrangement*****.** 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.

49. ***Fiduciary risk analysis.*** The key risk is that MAIIF internal audit are usually pre-occupied in pre-audits of transactions instead of providing independent appraisals of project accounting systems and control environments. The risk here is considered medium. The risk that the pre-audits are considered weak because no specified audit plan is followed.

50. ***The residual/ final risk.*** With the strengthening of the office of Internal Auditor General, Uganda is shifting gradually to ex-post audits and this will be an advantage to the project. IFAD supervision and implementation support missions will consistently demand and review the rolling internal audit plans. The residual risk level is low.

H. External Audit, Governance, anti-corruption and supervision.

51. ***Context/ planned arrangement*****.** External audits will be executed by the Auditor General or a firm appointed by the Office of the Auditor General (OAG). The Terms of Reference (whether the audit is done by the Auditor General or a firm) will require the Fund's No Objection. IFAD will require specific audit opinions: (a) general opinion on the financial statements, (b) opinion on the balances of funds held in the TSA and (c) opinion on the use of the TSA procedure. The TSA approach calls for modifications to the IFAD standard arrangements.

52. ***Fiduciary risk analysis*****.** The capacity of OAG has been consistently assessed by IFAD as highly satisfactory in terms of undertaking project audits. The risk assessment here is therefore low.

53. **Governance and Anti-Corruption.** Specific measures to mitigate identified fiduciary risks include: (a) computerised accounting system at the PMU to substantially reduce the scope of human error; (b) checks and balances in contracting and administration (discussed in Annex 8); (c) inclusion of NOPP internal audit plans at all cost centres; (d) annual external audits; (e) activity tagged advances to hubs and

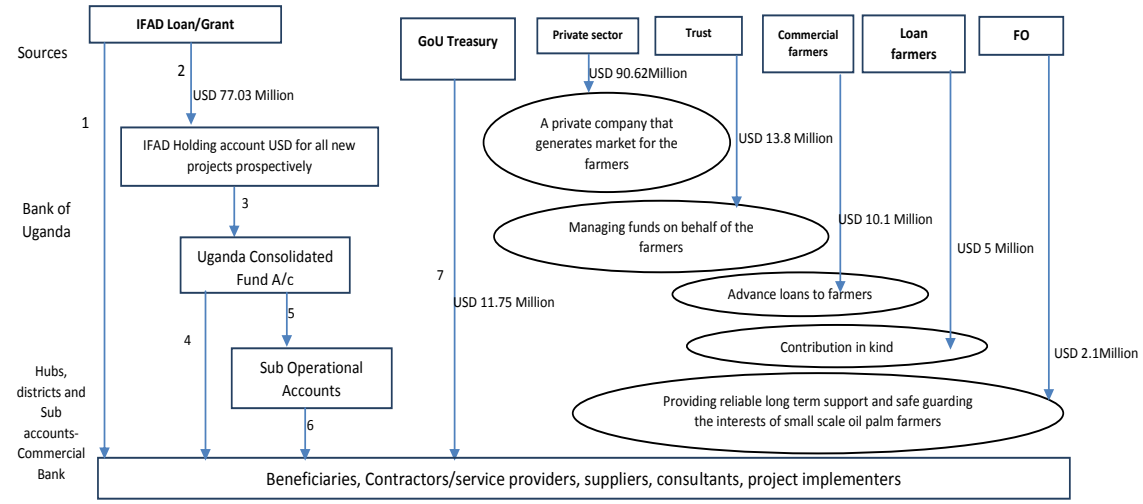
districts as opposed to general cash releases; (f) reduced SOE ceiling given the inherent risk (initially suggested as USD 50,000); (g) allowing the Project financial controller restricted agent status to all bank accounts (including for hubs) to be able to print from the online bank branch networks bank statements. IFAD's anti-corruption policy and reporting mechanisms will be included right from draft PIMs, start-up workshops and duly communicated to staff and implementers.

54. **Supervision.** NOPP will be directly supervised by IFAD with annual implementation support missions, followed initially by shorter follow-up missions six months later. 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 TSA/report-based disbursement. If the risk at supervision will be assessed as high, IFAD will still have the option of recommending approaches such as lowering the SOE ceiling procedure.

FM Actions Summary: The actions needed to mitigate FM risks are summarised below:

Action		Responsible Party / Person	Target Date / Covenants
i.	Retain the qualified and experienced incumbent PMU financial management team	MAIIF	Disbursement condition
ii.	The young FOs to be established will be supported with technical services which will include an Accountant and Credit officer all financed under the project.	PMU to support the initial recruitment process	As part of hub establishment
iii.	To ease follow-up of expenditure justifications, the participating districts will be required to designate a part time project specific Accountant (PA).	PMU	By start-up workshop
iv.	Advances to districts and hubs will be specific activity tagged as opposed to general advances.	PMU	continuous
v.	During loan negotiations IFAD will seek specific assurances from GoU that project budget estimates will not be arbitrarily cut by the Ministry of Finance, planning and Economic Development	IFAD	At loan negotiations
vi.	At loan negotiations, IFAD will obtain key assurances to mitigate identified TSA fiduciary risks failing of which the conventional designated and operational accounts in Bank of Uganda should be the fall-back position	IFAD	At loan negotiations
vii.	Train the designated district, hubs accountants in the IFAD NOPP disbursement arrangements in the context of the TSA.	PMU	Start-up activity
viii.	Each hub will have a credit unit separate from finance right from onset.	PMU to support the initial recruitment process	As part of hub establishment
ix.	Accounting systems at hub level will be set-up on accrual basis and not cash basis from onset.	Technical Assistance (consultants)	As part of hub establishment
x.	At hub-level use of inventory tools such as delivery notes, store issue vouchers, bin cards will be computerised right from start of hub operations.	Technical Assistance (consultants)	As part of hub establishment
xi.	At hub-level, Banking arrangements as developed under KOPGT will be replicated	PMU to support the process	As part of hub establishment/ as the need arises (e.g. collection account will be needed when harvesting starts)
xii.	Under NOPP, the use of MS Excel sheets to process financials by the PMU is prohibited from day one. A simple off-shelf accounting package will be installed at PMU	PMU	Disbursement condition
xiii.	At hub (FO) level, a specialised farmers' loan software that is able to handle FFB sales will be used	Technical Assistance (consultants)	As part of hub establishment
xiv.	IFAD mission to review rolling internal audit plans and reports	IFAD	Each mission

Attachment 1: Flow of funds chart



1. The funds flow chart above depicts the use of the Standard Financing Institution(IFI) disbursement methods including (a) Direct payment method for bigger payments over USD 100,000; (b) use of banks account; and (c) reimbursement if GoU has pre-financed any transactions. Treasury Single Account will start at the Central Government level while the Project operating at district level will still use the operational accounts. An explanation of each of the above lines on the NOPP funds flow chart is as follows:

- Line 1: Direct payments from IFAD (IFAD Loan and Grant funds) to suppliers etc. for disbursement valued at a minimum of USD 100,000 otherwise the holding account/TSA will be used.
- Line 2: Disbursement from IFAD (IFAD Loan/grant funds) to the IFAD Holding account in Bank of Uganda.
- Line 3: Transfer of IFAD loan/grant funds from the holding account to the Uganda Consolidated Fund (TSA) after coding/ encumbering funds to NOPP budget lines.
- Line 4: payment of IFAD loan/Grant to service providers, suppliers, consultants and Project implementers using IFMS system.
- Line 5: Transfer of advances out of the IFAD loan/grant to the sub accounts, hubs and some districts.
- Line 6: Payments from sub-accounts to service providers, suppliers, consultants and Project implementers in Uganda shillings.
- Line 7: Disbursement from GoU treasury; the funds disbursed will only be disbursed to the payees through the IFMS system.

Annex 8

Procurement

Annex 8: Procurement

I. Introduction

1. Specifically, in relation to procurement, IFAD's General Conditions focus on the emphasis placed on using the Borrower/Recipient's procurement regulations, provided they are deemed to be consistent with IFAD's guidelines. This is in line with the various commitments of the international donor community to work towards increasing the use of national systems where they can be shown to be compatible with the requirement of the donors. The IFAD procurement guidelines and handbook require an assessment of national procurement systems as part of project design. The IFAD procurement guidelines and handbook require that this assessment be done at two levels:

(i) Overarching country assessment and
(ii) Project specific assessment.

II. Overarching country assessment

2. It is over 12 years since Uganda enacted the Public Procurement and Disposal of Assets (PPDA) Act 2003. On the basis on this Act, the Public Procurement and Disposal of Assets Authority was established. Detailed procurement regulations both for the central and local government have been issued and revised many times with most recent revisions in 2014.

3. As background studies for the elaboration of the Country Strategic Opportunities Programme (COSOP, 2013-18), IFAD financed a study of the Uganda National Procurement System by Crown Agents. The overall finding was that the legal framework for public procurement in Uganda was strong and provides clear guidance for the procurement practitioners and providers. There are checks and balances within the system which, if utilised, ensure the public procurement is undertaken transparently and competitively.

4. Other studies on the review of national systems financed by other agencies such as DFID also arrive at the same conclusion that there is a strong legal framework but implementation and enforcement remain a challenge. These assessments highlight a number of fiduciary risks for development partners providing support through government systems.

5. The following are some of the overarching weakness arising mainly from gaps in the implementation of the otherwise strong legal and regulatory framework:

6. ***Bidder perceptions***. The 3rd Public Procurement Integrity Survey Report was finalised during the 2015/16. The survey aimed to gauge the public perceptions on the impact of corruption on the outcomes of public procurement and come up with remedial solutions to public procurement related corruption. The key findings revealed that the perception index about existence of corruption in public procurement was 71.8%, up from 69.8% in the previous survey (2009) and that evaluation of bids persists to be perceived as the stage most susceptible to corruption. The report also reveals that 59.8% of service providers reported to have ever gratified public officials to influence wining of tenders and 54% of respondents reported that bribes were over 10 percent of the contracted value.

7. ***Reducing bid response level.*** PPDA Authority reports that in 2015/16, the average number of bids received for all procurements irrespective of which method was used was 2.1 against the target of 3 bids per procurement. However, the average number of bids that reached financial comparison stage of evaluation was 1.7 bids irrespective of the procurement method. The low participation of bidders could be attributed to the anticipated delayed payments, the unreasonable bidding requirement and the perception on corruption in Public Procurement.

8. ***Average time taken to complete the Procurement Cycle.*** The average lead time taken to complete the Procurement Cycle with Open Domestic Bidding method is 159 days according to the data

entered into the Government Procurement Portal (GPP) and Procurement Performance Measurement System (PPMS). This is still above the indicative lead time frame for Open Domestic Bidding which is 100 working days giving a variance of 59 days.

9. For Open International Bidding, the average time taken to complete the Procurement Cycle is 144 days which is also above the indicative lead time of 110 days giving a variance of 34 days. The Authority observed that there are a lot of administrative delays in the procurement process e.g. long delays continue to be experienced at the different approval stages. There are still delays at the evaluation stage, despite the fact that the time for evaluation was regulated during the 2014 amendments and also delays by the Contracts Committees to approve documents.

10. ***Low Procurement Plan Implementation:*** This indicator measures the rate at which entities have implemented their Procurement Plan budget. The absorption rate of the procurement budget for FY 2015/2016,for central government Entities, was 43.6%% which is approximately UGX 3.50 Trillion out of the planned UGX 8.02 Trillion. The absorption rate for Local Government Entities for FY 2015/2016 was 63.3%. This is approximately UGX 187 Billion out of the planned UGX296 Billion. Uganda has been facing low funds absorption levels even in development projecting such as VODP2, resulting in the Wold Bank having to reconsider approving new projects.

11. ***Procurements implemented according to Market Price***. There was a drop in performance in terms of numbers of procurements implemented according to the market price from 80.5%in FY 2014/15 to 65.4% in FY 2015/16. However, in terms of value, performance improved from 48.6% in FY 2014/15 to 63.1% in the FY 2015/16. Procurements above the market price affects budget credibility as Entities will either have to re-allocate resources from other budget lines- thus distorting the budget or in worst case scenarios this could lead to arrears for Government as the Entity does not have enough funds to meet its obligations. This indicator also points at the inherent risk that bidders are including “hidden” costs for anticipated delays in payment and other factors in their price quotations.

12. ***Contracts Completed within Contractual Time***. There was a significant decline on this indicator from 79% in FY 2014/15 to 50% in FY 2015/16. This shows that contract management is still very poor in the Entities. Delays in completion of contracts lead to delays in service delivery. PPDA authority reports that delays in evaluation of progress reports and payment result in delayed contractor performance as providers end up with insufficient funds to implement projects.

13. PPDA Authority also reports that Entities are not implementing recommendations related to contract award and implementation which include poor contract monitoring, appointment of contract managers, delayed payment of providers and preparation of the contract management reports.

14. ***Recurring causes of investigations and administrative reviews.*** The Authority handled 59 complaints for investigation in 2015/16 alone, of which 17 were upheld. At various procuring entities, 2015/16 recorded 38 complaints for administrative review of which 9 were upheld. From these cases, the recurring causes of mis-procurement to be noted are:

- segregation of bidders
- disregard of procurement procedures
- irregularities during the evaluation of bids--non-adherence to the evaluation criteria in the bidding documents issued
- changing specifications during the bidding process
- misleading and restrictive specification of requirements
- Conflict of interest.

15. Other gaps in the implementation of PPDA Act and the related regulations include:

- Introduction of force account which is not effective with exception of remote or conflict prone districts
- Weak record keeping and reporting to PPDA
- Insufficient procurement audits and enforcement
- Limited use of complaints mechanism

16. While significant reforms are underway, IFAD has to adopt some short-term safeguards such as lower No Objection thresholds (initially for NOPP set at USD 50,000 for goods and works and USD 30,000 for services). In addition, each IFAD supervision mission will necessarily include a review of procurements to ensure the medium inherent risk is well managed.

III. Project specific assessment and NOPP procurement arrangements

17. The Project specific assessment has been based on the PMU of VODP2 given that NOPP will be using similar arrangements, with some few refinements. IFAD has been reviewing the application of procurement regulations by MAAIF during the course of direct supervision of VODP2. The overall rating is that the application of the regulations is in line with international standards although there are cases of delays thus affecting overall disbursement levels. The assessment and agreed NOPP processes are presented under the respective stages of the procurement cycle.

Organisation set up.

18. ***NOPP specific contracts committee.*** Just like established under VODP2, there will be a NOPP specific contracts committee in order to remove the long delays which would arise from using the main MAAIF contracts committee. The NOPP specific contracts committee will be formally appointed under PPDA requirements on recommendation of MAAIF by the secretary to Treasury, Ministry of Finance and Planning. The main tasks of this committee will be:

(i) To receive and approve or otherwise the annual procurement plans and the procurement methods therein.
(ii) To receive and approve or otherwise bid solicitation documents in case of open competitive bidding.
(iii) To receive and approve or otherwise members of the evaluation committees in case of open competitive bidding.
(iv) To receive and approve or otherwise bid evaluation reports and contract award decisions in case of open competitive bidding.
(v) Review and approval or otherwise requests for contract extension.

19. ***NOPP specific Procurement and Disposal Unit (PDU).*** NOPP will have a fully-fledged PDU comprised of a Procurement Manager and Procurement office. The PDU will:

(i) Serve as the procurement secretariat supporting user departments with guidelines for responsive terms of reference/specifications,
(ii) Preparation of bid documents
(iii) Issuance of bid documents
(iv) Managing communication with bidders
(v) Receipt and opening of bids
(vi) Facilitating the conduct of evaluation of bids
(vii) Facilitation of request of NO Objection from IFAD and Solicitor General
(viii) Facilitating publication and communication of contract award decisions,
(ix) Facilitating and requests for administrative reviews,
(x) Facilitation procurement filing ensuring a well indexed and referenced file for each procurement

20. ***User departments.*** User departments will comprise technical department component heads, third party implementing organizations like farmer organisations. This may include other public-sector agencies like UNRA and Ministry of Works in case of roads works.

21. ***The cost service panel:*** Given that there are a number of procurements under direct contracting or sourcing from the partner private mill company, it is important to maintain the cost service panel. The cost service panel will comprise:

(i) The representative from the private mill company,
(ii) Farmer representatives (2)
(iii) Representative from the civil society
(iv) Representative from the PMU.

22. ***Procurement planning.*** The PMU has adapted the procurement templates as provided in the IFAD handbook. Each AWPB and budget is supported by a corresponding Procurement Plan (PP). A recurring gap has been to consistently utilize the procurement plan as dynamic document to compare between the planned and actual activities. *For NOPP, the adopted templates under VODP2 will continue to be used.*

(a) *Planning for fertilisers, agro-inputs and seedlings.* Even though direct purchase of inputs from OPUL is well justified, proper planning for timing and reorder levels is necessary:

- Planned direct orders from OPUL should be reflected in the NOPP procurement plan with the procurement method stated as direct contracting.
- The detailed workings of planned orders from OPUL will have to be aligned to phasing of plantings
- Orders of seedlings should be well in advance given the time it takes to establish nursery seedlings especially for the new hubs.

(b) *Plan for lengthy procurement lead times.* A proper procurement plan in Uganda should take into account mandatory timelines. Some key timelines to consider in proactive NOPP procurement planning will be:

	National average total procurement duration (days)		*Minumum advertising period*	*IFAD No Objection*	*Time at Solicitor General*
Open domestic bidding	100	159	20 working days	5-10 working days	21 working days
Open international bidding	110	144	30 working days	5-10 working days	21 working days

23. ***Standard Bidding Documents (SBDs).*** The PPDA Authority has developed internationally acceptable SBDs that NOPP will use to undertake procurements using different methods. However, as per IFAD procurement guidelines, in a few cases where ICB will be used, the World Bank SBDs will apply. Some of the cases that the PPDA have investigated reveal that some Procurement and Disposal Units (PDUs) tamper with the structure of the SBDs without the approval of the Authority which can result in a mis-procurement that will be ineligible for IFAD financing.

24. VOPD2 IFAD supervision missions have been reporting delays due to difficulty by users to draw specifications/Terms of Reference/BOQs/statement of works as a big challenge, especially consultancies that have faced delays. Under NOPP all the PMU technical staff/ users will go through procurement training as part of the start-up workshop to better understand their different roles in the procurement cycle.

25. Given the sensitivity of SBDs, in that, procurements can go wrong at this level, the position of Procurement Manager will need to be filled as a critical start-up activity/ disbursement condition. This will further provide assurance that the quality of SBDs meets the minimum thresholds. The incumbent procurement specialist in PMU resigned about two years back and the position has just been replaced. An experienced head of PDU is crucial to assure the quality of SBDs.

26. ***Pre-qualification***. PMU does not have the practice of advertising and developing its own list of prequalified potential service providers. The preference regarding prequalification of potential service providers has been to piggyback to that developed by the main MAIIF PDU. This arrangement will continue under NOPP but with some improvement. Under NOPP explicit areas for which limited bidding may be needed shall be shared with MAIIF PDU so that the latter's prequalification documents clearly and completely describe the requirements for submissions of responsive applications and qualification requirements of the project.

27. ***Advertising***. A General Procurement Notice (GPN) will have to be placed in the UN business development announcing prospective tenders under NOPP. For Specific Procurement Notices (SPNs) the PPDA regulations specify the mandatory minimum advertising period. The same regulation requires bids to be published in newspapers of wide circulation. The law also requires entities to post their bid notices on the PPDA authority website. As stated above, the minimum advertising periods are as follows:

	Minumum advertising period
Open domestic bidding	20 working days
Open international bidding	30 working days
Restricted bidding	12 working days

28. ***Communication between bidders and procuring agency.*** This is a highly regulated area in the procurement legal and regulatory framework. Communication with bidders can either enhance competition if well done or propagate corruptive tendencies. NOPP will continue to implement the standards already set by the PMU; all communications with bidders must be in writing and shared with all participating bidders. Under NOPP, the PDU will have to organise its communication channels to restrict any correspondence with respective bidders to only authorised staff and should leave audit trail in case of any complaints for administrative reviews and/ or investigations. This will be more important for procurements at decentralised levels (hubs and districts) that may be managed at PMU level. For these kinds of procurements and others, the binding communication channels will have to be very clear to all staff at all levels but also importantly in the solicitation documents.

29. ***Receipt and opening of bids.*** This is very well organised under the existing PMU. For competitive biddings, public openings are conducted within one hour of bid closing time. Minutes of bid opening are maintained in accordance with PPDA regulations. While the tender box is getting out fashioned, under NOPP the PMU will need to improve on the lockable and audit trail around the facilities where bids are kept prior to being opened. Under NOPP, the PMU will ensure that bids marked “ORIGINAL” are not used for evaluation but must be kept under key and lock to be used in cases of high level investigations and/ or court orders. This latter issue has not been very strictly adhered to under VODP2.

30. ***Bid evaluation and examination.*** The PMU based assessment confirms that bid evaluations are conducted by suitably qualified evaluation committees. The PDU will normally advise the Accounting Officer (AO) or his/ her designate to constitute an evaluation committee comprising of people who have relevant experience in the procurement subject at hand.

31. Although no specific case has been identified in the PMU, Procurement reviews at national level show that many investigation/ administrative review cases are hinged into the conduct of the bid evaluations. For instance, in a 2014/15 report, PPMS showed that only 60% of sampled contracts applied evaluation criteria spelt out in the solicitation documents. IFAD supervision missions will be interested in reviewing the conduct of evaluations. For all prior review thresholds, IFAD will be interested in the composition of evaluation committees in terms of their calibre and expertise regarding the procurement at hand.

32. ***Contract award and contract administration.*** Each awarded contract will have officially appointed technical contract manager. The contract manager will in most cases be the technical component head and will certify progress before payment is approved. Templates for contracts management as included in the IFAD procurement handbook and PPDA guidelines will be used.

IV. NOPP specific procurement areas and planning

33. The significant lined-up procurements under NOPP and the related procurements methods are summarized in the attached procurement plan.

34. ***Farm and Access roads:*** A case for direct contracting OPUL/BIDCO to undertake construction of access and farm roads has been well justified as follows:

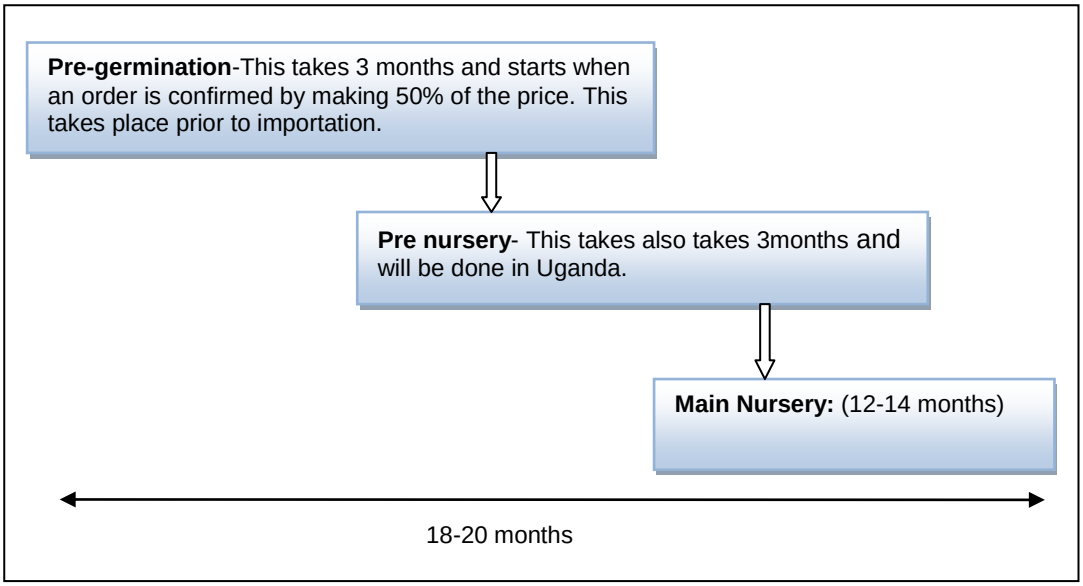
(i) Farm and related access roads follow an overall plantation alignment linking well both nucleus and smallholder oil palm grower farms to the mill or water transport arrangement. Even with the best lot packages while using one-off contractors, this alignment can prove to be difficult. It terms of justification for direct contracting, construction of farm roads to serve smallholder growers should be seen as an extension of the wider road networking serving the nucleus estate and accessibility to the mill and necessary utilities.
(ii) For islands like Buvuma, the biggest cost element is the machinery mobilisation. Under open competitive bidding lots would be arranged in packaged of 15-20 km following the experience of other projects supporting road works. A bidder would be allowed up to a restricted number of lots. With this, for a private contractor to mobilise machinery into the island and still be able beat the unit cost of OPUL/BIDCO that will have already assembled its machinery under the nucleus estate is so remote if not impossible.
(iii) There is more motivation for OPUL/BIDCO to do better quality roads since it will also be a co-beneficiary (if FFBs are delivered more efficiently) as opposed to private contractors who may be interested in signing off only the immediate contract at hand.
(iv) OPUL/ BIDCO is likely to be more supportive later on in the maintenance of roads under the option of direct contracting.
(v) The cost service panel will in any case review and discuss the reasonableness of the unit cost offered by OPUL/BIDCO.

35. ***Capacity building for farmers' organizations:*** Uganda Cooperative Alliance (UCA) will continue the work started under VODP2 to provide capacity building for farmers' organizations. The earmarking of UCA right from design and later on into the financing agreement is justified followed the experience under VODP2 which UCA. Building farmers organizations is not a standardized service that can run purely on open bidding process, it requires continuous handholding from non-profit making and UCA has demonstrated this under VODP2

36. In case the option of direct contracting is not successful, the alternative option will be open competitive *bidding*. The use of Force account has proved to be unreliable given the experience of VODP and VODP 2. With open bidding, works will be divided in lots of 15-20km while at the same ensuring the proximity of blocks to the road network developed by the nucleus estate. Each bidder will be allowed a maximum of two lots (about 40km).

37. ***Seedlings.*** Seedlings will be directly procured from BIDCO/OPUL as has been the case under VODP2. The use and justification of this method is premised on the fact that there is limited capacity in Uganda to operate such sophisticated oil palm seed nurseries. The Cost Service Panel will review the prices charged from time to time to ensure that NOPP does not incur high costs resulting from monopoly power.

38. For efficient procurement planning, it should always be kept in mind that orders for oil palm seedlings have a long lead time of about 18-20 months. From a procurement perspective, this is requires proactively estimating the quantity of seedlings needed and placing orders early in time, that is 20 months before the scheduled planting. The various stages which seedlings go through are illustrated below.



39. With a lead time of at least 18 months illustrated above, seedlings to be planted in 2018/19 should have been ordered by January 2017. This may have a serious implication on the planed phasing if ordering is not proactively done.

40. ***Ferries and landing sites.*** Although ferry and landing sites have been included under the costing for NOPP, a task force has been formed to fast track the bidding process of these works to allow for the possibility of their funding under VODP2 before its completion. If this will not be possible, then under NOPP these will be financed by the Government of Uganda. Under the option of financing under VODP2, UNRA/Ministry of Works will play the user department function while the PMU PDU will do the procurement secretariat roles.

41. ***Stores.*** While in the first year of operation, hiring of stores may be tenable, construction of a 750 MT store in Buvuma will be inevitable given its level of infrastructure development and must be included in the first 18 months procurement plan. In Mayuge, six (6) small stores spread across in the sub counties may be rented but construction may be necessary if the rented stores do not meet the conditions such as humidity level necessary to keep fertilizer. In Masaka, construction of a 450MT capacity store is required to be supplemented by other small stores rented.

42. ***Fertilizers.*** Under VODP2, fertilizers are being single sourced from OPUL. The Cost Service Panel reviews the price trends and also makes reference to price catalogues to make comparison to ensure that prices charged are not beyond market prices. According to the price database maintained by the panel, the prices of most fertilizers are consistently dropping and lower than comparators. This arrangement has not received any major criticism whether from Government Auditors or out growers and therefore it will be continued under NOPP. It benefits from the economies of scale as OPUL imports bulk to also service its nucleus estate but also more importantly the quality assurance it terms of nutrients requirements.

43. Already BIDCO is developing new regimes of fertilizers whereby nutrients can be contained in one pack including those from dolomax, mop, rock phosphate, kieserite, NPK blue, NPK super which will reduce the number of applications. A soil analysis test is being done on Buvuma to assess nutrient requirements. These technical parameters therefore strongly justify the direct sourcing of fertilisers from OPUL/BIDCO.

44. ***Transport fleet.*** A big procurement decision supported by financial analysis is the number of trucks to procure and the number of transport outsourced contracts. The trucks procured under VODP2 operate at excess capacity and are very expensive to maintain which has affected the timing for the sustainability of KOPGT. It has also been noted that private contractor's vehicles are more efficient

compared to owned tracks. Based on this experience, it is therefore advised that under NOPP just few back up tractors be procured with most of the transportation outsourced to private contractors. This will reduce the high maintenance cost of tracks and result in increased efficiency by private contractors but also suitably boost the local economies. Contracts for outsourced transport will be regarded as a private sector decision and will be done by the Farmer Organisations with initial support of the technical service providers. These will not have to go through the NOPP PDU.

Attachment 1: GoU Current procurement thresholds

Supplies, non-consultancy services and Works- current PPDA thresholds

Procurement method	**Threshold in UGX** (in brackets USD)	
	Supplies and non-consultancy services	Works
Open bidding	>200 million (USD 80,000)	>500 million (USD 160,000)
Restricted Bidding	≥ 100 Million to <200 Million	≥ 200 Million to <500 Million
Request for Quotations (RFQ)	≥5 Million to <100 Million	≥10 Million to <200 Million
Micro Procurement	<5 Million	<10 Million

Consultancy services- current PPDA thresholds

Procurement method	**Threshold in UGX**
Request for Proposals(RFP) with Expression of Interest	≥200 Million
Request for Proposals(RFP) without Expression of Interest	≥ 50 Million to <200 Million

Attachment 2: Indicative first 18-month procurement plan

The Republic of Uganda
National Oil Palm Programme
First 18 months indicative Procurement plan
Expected start date: **1-Jul-18**

Goods					Basic data			Bid documents		Bidding period		Bid evaluation		Contract finalization			
Procurement Ref.			Unit measure	QTY	Estimated value 'USD 000'	Procurement method	Prior or Post review	Date proposed	Date No Objection	Bid Invitation date	Bid closing date	Bid evaluation Report	No-Objection	Contarct amount	Date contacrt award		Date contarct signature
	NCB							14	21	1	30	5	21		5	21	14
	ICB							14	21	1	42	10	21		5	21	14
	LS																
CONTRACT PACKAGES																	
NOPP/DC/01/2018	Oil Palm Seedlings		Seedling	178,750	899	DC	Prior										
		Plan	***Order must must have already been placed for seedlings to be delivered to plantings on 2018/19 FY. Order must be placed under VODP2 before by 30/09/2017***														
NOPP/DC/02/2018	**Farm Inputs/a** Fertilizer (various types as per agronomic farm nutrition requirements)		kgs	835,635	625	DC											
		Plan	***Call-off oders to be placed as per the lead times to be agreed with BUL***														
NOPP/ICB/01/2018	**Vehicles and motor cycle**																
	Lot 1: Motorbikes (17No.)		No.	17	1,100												
	Lot 2: 4WD Double cabin pickup (5No.)		No.	5													
	Lot 3: Bus 18 people (2No.)		No.	2													
	Lot 4: Tractor trailor (4No.)		No.	4													
	Lot 5: 7 ton dump trucks (2No.)		No.	2													
	Lot 6: Station Wagon (1 No.)		No.	1													
		Plan				***ICB***	***Prior***	***15-Jul-18***	***5-Aug-18***	***6-Aug-18***	***17-Sep-18***	***27-Sep-18***	***18-Oct-18***	***18-Oct-18***	***23-Oct-18***	***13-Nov-18***	***27-Nov-18***
		Actual															
NOPP/NCB\/01/2018	**Computers, tablets and scanners**				64												
	Lot 1: Tablets		No.	5													
	Lot 2: Laptops		No.	16													
	Lot 3: Printers		No.	3													
	Lot 4: Scanners		No.	1													
	Lot 5: Desktop computers		No.	3													
	Lot 6: GPS Machine		No.	30													
	Lot 7: Projector		No.	1													
		Plan				***NCB***	***Prior***	***25-Jul-18***	***15-Aug-18***	***16-Aug-18***	***15-Sep-18***	***20-Sep-18***	***11-Oct-18***	***11-Oct-18***	***16-Oct-18***	***6-Nov-18***	***20-Nov-18***
		Actual															
NOPP/LS\/01/2018	Bicycles for CBTs		No.	6	0.42	LS											
		Plan				***NCB***	***Post***										
		Actual															
	Accounting packaging		package	1	75												
		Plan				***NCB***	***Prior***	***10-Jul-18***	***31-Jul-18***	***1-Aug-18***	***31-Aug-18***	***5-Sep-18***	***26-Sep-18***	***26-Sep-18***	***1-Oct-18***	***22-Oct-18***	***5-Nov-18***
		Actual															
	SubTotal				**1,864**												

a/ OPUL will directly contracted to supply seedlings and fertilizers as they buy in bulk for their nucleus estate. See more justification in Appendix 8.

Legend
LS---Local shopping
RFQ---Request for Quotation
NCB--National competitive Bidding
ICB--International Competitive Bidding
DC--Direct Contracting

The Republic of Tanzania
National Oil Palm Programme
18 months indicative Procurement plan

Expected start date: 1-Jul-18

	Services		Basic data			Request for EOI		Terms of Reference	Shortlist		Request for proposal		Bid proposals								Bid evaluation															
	Description	Plan Vs Actual	Evaluation methodology	Estimated value USD '000'	Prior/ Post review	Date prepared	Date No Objection	Date prepared	Date prepared	Date No Objection	Date prepared	Date No Objection	Invitation date			Submission /Opening Date	Evaluation Report (T)		No-Objection (T)			Opening Financial proposals		Submission of evaluation report (T&F)		No- Objection (T&F)		Date contract award		Solicitor General Clearance			Date contract signature		
Contract NO.	Minimum working days under QCBS					15	42	15	15	30	21	28	1	30		7		28			1		15		42		5		21			14			
NOPP/QCBS/01/2018	Contract with CCA to support capacity building of Farmers Organisations/a	Plan	SSS	211				16-Jul-18			6-Aug-18	3-Sep-18	4-Sep-18	4-Oct-18	11-Oct-18	11-Oct-18	11-Oct-18	8-Nov-18	8-Nov-18	9-Nov-18	9-Nov-18							9-Nov-18	30-Nov-18	30-Nov-18	14-Dec-18	14-Dec-18	14-Dec-18		
		Actual																																	
NOPP/QCBS/02/2018	Oil Palm Technical Training	Plan	QCBS	309		26-Jul-18	6-Sep-18	21-Sep-18	6-Oct-18	5-Nov-18	26-Nov-18	24-Dec-18	25-Dec-18	24-Jan-19	31-Jan-19	31-Jan-19	31-Jan-19	28-Feb-19	28-Feb-19	1-Mar-19	1-Mar-19	1-Mar-19	16-Mar-19	16-Mar-19	27-Apr-19	27-Apr-19	2-May-19	2-May-19	23-May-19	23-May-19	6-Jun-19	6-Jun-19	6-Jun-19		
		Actual																																	
NOPP/LS/01/2018	TOT: Community Based Trainers	Plan	LS	11				1-Sep-18			1-Oct-18	22-Oct-18	19-Nov-18	20-Nov-18	20-Dec-18	27-Dec-18	27-Dec-18	27-Dec-18	24-Jan-19	24-Jan-19	25-Jan-19	25-Jan-19	25-Jan-19	9-Feb-19	9-Feb-19	23-Mar-19	23-Mar-19	28-Mar-19	28-Mar-19	18-Apr-19	18-Apr-19	2-May-19	2-May-19		
		Actual																																	
NOPP/QCBS/03/2018	Contract for vechile operation and maintaince	Plan	QCBS	119		15-Aug-18	26-Sep-18	11-Oct-18	26-Oct-18	25-Nov-18	16-Dec-18	13-Jan-19	14-Jan-19	13-Feb-19	20-Feb-19	20-Feb-19	20-Feb-19	20-Mar-19	20-Mar-19	21-Mar-19	21-Mar-19	21-Mar-19	5-Apr-19	5-Apr-19	17-May-19	17-May-19	22-May-19	22-May-19	12-Jun-19	12-Jun-19	26-Jun-19	26-Jun-19	26-Jun-19		
		Actual																																	
NOPP/QCBS/04/2018	Training of mentors	Plan	QCBS	65		25-Aug-18	6-Oct-18	21-Oct-18	5-Nov-18	5-Dec-18	26-Dec-18	23-Jan-19	24-Jan-19	23-Feb-19	2-Mar-19	2-Mar-19	2-Mar-19	30-Mar-19	30-Mar-19	31-Mar-19	31-Mar-19	31-Mar-19	15-Apr-19	15-Apr-19	27-May-19	27-May-19	1-Jun-19	1-Jun-19	22-Jun-19	22-Jun-19	6-Jul-19	6-Jul-19	6-Jul-19		
		Actual																																	
NOPP/QCBS/05/2018	Contract for Land Tenure security measures	Plan	QCBS	526		4-Sep-18	16-Oct-18	31-Oct-18	15-Nov-18	15-Dec-18	5-Jan-19	2-Feb-19	3-Feb-19	5-Mar-19	12-Mar-19	12-Mar-19	12-Mar-19	9-Apr-19	9-Apr-19	10-Apr-19	10-Apr-19	10-Apr-19	25-Apr-19	25-Apr-19	6-Jun-19	6-Jun-19	11-Jun-19	11-Jun-19	2-Jul-19	2-Jul-19	16-Jul-19	16-Jul-19	16-Jul-19		
		Actual																																	
NOPP/QCBS/06/2018	Contract for strengthening of hub land administration institutions	Plan	QCBS	100		14-Sep-18	26-Oct-18	10-Nov-18	25-Nov-18	25-Dec-18	15-Jan-19	12-Feb-19	13-Feb-19	15-Mar-19	22-Mar-19	22-Mar-19	22-Mar-19	19-Apr-19	19-Apr-19	20-Apr-19	20-Apr-19	20-Apr-19	5-May-19	5-May-19	16-Jun-19	16-Jun-19	21-Jun-19	21-Jun-19	12-Jul-19	12-Jul-19	26-Jul-19	26-Jul-19	26-Jul-19		
		Actual																																	
NOPP/QCBS/07/2018	National TA for Policy Expert	Plan	QCBS	81		24-Sep-18	5-Nov-18	20-Nov-18	5-Dec-18	4-Jan-19	25-Jan-19	22-Feb-19	23-Feb-19	25-Mar-19	1-Apr-19	1-Apr-19	1-Apr-19	29-Apr-19	29-Apr-19	30-Apr-19	30-Apr-19	30-Apr-19	15-May-19	15-May-19	26-Jun-19	26-Jun-19	1-Jul-19	1-Jul-19	22-Jul-19	22-Jul-19	5-Aug-19	5-Aug-19	5-Aug-19		
		Actual																																	
NOPP/QCBS/08/2018	Development and printing of Oil palm handbook	Plan	QCBS	50		4-Oct-18	15-Nov-18	30-Nov-18	15-Dec-18	14-Jan-19	4-Feb-19	4-Mar-19	5-Mar-19	4-Apr-19	11-Apr-19	11-Apr-19	11-Apr-19	9-May-19	9-May-19	10-May-19	10-May-19	10-May-19	25-May-19	25-May-19	6-Jul-19	6-Jul-19	11-Jul-19	11-Jul-19	1-Aug-19	1-Aug-19	15-Aug-19	15-Aug-19	15-Aug-19		
		Actual																																	
NOPP/LS/02/2018	Contract for banking business case study	Plan	LS	30				14-Oct-18			4-Nov-18	2-Dec-18	3-Dec-18	2-Jan-19	9-Jan-19	9-Jan-19	9-Jan-19	6-Feb-19	6-Feb-19	7-Feb-19	7-Feb-19	7-Feb-19	22-Feb-19	22-Feb-19	5-Apr-19	5-Apr-19	10-Apr-19	10-Apr-19	1-May-19	1-May-19	15-May-19	15-May-19	15-May-19		
		Actual																																	

	Services		Basic data			Request for EOI		Terms of Reference	Shortlist		Request for proposal		Bid proposals								Bid evaluation															
	Description	Plan Vs Actual	Evaluation methodology	Estimated value USD '000'	Prior/ Post review	Date prepared	Date No Objection	Date prepared	Date prepared	Date No Objection	Date prepared	Date No Objection	Invitation date			Submission /Opening Date	Evaluation Report (T)		No-Objection (T)			Opening Financial proposals		Submission of evaluation report (T&F)		No- Objection (T&F)		Date contract award		Solicitor General Clearance			Date contract signature		
Contract NO.	Minimum working days under QCBS					15	42	15	15	30	21	28	1	30		7		28			1		15		42		5		21			14			
NOPP/LS/03/2018	Consultancy for product development studies	Plan	LS	30				24-Oct-18			14-Nov-18	12-Dec-18	13-Dec-18	12-Jan-19	19-Jan-19	19-Jan-19	19-Jan-19	16-Feb-19	16-Feb-19	17-Feb-19	17-Feb-19	17-Feb-19	4-Mar-19	4-Mar-19	15-Apr-19	15-Apr-19	20-Apr-19	20-Apr-19	11-May-19	11-May-19	25-May-19	25-May-19	25-May-19		
		Actual																																	
NOPP/LS/04/2018	TA for various support	Plan	LS	15				3-Nov-18			24-Nov-18	22-Dec-18	23-Dec-18	22-Jan-19	29-Jan-19	29-Jan-19	29-Jan-19	26-Feb-19	26-Feb-19	27-Feb-19	27-Feb-19	27-Feb-19	14-Mar-19	14-Mar-19	25-Apr-19	25-Apr-19	30-Apr-19	30-Apr-19	21-May-19	21-May-19	4-Jun-19	4-Jun-19	4-Jun-19		
		Actual																																	
NOPP/LS/05/2018	Contract for provision of Internet and Communication services	Plan	LS	10				13-Nov-18			4-Dec-18	1-Jan-19	2-Jan-19	1-Feb-19	8-Feb-19	8-Feb-19	8-Feb-19	8-Mar-19	8-Mar-19	9-Mar-19	9-Mar-19	9-Mar-19	24-Mar-19	24-Mar-19	5-May-19	5-May-19	10-May-19	10-May-19	31-May-19	31-May-19	14-Jun-19	14-Jun-19	14-Jun-19		
		Actual																																	
NOPP/QCBS/09/2018	SEA Consultancy	Plan	QCBS	150		23-Nov-18	4-Jan-19	19-Jan-19	3-Feb-19	5-Mar-19	26-Mar-19	23-Apr-19	24-Apr-19	24-May-19	31-May-19	31-May-19	31-May-19	28-Jun-19	28-Jun-19	29-Jun-19	29-Jun-19	29-Jun-19	14-Jul-19	14-Jul-19	25-Aug-19	25-Aug-19	30-Aug-19	30-Aug-19	20-Sep-19	20-Sep-19	4-Oct-19	4-Oct-19	4-Oct-19		
		Actual																																	
NOPP/QCBS/10/2018	Consultancy to conduct a baseline Study	Plan	QCBS	50		3-Dec-18	14-Jan-19	29-Jan-19	13-Feb-19	15-Mar-19	5-Apr-19	3-May-19	4-May-19	3-Jun-19	10-Jun-19	10-Jun-19	10-Jun-19	8-Jul-19	8-Jul-19	9-Jul-19	9-Jul-19	9-Jul-19	24-Jul-19	24-Jul-19	4-Sep-19	4-Sep-19	9-Sep-19	9-Sep-19	30-Sep-19	30-Sep-19	14-Oct-19	14-Oct-19	14-Oct-19		
		Actual																																	
NOPP/LS/06/2018	Consultancy for thematic surveys and participatory surveys	Plan	LS	20				13-Dec-18			3-Jan-19	31-Jan-19	1-Feb-19	3-Mar-19	10-Mar-19	10-Mar-19	10-Mar-19	7-Apr-19	7-Apr-19	8-Apr-19	8-Apr-19	8-Apr-19	23-Apr-19	23-Apr-19	4-Jun-19	4-Jun-19	9-Jun-19	9-Jun-19	30-Jun-19	30-Jun-19	14-Jul-19	14-Jul-19	14-Jul-19		
		Actual																																	
NOPP/QCBS/11/2018	Consultancy for developemnt of GIS Database	Plan	QCBS	60		23-Dec-18	3-Feb-19	18-Feb-19	5-Mar-19	4-Apr-19	25-Apr-19	23-May-19	24-May-19	23-Jun-19	30-Jun-19	30-Jun-19	30-Jun-19	28-Jul-19	28-Jul-19	29-Jul-19	29-Jul-19	29-Jul-19	13-Aug-19	13-Aug-19	24-Sep-19	24-Sep-19	29-Sep-19	29-Sep-19	20-Oct-19	20-Oct-19	3-Nov-19	3-Nov-19	3-Nov-19		
		Actual																																	
NOPP/LS/07/2018	Consultancy for development of Oil Palm Sector Database	Plan	LS	6				2-Jan-19			23-Jan-19	20-Feb-19	21-Feb-19	23-Mar-19	30-Mar-19	30-Mar-19	30-Mar-19	27-Apr-19	27-Apr-19	28-Apr-19	28-Apr-19	28-Apr-19	13-May-19	13-May-19	24-Jun-19	24-Jun-19	29-Jun-19	29-Jun-19	20-Jul-19	20-Jul-19	3-Aug-19	3-Aug-19	3-Aug-19		
		Actual																																	
NOPP/LS/08/2018	Contract to develop a central M&E System	Plan	LS	30				12-Jan-19			2-Feb-19	2-Mar-19	3-Mar-19	2-Apr-19	9-Apr-19	9-Apr-19	9-Apr-19	7-May-19	7-May-19	8-May-19	8-May-19	8-May-19	23-May-19	23-May-19	4-Jul-19	4-Jul-19	9-Jul-19	9-Jul-19	30-Jul-19	30-Jul-19	13-Aug-19	13-Aug-19	13-Aug-19		
		Actual																																	
				1,875																															

Legend:
SSS: Single Source Selection
QCBS:Quality Cost Based selection
LS: Least cost selection

Annex 9

Project cost and financing

Annex 9: Project cost and financing

I. Main Assumptions for Cost Estimation

1. **Exchange Rate and inflation rate.** The Base Exchange rate for this analysis has been set at USD 1 = UGX 3,550. The inflation rate in Uganda was recorded at 6.40 percent in June of 2017. Inflation Rate in Uganda averaged 6.61 percent from 1998 until 2017, reaching an all-time high of 24.50 percent in November of 2011 and a record low of -5.36 percent in November of 2001. Local inflation has been assumed at 6.5 percent over the NOPP implementation period. Using Constant Purchasing Power (CPP) devaluation has been inbuilt over the project implementation period.

2. **Taxes and Duties.** Where necessary, Value Added Tax at 18% has been included for those goods and services that are standard rated.

II. Project Costs

3. **Total Project Costs.** Total investment and recurrent costs, including contingencies, are estimated at USD 210.4 million. Table 1 below shows a breakdown of the costs of the main components and their sub-components. Component 1, Scaling-up investment in smallholder oil palm development is estimated to cost USD179.1 million taking 87% of total base costs. The investment in Livelihoods diversification and resilience, component 2 will cost USD 12.4 million (6% of base costs) whereas component 3 (OP Sector Development Framework) and component 4 (Project management, M&E and knowledge management) are expected to take only 2% and 6% respectively.

Table 1: Project Cost Summary by Component

Uganda National Oil Palm Programme **Components Project Cost Summary**	(UGX Million)					(USD '000)				
	Local	Foreign	Total	% Foreign xchang	% Total Base Costs	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs
A. Scaling-up investment in smallholder oil palm devel										
1. Development of smallholder oil palm plantations	103 567	103 484	207 051	50	28	29 174	29 150	58 324	50	28
2. Development of OPG organizations	28 167	30 956	59 123	52	8	7 934	8 720	16 654	52	8
3. Establishment of support infrastructures	21 609	32 542	54 151	60	7	6 087	9 167	15 254	60	7
4. Investment in nucleus estates and mills /a	42 316	273 066	315 382	87	43	11 920	76 920	88 840	87	43
Subtotal Scaling-up investment in smallholder oil palm	195 658	440 048	635 706	69	87	55 115	123 957	179 072	69	87
B. Livelihoods diversification and resilience										
Alternative economic opportunities	15 602	15 655	31 256	50	4	4 395	4 410	8 805	50	4
Mitigation of social risks	6 439	6 439	12 879	50	2	1 814	1 814	3 628	50	2
Subtotal Livelihoods diversification and resilience	22 041	22 094	44 135	50	6	6 209	6 224	12 432	50	6
C. OP Sector Development Framework										
Policy and institutional support for OP sector development	3 311	3 301	6 612	50	1	933	930	1 863	50	1
Strengthening of national capacity for OP research	3 067	3 446	6 513	53	1	864	971	1 835	53	1
Subtotal OP Sector Development Framework	6 378	6 747	13 125	51	2	1 797	1 901	3 697	51	2
D. Programme Management, M&E and Know ledge Management	35 343	6 497	41 840	16	6	9 956	1 830	11 786	16	6
Total BASELINE COSTS	259 420	475 387	734 806	65	100	73 076	133 912	206 988	65	100
Physical Contingencies	313	731	1 044	70	-	88	206	294	70	-
Price Contingencies	19 129	59 538	78 667	76	11	777	2 385	3 163	75	2
Total PROJECT COSTS	278 862	535 656	814 518	66	111	73 941	136 503	210 445	65	102

\a The purchase of land for Buvuma nucleaus estate financed by GoU is happening w ay before NOPP entry into force and has therefore been excluded from the NOPP costab

Table 2: Project Cost Summary by Expenditure Category

Uganda National Oil Palm Programme Expenditure Accounts Project Cost Sumr	(UGX Million)					(USD '000)				
	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs
I. Investment Costs										
A. Credit and Guarantee Funds /a	92 089	92 089	184 178	50	25	25 941	25 941	51 881	50	25
B. Works	10 442	24 364	34 805	70	5	2 941	6 863	9 804	70	5
C. Goods, Services and Inputs /b	75 000	72 791	147 792	49	20	21 127	20 505	41 631	49	20
D. Vehicles /c	4 654	7 004	11 658	60	2	1 311	1 973	3 284	60	2
E. Nucleas Estate establishment and Mill	42 316	273 066	315 382	87	43	11 920	76 920	88 840	87	43
Total Investment Costs	224 501	469 314	693 815	68	94	63 240	132 201	195 441	68	94
II. Recurrent Costs										
A. Salaries and Allowances	27 088	-	27 088	-	4	7 631	-	7 631	-	4
B. Operating Costs	7 830	6 073	13 903	44	2	2 206	1 711	3 916	44	2
Total Recurrent Costs	34 918	6 073	40 991	15	6	9 836	1 711	11 547	15	6
Total BASELINE COSTS	259 420	475 387	734 806	65	100	73 076	133 912	206 988	65	100
Physical Contingencies	313	731	1 044	70	-	88	206	294	70	-
Price Contingencies	19 129	59 538	78 667	76	11	777	2 385	3 163	75	2
Total PROJECT COSTS	278 862	535 656	814 518	66	111	73 941	136 503	210 445	65	102

\a Financing for development of OP smallholder plantations
\b Includes equipment, materials, consultancies, contracts for service provision ,training and w orkshops.
\c This includes ferries and w ater barges

III. Financing Plan

4. Of the total financing package of USD 210.4 million, IFAD is expected to provide about USD 75.8 million as loan funding on highly concessional terms to GoU, and a grant of USD 1.2 million specifically to finance land tenure security related activities.

5. Approximately USD 90 million will be financed by OPUL and other private sector companies, representing about 43% of total project costs. Farmers' organisations in each hub are expected to start financing their operational budgets when harvesting starts, five years after planting, and will thus provide approximately USD 2.1 million. The loan reflows to the national oil palm trust will be reinvested to finance about 6.5%(USD 13.8 million) of the total project costs. The farmers supported through the development loans will contribute USD 5 million, mainly through family and other hired labour for land preparation, contour bundling and other on farm investment. Besides, farmers expanding their farms beyond the maximum threshold of 2 hectares supported by the project will invest a total of USD 10 million, either through their own capital or through loans from financial institutions.

6. The current estimate of the Government contribution to the project stands at about USD 11.7 million, representing 5.6% of total cost, to finance taxes, including the employer contribution to the National Social Security Fund (NSSF) for all staff employed by the project, while employees will finance their own share from their salaries. The investment for the purchase of land for the nucleus estate, estimated at USD 13.5 million, is not included in the financing plan, as it will be completed before the signing of the Financing Agreement. The financing plan by components and by expenditure accounts is provided below in Tables3 and 4:

Table 3. Components by Financiers (USD '000')

Uganda
National Oil Palm Programme

Components by Financiers (USD '000)	IFAD Loan		IFAD Grant		GoU		Private Sector		Trust (Loan reflows)		Development Loan Farmers		Commercial farmers		Farmers Organisations		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
A. Scaling-up investment in smallholder oil palm development																					
1. Development of smallholder oil palm plantations	29,663	50.1	-	-	598	1.0	-	-	13,830	23.4	5,004	8.5	10,084	17.0	-	-	59,178	28.1	29,577	29,003	598
2. Development of OPG organizations	11,319	66.8	-	-	4,208	24.8	-	-	-	-	-	-	-	-	1,428	8.4	16,956	8.1	8,889	3,859	4,208
3. Establishment of support infrastructures	11,974	76.5	-	-	2,978	19.0	-	-	-	-	-	-	-	-	691	4.4	15,643	7.4	9,428	3,807	2,408
4. Investment in nucleus estates and mills /a	-	-	-	-	0	-	90,622	100.0	-	-	-	-	-	-	-	-	90,622	43.1	78,588	12,034	-
Subtotal Scaling-up investment in smallholder oil palm development	52,956	29.0	-	-	7,784	4.3	90,622	49.7	13,830	7.6	5,004	2.7	10,084	5.5	2,120	1.2	182,399	86.7	126,482	48,703	7,214
B. Livelihoods diversification and resilience																					
Alternative economic opportunities	7,854	89.2	-	-	950	10.8	-	-	-	-	-	-	-	-	-	-	8,805	4.2	4,410	3,444	950
Mitigation of social risks	2,013	54.9	1,209	33.0	442	12.1	-	-	-	-	-	-	-	-	-	-	3,663	1.7	1,832	1,390	442
Subtotal Livelihoods diversification and resilience	9,867	79.1	1,209	9.7	1,392	11.2	-	-	-	-	-	-	-	-	-	-	12,468	5.9	6,241	4,834	1,392
C. OP Sector Development Framework																					
Policy and institutional support for OP sector development	1,533	81.3	-	-	353	18.7	-	-	-	-	-	-	-	-	-	-	1,886	0.9	942	591	353
Strengthening of national capacity for OP research	1,518	81.6	-	-	342	18.4	-	-	-	-	-	-	-	-	-	-	1,861	0.9	985	533	342
Subtotal OP Sector Development Framework	3,052	81.4	-	-	695	18.6	-	-	-	-	-	-	-	-	-	-	3,747	1.8	1,927	1,124	695
D. Programme Management, M&E and Knowledge Management	9,955	84.1	-	-	1,875	15.9	-	-	-	-	-	-	-	-	-	-	11,831	5.6	1,853	8,103	1,875
Total PROJECT COSTS	75,830	36.0	1,209	0.6	11,747	5.6	90,622	43.1	13,830	6.6	5,004	2.4	10,084	4.8	2,120	1.0	210,445	100.0	136,503	62,765	11,177

\a The purchase of land for Buvuma nucleaus estate financed by GoU is happening way before NOPP entry into force and has therefore been excluded from the NOPP costab

Table 4. Expenditure Accounts by Financiers (USD '000')

Uganda
National Oil Palm Programme

Expenditure Accounts by Financiers (USD '000)	IFAD Loan		IFAD Grant		GoU		Private Sector		Trust (Loan reflows)		Development Loan Farmers		Commercial farmers		Farmers Organisations		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
I. Investment Costs																					
A. Credit and Guarantee Funds /a	23,753	45.1	-	-	0	-	-	-	13,830	26.3	5,004	9.5	10,084	19.1	-	-	52,670	25.0	26,335	26,335	-
B. Works	7,894	77.3	-	-	1,839	18.0	-	-	-	-	-	-	-	-	484	4.7	10,217	4.9	7,152	1,226	1,839
C. Goods, Services and Inputs /b	32,712	77.9	1,209	2.9	6,856	16.3	-	-	-	-	-	-	-	-	1,236	2.9	42,012	20.0	20,695	15,032	6,285
D. Vehicles /c	2,046	61.6	-	-	1,274	38.4	-	-	-	-	-	-	-	-	-	-	3,320	1.6	1,994	51	1,274
E. Nucleas Estate establishment and Mill	-	-	-	-	0	-	90,622	100.0	-	-	-	-	-	-	-	-	90,622	43.1	78,588	12,034	-
Total Investment Costs	66,404	33.4	1,209	0.6	9,969	5.0	90,622	45.6	13,830	7.0	5,004	2.5	10,084	5.1	1,720	0.9	198,840	94.5	134,764	54,678	9,398
II. Recurrent Costs																					
A. Salaries and Allowances	6,974	91.4	-	-	657	8.6	-	-	-	-	-	-	-	-	-	-	7,631	3.6	-	6,974	657
B. Operating Costs	2,453	61.7	-	-	1,121	28.2	-	-	-	-	-	-	-	-	400	10.1	3,974	1.9	1,739	1,113	1,121
Total Recurrent Costs	9,426	81.2	-	-	1,778	15.3	-	-	-	-	-	-	-	-	400	3.4	11,604	5.5	1,739	8,087	1,778
Total PROJECT COSTS	75,830	36.0	1,209	0.6	11,747	5.6	90,622	43.1	13,830	6.6	5,004	2.4	10,084	4.8	2,120	1.0	210,445	100.0	136,503	62,765	11,177

\a Financing for development of OP smallholder plantations
\b Includes equipment, materials, consultancies, contracts for service provision ,training and workshops.
\c This includes ferries and water barges

Attachment 1: Summary cost tables

Uganda
National Oil Palm Programme
Components by Financiers
(USD '000)

	IFAD Loan		IFAD Grant		GoU		Private Sector		Trust (Loan reflows)		Development Loan Farmers		Commercial farmers		Farmers Organisations		Total			Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	For. Exch.	Taxes)	Taxes
A. Scaling-up investment in smallholder oil palm development																					
1. Development of smallholder oil palm plantations	29,663	50.1	-	-	598	1.0	-	-	13,830	23.4	5,004	8.5	10,084	17.0	-	-	59,178	28.1	29,577	29,003	598
2. Development of OPG organizations	11,319	66.8	-	-	4,208	24.8	-	-	-	-	-	-	-	-	1,428	8.4	16,956	8.1	8,889	3,859	4,208
3. Establishment of support infrastructures	11,974	76.5	-	-	2,978	19.0	-	-	-	-	-	-	-	-	691	4.4	15,643	7.4	9,428	3,807	2,408
4. Investment in nucleus estates and mills /a	-	-	-	-	0	-	90,622	100.0	-	-	-	-	-	-	-	-	90,622	43.1	78,588	12,034	-
Subtotal Scaling-up investment in smallholder oil palm development	52,956	29.0	-	-	7,784	4.3	90,622	49.7	13,830	7.6	5,004	2.7	10,084	5.5	2,120	1.2	182,399	86.7	126,482	48,703	7,214
B. Livelihoods diversification and resilience																					
Alternative economic opportunities	7,854	89.2	-	-	950	10.8	-	-	-	-	-	-	-	-	-	-	8,805	4.2	4,410	3,444	950
Mitigation of social risks	2,013	54.9	1,209	33.0	442	12.1	-	-	-	-	-	-	-	-	-	-	3,663	1.7	1,832	1,390	442
Subtotal Livelihoods diversification and resilience	9,867	79.1	1,209	9.7	1,392	11.2	-	-	-	-	-	-	-	-	-	-	12,468	5.9	6,241	4,834	1,392
C. OP Sector Development Framework																					
Policy and institutional support for OP sector development	1,533	81.3	-	-	353	18.7	-	-	-	-	-	-	-	-	-	-	1,886	0.9	942	591	353
Strengthening of national capacity for OP research	1,518	81.6	-	-	342	18.4	-	-	-	-	-	-	-	-	-	-	1,861	0.9	985	533	342
Subtotal OP Sector Development Framework	3,052	81.4	-	-	695	18.6	-	-	-	-	-	-	-	-	-	-	3,747	1.8	1,927	1,124	695
D. Programme Management, M&E and Knowledge Management	9,955	84.1	-	-	1,875	15.9	-	-	-	-	-	-	-	-	-	-	11,831	5.6	1,853	8,103	1,875
Total PROJECT COSTS	75,830	36.0	1,209	0.6	11,747	5.6	90,622	43.1	13,830	6.6	5,004	2.4	10,084	4.8	2,120	1.0	210,445	100.0	136,503	62,765	11,177

\a The purchase of land for Buvuma nucleaus estate financed by GoU is happening way before NOPP entry into force and has therefore been excluded from the NOPP costab

Uganda
National Oil Palm Programme
Expenditure Accounts by Financiers
(USD '000)

	IFAD Loan		IFAD Grant		GoU		Private Sector		Trust (Loan reflows)		Development Loan Farmers		Commercial farmers		Farmers Organisations		Total			Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	For. Exch.	Taxes)	Taxes
I. Investment Costs																					
A. Credit and Guarantee Funds /a	23,753	45.1	-	-	0	-	-	-	13,830	26.3	5,004	9.5	10,084	19.1	-	-	52,670	25.0	26,335	26,335	-
B. Works	7,894	77.3	-	-	1,839	18.0	-	-	-	-	-	-	-	-	484	4.7	10,217	4.9	7,152	1,226	1,839
C. Goods, Services and Inputs /b	32,712	77.9	1,209	2.9	6,856	16.3	-	-	-	-	-	-	-	-	1,236	2.9	42,012	20.0	20,695	15,032	6,285
D. Vehicles /c	2,046	61.6	-	-	1,274	38.4	-	-	-	-	-	-	-	-	-	-	3,320	1.6	1,994	51	1,274
E. Nucleas Estate establishment and Mill	-	-	-	-	0	-	90,622	100.0	-	-	-	-	-	-	-	-	90,622	43.1	78,588	12,034	-
Total Investment Costs	66,404	33.4	1,209	0.6	9,969	5.0	90,622	45.6	13,830	7.0	5,004	2.5	10,084	5.1	1,720	0.9	198,840	94.5	134,764	54,678	9,398
II. Recurrent Costs																					
A. Salaries and Allowances	6,974	91.4	-	-	657	8.6	-	-	-	-	-	-	-	-	-	-	7,631	3.6	-	6,974	657
B. Operating Costs	2,453	61.7	-	-	1,121	28.2	-	-	-	-	-	-	-	-	400	10.1	3,974	1.9	1,739	1,113	1,121
Total Recurrent Costs	9,426	81.2	-	-	1,778	15.3	-	-	-	-	-	-	-	-	400	3.4	11,604	5.5	1,739	8,087	1,778
Total PROJECT COSTS	75,830	36.0	1,209	0.6	11,747	5.6	90,622	43.1	13,830	6.6	5,004	2.4	10,084	4.8	2,120	1.0	210,445	100.0	136,503	62,765	11,177

\a Financing for development of OP smallholder plantations
\b Includes equipment, materials, consultancies, contracts for service provision ,training and workshops.
\c This includes ferries and water barges

Uganda
National Oil Palm Programme
Disbursements by Semesters and Government Cash Flow
(USD '000)

	Financing Available								Costs to be Financed	GoU	
	IFAD Loan	IFAD Grant	Private Sector	Trust (Loan reflows)	Development Loan Farmers	Commercial farmers	Farmers Organisations		Project		Cumulative
	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Total	Costs	Cash Flow	Cash Flow
1	1,796	150	-	100	87	-	-	2,133	2,920	-786	-786
2	1,796	150	-	100	87	-	-	2,133	2,920	-786	-1,572
3	4,595	113	4,357	164	170	-	-	9,399	10,088	-689	-2,261
4	4,595	113	4,357	164	170	-	-	9,399	10,088	-689	-2,950
5	5,562	113	1,753	936	245	-	-	8,609	9,281	-672	-3,622
6	5,562	113	1,753	936	245	-	-	8,609	9,281	-672	-4,294
7	5,805	114	1,645	1,828	385	20	-	9,797	10,519	-722	-5,016
8	5,805	114	1,645	1,828	385	20	-	9,797	10,519	-722	-5,737
9	5,840	114	1,987	2,094	430	493	-	10,958	11,726	-768	-6,506
10	5,840	114	1,987	2,094	430	493	-	10,958	11,726	-768	-7,274
11	4,616	-	2,292	1,276	384	1,019	-	9,587	10,111	-524	-7,798
12	4,616	-	2,292	1,276	384	1,019	-	9,587	10,111	-524	-8,322
13	3,636	-	10,197	376	352	1,218	7	15,784	16,232	-448	-8,770
14	3,636	-	10,197	376	352	1,218	7	15,784	16,232	-448	-9,218
15	2,929	-	7,670	140	284	1,067	250	12,341	12,801	-460	-9,679
16	2,929	-	7,670	140	284	1,067	250	12,341	12,801	-460	-10,139
17	1,916	-	7,693	-	138	700	354	10,802	11,230	-428	-10,567
18	1,916	-	7,693	-	138	700	354	10,802	11,230	-428	-10,995
19	1,221	-	7,717	-	28	524	449	9,939	10,315	-376	-11,371
20	1,221	-	7,717	-	28	524	449	9,939	10,315	-376	-11,747
Total	75,830	1,209	90,622	13,830	5,004	10,084	2,120	198,698	210,445	-11,747	-11,747

Uganda
National Oil Palm Programme

Components Project Cost Summary	(UGX Million)					(USD '000)				
	Local	Foreign	Total	% Foreign Exchang	% Total Base Costs	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs
A. Scaling-up investment in smallholder oil palm devel										
1. Development of smallholder oil palm plantations	103 567	103 484	207 051	50	28	29 174	29 150	58 324	50	28
2. Development of OPG organizations	28 167	30 956	59 123	52	8	7 934	8 720	16 654	52	8
3. Establishment of support infrastructures	21 609	32 542	54 151	60	7	6 087	9 167	15 254	60	7
4. Investment in nucleus estates and mills /a	42 316	273 066	315 382	87	43	11 920	76 920	88 840	87	43
Subtotal Scaling-up investment in smallholder oil palm	195 658	440 048	635 706	69	87	55 115	123 957	179 072	69	87
B. Livelihoods diversification and resilience										
Alternative economic opportunities	15 602	15 655	31 256	50	4	4 395	4 410	8 805	50	4
Mitigation of social risks	6 439	6 439	12 879	50	2	1 814	1 814	3 628	50	2
Subtotal Livelihoods diversification and resilience	22 041	22 094	44 135	50	6	6 209	6 224	12 432	50	6
C. OP Sector Development Framework										
Policy and institutional support for OP sector development	3 311	3 301	6 612	50	1	933	930	1 863	50	1
Strengthening of national capacity for OP research	3 067	3 446	6 513	53	1	864	971	1 835	53	1
Subtotal OP Sector Development Framework	6 378	6 747	13 125	51	2	1 797	1 901	3 697	51	2
D. Programme Management, M&E and Know ledge Management	35 343	6 497	41 840	16	6	9 956	1 830	11 786	16	6
Total BASELINE COSTS	259 420	475 387	734 806	65	100	73 076	133 912	206 988	65	100
Physical Contingencies	313	731	1 044	70	-	88	206	294	70	-
Price Contingencies	19 129	59 538	78 667	76	11	777	2 385	3 163	75	2
Total PROJECT COSTS	278 862	535 656	814 518	66	111	73 941	136 503	210 445	65	102

\a The purchase of land for Buvuma nucleaus estate financed by GoU is happening w ay before NOPP entry into force and has therefore been excluded from the NOPP costab

Uganda
National Oil Palm Programme

Expenditure Accounts Project Cost Sumr	(UGX Million)					(USD '000)				
	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs
I. Investment Costs										
A. Credit and Guarantee Funds /a	92 089	92 089	184 178	50	25	25 941	25 941	51 881	50	25
B. Works	10 442	24 364	34 805	70	5	2 941	6 863	9 804	70	5
C. Goods, Services and Inputs /b	75 000	72 791	147 792	49	20	21 127	20 505	41 631	49	20
D. Vehicles /c	4 654	7 004	11 658	60	2	1 311	1 973	3 284	60	2
E. Nucleas Estate establishment and Mill	42 316	273 066	315 382	87	43	11 920	76 920	88 840	87	43
Total Investment Costs	224 501	469 314	693 815	68	94	63 240	132 201	195 441	68	94
II. Recurrent Costs										
A. Salaries and Allow ances	27 088	-	27 088	-	4	7 631	-	7 631	-	4
B. Operating Costs	7 830	6 073	13 903	44	2	2 206	1 711	3 916	44	2
Total Recurrent Costs	34 918	6 073	40 991	15	6	9 836	1 711	11 547	15	6
Total BASELINE COSTS	259 420	475 387	734 806	65	100	73 076	133 912	206 988	65	100
Physical Contingencies	313	731	1 044	70	-	88	206	294	70	-
Price Contingencies	19 129	59 538	78 667	76	11	777	2 385	3 163	75	2
Total PROJECT COSTS	278 862	535 656	814 518	66	111	73 941	136 503	210 445	65	102

\a Financing for development of OP smallholder plantations
\b Includes equipment, materials, consultancies, contracts for service provision ,training and w orkshops.
\c This includes ferries and w ater barges

Uganda
National Oil Palm Programme
Expenditure Accounts by Components - Totals Incl
(USD '000)

	Scaling-up investment in smallholder oil palm development				Livelihoods diversification and resilience		OP Sector Development Framework			
	Development of smallholder oil palm plantations	Development of OPG organizations	Establishment of support infrastructures	Investment in nucleus estates and mills	Alternative economic opportunities	Mitigation of social risks	Policy and institutional support for OP sector development	Strengthening of national capacity for OP research	Programme Management, M&E and Knowledge Management	Total
I. Investment Costs										
A. Credit and Guarantee Funds /a	52 670	-	-	-	-	-	-	-	-	52 670
B. Works	-	1 926	8 033	-	-	-	-	258	-	10 217
C. Goods, Services and Inputs /b	6 498	9 852	7 611	-	8 730	3 663	1 861	1 096	2 701	42 012
D. Vehicles /c	10	3 175	-	-	75	-	25	34	-	3 320
E. Nucleas Estate establishment and Mill	-	-	-	90 622	-	-	-	-	-	90 622
Total Investment Costs	59 178	14 954	15 643	90 622	8 805	3 663	1 886	1 388	2 701	198 840
II. Recurrent Costs										
A. Salaries and Allowances	-	-	-	-	-	-	-	-	7 631	7 631
B. Operating Costs	-	2 002	-	-	-	-	-	473	1 499	3 974
Total Recurrent Costs	-	2 002	-	-	-	-	-	473	9 129	11 604
Total PROJECT COSTS	59 178	16 956	15 643	90 622	8 805	3 663	1 886	1 861	11 831	210 445
Taxes	598	4 208	2 408	-	950	442	353	342	1 875	11 177
Foreign Exchange	29 577	8 889	9 428	78 588	4 410	1 832	942	985	1 853	136 503

\a Financing for development of OP smallholder plantations
\b Includes equipment, materials, consultancies, contracts for service provision ,training and w orkshops.
\c This includes ferries and w ater barges

Uganda
National Oil Palm Programme
Project Components by Year -- Totals Including Contingencies

	Totals Including Contingencies (USD '000)										
	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total
A. Scaling-up investment in smallholder oil palm developmer											
1. Development of smallholder oil palm plantations	514	3 094	7 999	10 050	11 005	9 731	7 130	5 442	2 829	1 383	59 178
2. Development of OPG organizations	1 209	960	1 886	2 097	2 411	1 877	1 647	1 706	1 713	1 451	16 956
3. Establishment of support infrastructures	1 747	4 870	1 980	1 923	1 472	944	601	830	565	711	15 643
4. Investment in nucleus estates and mills /a	-	8 714	3 506	3 289	3 973	4 585	20 393	15 341	15 387	15 433	90 622
Subtotal Scaling-up investment in smallholder oil palm devel	3 470	17 639	15 371	17 359	18 861	17 138	29 771	23 318	20 495	18 978	182 399
B. Livelihoods diversification and resilience											
Alternative economic opportunities	236	273	855	1 434	1 620	1 560	1 169	872	527	256	8 805
Mitigation of social risks	443	531	747	746	649	208	219	91	29	-	3 663
Subtotal Livelihoods diversification and resilience	679	804	1 602	2 180	2 269	1 768	1 388	963	557	256	12 468
C. OP Sector Development Framework											
Policy and institutional support for OP sector development	178	375	285	188	179	142	138	133	134	134	1 886
Strengthening of national capacity for OP research	558	205	206	214	207	82	99	96	97	97	1 861
Subtotal OP Sector Development Framework	736	580	491	401	387	224	237	229	230	231	3 747
D. Programme Management, M&E and Know ledge Management	954	1 154	1 098	1 097	1 935	1 091	1 068	1 091	1 178	1 164	11 831
Total PROJECT COSTS	5 839	20 176	18 562	21 038	23 452	20 222	32 465	25 602	22 460	20 629	210 445

\a The purchase of land for Buvuma nucleaus estate financed by GoU is happening w ay before NOPP entry into force and has therefore been excluded from the NOPP costab

Uganda
National Oil Palm Programme
Expenditure Accounts by Years -- Totals Including
(USD '000)

	Totals Including Contingencies										
	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total
I. Investment Costs											
A. Credit and Guarantee Funds /a	374	2 494	5 977	7 812	10 004	9 430	7 079	5 391	2 778	1 331	52 670
B. Works	1 236	1 103	1 900	1 560	1 753	804	342	571	454	496	10 217
C. Goods, Services and Inputs /b	3 152	6 495	5 327	6 671	5 914	3 740	3 395	2 911	2 331	2 075	42 012
D. Vehicles /c	490	260	694	499	550	419	-	129	248	31	3 320
E. Nucleas Estate establishment and Mill	-	8 714	3 506	3 289	3 973	4 585	20 393	15 341	15 387	15 433	90 622
Total Investment Costs	5 252	19 068	17 404	19 830	22 194	18 977	31 209	24 342	21 198	19 366	198 840
II. Recurrent Costs											
A. Salaries and Allowances	422	801	801	801	801	801	801	801	801	801	7 631
B. Operating Costs	166	308	357	406	456	444	454	459	461	462	3 974
Total Recurrent Costs	587	1 109	1 158	1 207	1 257	1 245	1 255	1 260	1 262	1 263	11 604
Total PROJECT COSTS	5 839	20 176	18 562	21 038	23 452	20 222	32 465	25 602	22 460	20 629	210 445

\a Financing for development of OP smallholder plantations
\b Includes equipment, materials, consultancies, contracts for service provision ,training and w orkshops.
\c This includes ferries and w ater barges

Attachment 2: Detailed cost tables

Uganda
National Oil Palm Programme
Table 1.1. Buvuma Hub
Detailed Costs
(USD)

		Quantities												Totals Including Contingencies ('000)									
	Unit	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total	Unit Cost	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total
I. Investment Costs																								
A. Buvuma nucleus estate and the Mill																								
1. Nucleus estate plantation establishment and maintenance /a	Ls													-	8 714	3 506	3 289	3 973	4 585	-	-	-	-	24 068
2. Oil mill	No	-	-	-	-	-	-	1	-	-	-	1	20,000,000	-	-	-	-	-	-	20 393	-	-	-	20 393
Subtotal Buvuma nucleus estate and the Mill														-	8 714	3 506	3 289	3 973	4 585	20 393	-	-	-	44 461
B. Hub start-up team to support smallholder plantings /b																								
Plantation Establishment Manager /c	Months	6	12	12	-	-	-	-	-	-	-	30	8,000	48	96	97	-	-	-	-	-	-	-	241
Roads, Terracing and Infrastructure specialist	Months	6	12	12	-	-	-	-	-	-	-	30	3,000	18	36	36	-	-	-	-	-	-	-	90
Planter	Months	6	12	12	-	-	-	-	-	-	-	30	1,000	6	12	12	-	-	-	-	-	-	-	30
Lining Gang officer	Months	6	12	12	-	-	-	-	-	-	-	30	1,000	6	12	12	-	-	-	-	-	-	-	30
Agronomist/extension specialist	Months	6	12	12	-	-	-	-	-	-	-	30	2,200	13	27	27	-	-	-	-	-	-	-	66
Extension Officers /d	Months	18	36	72	-	-	-	-	-	-	-	126	1,000	18	36	73	-	-	-	-	-	-	-	127
Logistics and Inventory Specialist	Months	6	12	12	-	-	-	-	-	-	-	30	2,200	13	27	27	-	-	-	-	-	-	-	66
Accountant	Months	6	12	12	-	-	-	-	-	-	-	30	1,000	6	12	12	-	-	-	-	-	-	-	30
Clerk and Credit Officer	Months	6	12	12	-	-	-	-	-	-	-	30	1,000	6	12	12	-	-	-	-	-	-	-	30
Subtotal Hub start-up team to support smallholder plantings														135	270	307	-	-	-	-	-	-	-	712
C. Buvuma ferry service /e																								
Ferry for Buvuma island /f	vehicle	-	1	-	-	-	-	-	-	-	-	1	3,000,000	-	3 014	-	-	-	-	-	-	-	-	3 014
Designing and building tw o landing sites in Buvuma island	Ls													1 182	-	-	-	-	-	-	-	-	-	1 182
Construction supervision for tw o landing sites in Buvuma island	Ls													111	-	-	-	-	-	-	-	-	-	111
Subtotal Buvuma ferry service														1 293	3 014	-	-	-	-	-	-	-	-	4 307
D. Construction of road network for OPGs																								
Access roads /g	km	25	25	-	-	-	-	-	-	-	-	50	7,700	199	199	-	-	-	-	-	-	-	-	398
Collection roads /h	km	75	75	-	-	-	-	-	-	-	-	150	3,300	255	256	-	-	-	-	-	-	-	-	511
Routine maintainance of Access roads	cost/km	-	25	50	50	25	25	50	50	50	25	350	120	-	3	6	6	3	3	6	6	6	3	44
Major periodic maintainace	cost/km	-	-	-	-	25	25	-	-	-	25	75	3,000	-	-	-	-	78	79	-	-	-	79	236
Routine maintainance of farm roads	cost/km	-	75	150	75	75	150	150	150	75	75	975	100	-	8	16	8	8	16	16	16	8	8	102
Major periodic maintainace-Farm roads	cost/km	-	-	-	75	75	-	-	-	75	75	300	1,500	-	-	-	117	117	-	-	-	119	119	473
Subtotal Construction of road network for OPGs														454	466	22	131	207	97	22	22	133	210	1 764
E. Oil Palm plantings and maintenance																								
1. Plantings to be supported through development loans																								
Land preparation	ha	-	1 250	1 250	-	-	-	-	-	-	-	2 500	328	-	412	413	-	-	-	-	-	-	-	825
Contour bunding	ha	-	1 250	1 250	-	-	-	-	-	-	-	2 500	182	-	229	229	-	-	-	-	-	-	-	458
Seedlings	ha	-	1 250	1 250	-	-	-	-	-	-	-	2 500	716	-	899	902	-	-	-	-	-	-	-	1 801
Fertilizer	ha	-	1 250	1 250	-	-	-	-	-	-	-	2 500	208	-	261	262	-	-	-	-	-	-	-	523
other planting costs /i	ha	-	1 250	1 250	-	-	-	-	-	-	-	2 500	254	-	319	320	-	-	-	-	-	-	-	639
Subtotal Plantings to be supported through development loans														-	2 120	2 126	-	-	-	-	-	-	-	4 245

2. Farm maintenance																							
a. OPG Year 2 maintenance																							
Seedlings /j	ha	-	-	1 250	1 250	-	-	-	-	-	-	2 500	46	-	-	58	58	-	-	-	-	-	-	116
Fertilizer	ha	-	-	1 250	1 250	-	-	-	-	-	-	2 500	233	-	-	293	294	-	-	-	-	-	-	588
Other crop maintainance costs	ha	-	-	1 250	1 250	-	-	-	-	-	-	2 500	213	-	-	268	269	-	-	-	-	-	-	537
Subtotal OPG Year 2 maintenance														-	-	620	621	-	-	-	-	-	-	1 241
b. OPG Year 3 maintenance																								
Fertilizer	ha	-	-	-	1 250	1 250		-	-	-	-	-	2 500	347	-	-	-	438	440	-	-	-	-	-	878
Other crop maintainance costs	ha	-	-	-	1 250	1 250		-	-	-	-	-	2 500	169	-	-	-	213	214	-	-	-	-	-	428
Subtotal OPG Year 3 maintenance														-	-	-	652	654	-	-	-	-	-	1 306
c. OPG Year 4 maintenance																								
Fertilizer	ha	-	-	-	-	1 250	1 250		-	-	-	-	2 500	253	-	-	-	-	321	322	-	-	-	-	642
Other crop maintainance costs	ha	-	-	-	-	1 250	1 250		-	-	-	-	2 500	276	-	-	-	-	350	351	-	-	-	-	700
Subtotal OPG Year 4 maintenance														-	-	-	-	670	672	-	-	-	-	1 342
d. OPG Year 5- fertiliser only																								
OPG Year 5-Other crop maintainance costs /k	ha	-	-	-	-	-	-	1 250	1 250	-	-	2 500	183	-	-	-	-	-	-	233	234	-	-	467
Subtotal Farm maintenance														-	-	620	1 273	1 324	672	233	234	-	-	4 356
Subtotal Oil Palm plantings and maintenance														-	2 120	2 745	1 273	1 324	672	233	234	-	-	8 602
F. Environmental management, Health and Safety																								
Environmental management investment /l	ha	-	250	250	-	-	-	-	-	-	-	500	500	-	126	126	-	-	-	-	-	-	-	252
EHS OP growers training /m	session	-	2	2	2	2	2	2	2	2	2	18	5,000	-	10	10	10	10	10	10	10	10	10	91
EHS capacity building workshops	workshop	-	1	-	-	-	-	-	-	-	-	1	3,500	-	4	-	-	-	-	-	-	-	-	4
Motorbike for district environment officers	unit	-	1	-	-	-	-	-	-	-	-	1	2,000	-	2	-	-	-	-	-	-	-	-	2
Subtotal Environmental management, Health and Safety														-	141	136	10	10	10	10	10	10	10	349
G. Development of Buvuma OPG farmer organisation																								
1. Buildings /n																								
Fertilizer Store	No	1	-	-	-	-	-	-	-	-	-	1	300,000	309	-	-	-	-	-	-	-	-	-	309
Office Building	No	1	-	-	-	-	-	-	-	-	-	1	100,000	103	-	-	-	-	-	-	-	-	-	103
Furniture	ls													-	35	-	-	-	-	-	-	-	-	35
Office equipment /o	LS													65	-	-	66	-	-	-	-	-	-	131
Accounting package /p	software	-	1	-	-	-	-	-	-	-	-	1	75,000	-	75	-	-	-	-	-	-	-	-	75
Subtotal Buildings														478	110	-	66	-	-	-	-	-	-	654
2. Vehicles /q																								
4WD double cabin pickup	vehicle	3	-	-	3	-	-	-	-	-	-	6	30,000	90	-	-	91	-	-	-	-	-	-	181
Bus, 18 people	vehicle	2	-	-	-	-	-	-	-	-	-	2	35,000	70	-	-	-	-	-	-	-	-	-	70
Tractor-trailor	vehicle	4	-	-	-	-	-	-	-	-	-	4	71,000	284	-	-	-	-	-	-	-	-	-	284
7 ton dump trucks	vehicle	-	2	-	-	-	2	-	-	-	-	4	100,000	-	201	-	-	-	203	-	-	-	-	404
Motorcycles	vehicle	-	12	-	-	-	-	-	12	-	-	24	2,000	-	24	-	-	-	-	-	25	-	-	49
Subtotal Vehicles														445	225	-	91	-	203	-	25	-	-	988
3. Capacity building of OPG organization																								
Contract with service provider for structuring and governance of OPG organization /r	Lumpsum	-	3	1	1	1	-	-	-	-	-	6	35,000	-	105	35	35	35	-	-	-	-	-	212
Exchange visits to Bugala /s	visits	-	2	2	2	2	2	-	-	-	-	10	5,000	-	10	10	10	10	10	-	-	-	-	51
Oil palm technical training /t	LS	-	4	4	4	-	-	-	-	-	-	12	7,000	-	28	28	28	-	-	-	-	-	-	85
Development & production of Oil Palm farmers hand book series and trainig Manual	LS													-	50	-	-	-	-	-	-	-	-	50
Subtotal Capacity building of OPG organization														-	194	74	74	46	10	-	-	-	-	397

H. Technical support services team																							
General Manager	Months	-	-	-	12	12	12	12	12	12	12	84	2,300	-	-	-	28	28	28	28	28	28	28	197
Field Operations Manager	Months	-	-	-	12	12	12	12	12	12	12	84	1,720	-	-	-	21	21	21	21	21	21	21	147
Extension Officers /u	Months	-	-	-	60	60	60	60	60	60	60	420	1,000	-	-	-	61	61	61	61	61	62	62	428
Finance and admin manager	Months	-	-	-	12	12	12	12	12	12	12	84	1,720	-	-	-	21	21	21	21	21	21	21	147
Accountant	Months	-	-	-	12	12	12	12	12	12	12	84	1,200	-	-	-	15	15	15	15	15	15	15	103
Logistics and proc officer	Months	-	-	-	12	12	12	12	12	12	12	84	800	-	-	-	10	10	10	10	10	10	10	69
Assistant Accountant-admin	Months	-	-	-	12	12	12	12	12	12	12	84	800	-	-	-	10	10	10	10	10	10	10	69
Assistant Accountant-Operations	Months	-	-	-	12	12	12	12	12	12	12	84	800	-	-	-	10	10	10	10	10	10	10	69
Credit Manager	Months	-	-	-	12	12	12	12	12	12	12	84	1,720	-	-	-	21	21	21	21	21	21	21	147
Credit Officer	Months	-	-	-	12	12	12	12	12	12	12	84	800	-	-	-	10	10	10	10	10	10	10	69
Data Officer	Months	-	-	-	12	12	12	12	12	12	12	84	800	-	-	-	10	10	10	10	10	10	10	69
Storekeeper	Months	-	-	-	12	12	12	12	12	12	12	84	800	-	-	-	10	10	10	10	10	10	10	69
Enviromental Healtly management assistant	Months	-	-	-	12	12	12	12	12	12	12	84	800	-	-	-	10	10	10	10	10	10	10	69
Drivers	Months	-	-	-	12	12	12	12	12	12	12	84	400	-	-	-	5	5	5	5	5	5	5	34
Medical Insurance for staff	cost/year													-	-	-	17	17	17	17	17	17	17	121
NSSF contribution	cost/year													-	-	-	24	24	24	24	24	24	24	165
Subtotal Technical support services team														-	-	-	279	280	281	281	282	283	284	1 970
Total Investment Costs														2 804	15 254	6 790	5 213	5 839	5 859	20 940	573	426	504	64 203
II. Recurrent Costs																								
A. Vehicle Operating Costs	year	1	1	1	1	1	1	1	1	1	1	10	17,000	17	17	17	17	17	17	17	17	17	17	173
B. Other Operating Costs	per year													31	31	31	31	31	32	32	32	32	32	315
Total Recurrent Costs														48	48	48	49	49	49	49	49	49	49	487
Total														2 852	15 302	6 838	5 262	5 888	5 908	20 989	622	476	553	64 690

\a These are costs to be incurred by the BUL and includes nucleuas estate road network and on-farm investments
\b Hub planning studies for Buvuma (ESIA; rapid physical planning assessment; others as necessary) will be undertaken under VODP2
\c International expert to support the establishment of plantings
\d one officer per block; one extension office can cover 500 ha
\e It is possible that this ferry service may be financed under VODP2. In case this fails then this cost will be covered by GoU
\f Barge 120 ton capacity for 4 return trips daily
\g Unit cost includes 10% supervision and design costs
\h Unit cost includes 10% design and supervision costs
\i Incluses Lining,Pegging,Distribution,Holing and Planting, weed control, pest control, rodent control and transportation and labour
\j Replacement seedings
\k Year 5 covers only fertilisers
\l Includes Enrichment and woodlot
\m Two sessions per OPG per year per hub; session costs 1/2 day workshop + 1/2 day field, printing material. Support for Kalangala for 4 years; other areas for entire programme length
\n To be used by staret-up team first, then transferred to TSS
\o Includes Generator, 5 desktops, 10 laptops, mobile phones, hand held GPS, 2 printers and photocopier
\p includes training of staff
\q To be used by staret-up team first, then transferred to TSS
\r Following mobilisation, contract to build governance for units and blocks, form District oil palm growers associations and register them.
\s Overnight visit, groups of 15-18 farmers (1 bus load)
\t Field supervisory and staff, international travel to Malaysia to Wilmar Plantations
\u 5 officers

Uganda
National Oil Palm Programme
Table 1.2. Mayuge -Hub
Detailed Costs
(USD)

	Unit	Quantities											Unit Cost	Totals Including Contingencies ('000)									
		18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total		18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total
I. Investment Costs																								
A. Oil mill	No	-	-	-	-	-	-	-	1	-	-	1	15,000,000	-	-	-	-	-	-	-	15 341	-	-	15 341
B. Seedlings nursery /a	No	-	1	-	-	-	-	-	-	-	-	1	750,000	-	753	-	-	-	-	-	-	-	-	753
C. Hub development planning studies																								
1. Environment and Social Impact Assessment /b	study	1	-	-	-	-	-	-	-	-	-	1		-	-	-	-	-	-	-	-	-	-	-
2. Rapid physical planning assessment	Ls	-	1	-	-	-	-	-	-	-	-	1		-	-	-	-	-	-	-	-	-	-	-
3. Other studies/assessments	Ls													-	30	-	-	-	-	-	-	-	-	30
Subtotal Hub development planning studies														-	30	-	-	-	-	-	-	-	-	30
D. Hub start-up team																								
Plantation Establishment Manager	Months	-	6	12	12	-	-	-	-	-	-	30	8,000	-	48	97	97	-	-	-	-	-	-	242
Roads, Terracing and Infrastructure Officer	Months	-	6	12	12	-	-	-	-	-	-	30	3,000	-	18	36	36	-	-	-	-	-	-	91
Planter	Months	-	6	12	12	-	-	-	-	-	-	30	1,000	-	6	12	12	-	-	-	-	-	-	30
Lining Gang officer	Months	-	6	12	12	-	-	-	-	-	-	30	1,000	-	6	12	12	-	-	-	-	-	-	30
Agronomist/extension specialist	Months	-	6	12	12	-	-	-	-	-	-	30	2,200	-	13	27	27	-	-	-	-	-	-	67
Extension Officers /c	Months	-	24	48	96	-	-	-	-	-	-	168	1,000	-	24	48	97	-	-	-	-	-	-	169
Logistics and Inventory Specialist	Months	-	6	12	12	-	-	-	-	-	-	30	2,200	-	13	27	27	-	-	-	-	-	-	67
Accountant	Months	-	6	12	12	-	-	-	-	-	-	30	1,000	-	6	12	12	-	-	-	-	-	-	30
Clerk and Credit Officer	Months	-	6	12	12	-	-	-	-	-	-	30	1,000	-	6	12	12	-	-	-	-	-	-	30
Medical Insurance /d	LS	-	6	12	12	-	-	-	-	-	-	30	845	-	5	10	10	-	-	-	-	-	-	26
Subtotal Hub start-up team														-	146	293	343	-	-	-	-	-	-	782
E. Plantings, farm maintainance & roads (Development loan)																								
1. Plantings																								
a. Plantings /e																								
Land preparation	ha	-	-	1 750	1 750	-	-	-	-	-	-	3 500	328	-	-	578	580	-	-	-	-	-	-	1 158
Contour Bunding	ha	-	-	1 750	1 750	-	-	-	-	-	-	3 500	182	-	-	321	322	-	-	-	-	-	-	643
Seedlings	ha	-	-	1 750	1 750	-	-	-	-	-	-	3 500	716	-	-	1 262	1 266	-	-	-	-	-	-	2 529
Fertiliser	ha	-	-	1 750	1 750	-	-	-	-	-	-	3 500	208	-	-	367	368	-	-	-	-	-	-	735
Other planting costs /f	ha	-	-	1 750	1 750	-	-	-	-	-	-	3 500	254	-	-	448	449	-	-	-	-	-	-	897
Subtotal Plantings														-	-	2 976	2 985	-	-	-	-	-	-	5 961
2. Farm maintenance																								
a. OPG Year 2 maintenance																								
Seedlings	ha	-	-	-	1 750	1 750	-	-	-	-	-	3 500	46	-	-	-	81	82	-	-	-	-	-	163
Fertilizer	ha	-	-	-	1 750	1 750	-	-	-	-	-	3 500	233	-	-	-	412	413	-	-	-	-	-	825
Other crop maintainance costs	ha	-	-	-	1 750	1 750	-	-	-	-	-	3 500	213	-	-	-	377	378	-	-	-	-	-	754
Subtotal OPG Year 2 maintenance														-	-	-	870	873	-	-	-	-	-	1 743
b. OPG Year 3 maintenance																								
Fertilizer	ha	-	-	-	-	1 750	1 750	-	-	-	-	3 500	347	-	-	-	-	615	617	-	-	-	-	1 233
Other crop maintainance costs	ha	-	-	-	-	1 750	1 750	-	-	-	-	3 500	169	-	-	-	-	300	301	-	-	-	-	600
Subtotal OPG Year 3 maintenance														-	-	-	-	915	918	-	-	-	-	1 833
c. OPG Year 4 maintenance																								
Fertilizer	ha	-	-	-	-	-	1 750	1 750	-	-	-	3 500	253	-	-	-	-	-	450	451	-	-	-	902
Other crop maintainance costs	ha	-	-	-	-	-	1 750	1 750	-	-	-	3 500	276	-	-	-	-	-	491	492	-	-	-	984
Subtotal OPG Year 4 maintenance														-	-	-	-	-	941	944	-	-	-	1 885
d. OPG Year 5 maintenance																								
Other crop maintainance costs	ha	-	-	-	-	-	-	1 750	1 750	-	-	3 500	183	-	-	-	-	-	-	327	328	-	-	654
Subtotal Farm maintenance														-	-	-	870	1 788	1 859	1 270	328	-	-	6 115

3. Construction and maintainance of road network for OPGs /g																							
Access roads in loan financed areas /h	km	-	35	35	-	-	-	-	-	-	-	70	7,700	-	279	280	-	-	-	-	-	-	559
Collection roads in loan financed areas /i	km	-	105	105	-	-	-	-	-	-	-	210	3,300	-	359	360	-	-	-	-	-	-	718
Routine maintainance of farm roads	km	-	-	105	210	105	105	210	210	210	105	1 260	100	-	-	11	22	11	11	22	22	22	11	132
Major periodic maintainace-Farm roads	km	-	-	-	-	105	105	-	-	-	105	315	1,500	-	-	-	-	164	165	-	-	-	167	496
Routine maintainance of Access roads	km	-	-	35	70	35	35	70	70	70	35	420	120	-	-	4	8	4	4	9	9	9	4	51
Major periodic maintainace-Acess roads	km	-	-	-	-	35	35	-	-	-	35	105	3,000	-	-	-	-	106	107	-	-	-	108	321
Subtotal Construction and maintainance of road network for OPGs														-	637	654	30	286	287	31	31	31	290	2 278
Subtotal Plantings, farm maintainance & roads (Development loan)														-	637	3 631	3 886	2 074	2 146	1 301	358	31	290	14 354
F. Plantings, farm maintenance & roads (Commercial Farmers)																								
1. Plantings																								
Land preparation	ha	-	-	-	-	553	552	-	-	-	-	1 105	328	-	-	-	-	184	184	-	-	-	-	368
Contour Bunding	ha	-	-	-	-	553	552	-	-	-	-	1 105	182	-	-	-	-	102	102	-	-	-	-	204
Seedlings	ha	-	-	-	-	553	552	-	-	-	-	1 105	716	-	-	-	-	401	402	-	-	-	-	803
Fertiliser	ha	-	-	-	-	553	552	-	-	-	-	1 105	208	-	-	-	-	117	117	-	-	-	-	233
Other planting costs /j	ha	-	-	-	-	553	552	-	-	-	-	1 105	254	-	-	-	-	142	143	-	-	-	-	285
Subtotal Plantings														-	-	-	-	946	947	-	-	-	-	1 893
2. Farm Maintenance																								
a. OPG Year 2 maintenance																								
Seedlings	ha	-	-	-	-	-	553	552	-	-	-	1 105	46	-	-	-	-	-	26	26	-	-	-	52
Fertilizer	ha	-	-	-	-	-	553	552	-	-	-	1 105	233	-	-	-	-	-	131	131	-	-	-	262
Other crop maintainance costs	ha	-	-	-	-	-	553	552	-	-	-	1 105	213	-	-	-	-	-	120	120	-	-	-	240
Subtotal OPG Year 2 maintenance														-	-	-	-	-	277	277	-	-	-	554
b. OPG Year 3 maintenance																								
Fertilizer	ha	-	-	-	-	-	-	553	552	-	-	1 105	347	-	-	-	-	-	-	196	196	-	-	392
Other crop maintainance costs	ha	-	-	-	-	-	-	553	552	-	-	1 105	169	-	-	-	-	-	-	95	95	-	-	191
Subtotal OPG Year 3 maintenance														-	-	-	-	-	-	291	291	-	-	582
c. OPG Year 4 maintenance																								
Fertilizer	ha	-	-	-	-	-	-	-	553	552	-	1 105	253	-	-	-	-	-	-	-	143	143	-	286
Other crop maintainance costs	ha	-	-	-	-	-	-	-	553	552	-	1 105	276	-	-	-	-	-	-	-	156	156	-	312
Subtotal OPG Year 4 maintenance														-	-	-	-	-	-	-	299	300	-	599
d. OPG Year 5 maintenance																								
Other crop maintainance costs	ha	-	-	-	-	-	-	-	-	553	552	1 105	183	-	-	-	-	-	-	-	-	104	104	208
Subtotal Farm Maintenance														-	-	-	-	-	277	568	590	403	104	1 942
3. Construction and maintainance of road network for OPGs																								
Access roads in own financed areas /k	km	-	-	-	10	10	-	-	-	-	-	20	7,700	-	-	-	80	80	-	-	-	-	-	161
Collection roads in own financed areas /l	km	-	-	-	35	35	-	-	-	-	-	70	3,300	-	-	-	120	121	-	-	-	-	-	241
Routine maintainance of farm roads	km	-	-	-	-	30	60	30	30	60	-	210	100	-	-	-	-	3	6	3	3	6	-	22
Major periodic maintainace-Farm roads	km	-	-	-	-	-	-	30	30	-	-	60	1,500	-	-	-	-	-	-	47	47	-	-	95
Routine maintainance of Access roads	km	-	-	-	-	10	20	10	10	20	-	70	120	-	-	-	-	1	3	1	1	3	-	9
Major periodic maintainace-Acess roads	km	-	-	-	-	-	-	10	10	-	-	20	3,000	-	-	-	-	-	-	32	32	-	-	63
Subtotal Construction and maintainance of road network for OPGs														-	-	-	200	205	9	83	83	9	-	590
Subtotal Plantings, farm maintenance & roads (Commercial Farmers)														-	-	-	200	1 151	1 233	651	674	412	104	4 426
G. Environmental management, Health and Safety																								
1. Enviromental management Investment /m	ha	-	-	1 375	1 376	-	-	-	-	-	-	2 751	500	-	-	693	695	-	-	-	-	-	-	1 388
2. EHS training /n	session	-	-	2	2	2	2	2	2	2	2	16	5,000	-	-	10	10	10	10	10	10	10	10	81
3. EHS capacity building workshops	workshop	-	-	1	-	-	-	-	-	-	-	1	3,500	-	-	4	-	-	-	-	-	-	-	4
4. Motorbike for district environment officers	unit	-	1	-	-	-	-	-	-	-	-	1	2,000	-	2	-	-	-	-	-	-	-	-	2
Subtotal Environmental management, Health and Safety														-	2	706	705	10	10	10	10	10	10	1 475

H. Development of Mayuge OPG organisation																							
1. Buildings																							
Fertilizer Store	No	-	-	4	-	-	-	-	-	-	-	4	120,000	-	-	498	-	-	-	-	-	-	-	498
Office Building	No	-	-	1	-	-	-	-	-	-	-	1	100,000	-	-	104	-	-	-	-	-	-	-	104
Furniture	set	-	-	1	-	-	-	-	-	-	-	1	25,000	-	-	25	-	-	-	-	-	-	-	25
Office equipment /o	set	-	-	1	-	-	1	-	-	-	-	2	65,000	-	-	65	-	-	66	-	-	-	-	132
Accounting Package /p	Softw are	-	-	1	-	-	-	-	-	-	-	1	75,000	-	-	78	-	-	-	-	-	-	-	78
Subtotal Buildings														-	-	770	-	-	66	-	-	-	-	836
2. Vehicles																								
4WD double cabin pickup /q	vehicle	-	-	3	-	-	-	-	3	-	-	6	30,000	-	-	91	-	-	-	-	92	-	-	183
Bus, 18 people	vehicle	-	-	2	-	-	-	-	-	-	-	2	35,000	-	-	71	-	-	-	-	-	-	-	71
Tractor-trailor	vehicle	-	-	4	-	-	-	-	-	-	-	4	71,000	-	-	286	-	-	-	-	-	-	-	286
7 ton dump trucks	vehicle	-	-	2	-	-	2	-	-	-	-	4	100,000	-	-	202	-	-	203	-	-	-	-	405
Motorcycles	vehicle	-	-	15	-	-	-	-	-	15	-	30	2,000	-	-	30	-	-	-	-	-	31	-	61
Subtotal Vehicles														-	-	679	-	-	203	-	92	31	-	1 005
3. Capacity building of OPG organization																								
Contract w ith service provider for structuring and governance of OPG organization /r	Lumpsum	-	3	1	1	1	-	-	-	-	-	6	35,000	-	105	35	35	35	-	-	-	-	-	212
Exchange visits to Bugala /s	visits	-	2	2	2	2	2	-	-	-	-	10	5,000	-	10	10	10	10	10	-	-	-	-	51
Oilpalm technical training	sessions	-	20	4	4	4	-	-	-	-	-	32	7,000	-	141	28	28	28	-	-	-	-	-	226
Oil Palm handbook	Ls													-	50	-	-	-	-	-	-	-	-	50
Subtotal Capacity building of OPG organization														-	306	74	74	74	10	-	-	-	-	538
Subtotal Development of Mayuge OPG organisation														-	306	1 523	74	74	280	-	92	31	-	2 380
I. Technical support services team																								
General Manager	Months	-	-	-	-	12	12	12	12	10	8	66	2,300	-	-	-	-	28	28	28	28	24	19	155
Field Operations Manager	Months	-	-	-	-	12	12	12	12	10	8	66	1,720	-	-	-	-	21	21	21	21	18	14	116
Extension Officers /t	Months	-	-	-	-	84	84	84	84	70	56	462	1,000	-	-	-	-	85	85	86	86	72	58	472
Finance and admin manager	Months	-	-	-	-	12	12	12	12	10	8	66	1,720	-	-	-	-	21	21	21	21	18	14	116
Accountant	Months	-	-	-	-	12	12	12	12	10	8	66	1,200	-	-	-	-	15	15	15	15	12	10	81
Logistics and proc officer	Months	-	-	-	-	12	12	12	12	10	8	66	800	-	-	-	-	10	10	10	10	8	7	54
Assistant Accountant-admin	Months	-	-	-	-	12	12	12	12	10	8	66	800	-	-	-	-	10	10	10	10	8	7	54
Assistant Accountant-Operations	Months	-	-	-	-	12	12	12	12	10	8	66	800	-	-	-	-	10	10	10	10	8	7	54
Credit Manager	Months	-	-	-	-	12	12	12	12	10	8	66	1,720	-	-	-	-	21	21	21	21	18	14	116
Credit Officer	Months	-	-	-	-	12	12	12	12	10	8	66	800	-	-	-	-	10	10	10	10	8	7	54
Data Officer	Months	-	-	-	-	12	12	12	12	10	8	66	800	-	-	-	-	10	10	10	10	8	7	54
Storekeeper	Months	-	-	-	-	48	48	48	48	40	32	264	800	-	-	-	-	39	39	39	39	33	26	216
Enviromental Healtly management assistant	Months	-	-	-	-	12	12	12	12	10	8	66	800	-	-	-	-	10	10	10	10	8	7	54
Drivers	Months	-	-	-	-	12	12	12	12	10	8	66	400	-	-	-	-	5	5	5	5	4	3	27
Medical Insurance for staff	cost/year													-	-	-	-	21	21	22	22	22	22	129
NSSF contribution	cost/year													-	-	-	-	29	29	29	29	29	29	173
Total Investment Costs														-	1 875	6 153	5 208	3 653	4 012	2 307	16 821	781	653	41 464
II. Recurrent Costs																								
A. Vehicle Operating Costs	year	-	-	1	1	1	1	1	1	1	1	8	17,000	-	-	17	17	17	17	17	17	17	17	138
B. Other Operating Costs	per year													-	-	31	31	31	32	32	32	32	32	253
Total														-	1 875	6 201	5 256	3 701	4 061	2 356	16 870	831	703	41 855

\a Assumed to be half of Buvuma based on acrage
\b Assuming four new areas
\c one officer per block
\d Private medical coverage to be procured and paid annually for all staff at UGX 250000 per person per month
\e 80% of farmers expected to develop 2ha or under, 1000ha in year 5 and 6 the spontaneous areas
\f Incluses Lining,Pegging,Distribution,Holing and Planting, w eed control, pest control, rodent control and transportation and labour
\g Costs included 10% for design and supervision
\h 0.02 km per ha
\i 0.06 km per ha
\j Incluses Lining,Pegging,Distribution,Holing and Planting, w eed control, pest control, rodent control and transportation and labour
\k 0.02 km per ha
\l 0.06 km per ha
\m In Lake buffer zone for bank protection, includes Enrichment planting and w ood lot
\n Tw o sessions per OPG per year per hub; session costs 1/2 day w orkshop + 1/2 day field, printing material. Support for Kalangala for 4 years; other areas for entire programme length
\o Includes Generator, 5 desktops, 10 laptops, mobile phones, hand held GPS, 2 printers and photocopier
\p Includes training of staff
\q Mobility to follow oil palm grow ing in 3 Eastern hub districts
\r Follow ing mobilisation, contract to build governance for units and blocks, form District oil palm grow ers associations and register them, more grow ers in Mayuge so more resources needed.
\s Overnight visit, groups of 15-18 farmers (1 bus load)
\t 7 officers (3 for bw ikw e and 4 for mukono)

Uganda
National Oil Palm Programme
Table 1.3. Masaka
Detailed Costs
(USD)

		Quantities												Totals Including Contingencies ('000)									
	Unit	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total	Unit Cost	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total
I. Investment Costs																								
A. Oil mill	No	-	-	-	-	-	-	-	-	1	-	1	15,000,000	-	-	-	-	-	-	-	-	15 387	-	15 387
B. Seedlings nursery /a	No	-	-	1	-	-	-	-	-	-	-	1	750,000	-	-	756	-	-	-	-	-	-	-	756
C. Hub development planning studies																								
1. Environment and Social Impact Assessment /b	study	-	-	1	-	-	-	-	-	-	-	1	65,000	-	-	65	-	-	-	-	-	-	-	65
2. Rapid physical planning assessment	Ls	-	-	1	-	-	-	-	-	-	-	1		-	-	-	-	-	-	-	-	-	-	-
3. Other studies/assessments	Ls													-	-	30	-	-	-	-	-	-	-	30
Subtotal Hub development planning studies														-	-	96	-	-	-	-	-	-	-	96
D. Hub start-up team																								
Plantation Establishment Manager	Months	-	-	6	12	12	-	-	-	-	-	30	8,000	-	-	48	97	97	-	-	-	-	-	243
Roads, Terracing and Infrastructure Officer	Months	-	-	6	12	12	-	-	-	-	-	30	3,000	-	-	18	36	36	-	-	-	-	-	91
Planter	Months	-	-	6	12	12	-	-	-	-	-	30	1,000	-	-	6	12	12	-	-	-	-	-	30
Lining Gang officer	Months	-	-	6	12	12	-	-	-	-	-	30	1,000	-	-	6	12	12	-	-	-	-	-	30
Agronomist/extension specialist	Months	-	-	6	12	12	-	-	-	-	-	30	2,200	-	-	13	27	27	-	-	-	-	-	67
Extension Officers /c	Months	-	-	18	36	72	-	-	-	-	-	126	1,000	-	-	18	36	73	-	-	-	-	-	127
Logistics and Inventory Specialist	Months	-	-	6	12	12	-	-	-	-	-	30	2,200	-	-	13	27	27	-	-	-	-	-	67
Accountant	Months	-	-	6	12	12	-	-	-	-	-	30	1,000	-	-	6	12	12	-	-	-	-	-	30
Clerk and Credit Officer	Months	-	-	6	12	12	-	-	-	-	-	30	1,000	-	-	6	12	12	-	-	-	-	-	30
Medical Insurance /d	LS	-	-	6	12	12	-	-	-	-	-	30	845	-	-	5	10	10	-	-	-	-	-	26
Subtotal Hub start-up team														-	-	141	282	319	-	-	-	-	-	742
E. Plantings, farm maintainance & roads (Development loans)																								
1. Plantings																								
a. Plantings																								
Land preparation	ha	-	-	-	1 500	1 500	-	-	-	-	-	3 000	328	-	-	-	497	499	-	-	-	-	-	996
Contour Bunding	ha	-	-	-	1 500	1 500	-	-	-	-	-	3 000	182	-	-	-	276	277	-	-	-	-	-	553
Seedlings	ha	-	-	-	1 500	1 500	-	-	-	-	-	3 000	716	-	-	-	1 085	1 089	-	-	-	-	-	2 174
Fertiliser	ha	-	-	-	1 500	1 500	-	-	-	-	-	3 000	208	-	-	-	315	316	-	-	-	-	-	632
Other planting costs /e	ha	-	-	-	1 500	1 500	-	-	-	-	-	3 000	254	-	-	-	385	386	-	-	-	-	-	771
Subtotal Plantings														-	-	-	2 559	2 566	-	-	-	-	-	5 125
2. Farm maintenance																								
a. OPG Year 2 maintenance																								
Seedlings	ha	-	-	-	-	1 500	1 500	-	-	-	-	3 000	46	-	-	-	-	70	70	-	-	-	-	140
Fertilizer	ha	-	-	-	-	1 500	1 500	-	-	-	-	3 000	233	-	-	-	-	354	355	-	-	-	-	710
Other crop maintainance costs	ha	-	-	-	-	1 500	1 500	-	-	-	-	3 000	213	-	-	-	-	324	325	-	-	-	-	649
Subtotal OPG Year 2 maintenance														-	-	-	-	748	750	-	-	-	-	1 498
b. OPG Year 3 maintenance																								
Fertilizer	ha	-	-	-	-	-	1 500	1 500	-	-	-	3 000	347	-	-	-	-	-	529	531	-	-	-	1 060
Other crop maintainance costs	ha	-	-	-	-	-	1 500	1 500	-	-	-	3 000	169	-	-	-	-	-	258	258	-	-	-	516
Subtotal OPG Year 3 maintenance														-	-	-	-	-	787	789	-	-	-	1 576
c. OPG Year 4 maintenance																								
Fertilizer	ha	-	-	-	-	-	-	1 500	1 500	-	-	3 000	253	-	-	-	-	-	-	387	388	-	-	775
Other crop maintainance costs	ha	-	-	-	-	-	-	1 500	1 500	-	-	3 000	276	-	-	-	-	-	-	422	423	-	-	846
Subtotal OPG Year 4 maintenance														-	-	-	-	-	-	809	812	-	-	1 621
d. OPG Year 5 maintenance																								
Other crop maintainance costs	ha	-	-	-	-	-	-	-	1 500	1 500	-	3 000	183	-	-	-	-	-	-	-	281	282	-	562
Subtotal Farm maintenance														-	-	-	-	748	1 537	1 598	1 092	282	-	5 257
3. Construction and maintainance of road network for OPGs																								
Access roads in loan financed farms /f	km	-	-	30	30	-	-	-	-	-	-	60	7,700	-	-	240	240	-	-	-	-	-	-	480
Collection roads in loan financed farms /g	km	-	-	90	90	-	-	-	-	-	-	180	3,300	-	-	308	309	-	-	-	-	-	-	617
Routine maintainance of access roads	cost/km	-	-	-	30	60	60	30	30	60	60	330	120	-	-	-	4	7	7	4	4	7	7	40
Major periodic maintainace-Access Roads	cost/km	-	-	-	-	-	-	30	30	-	-	60	3,000	-	-	-	-	-	-	92	92	-	-	184
Routine maintainance of Collection roads	cost/km	-	-	-	90	180	180	90	90	180	180	990	100	-	-	-	9	18	18	9	9	18	19	101
Major periodic maintainace-collection roads	cost/km	-	-	-	-	-	-	90	90	-	-	180	1,500	-	-	-	-	-	-	138	138	-	-	276
Subtotal Construction and maintainance of road network for OPGs														-	-	548	562	26	26	242	243	26	26	1 698
Subtotal Plantings, farm maintainance & roads (Development loans)														-	-	548	3 121	3 340	1 563	1 841	1 335	307	26	12 081

F. Plantings, farm maintainance & roads (Commercial farmers)																							
1. Plantings																							
a. Plantings																							
Land preparation	ha	-	-	-	-	-	474	473	-	-	-	947	328	-	-	-	-	-	158	158	-	-	-	316
Contour Bunding	ha	-	-	-	-	-	474	473	-	-	-	947	182	-	-	-	-	-	88	88	-	-	-	175
Seedlings	ha	-	-	-	-	-	474	473	-	-	-	947	716	-	-	-	-	-	345	345	-	-	-	690
Fertiliser	ha	-	-	-	-	-	474	473	-	-	-	947	208	-	-	-	-	-	100	100	-	-	-	201
Other planting costs /h	ha	-	-	-	-	-	474	473	-	-	-	947	254	-	-	-	-	-	122	123	-	-	-	245
Subtotal Plantings														-	-	-	-	-	813	814	-	-	-	1 628
2. Farm maintenance																							
a. OPG Year 2 maintenance																							
Seedlings	ha	-	-	-	-	-	-	474	473	-	-	947	46	-	-	-	-	-	-	22	22	-	-	44
Fertilizer	ha	-	-	-	-	-	-	474	473	-	-	947	233	-	-	-	-	-	-	113	113	-	-	225
Other crop maintainance costs	ha	-	-	-	-	-	-	474	473	-	-	947	213	-	-	-	-	-	-	103	103	-	-	206
Subtotal OPG Year 2 maintenance														-	-	-	-	-	-	238	238	-	-	476
b. OPG Year 3 maintenance																							
Fertilizer	ha	-	-	-	-	-	-	-	474	473	-	947	347	-	-	-	-	-	-	-	168	168	-	337
Other crop maintainance costs	ha	-	-	-	-	-	-	-	474	473	-	947	169	-	-	-	-	-	-	-	82	82	-	164
Subtotal OPG Year 3 maintenance														-	-	-	-	-	-	-	250	250	-	501
c. OPG Year 4 maintenance																							
Fertilizer	ha	-	-	-	-	-	-	-	-	474	473	947	253	-	-	-	-	-	-	-	-	123	123	246
Other crop maintainance costs	ha	-	-	-	-	-	-	-	-	474	473	947	276	-	-	-	-	-	-	-	-	134	134	269
Subtotal OPG Year 4 maintenance														-	-	-	-	-	-	-	-	257	257	515
d. OPG Year 5 maintenance																							
Other crop maintainance costs	ha	-	-	-	-	-	-	-	-	-	474	474	183	-	-	-	-	-	-	-	-	-	89	89
Subtotal Farm maintenance														-	-	-	-	-	-	238	488	508	347	1 580
3. Construction and maintainance of road network for OPGs																							
Access roads in loan financed farms /i	km	-	-	-	-	10	10	-	-	-	-	20	7,700	-	-	-	-	80	81	-	-	-	-	161
Collection roads in loan financed farms /j	km	-	-	-	-	30	30	-	-	-	-	60	3,300	-	-	-	-	103	104	-	-	-	-	207
Routine maintainance of access roads	cost/km	-	-	-	-	-	9.5	19	19	9.5	9.5	66.5	120	-	-	-	-	-	1	2	2	1	1	8
Major periodic maintainace-Access Roads	cost/km	-	-	-	-	-	-	-	-	9.5	9.5	19	3,000	-	-	-	-	-	-	-	-	29	29	59
Routine maintainance of Collection roads	cost/km	-	-	-	-	-	28.5	57	57	28.5	28.5	199.5	100	-	-	-	-	-	3	6	6	3	3	20
Major periodic maintainace-collection roads	cost/km	-	-	-	-	-	-	-	-	28.5	28.5	57	1,500	-	-	-	-	-	-	-	-	44	44	88
Subtotal Construction and maintainance of road network for OPGs														-	-	-	-	184	188	8	8	77	77	543
Subtotal Plantings, farm maintainance & roads (Commercial farmers)														-	-	-	-	184	1 002	1 060	496	585	424	3 751
G. Environmental management, Health and Safety																							
1. Enviromental management Investment /k	ha	-	-	625	625	-	-	-	-	-	-	1 250	500	-	-	315	316	-	-	-	-	-	-	631
2. EHS training /l	session	-	-	-	-	2	2	2	2	2	2	12	5,000	-	-	-	-	10	10	10	10	10	10	61
3. EHS capacity building w orkshops	w orkshop	-	-	-	-	1	-	-	-	-	-	1	3,500	-	-	-	-	4	-	-	-	-	-	4
4. Motorbike for district environment officers	unit	-	-	-	1	-	-	-	-	-	-	1	2,000	-	-	-	2	-	-	-	-	-	-	2
Subtotal Environmental management, Health and Safety														-	-	315	318	14	10	10	10	10	10	697
H. Development of Masaka OPG farmer organisation																							
1. Buildings																							
Fertilizer Store	No	-	-	-	1	-	-	-	-	-	-	1	300,000	-	-	-	312	-	-	-	-	-	-	312
Office Building	No	-	-	-	1	-	-	-	-	-	-	1	100,000	-	-	-	104	-	-	-	-	-	-	104
Furniture	LS	-	-	-	1	-	-	-	-	-	-	1	20,000	-	-	-	20	-	-	-	-	-	-	20
Office equipment /m	LS	-	-	-	1	-	-	1	-	-	-	2	65,000	-	-	-	66	-	-	66	-	-	-	132
Accounting Package /n	Softw are	-	-	-	1	-	-	-	-	-	-	1	75,000	-	-	-	76	-	-	-	-	-	-	76
Subtotal Buildings														-	-	-	578	-	-	66	-	-	-	644
2. Vehicles																							
4WD double cabin pickup /o	vehicle	-	-	-	1	-	-	-	-	-	1	2	30,000	-	-	-	30	-	-	-	-	-	31	61
Tractor-trailor	vehicle	-	-	-	2	-	-	-	-	-	-	2	71,000	-	-	-	143	-	-	-	-	-	-	143
7 ton dump trucks	vehicle	-	-	-	2	-	-	-	-	-	-	2	100,000	-	-	-	202	-	-	-	-	-	-	202
Motorcycles	vehicle	-	-	-	6	-	-	-	6	-	-	12	2,000	-	-	-	12	-	-	-	12	-	-	24
Subtotal Vehicles														-	-	-	388	-	-	-	12	-	31	431
3. Capacity building of OPG organization																							
Contract w ith service provider for structuring and governance of OPG organization /p	Lumpsum	-	-	3	1	1	1	-	-	-	-	6	35,000	-	-	106	35	35	36	-	-	-	-	212
Exchange visits to Bugala /q	visits	-	-	2	2	2	2	-	-	-	-	8	5,000	-	-	10	10	10	10	-	-	-	-	40
Oil palm technical training /r	Sessions	-	-	-	20	4	4	-	-	-	-	28	7,000	-	-	-	141	28	28	-	-	-	-	198
Production of oil palm handbook	LS													-	-	-	51	-	-	-	-	-	-	51
Subtotal Capacity building of OPG organization														-	-	116	237	74	74	-	-	-	-	502
Subtotal Development of Masaka OPG farmer organisation														-	-	116	1 204	74	74	66	12	-	31	1 577

I. Technical support services team																								
General Manager	Months	-	-	-	-	-	12	12	12	12	12	60	2,300	-	-	-	-	-	28	28	28	28	28	141
Field Operations Manager	Months	-	-	-	-	-	12	12	12	12	12	60	1,720	-	-	-	-	-	21	21	21	21	21	106
Extension Officers	Months	-	-	-	-	-	12	12	12	12	12	60	1,000	-	-	-	-	-	12	12	12	12	12	61
Finance and admin manager /s	Months	-	-	-	-	-	84	84	84	84	84	420	1,720	-	-	-	-	-	147	147	148	148	149	739
Accountant	Months	-	-	-	-	-	12	12	12	12	12	60	1,200	-	-	-	-	-	15	15	15	15	15	74
Logistics and proc officer	Months	-	-	-	-	-	12	12	12	12	12	60	800	-	-	-	-	-	10	10	10	10	10	49
Assistant Accountant-admin	Months	-	-	-	-	-	12	12	12	12	12	60	800	-	-	-	-	-	10	10	10	10	10	49
Assistant Accountant-Operations	Months	-	-	-	-	-	12	12	12	12	12	60	800	-	-	-	-	-	10	10	10	10	10	49
Credit Manager	Months	-	-	-	-	-	12	12	12	12	12	60	1,720	-	-	-	-	-	21	21	21	21	21	106
Credit Officer	Months	-	-	-	-	-	12	12	12	12	12	60	800	-	-	-	-	-	10	10	10	10	10	49
Data Officer	Months	-	-	-	-	-	12	12	12	12	12	60	800	-	-	-	-	-	10	10	10	10	10	49
Storekeeper	Months	-	-	-	-	-	12	12	12	12	12	60	800	-	-	-	-	-	10	10	10	10	10	49
Enviromental Healtly management assistant	Months	-	-	-	-	-	12	12	12	12	12	60	800	-	-	-	-	-	10	10	10	10	10	49
Drivers	Months	-	-	-	-	-	12	12	12	12	12	60	400	-	-	-	-	-	5	5	5	5	5	25
Medical Insurance for staff	cost/year													-	-	-	-	-	19	19	19	19	19	95
NSSF contribution	cost/year													-	-	-	-	-	31	31	31	31	31	156
Total Investment Costs														-	-	1 971	4 924	3 931	3 016	3 345	2 223	16 659	862	36 931
II. Recurrent Costs																								
A. Vehicle Operating Costs	year	-	-	-	1	1	1	1	1	1	1	7	17,000	-	-	-	17	17	17	17	17	17	17	121
B. Other Operating Costs	per year													-	-	-	31	31	32	32	32	32	32	221
Total														-	-	1 971	4 973	3 979	3 065	3 394	2 272	16 709	912	37 274

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\a Assumed to be half of Buvuma based on acrage
\b Assuming four new areas
\c one officer per block
\d Private medical coverage to be procured and paid annually for all staff at UGX 250000 per person per month
\e Incluses Lining,Pegging,Distribution,Holing and Planting, weed control, pest control, rodent control and transportation and labour
\f 0.02 km per ha
\g 0.06 km per ha
\h Incluses Lining,Pegging,Distribution,Holing and Planting, weed control, pest control, rodent control and transportation and labour
\i 0.02 km per ha
\j 0.06 km per ha
\k In Lake buffer zone for bank protection
\l Two sessions per OPG per year per hub; session costs 1/2 day workshop + 1/2 day field, printing material. Support for Kalangala for 4 years; other areas for entire programme length
\m Includes Generator, 5 desktops, 10 laptops, mobile phones, hand held GPS, 2 printers and photocopier
\n Includes training staff
\o One additional vehicule and will draw upon KHTTS.
\p Following mobilisation, contract to build governance for units and blocks, form District oil palm growers associations and register them, more growers in Mayuge so more resources needed.
\q Overnight visit, groups of 15-18 farmers (1 bus load)
\r Field supervisory and staff, international travel to Malaysia to Wilmar Plantations
\s 7 officer for masaka and Rakai

Uganda
National Oil Palm Programme
Table 1.4. Hub 4
Detailed Costs
(USD)

	Unit	Quantities											Unit Cost	Totals Including Contingencies ('000)									
		18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total		18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total
I. Investment Costs																								
A. Oil mill	No	-	-	-	-	-	-	-	-	-	1	1	15,000,000	-	-	-	-	-	-	-	-	-	15 433	15 433
B. Seedlings nursery /a	No	-	-	-	1	-	-	-	-	-	-	1	750,000	-	-	-	758	-	-	-	-	-	-	758
C. Hub development planning studies																								
1. Environment and Social Impact Assessment /b	study	-	-	-	1	-	-	-	-	-	-	1	65,000	-	-	-	66	-	-	-	-	-	-	66
2. Rapid physical planning assessment	Ls	-	-	-	1	-	-	-	-	-	-	1		-	-	-	-	-	-	-	-	-	-	-
3. Other studies/assessments	Ls													-	-	-	30	-	-	-	-	-	-	30
Subtotal Hub development planning studies														-	-	-	96	-	-	-	-	-	-	96
D. Hub start-up team																								
Plantation Establishment Manager	Months	-	-	-	6	12	12	-	-	-	-	30	8,000	-	-	-	49	97	98	-	-	-	-	243
Roads, Terracing and Infrastructure Officer	Months	-	-	-	6	12	12	-	-	-	-	30	3,000	-	-	-	18	36	37	-	-	-	-	91
Planter	Months	-	-	-	6	12	12	-	-	-	-	30	1,000	-	-	-	6	12	12	-	-	-	-	30
Lining Gang officer	Months	-	-	-	6	12	12	-	-	-	-	30	1,000	-	-	-	6	12	12	-	-	-	-	30
Agronomist/extension specialist	Months	-	-	-	6	12	12	-	-	-	-	30	2,200	-	-	-	13	27	27	-	-	-	-	67
Extension Officers /c	Months	-	-	18	36	72	-	-	-	-	-	126	1,000	-	-	18	36	73	-	-	-	-	-	127
Logistics and Inventory Specialist	Months	-	-	-	6	12	12	-	-	-	-	30	2,200	-	-	-	13	27	27	-	-	-	-	67
Accountant	Months	-	-	-	6	12	12	-	-	-	-	30	1,000	-	-	-	6	12	12	-	-	-	-	30
Clerk and Credit Officer	Months	-	-	-	6	12	12	-	-	-	-	30	1,000	-	-	-	6	12	12	-	-	-	-	30
Medical Insurance /d	LS	-	-	-	6	12	12	-	-	-	-	30	845	-	-	-	5	10	10	-	-	-	-	26
Subtotal Hub start-up team														-	-	18	159	319	247	-	-	-	-	743
E. Plantings, farm maintainance & roads (Development loans)																								
1. Plantings																								
a. Plantings																								
Land preparation	ha	-	-	-	-	1 500	1 500	-	-	-	-	3 000	328	-	-	-	-	499	500	-	-	-	-	999
Contour Bunding	ha	-	-	-	-	1 500	1 500	-	-	-	-	3 000	182	-	-	-	-	277	278	-	-	-	-	554
Seedlings	ha	-	-	-	-	1 500	1 500	-	-	-	-	3 000	716	-	-	-	-	1 089	1 092	-	-	-	-	2 180
Fertiliser	ha	-	-	-	-	1 500	1 500	-	-	-	-	3 000	208	-	-	-	-	316	317	-	-	-	-	633
Other planting costs /e	ha	-	-	-	-	1 500	1 500	-	-	-	-	3 000	254	-	-	-	-	386	387	-	-	-	-	774
Subtotal Plantings														-	-	-	-	2 566	2 574	-	-	-	-	5 140
2. Farm maintenance																								
a. OPG Year 2 maintenance																								
Seedlings	ha	-	-	-	-	-	1 500	1 500	-	-	-	3 000	46	-	-	-	-	-	70	70	-	-	-	141
Fertilizer	ha	-	-	-	-	-	1 500	1 500	-	-	-	3 000	233	-	-	-	-	-	355	356	-	-	-	712
Other crop maintainance costs	ha	-	-	-	-	-	1 500	1 500	-	-	-	3 000	213	-	-	-	-	-	325	326	-	-	-	651
Subtotal OPG Year 2 maintenance														-	-	-	-	-	750	753	-	-	-	1 503
b. OPG Year 3 maintenance																								
Fertilizer	ha	-	-	-	-	-	-	1 500	1 500	-	-	3 000	347	-	-	-	-	-	-	531	532	-	-	1 063
Other crop maintainance costs	ha	-	-	-	-	-	-	1 500	1 500	-	-	3 000	169	-	-	-	-	-	-	258	259	-	-	518
Subtotal OPG Year 3 maintenance														-	-	-	-	-	-	789	792	-	-	1 581
c. OPG Year 4 maintenance																								
Fertilizer	ha	-	-	-	-	-	-	-	1 500	1 500	-	3 000	253	-	-	-	-	-	-	-	388	389	-	777
Other crop maintainance costs	ha	-	-	-	-	-	-	-	1 500	1 500	-	3 000	276	-	-	-	-	-	-	-	423	425	-	848
Subtotal OPG Year 4 maintenance														-	-	-	-	-	-	-	812	814	-	1 625
d. OPG Year 5 maintenance																								
Other crop maintainance costs	ha	-	-	-	-	-	-	-	-	1 500	1 500	3 000	183	-	-	-	-	-	-	-	-	282	282	564
Subtotal Farm maintenance														-	-	-	-	-	750	1 542	1 603	1 096	282	5 273

3. Construction and maintainance of road network for OPGs																								
Access roads in loan financed farms /f	km	-	-	-	30	30	-	-	-	-	-	60	7,700	-	-	-	240	241	-	-	-	-	-	482
Collection roads in loan financed farms /g	km	-	-	-	-	90	90	-	-	-	-	180	3,300	-	-	-	-	310	311	-	-	-	-	621
Routine maintainance of access roads	cost/km	-	-	-	-	30	60	60	30	30	60	270	120	-	-	-	-	4	8	8	4	4	8	34
Major periodic maintainace-Access Roads	cost/km	-	-	-	-	-	-	-	30	30	-	60	3,000	-	-	-	-	-	-	-	95	95	-	190
Routine maintainance of Collection roads	cost/km	-	-	-	-	90	180	180	90	90	180	810	100	-	-	-	-	9	19	19	9	10	19	85
Major periodic maintainace-collection roads	cost/km	-	-	-	-	-	-	-	90	90	-	180	1,500	-	-	-	-	-	-	-	142	143	-	285
Subtotal Construction and maintainance of road network for OPGs														-	-	-	240	564	337	26	250	251	27	1 697
Subtotal Plantings, farm maintainance & roads (Development loans)														-	-	-	240	3 131	3 662	1 568	1 853	1 347	309	12 110
F. Plantings, farm maintainance & roads (Commercial farmers)																								
1. Plantings																								
a. Plantings																								
Land preparation	ha	-	-	-	-	-	-	474	473	-	-	947	328	-	-	-	-	-	-	159	159	-	-	317
Contour Bunding	ha	-	-	-	-	-	-	474	473	-	-	947	182	-	-	-	-	-	-	88	88	-	-	176
Seedlings	ha	-	-	-	-	-	-	474	473	-	-	947	716	-	-	-	-	-	-	346	346	-	-	692
Fertiliser	ha	-	-	-	-	-	-	474	473	-	-	947	208	-	-	-	-	-	-	101	101	-	-	201
Other planting costs /h	ha	-	-	-	-	-	-	474	473	-	-	947	254	-	-	-	-	-	-	123	123	-	-	246
Subtotal Plantings														-	-	-	-	-	-	816	817	-	-	1 632
2. Farm maintenance																								
a. OPG Year 2 maintenance																								
Seedlings	ha	-	-	-	-	-	-	-	474	473	-	947	46	-	-	-	-	-	-	-	22	22	-	45
Fertilizer	ha	-	-	-	-	-	-	-	474	473	-	947	233	-	-	-	-	-	-	-	113	113	-	226
Other crop maintainance costs	ha	-	-	-	-	-	-	-	474	473	-	947	213	-	-	-	-	-	-	-	103	103	-	207
Subtotal OPG Year 2 maintenance														-	-	-	-	-	-	-	239	239	-	477
b. OPG Year 3 maintenance																								
Fertilizer	ha	-	-	-	-	-	-	-	-	474	473	947	347	-	-	-	-	-	-	-	-	169	169	338
Other crop maintainance costs	ha	-	-	-	-	-	-	-	-	474	473	947	169	-	-	-	-	-	-	-	-	82	82	164
Subtotal OPG Year 3 maintenance														-	-	-	-	-	-	-	-	251	251	502
c. OPG Year 4 maintenance																								
Fertilizer	ha	-	-	-	-	-	-	-	-	-	474	474	253	-	-	-	-	-	-	-	-	-	123	123
Other crop maintainance costs	ha	-	-	-	-	-	-	-	-	-	474	474	276	-	-	-	-	-	-	-	-	-	135	135
Subtotal OPG Year 4 maintenance														-	-	-	-	-	-	-	-	-	258	258
d. OPG Year 5 maintenance																								
Other crop maintainance costs	ha	-	-	-	-	-	-	-	-	-	474	474	183	-	-	-	-	-	-	-	-	-	89	89
Subtotal Farm maintenance														-	-	-	-	-	-	-	239	490	598	1 326
3. Construction and maintainance of road network for OPGs																								
Access roads in loan financed farms /i	km	-	-	-	-	-	-	10	10	-	-	20	7,700	-	-	-	-	-	-	81	81	-	-	162
Collection roads /j	km	-	-	-	-	-	-	30	30	-	-	60	3,300	-	-	-	-	-	-	104	104	-	-	208
Routine maintainance of access roads	cost/km	-	-	-	-	-	-	-	9.5	19	19	47.5	120	-	-	-	-	-	-	-	1	2	2	6
Major periodic maintainace-Access Roads	cost/km	-	-	-	-	-	-	-	-	9.5	9.5	19	3,000	-	-	-	-	-	-	-	-	30	30	60
Routine maintainance of Collection roads	cost/km	-	-	-	-	-	-	28.5	57	57	28.5	171	100	-	-	-	-	-	-	3	6	6	3	18
Major periodic maintainace-collection roads	cost/km	-	-	-	-	-	-	-	-	-	28.5	28.5	1,500	-	-	-	-	-	-	-	-	-	45	45
Subtotal Construction and maintainance of road network for OPGs														-	-	-	-	-	-	188	193	39	81	500
Subtotal Plantings, farm maintainance & roads (Commercial farmers)														-	-	-	-	-	-	1 004	1 248	528	679	3 459
G. Environmental management, Health and Safety																								
1. Enviromental management Investments /k	ha	-	-	-	625	625	-	-	-	-	-	1 250	500	-	-	-	316	317	-	-	-	-	-	633
2. EHS training /l	session	-	-	-	-	-	2	2	2	2	2	10	5,000	-	-	-	-	-	10	10	10	10	10	51
3. EHS capacity building workshops	workshop	-	-	-	-	-	1	-	-	-	-	1	3,500	-	-	-	-	-	4	-	-	-	-	4
4. Motorbike for district environment officers	unit	-	-	-	-	1	-	-	-	-	-	1	2,000	-	-	-	-	2	-	-	-	-	-	2
Subtotal Environmental management, Health and Safety														-	-	-	316	319	14	10	10	10	10	689

H. Development of Hub4 OPG farmer organisation																							
1. Buildings																							
Fertilizer Store	No	-	-	-	-	1	-	-	-	-	-	1	300,000	-	-	-	-	313	-	-	-	-	-	313
Office Building	No	-	-	-	-	1	-	-	-	-	-	1	100,000	-	-	-	-	104	-	-	-	-	-	104
Furniture	LS	-	-	-	-	1	-	-	-	-	-	1	20,000	-	-	-	-	20	-	-	-	-	-	20
Office equipment /m	LS	-	-	-	-	1	-	-	1	-	-	2	65,000	-	-	-	-	66	-	-	66	-	-	132
Accounting Package /n	Softw are	-	-	-	-	1	-	-	-	-	-	1	75,000	-	-	-	-	76	-	-	-	-	-	76
Subtotal Buildings														-	-	-	-	580	-	-	66	-	-	646
2. Vehicles																							
4WD double cabin pickup /o	vehicle	-	-	-	-	1	-	-	-	-	-	1	30,000	-	-	-	-	30	-	-	-	-	-	30
Tractor-trailor	vehicle	-	-	-	-	4	-	-	-	-	-	4	71,000	-	-	-	-	288	-	-	-	-	-	288
7 ton dump trucks	vehicle	-	-	-	-	2	-	-	-	2	-	4	100,000	-	-	-	-	203	-	-	-	205	-	408
Motorcycles	vehicle	-	-	-	-	6	-	-	-	6	-	12	2,000	-	-	-	-	12	-	-	-	12	-	24
Subtotal Vehicles														-	-	-	-	533	-	-	-	217	-	751
3. Capacity building of OPG organization																							
Contract w ith service provider for structuring and governance of OPG orga	Lumpsum	-	-	-	3	1	1	1	-	-	-	6	35,000	-	-	-	106	35	36	36	-	-	-	213
Exchange visits to Bugala /q	visits	-	-	-	2	2	2	2	-	-	-	8	5,000	-	-	-	10	10	10	10	-	-	-	41
Oil palm technical training /r	LS	-	-	-	-	20	4	4	-	-	-	28	7,000	-	-	-	-	142	28	29	-	-	-	199
Production of Oil Palm farmers hand book series and trainig Manual	LS													-	-	-	-	51	-	-	-	-	-	51
Subtotal Capacity building of OPG organization														-	-	-	116	238	74	74	-	-	-	503
Subtotal Development of Hub4 OPG farmer organisation														-	-	-	116	1 351	74	74	66	217	-	1 900
I. Technical support services team																							
General Manager	Months	-	-	-	-	-	-	12	12	12	12	48	2,300	-	-	-	-	-	-	28	28	28	28	113
Field Operations Manager	Months	-	-	-	-	-	-	12	12	12	12	48	1,720	-	-	-	-	-	-	21	21	21	21	85
Extension Officers	Months	-	-	-	-	-	-	48	48	48	48	192	1,000	-	-	-	-	-	-	49	49	49	49	197
Finance and admin manager	Months	-	-	-	-	-	-	12	12	12	12	48	1,720	-	-	-	-	-	-	21	21	21	21	85
Accountant	Months	-	-	-	-	-	-	12	12	12	12	48	1,200	-	-	-	-	-	-	15	15	15	15	59
Logistics and proc officer	Months	-	-	-	-	-	-	12	12	12	12	48	800	-	-	-	-	-	-	10	10	10	10	39
Assistant Accountant-admin	Months	-	-	-	-	-	-	12	12	12	12	48	800	-	-	-	-	-	-	10	10	10	10	39
Assistant Accountant-Operations	Months	-	-	-	-	-	-	12	12	12	12	48	800	-	-	-	-	-	-	10	10	10	10	39
Credit Manager	Months	-	-	-	-	-	-	12	12	12	12	48	1,720	-	-	-	-	-	-	21	21	21	21	85
Credit Officer	Months	-	-	-	-	-	-	12	12	12	12	48	800	-	-	-	-	-	-	10	10	10	10	39
Data Officer	Months	-	-	-	-	-	-	12	12	12	12	48	800	-	-	-	-	-	-	10	10	10	10	39
Storekeeper	Months	-	-	-	-	-	-	12	12	12	12	48	800	-	-	-	-	-	-	10	10	10	10	39
Enviromental Healtly management assistant	Months	-	-	-	-	-	-	12	12	12	12	48	800	-	-	-	-	-	-	10	10	10	10	39
Drivers	Months	-	-	-	-	-	-	12	12	12	12	48	400	-	-	-	-	-	-	5	5	5	5	20
Medical Insurance for staff	cost/year													-	-	-	-	-	-	16	16	16	17	66
NSSF contribution	cost/year													-	-	-	-	-	-	22	22	22	22	90
Total Investment Costs														-	-	18	1 685	5 120	3 997	2 924	3 446	2 371	16 701	36 261

II. Recurrent Costs																							
A. Vehicle Operating Costs	year	-	-	-	-	1	1	1	1	1	1	6	17,000	-	-	-	-	17	17	17	17	17	17	104
B. Other Operating Costs	per year													-	-	-	-	31	32	32	32	32	32	190
Total														-	-	18	1 685	5 168	4 045	2 973	3 495	2 420	16 750	36 555

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\a Assumed to be half of Buvuma based on acrage
\b Assuming four new areas
\c one officer per block
\d Private medical coverage to be procured and paid annually for all staff at UGX 250000 per person per month
\e Incluses Lining,Pegging,Distribution,Holing and Planting, weed control, pest control, rodent control and transportation and labour
\f 0.02 km per ha
\g 0.06 km per ha
\h Incluses Lining,Pegging,Distribution,Holing and Planting, weed control, pest control, rodent control and transportation and labour
\i 0.02 km per ha
\j 0.06 km per ha
\k In Lake buffer zone for bank protection
\l Two sessions per OPG per year per hub; session costs 1/2 day workshop + 1/2 day field, printing material. Support for Kalangala for 4 years; other areas for entire programme length
\m Includes Generator, 5 desktops, 10 laptops, mobile phones, hand held GPS, 2 printers and photocopier
\n Includes staff training
\o One additional vehicule and will draw upon KHTTS.
\p Following mobilisation, contract to build governance for units and blocks, form District oil palm growers associations and register them, more growers in Mayuge so more resources needed.
\q Overnight visit, groups of 15-18 farmers (1 bus load)
\r Field supervisory and staff, international travel to Malaysia to Wilmar Plantations

Uganda
National Oil Palm Programme
Table 1.5. Kalangala Hub
Detailed Costs
(USD '000)

	Unit	Quantities											Unit	Totals Including Contingencies									
		18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total	Cost	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total
I. Investment Costs																								
A. OPG farm maintenance																								
1. Fertilizer	ha	837	837	837	276	276	-	-	-	-	-	3 063		195	196	196	65	65	-	-	-	-	-	718
2. Other crop maintainance costs	ha	837	837	276	276	-	-	-	-	-	-	2 226		179	179	59	59	-	-	-	-	-	-	476
Subtotal OPG farm maintenance														374	375	256	124	65	-	-	-	-	-	1 194
B. Training																								
1. Oil palm technical training /a	sessions	20	4	4	-	-	-	-	-	-	-	28	7	140	28	28	-	-	-	-	-	-	-	197
2. Oil palm handbook	ls													50	-	-	-	-	-	-	-	-	-	50
Subtotal Training														190	28	28	-	-	-	-	-	-	-	247
C. Environment, Health and Safety																								
1. EHS training /b	session	-	2	2	2	2	2	2	2	2	2	18	5	-	10	10	10	10	10	10	10	10	10	91
2. EHS capacity building workshops	workshop	1	-	-	-	-	-	-	-	-	-	1	4	4	-	-	-	-	-	-	-	-	-	4
3. Motorbike for district environment officers	unit	1	-	-	-	-	-	-	-	-	-	1	2	2	-	-	-	-	-	-	-	-	-	2
Subtotal Environment, Health and Safety														6	10	10	10	10	10	10	10	10	10	97
Total Investment Costs														570	413	294	134	75	10	10	10	10	10	1 538
II. Recurrent Costs																								
A. Vehicle Operating Costs	year	1	1	1	1	1	1	1	1	1	1	10	17	17	17	17	17	17	17	17	17	17	17	173
B. Other Operating Costs	per year													31	31	31	31	31	32	32	32	32	32	315
Total Recurrent Costs														48	48	48	49	49	49	49	49	49	49	487
Total														618	461	342	183	124	59	59	59	59	60	2 025

\a Field supervisory and staff, international travel to Malaysia to Wilmar Plantations
\b Two sessions per OPG per year per hub; session costs 1/2 day workshop + 1/2 day field, printing material. Support for Kalangala for 4 years; other areas for entire programme length

Uganda
National Oil Palm Programme
Table 2.1. Alternative economic opportunities
Detailed Costs
(USD)

		Quantities												Totals Including Contingencies									
	Unit	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total	Unit Cost	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total
I. Investment Costs																								
A. Buvuma Island hub																								
1. Improved agricultural and food production																								
a. Extension services																								
Needs assessment for agricultural services	pers/day	-	-	5	-	-	-	-	-	-	-	5	200	-	-	1 000	-	-	-	-	-	-	-	1 000
Training of extension w orkers /a	trainee	-	-	4	-	-	-	-	-	-	-	4	235	-	-	940	-	-	-	-	-	-	-	940
Training for FFS leaders	training	-	-	44	44	-	-	-	-	-	-	88	833	-	-	36 652	36 652	-	-	-	-	-	-	73 304
Exchange visits for FFS facilitators	visits	-	-	1	1	1	1	-	-	-	-	4	101	-	-	101	101	101	101	-	-	-	-	404
Subtotal Extension services														-	-	38 693	36 753	101	101	-	-	-	-	75 648
b. Agricultural on farm trials																								
TOT for FFS facilitators team /b	trainee	-	-	44	44	-	-	-	-	-	-	88	5,131	-	-	225 764	225 764	-	-	-	-	-	-	451 528
Identification and training of FFS facilitators /c	plot	-	-	31	41	46	26	13	8	2	-	167	124	-	-	3 844	5 084	5 704	3 224	1 612	992	248	-	20 708
Follow up training for FFS facilitators /d	training	-	-	-	17	40	69	101	111	119	123	580	71	-	-	-	1 207	2 840	4 899	7 171	7 881	8 449	8 733	41 180
Contract FFS trainers /e	per training	-	-	2	2	-	-	-	-	-	-	4	167	-	-	334	334	-	-	-	-	-	-	668
FFS facilitation	FFS	-	-	44	88	88	88	44	-	-	-	352	420	-	-	18 480	36 960	36 960	36 960	18 480	-	-	-	147 840
Monitoring and exchange visits /f	w orkshop	-	-	6	8	10	10	4	-	-	-	38	744	-	-	4 464	5 952	7 440	7 440	2 976	-	-	-	28 272
Subtotal Agricultural on farm trials														-	-	252 886	275 301	52 944	52 523	30 239	8 873	8 697	8 733	690 196
c. Access to agricultural inputs																								
Seed multiplication plots: inputs	plot	-	-	2	2	2	2	1	-	-	-	9	750	-	-	1 500	1 500	1 500	1 500	750	-	-	-	6 750
Seed multiplication plots: Training (1st round)	persons	-	-	2	2	2	2	2	-	-	-	10	590	-	-	1 180	1 180	1 180	1 180	1 180	-	-	-	5 900
Seed multiplication plots: Training (2nd round)	persons	-	-	-	-	2	2	2	2	2	-	10	295	-	-	-	-	590	590	590	590	590	-	2 950
Establishing linkages to suppliers	initiative	-	-	-	-	-	-	1	1	1	-	3	2,500	-	-	-	-	-	-	2 500	2 500	2 500	-	7 500
Subtotal Access to agricultural inputs														-	-	2 680	2 680	3 270	3 270	5 020	3 090	3 090	-	23 100
d. Implementation support																								
Motorbikes for extension w orkers /g	unit	-	-	2	2	-	-	-	-	-	-	4	3,000	-	-	6 000	6 000	-	-	-	-	-	-	12 000
Running cost of subcounty extension w orkers' motorbikes	per year	-	-	2	4	4	4	2	-	-	-	16	720	-	-	1 440	2 880	2 880	2 880	1 440	-	-	-	11 520
Other equipment for extension w orker (tablet)	w orkshop	-	1	2	3	3	1	2	-	-	-	11	1,000	-	1 000	2 000	3 000	3 000	1 000	1 000	-	-	-	11 000
Motorbikes for district offices	unit	-	-	1	-	-	-	2	-	-	-	1	3,000	-	-	3 000	-	-	-	-	-	-	-	3 000
Running cost for district Agricultural offces' motorbikes	per year	-	-	1	1	1	1	2	-	-	-	5	720	-	-	720	720	720	720	720	-	-	-	3 600
Annual operations cost for District Extension Office	Ls per hub	-	-	1	1	1	1	2	-	-	-	5	3,000	-	-	3 000	3 000	3 000	3 000	3 000	-	-	-	15 000
Annual operations cost for extension services	Ls per hub	-	-	2	4	4	4	2	-	-	-	16	600	-	-	1 200	2 400	2 400	2 400	1 200	-	-	-	9 600
Subtotal Implementation support														-	1 000	17 360	18 000	12 000	10 000	7 360	-	-	-	65 720
Subtotal Improved agricultural and food production														-	1 000	311 619	332 734	68 315	65 894	42 619	11 963	11 787	8 733	854 664
2. Entreprenuership and self employment																								
Scoping, validation and prototyping /h	Ls													-	20 000	-	-	-	-	-	-	-	-	20 000
Business skills training and mentoring /i	beneficiaries	-	-	-	1 034	1 034	1 034	1 034	-	-	-	4 136	150	-	-	-	155 100	155 100	155 100	155 100	-	-	-	620 400
Specialized consultancies on micro businesses development	contracts	-	1	1	1	1	-	-	-	-	-	4	5,000	-	5 000	5 000	5 000	5 000	-	-	-	-	-	20 000
Subtotal Entreprenuership and self employment														-	25 000	5 000	160 100	160 100	155 100	155 100	-	-	-	660 400

3. Community-based financial services /j																							
Establishment of VSLAs /k	pax	-	-	-	1 034	1 034	1 034	1 034	-	-	-	4 136	20	-	-	-	20 680	20 680	20 680	20 680	-	-	-	82 720
Assessment of RFIs	workshop	-	1	1	1	1	-	-	-	-	-	4	5,000	-	5 000	5 000	5 000	5 000	-	-	-	-	-	20 000
TA for partnership strategy with FIs	workshop	-	1	-	-	-	-	-	-	-	-	1	10,000	-	10 000	-	-	-	-	-	-	-	-	10 000
Support for hub SACCO	workshop	-	-	1	1	-	-	-	-	-	-	2	20,000	-	-	20 000	20 000	-	-	-	-	-	-	40 000
Subtotal Community-based financial services														-	15 000	25 000	45 680	25 680	20 680	20 680	-	-	-	152 720
Subtotal Buvuma Island hub														-	41 000	341 619	538 514	254 095	241 674	218 399	11 963	11 787	8 733	1 667 784
B. Mayuge hub																								
1. Improved agricultural and food production																								
a. Extension services																								
Needs assessment for agricultural services	pers/day	-	-	-	5	-	-	-	-	-	-	5	200	-	-	-	1 000	-	-	-	-	-	-	1 000
Training of extension workers /l	trainee	-	-	-	4	-	-	-	-	-	-	4	235	-	-	-	940	-	-	-	-	-	-	940
Training for FFS leaders	training	-	-	-	44	44	-	-	-	-	-	88	833	-	-	-	36 652	36 652	-	-	-	-	-	73 304
Exchange visits for FFS facilitators	visits	-	-	-	1	1	1	1	-	-	-	4	101	-	-	-	101	101	101	101	-	-	-	404
Subtotal Extension services														-	-	-	38 693	36 753	101	101	-	-	-	75 648
b. Agricultural on farm trials																								
TOT for FFS facilitators team /m	trainee	-	-	-	44	44	-	-	-	-	-	88	5,131	-	-	-	225 764	225 764	-	-	-	-	-	451 528
Identification and training of FFS facilitators /n	plot	-	-	-	31	41	46	26	13	8	2	167	124	-	-	-	3 844	5 084	5 704	3 224	1 612	992	248	20 708
Follow up training for FFS facilitators /o	training	-	-	-	17	40	69	101	111	119	123	580	71	-	-	-	1 207	2 840	4 899	7 171	7 881	8 449	8 733	41 180
Contract FFS trainers /p	per training	-	-	-	2	2	-	-	-	-	-	4	167	-	-	-	334	334	-	-	-	-	-	668
FFS facilitation	FFS	-	-	-	44	88	88	88	44	-	-	352	420	-	-	-	18 480	36 960	36 960	36 960	18 480	-	-	147 840
Monitoring and exchange visits /q	workshop	-	-	-	6	8	10	10	4	-	-	38	744	-	-	-	4 464	5 952	7 440	7 440	2 976	-	-	28 272
Subtotal Agricultural on farm trials														-	-	-	254 093	276 934	55 003	54 795	30 949	9 441	8 981	690 196
c. Access to agricultural inputs																								
Seed multiplication plots: inputs	plot	-	-	2	2	2	2	1	-	-	-	9	750	-	-	1 500	1 500	1 500	1 500	750	-	-	-	6 750
Seed multiplication plots: Training (1st round)	persons	-	-	2	2	2	2	2	-	-	-	10	590	-	-	1 180	1 180	1 180	1 180	1 180	-	-	-	5 900
Seed multiplication plots: Training (2nd round)	persons	-	-	-	-	2	2	2	2	2	-	10	295	-	-	-	-	590	590	590	590	590	-	2 950
Establishing linkages to suppliers	initiative	-	-	-	-	-	-	1	1	1	-	3	2,500	-	-	-	-	-	-	2 500	2 500	2 500	-	7 500
Subtotal Access to agricultural inputs														-	-	2 680	2 680	3 270	3 270	5 020	3 090	3 090	-	23 100
d. Implementation support																								
Motorbikes for extension workers /r	unit	-	-	2	2	-	-	-	-	-	-	4	3,000	-	-	6 000	6 000	-	-	-	-	-	-	12 000
Running cost of subcounty extension workers' motorbikes	per year	-	-	2	4	4	4	2	-	-	-	16	720	-	-	1 440	2 880	2 880	2 880	1 440	-	-	-	11 520
Other equipment for extension worker (tablet)	workshop	-	-	1	2	3	3	1	1	-	-	11	1,000	-	-	1 000	2 000	3 000	3 000	1 000	1 000	-	-	11 000
Motorbikes for district offices	unit	-	-	-	1	-	-	-	-	-	-	1	3,000	-	-	-	3 000	-	-	-	-	-	-	3 000
Running cost for district Agricultural offces' motorbikes	per year	-	-	-	1	1	1	1	1	-	-	5	720	-	-	-	720	720	720	720	720	-	-	3 600
Annual operations cost for District Extension Office	Ls per hub	-	-	-	1	1	1	1	-	-	-	4	3,000	-	-	-	3 000	3 000	3 000	3 000	-	-	-	12 000
Annual operations cost for extension services	Ls per hub	-	-	-	2	4	4	4	2	-	-	16	600	-	-	-	1 200	2 400	2 400	2 400	1 200	-	-	9 600
Subtotal Implementation support														-	-	8 440	18 800	12 000	12 000	8 560	2 920	-	-	62 720
Subtotal Improved agricultural and food production														-	-	11 120	314 266	328 957	70 374	68 476	36 959	12 531	8 981	851 664
2. Entreprenuership and self employment																								
Scoping, validation and prototyping /s	Ls													-	20 000	-	-	-	-	-	-	-	-	20 000
Business skills training and mentoring /t	pax	-	-	-	-	1 447	1 447	1 447	1 447	-	-	5 788	150	-	-	-	-	217 050	217 050	217 050	217 050	-	-	868 200
Specialized consultancies on micro businesses development	contracts	-	1	1	1	1	-	-	-	-	-	4	5,000	-	5 000	5 000	5 000	5 000	-	-	-	-	-	20 000
Subtotal Entreprenuership and self employment														-	25 000	5 000	5 000	222 050	217 050	217 050	217 050	-	-	908 200
3. Community-based financial services /u																								
Establishment of VSLAs /v	pax	-	-	-	-	1 447	1 447	1 447	1 447	-	-	5 788	20	-	-	-	-	28 940	28 940	28 940	28 940	-	-	115 760
Assessment of RFIs	workshop	-	-	1	1	1	1	-	-	-	-	4	5,000	-	-	5 000	5 000	5 000	5 000	-	-	-	-	20 000
TA for partnership strategy with FIs	workshop	-	-	1	-	-	-	-	-	-	-	1	10,000	-	-	10 000	-	-	-	-	-	-	-	10 000
Support for hub SACCO	workshop	-	-	-	1	1	-	-	-	-	-	2	20,000	-	-	-	20 000	20 000	-	-	-	-	-	40 000
Subtotal Community-based financial services														-	-	15 000	25 000	53 940	33 940	28 940	28 940	-	-	185 760
Subtotal Mayuge hub														-	25 000	31 120	344 266	604 947	321 364	314 466	282 949	12 531	8 981	1 945 624

C. Masaka hub																							
1. Improved agricultural and food production																							
a. Extension services																							
Needs assessment for agricultural services	pers/day	-	-	-	-	5	-	-	-	-	-	5	200	-	-	-	-	1 000	-	-	-	-	-	1 000
Training of extension w orkers /w	trainee	-	-	-	-	4	-	-	-	-	-	4	235	-	-	-	-	940	-	-	-	-	-	940
Training for FFS leaders	training	-	-	-	-	44	44	-	-	-	-	88	833	-	-	-	-	36 652	36 652	-	-	-	-	73 304
Exchange visits for FFS facilitators	visits	-	-	-	-	1	1	1	1	-	-	4	101	-	-	-	-	101	101	101	101	-	-	404
Subtotal Extension services														-	-	-	-	38 693	36 753	101	101	-	-	75 648
b. Agricultural on farm trials																							
TOT for FFS facilitators team /x	trainee	-	-	-	-	44	44	-	-	-	-	88	5,131	-	-	-	-	225 764	225 764	-	-	-	-	451 528
Identification and training of FFS facilitators /y	plot	-	-	-	-	31	41	46	26	13	8	165	124	-	-	-	-	3 844	5 084	5 704	3 224	1 612	992	20 460
Follow up training for FFS facilitators /z	training	-	-	-	-	17	40	69	101	111	119	457	71	-	-	-	-	1 207	2 840	4 899	7 171	7 881	8 449	32 447
Contract FFS trainers /aa	per training	-	-	-	-	2	2	-	-	-	-	4	167	-	-	-	-	334	334	-	-	-	-	668
FFS facilitation	FFS	-	-	-	-	44	88	88	88	44	-	352	420	-	-	-	-	18 480	36 960	36 960	36 960	18 480	-	147 840
Monitoring and exchange visits /bb	w orkshop	-	-	-	-	6	8	10	10	4	-	38	744	-	-	-	-	4 464	5 952	7 440	7 440	2 976	-	28 272
Subtotal Agricultural on farm trials														-	-	-	-	254 093	276 934	55 003	54 795	30 949	9 441	681 215
c. Access to agricultural inputs																							
Seed multiplication plots: inputs	plot	-	-	-	-	2	2	2	2	1	-	9	750	-	-	-	-	1 500	1 500	1 500	1 500	750	-	6 750
Seed multiplication plots: Training (1st round)	persons	-	-	2	2	2	2	2	-	-	-	10	590	-	-	1 180	1 180	1 180	1 180	1 180	-	-	-	5 900
Seed multiplication plots: Training (2nd round)	persons	-	-	-	-	2	2	2	2	2	-	10	295	-	-	-	-	590	590	590	590	590	-	2 950
Establishing linkages to suppliers	initiative	-	-	-	-	-	-	1	1	1	-	3	2,500	-	-	-	-	-	-	2 500	2 500	2 500	-	7 500
Subtotal Access to agricultural inputs														-	-	1 180	1 180	3 270	3 270	5 770	4 590	3 840	-	23 100
d. Implementation support																							
Motorbikes for extension w orkers /cc	unit	-	-	-	-	2	2	-	-	-	-	4	3,000	-	-	-	-	6 000	6 000	-	-	-	-	12 000
Running cost of subcounty extension w orkers' motorbikes	per year	-	-	2	4	4	4	2	-	-	-	16	720	-	-	1 440	2 880	2 880	2 880	1 440	-	-	-	11 520
Other equipment for extension w orker (tablet)	w orkshop	-	-	1	2	3	3	1	1	-	-	11	1,000	-	-	1 000	2 000	3 000	3 000	1 000	1 000	-	-	11 000
Motorbikes for district offices	unit	-	-	-	1	-	-	-	-	-	-	1	3,000	-	-	-	3 000	-	-	-	-	-	-	3 000
Running cost for district Agricultural offces' motorbikes	per year	-	-	-	1	1	1	1	1	-	-	5	720	-	-	-	720	720	720	720	720	-	-	3 600
Annual operations cost for District Extension Office	Ls per hub	-	-	-	1	1	1	1	-	-	-	4	3,000	-	-	-	3 000	3 000	3 000	3 000	-	-	-	12 000
Annual operations cost for extension services	Ls per hub	-	-	-	2	4	4	4	2	-	-	16	600	-	-	-	1 200	2 400	2 400	2 400	1 200	-	-	9 600
Subtotal Implementation support														-	-	2 440	12 800	18 000	18 000	8 560	2 920	-	-	62 720
Subtotal Improved agricultural and food production														-	-	3 620	13 980	314 056	334 957	69 434	62 406	34 789	9 441	842 683
2. Entreprenuership and self employment																							
Scoping, validation and prototyping /dd	Ls													-	-	-	20 000	-	-	-	-	-	-	20 000
Business skills training and mentoring /ee	pax	-	-	-	-	-	1 241	1 241	1 241	1 241	-	4 964	150	-	-	-	-	-	186 150	186 150	186 150	186 150	-	744 600
Specialized consultancies on micro businesses development	contracts	-	-	-	-	1	1	1	1	-	-	4	5,000	-	-	-	-	5 000	5 000	5 000	5 000	-	-	20 000
Subtotal Entreprenuership and self employment														-	-	-	20 000	5 000	191 150	191 150	191 150	186 150	-	784 600
3. Community-based financial services /ff																							
Establishment of VSLAs /gg	pax	-	-	-	-	-	1 241	1 241	1 241	1 241	-	4 964	20	-	-	-	-	-	24 820	24 820	24 820	24 820	-	99 280
Assessment of RFIs	w orkshop	-	-	-	1	1	1	1	-	-	-	4	5,000	-	-	-	5 000	5 000	5 000	5 000	-	-	-	20 000
TA for partnership strategy w ith FIs	w orkshop	-	-	-	1	-	-	-	-	-	-	1	10,000	-	-	-	10 000	-	-	-	-	-	-	10 000
Support for hub SACCO	w orkshop	-	-	-	-	1	1	-	-	-	-	2	20,000	-	-	-	-	20 000	20 000	-	-	-	-	40 000
Subtotal Community-based financial services														-	-	-	15 000	25 000	49 820	29 820	24 820	24 820	-	169 280
Subtotal Masaka hub														-	-	3 620	48 980	344 056	575 927	290 404	278 376	245 759	9 441	1 796 563

D. Hub 4																							
1. Improved agricultural and food production																							
a. Extension services																							
Needs assessment for agricultural services	pers/day	-	-	-	-	5	-	-	-	-	-	5	200	-	-	-	-	1 000	-	-	-	-	-	1 000
Training of extension w orkers /hh	trainee	-	-	-	-	4	-	-	-	-	-	4	235	-	-	-	-	940	-	-	-	-	-	940
Training for FFS leaders	training	-	-	-	-	44	44	-	-	-	-	88	833	-	-	-	-	36 652	36 652	-	-	-	-	73 304
Exchange visits for FFS facilitators	visits	-	-	-	-	1	1	1	1	-	-	4	101	-	-	-	-	101	101	101	101	-	-	404
Subtotal Extension services														-	-	-	-	38 693	36 753	101	101	-	-	75 648
b. Agricultural on farm trials																							
TOT for FFS facilitators team /ii	trainee	-	-	-	-	44	44	-	-	-	-	88	5,131	-	-	-	-	225 764	225 764	-	-	-	-	451 528
Identification and training of FFS facilitators /jj	plot	-	-	-	-	31	41	46	26	13	8	165	124	-	-	-	-	3 844	5 084	5 704	3 224	1 612	992	20 460
Follow up training for FFS facilitators /kk	training	-	-	-	-	17	40	69	101	111	119	457	71	-	-	-	-	1 207	2 840	4 899	7 171	7 881	8 449	32 447
Contract FFS trainers /ll	per training	-	-	-	-	2	2	-	-	-	-	4	167	-	-	-	-	334	334	-	-	-	-	668
FFS facilitation	FFS	-	-	-	-	44	88	88	88	44	-	352	420	-	-	-	-	18 480	36 960	36 960	36 960	18 480	-	147 840
Monitoring and exchange visits /mm	w orkshop	-	-	-	-	6	8	10	10	4	-	38	744	-	-	-	-	4 464	5 952	7 440	7 440	2 976	-	28 272
Subtotal Agricultural on farm trials														-	-	-	-	254 093	276 934	55 003	54 795	30 949	9 441	681 215
c. Access to agricultural inputs																							
Seed multiplication plots: inputs	plot	-	-	-	-	2	2	2	2	1	-	9	750	-	-	-	-	1 500	1 500	1 500	1 500	750	-	6 750
Seed multiplication plots: Training (1st round)	persons	-	-	-	2	2	2	2	2	-	-	10	590	-	-	-	1 180	1 180	1 180	1 180	1 180	-	-	5 900
Seed multiplication plots: Training (2nd round)	persons	-	-	-	-	2	2	2	2	2	-	10	295	-	-	-	-	590	590	590	590	590	-	2 950
Establishing linkages to suppliers	initiative	-	-	-	-	-	-	1	1	1	-	3	2,500	-	-	-	-	-	-	2 500	2 500	2 500	-	7 500
Subtotal Access to agricultural inputs														-	-	-	1 180	3 270	3 270	5 770	5 770	3 840	-	23 100
d. Implementation support																							
Motorbikes for extension w orkers /nn	unit	-	-	-	-	2	2	-	-	-	-	4	3,000	-	-	-	-	6 000	6 000	-	-	-	-	12 000
Running cost of subcounty extension w orkers' motorbikes	per year	-	-	-	2	4	4	4	2	-	-	16	720	-	-	-	1 440	2 880	2 880	2 880	1 440	-	-	11 520
Other equipment for extension w orker (tablet)	w orkshop	-	-	-	1	2	3	3	1	1	-	11	1,000	-	-	-	1 000	2 000	3 000	3 000	1 000	1 000	-	11 000
Motorbikes for district offices	unit	-	-	-	-	1	-	-	-	-	-	1	3,000	-	-	-	-	3 000	-	-	-	-	-	3 000
Running cost for district Agricultural offces' motorbikes	per year	-	-	-	-	1	1	1	1	1	-	5	720	-	-	-	-	720	720	720	720	720	-	3 600
Annual operations cost for District Extension Office	Ls per hub	-	-	-	-	1	1	1	1	-	-	4	3,000	-	-	-	-	3 000	3 000	3 000	3 000	-	-	12 000
Annual operations cost for extension services	Ls per hub	-	-	-	-	2	4	4	4	2	-	16	600	-	-	-	-	1 200	2 400	2 400	2 400	1 200	-	9 600
Subtotal Implementation support														-	-	-	2 440	18 800	18 000	12 000	8 560	2 920	-	62 720
Subtotal mproved agricultural and food production														-	-	-	3 620	314 856	334 957	72 874	69 226	37 709	9 441	842 683
2. Entreprenuership and self employment																							
Scoping, validation and prototyping /oo	Ls													-	-	-	-	20 000	-	-	-	-	-	20 000
Business skills training and mentoring /pp	pax	-	-	-	-	-	-	1 241	1 241	1 241	1 241	4 964	150	-	-	-	-	-	-	186 150	186 150	186 150	186 150	744 600
Specialized consultancies on micro businesses development	contracts	-	-	-	-	1	1	1	1	-	-	4	5,000	-	-	-	-	5 000	5 000	5 000	5 000	-	-	20 000
Subtotal ntreprenuership and self employment														-	-	-	-	25 000	5 000	191 150	191 150	186 150	186 150	784 600
3. Community-based financial services /qq																							
Establishment of VSLAs /rr	pax	-	-	-	-	-	-	1 241	1 241	1 241	1 241	4 964	20	-	-	-	-	-	-	24 820	24 820	24 820	24 820	99 280
Assessment of RFIs	w orkshop	-	-	-	-	1	1	1	1	-	-	4	5,000	-	-	-	-	5 000	5 000	5 000	5 000	-	-	20 000
TA for partnership strategy w ith FIs	w orkshop	-	-	-	-	1	-	-	-	-	-	1	10,000	-	-	-	-	10 000	-	-	-	-	-	10 000
Support for hub SACCO	w orkshop	-	-	-	-	-	1	1	-	-	-	2	20,000	-	-	-	-	-	20 000	20 000	-	-	-	40 000
Subtotal ommunity-based financial services														-	-	-	-	15 000	25 000	49 820	29 820	24 820	24 820	169 280
Subtotal Hub 4														-	-	-	3 620	354 856	364 957	313 844	290 196	248 679	220 411	1 796 563
E. Kalangala hub																							
1. Improved agricultural and food production																							
a. Extension services																							
Needs assessment for agricultural services	pers/day	-	-	5	-	-	-	-	-	-	-	5	200	-	-	1 000	-	-	-	-	-	-	-	1 000
Training of extension w orkers /ss	trainee	-	-	4	-	-	-	-	-	-	-	4	235	-	-	940	-	-	-	-	-	-	-	940
Training for FFS leaders	training	-	-	44	44	-	-	-	-	-	-	88	833	-	-	36 652	36 652	-	-	-	-	-	-	73 304
Exchange visits for FFS facilitators	visits	-	-	1	1	1	1	-	-	-	-	4	101	-	-	101	101	101	101	-	-	-	-	404
Subtotal Extension services														-	-	38 693	36 753	101	101	-	-	-	-	75 648

b. Agricultural on farm trials																							
TOT for FFS facilitators team /tt	trainee	-	-	44	44	-	-	-	-	-	-	88	5,131	-	-	225 764	225 764	-	-	-	-	-	-	451 528
Identification and training of FFS facilitators /uu	plot	-	-	31	41	46	26	13	8	2	-	167	124	-	-	3 844	5 084	5 704	3 224	1 612	992	248	-	20 708
Follow up training for FFS facilitators /vv	training	-	-	-	17	40	69	101	111	119	123	580	71	-	-	-	1 207	2 840	4 899	7 171	7 881	8 449	8 733	41 180
Contract FFS trainers /w w	per training	-	-	2	2	-	-	-	-	-	-	4	167	-	-	334	334	-	-	-	-	-	-	668
FFS facilitation	FFS	-	-	44	88	88	88	44	-	-	-	352	420	-	-	18 480	36 960	36 960	36 960	18 480	-	-	-	147 840
Monitoring and exchange visits /xx	w orkshop	-	-	6	8	10	10	4	-	-	-	38	744	-	-	4 464	5 952	7 440	7 440	2 976	-	-	-	28 272
Subtotal Agricultural on farm trials														-	-	252 886	275 301	52 944	52 523	30 239	8 873	8 697	8 733	690 196
c. Access to agricultural inputs																								
Seed multiplication plots: inputs	plot	-	-	2	2	2	2	1	-	-	-	9	750	-	-	1 500	1 500	1 500	1 500	750	-	-	-	6 750
Seed multiplication plots: Training (1st round)	persons	-	-	2	2	2	2	2	-	-	-	10	590	-	-	1 180	1 180	1 180	1 180	1 180	-	-	-	5 900
Seed multiplication plots: Training (2nd round)	persons	2	2	2	2	2	-	-	-	-	-	10	295	590	590	590	590	590	-	-	-	-	-	2 950
Establishing linkages to suppliers	initiative	-	-	1	1	1	-	-	-	-	-	3	2,500	-	-	2 500	2 500	2 500	-	-	-	-	-	7 500
Subtotal Access to agricultural inputs														590	590	5 770	5 770	5 770	2 680	1 930	-	-	-	23 100
d. Implementation support																								
Motorbikes for extension w orkers /yy	unit	2	2	-	-	-	-	-	-	-	-	4	3,000	6 000	6 000	-	-	-	-	-	-	-	-	12 000
Running cost of subcounty extension w orkers' motorbikes	per year	2	4	4	4	2	-	-	-	-	-	16	720	1 440	2 880	2 880	2 880	1 440	-	-	-	-	-	11 520
Other equipment for extension w orker (tablet)	w orkshop	1	2	3	3	1	1	-	-	-	-	11	1,000	1 000	2 000	3 000	3 000	1 000	1 000	-	-	-	-	11 000
Motorbikes for district offices	unit	1	-	-	-	-	-	-	-	-	-	1	3,000	3 000	-	-	-	-	-	-	-	-	-	3 000
Running cost for district Agricultural offces' motorbikes	per year	1	1	1	1	-	-	-	-	-	-	4	720	720	720	720	720	-	-	-	-	-	-	2 880
Annual operations cost for District Extension Office	Ls per hub	1	1	1	1	-	-	-	-	-	-	4	3,000	3 000	3 000	3 000	3 000	-	-	-	-	-	-	12 000
Annual operations cost for extension services	Ls per hub	2	4	4	4	2	-	-	-	-	-	16	600	1 200	2 400	2 400	2 400	1 200	-	-	-	-	-	9 600
Subtotal Implementation support														16 360	17 000	12 000	12 000	3 640	1 000	-	-	-	-	62 000
Subtotal mproved agricultural and food production														16 950	17 590	309 349	329 824	62 455	56 304	32 169	8 873	8 697	8 733	850 944
2. Entreprenuership and self employment																								
Scoping, validation and prototyping /zz	Ls													20 000	-	-	-	-	-	-	-	-	-	20 000
Business skills training and mentoring /aaa	pax	937	937	937	937	-	-	-	-	-	-	3 748	150	140 550	140 550	140 550	140 550	-	-	-	-	-	-	562 200
Specialized consultancies on micro businesses development	contracts	1	1	1	1	-	-	-	-	-	-	4	5,000	5 000	5 000	5 000	5 000	-	-	-	-	-	-	20 000
Subtotal ntreprenuership and self employment														165 550	145 550	145 550	145 550	-	-	-	-	-	-	602 200
3. Community-based financial services /bbb																								
Establishment of VSLAs /ccc	pax	937	937	937	937	-	-	-	-	-	-	3 748	20	18 740	18 740	18 740	18 740	-	-	-	-	-	-	74 960
Assessment of RFIs	w orkshop	1	1	1	1	-	-	-	-	-	-	4	5,000	5 000	5 000	5 000	5 000	-	-	-	-	-	-	20 000
TA for partnership strategy w ith FIs	w orkshop	1	-	-	-	-	-	-	-	-	-	1	10,000	10 000	-	-	-	-	-	-	-	-	-	10 000
Support for hub SACCO	w orkshop	1	1	-	-	-	-	-	-	-	-	2	20,000	20 000	20 000	-	-	-	-	-	-	-	-	40 000
Subtotal ommunity-based financial services														53 740	43 740	23 740	23 740	-	-	-	-	-	-	144 960
Total														236 240	272 880	854 998	1 434 494	1 620 409	1 560 226	1 169 282	872 357	527 453	256 299	8 804 638

\a One w eek training each year
\b 10 days training
\c 1 w eek in year 1 and 1 w eek in year 2
\d 2 days per year
\e 1 senior and 1 junior trainers
\f 10 persons per FFS
\g One motorbike per w orker
\h Includes consultancies, w orkshops, etc.
\i Includes ToT, beneficiaries' training and coachning. 4135 households supported over 4 years
\j overall contract w ith specialized service provider, combined w ith contract for entrepreneurship and self-employment
\k Includes ToT, facilitation, toolkits, etc. 4135 households supported over 4 years
\l One w eek training each year
\m 10 days training
\n 1 w eek in year 1 and 1 w eek in year 2
\o 2 days per year
\p 1 senior and 1 junior trainers
\q 10 persons per FFS

\r One motorbike per w orker
\s Includes consultancies, w orkshops, etc.
\t Includes ToT, beneficiaries' training and coachning. 5788 households supported over 4 years
\u overall contract w ith specialized service provider, combined w ith contract for entrepreneurship and self-employment
\v Includes ToT, facilitation, toolkits, etc. 5788 households supported over 4 years
\w One w eek training each year
\x 10 days training
\y 1 w eek in year 1 and 1 w eek in year 2
\z 2 days per year
\aa 1 senior and 1 junior trainers
\bb 10 persons per FFS
\cc One motorbike per w orker
\dd Includes consultancies, w orkshops, etc.
\ee Includes ToT, beneficiaries' training and coachning. 4962households supported over 4 years
\ff overall contract w ith specialized service provider, combined w ith contract for entrepreneurship and self-employment
\gg Includes ToT, facilitation, toolkits, etc. 4962 households supported over 4 years
\hh One w eek training each year
\ii 10 days training
\jj 1 w eek in year 1 and 1 w eek in year 2
\kk 2 days per year
\ll 1 senior and 1 junior trainers
\mm 10 persons per FFS
\nn One motorbike per w orker
\oo Includes consultancies, w orkshops, etc.
\pp Includes ToT, beneficiaries' training and coachning. 4962 households supported over 4 years
\qq overall contract w ith specialized service provider, combined w ith contract for entrepreneurship and self-employment
\rr Includes ToT, facilitation, toolkits, etc. 4962 households supported over 4 years
\ss One w eek training each year
\tt 10 days training
\uu 1 w eek in year 1 and 1 w eek in year 2
\vv 2 days per year
\w w 1 senior and 1 junior trainers
\xx 10 persons per FFS
\yy One motorbike per w orker
\zz Includes consultancies, w orkshops, etc.
\aaa Includes ToT, beneficiaries' training and coachning. 3892 households supported over 4 years
\bbb overall contract w ith specialized service provider, combined w ith contract for entrepreneurship and self-employment
\ccc Includes ToT, facilitation, toolkits, etc. 3892 households supported over 4 years

Uganda
National Oil Palm Programme
Table 2.2. Mitigation of social risks
Detailed Costs
(USD)

		Quantities												Totals Including Contingencies									
	Unit	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total	Unit Cost	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total
I. Investment Costs																								
A. HH mentoring and Community Awareness																								
1. Household Mentoring																								
a. Training of mentors /a	mentors													-	65 423	58 889	64 129	29 791	29 880	29 970	-	-	-	278 083
b. Monthly subsidy Mentors	w orkshop	72	195	370	366	277	175	175	88	-	-	1 718	360	25 959	70 516	134 201	133 149	101 073	64 047	64 239	32 400	-	-	625 584
c. Equipment and materials for mentors /b	Ls													7 139	19 392	23 349	24 344	14 577	11 510	11 545	2 700	-	-	114 556
d. Stationary Mentors	w orkshop	72	195	370	366	277	175	175	88	-	-	1 718	30	2 163	5 876	11 183	11 096	8 423	5 337	5 353	2 700	-	-	52 132
e. Fuel for Community Development Officers	w orkshop	7	20	37	36	28	18	18	9	-	-	173	550	3 856	11 050	20 503	20 009	15 609	10 064	10 095	5 062	-	-	96 248
Subtotal Household Mentoring														39 117	172 257	248 126	252 726	169 473	120 839	121 201	42 862	-	-	1 166 602
2. Additional community level awareness raising activities																								
Activities HIV/AIDS	ls													15 023	30 135	50 376	40 422	35 475	30 498	40 787	15 341	10 258	-	268 314
Gender and nutrition activities	ls													25 038	35 158	45 338	40 422	30 407	30 498	30 590	15 341	10 258	-	263 049
Sports and Culture	ls													13 520	17 077	25 188	33 348	33 448	26 432	26 511	17 386	8 719	-	201 629
Subtotal Additional community level awareness raising activities														53 580	82 369	120 902	114 191	99 330	87 429	97 888	48 068	29 235	-	732 992
Subtotal HH mentoring and Community Awareness														92 697	254 627	369 029	366 917	268 803	208 267	219 089	90 930	29 235	-	1 899 594
B. Land access and tenure security																								
1. Physical & land use planning for OP development areas /c	hubs	-	-	1	1	1	-	-	-	-	-	3	100,000	-	-	100 752	101 054	101 357	-	-	-	-	-	303 163
2. Land tenure security measures /d	cost/year													300 450	226 014	226 692	227 372	228 054	-	-	-	-	-	1 208 580
3. Strengthening of Hubs land administration institutions /e	Cost/hub													50 075	50 225	50 376	50 527	50 679	-	-	-	-	-	251 882
Subtotal Land access and tenure security														350 525	276 239	377 819	378 953	380 090	-	-	-	-	-	1 763 625
Total														443 222	530 866	746 848	745 870	648 893	208 267	219 089	90 930	29 235	-	3 663 220

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\a Includes food, accomadation,transportation,material and trainer related costs
\b Includes bicycles and stationery
\c Only Buvuma w ill be done under VODP2. The cost includes includes cost for Rapid Physical Planning Assessment plus extra financing for more detailed land use planning studies to be identified by the relavant districts
\d Support to be provided through " 3 Land Information & Resource Centres", through an IFAD Grant
\e (DLO, DLBs & ALCs)

Uganda
National Oil Palm Programme
Table 3.1. Policy and investment framework for national oil palm sector
Detailed Costs
(USD)

		Quantities												Totals Including Contingencies ('000)										
	Unit	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total	Unit Cost	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total
I. Investment Costs																								
A. Development of policy, bill and strategy for OP development																								
National TA for Policy Expert	pers/m	6	12	6	-	-	-	-	-	-	-	24	4,500	27	54	27	-	-	-	-	-	-	-	108
Technical working group	LS	1	1	1	-	-	-	-	-	-	-	3	5,000	5	5	5	-	-	-	-	-	-	-	15
Consultancy studies /a	study	0.5	1	1	-	-	-	-	-	-	-	2.5	20,000	10	20	20	-	-	-	-	-	-	-	50
Consultative meetings (national)	workshop	1	2	2	-	-	-	-	-	-	-	5	5,000	5	10	10	-	-	-	-	-	-	-	25
Consultative meetings (local)	workshop	2	5	5	-	-	-	-	-	-	-	12	3,000	6	15	15	-	-	-	-	-	-	-	36
Policy launches and outreach	workshop	-	1	1	-	-	-	-	-	-	-	2	10,000	-	10	10	-	-	-	-	-	-	-	20
Exposure visits /b	participants	-	8	8	-	-	-	-	-	-	-	16	5,000	-	40	40	-	-	-	-	-	-	-	80
Subtotal Development of policy, bill and strategy for OP development														53	155	128	-	-	-	-	-	-	-	336
B. Engagement of commercial banks																								
Banking business case study	study	1	-	-	-	-	-	-	-	-	-	1	30,000	30	-	-	-	-	-	-	-	-	-	30
Product development studies	study	-	3	-	-	-	-	-	-	-	-	3	10,000	-	30	-	-	-	-	-	-	-	-	30
Workshops	Lusmpsum													15	15	10	10	10	10	10	5	5	5	96
Field visits	Lusmpsum													5	5	5	-	-	-	-	-	-	-	15
Operational support to banks	Lumpsum													-	-	30	30	30	-	-	-	-	-	91
Subtotal Engagement of commercial banks														50	50	45	40	41	10	10	5	5	5	262
C. Ugandan Oil Palm Growers Trust																								
1. Oil palm stakeholder platform																								
Workshops	workshop	-	-	1	2	2	2	2	2	2	2	15	5,000	-	-	5	10	10	10	10	10	10	10	76
Facilitation and follow up	workshop	-	-	-	1	1	1	1	1	1	1	7	20,000	-	-	-	20	20	20	20	20	21	21	143
Policy analysis	LS	-	-	-	1	1	1	1	1	1	1	7	10,060	-	-	-	10	10	10	10	10	10	10	72
Subtotal Oil palm stakeholder platform														-	-	5	40	41	41	41	41	41	41	291
2. Secretariat																								
TA for UOPGT	pers/m	-	6	12	12	12	12	12	12	12	12	102	500	-	3	6	6	6	6	6	6	6	6	52
General Manager	pers/m	-	6	12	12	12	12	12	12	12	12	102	3,200	-	19	39	39	39	39	39	39	39	40	332
Finance Officer	pers/m	-	6	12	12	12	12	12	12	12	12	102	2,000	-	12	24	24	24	24	24	25	25	25	208
Office Attendant	pers/m	-	6	12	12	12	12	12	12	12	12	102	400	-	2	5	5	5	5	5	5	5	5	42
Driver	pers/m	-	6	12	12	12	12	12	12	12	12	102	400	-	2	5	5	5	5	5	5	5	5	42
Medical insurance /c	months	-	30	60	60	30	-	-	-	-	-	180	70	-	2	4	4	2	-	-	-	-	-	13
NSSF contribution /d	cost/year													-	4	8	8	4	-	-	-	-	-	25
Subtotal Secretariat														-	45	91	91	85	79	80	80	80	80	712
3. Vehicle, Office equipment rent																								
Laptops	unit	-	3	-	-	-	-	-	-	-	-	3	1,000	-	3	-	-	-	-	-	-	-	-	3
4 Wheel drive	Vehicles	-	1	-	-	-	-	-	-	-	-	1	25,000	-	25	-	-	-	-	-	-	-	-	25
Printers	unit	-	2	-	-	-	-	-	-	-	-	2	300	-	1	-	-	-	-	-	-	-	-	1
Other equipment	LS	-	1	-	-	-	-	-	-	-	-	1	2,500	-	3	-	-	-	-	-	-	-	-	3
Office furniture	LS	-	1	-	-	-	-	-	-	-	-	1	5,000	-	5	-	-	-	-	-	-	-	-	5
Office rent	year	-	1	1	1	1	1	-	-	-	-	5	10,000	-	10	10	10	10	10	-	-	-	-	51
Subtotal Vehicle, Office equipment rent														-	46	10	10	10	10	-	-	-	-	87
4. Facilitation costs																								
Internet and communication	LS	-	0.5	1	1	0.5	-	-	-	-	-	3	2,400	-	1	2	2	1	-	-	-	-	-	7
Operational travel	LS	-	0.5	1	1	0.5	-	-	-	-	-	3	3,000	-	2	3	3	2	-	-	-	-	-	9
Vehicle O&M	monthly	-	-	-	-	-	6	24	24	24	24	102	300	-	-	-	-	-	2	7	7	7	7	31
Subtotal Facilitation costs														-	3	5	5	3	2	7	7	7	7	48
Subtotal Ugandan Oil Palm Growers Trust														-	94	112	147	139	132	128	128	128	129	1 137
D. SEA consultancy	LS	0.5	0.5	-	-	-	-	-	-	-	-	1	150,000	75	75	-	-	-	-	-	-	-	-	150
Total														178	375	285	188	179	142	138	133	134	134	1 886

\a To include background studies, consultancies to draft policy, bill and strategy
\b For targeted policy makers and /or parliamentarians. USD 5000 per person inclusive of airfare and per diem
\c Private medical coverage to be procured and paid annually for all staff at UGX 250000 per person per month
\d 10% of gross salary to be financed by government.For presentation purpose it has been treated as duty

Uganda
National Oil Palm Programme
Table 3.2. The national capacity for OP research strengthening
Detailed Costs
(USD)

	Unit	Quantities											Unit Cost	Totals Including Contingencies ('000)										
		18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total		18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total
I. Investment Costs																								
A. Capacity building & institutional partnerships																								
1. Training	LS	4	1	1	1	1	1	1	1	1	1	13	5,000	20	5	5	5	5	5	5	5	5	5	66
2. Study tours - technical /a	visits	-	2	2	2	2	2	2	2	2	2	18	10,000	-	20	20	20	20	20	20	20	21	21	183
3. Establishing institutional partnerships	LS	4	1	1	1	1	1	1	1	1	1	13	3,000	12	3	3	3	3	3	3	3	3	3	39
4. Priority oil palm R&D activities																								
a. National Oil Palm Research																								
Field labaratory and self contained R&D station on Kalangala	No	1	-	-	-	-	-	-	-	-	-	1	250,000	258	-	-	-	-	-	-	-	-	-	258
Pickup	Vehicle	1	-	-	-	-	-	-	-	-	-	1	30,000	30	-	-	-	-	-	-	-	-	-	30
Motor bike	No	2	-	-	-	-	-	-	-	-	-	2	2,000	4	-	-	-	-	-	-	-	-	-	4
Office Equipment	LS	1	-	-	1	-	-	1	-	-	-	3	7,000	7	-	-	7	-	-	7	-	-	-	21
Field Equipment and Tools	LS	1	1	1	1	1	1	1	1	1	1	10	10,000	10	10	10	10	10	10	10	10	10	10	102
Irrigation equipment for nursery	LS													50	-	-	-	-	-	-	-	-	-	50
Subtotal National Oil Palm Research														359	10	10	17	10	10	17	10	10	10	465
b. Research Trials																								
District trials (new areas)	LS	2	2	2	2	2	-	-	-	-	-	10	30,000	60	60	60	61	61	-	-	-	-	-	302
OP future area studies	LS	1	1	1	1	1	-	-	-	-	-	5	50,000	50	50	50	51	51	-	-	-	-	-	252
Subtotal Research Trials														110	110	111	111	111	-	-	-	-	-	554
c. Pest and Disease Surveillance																								
Staff Travel	LS	1	1	1	1	1	1	1	1	1	1	10	4,000	4	4	4	4	4	4	4	4	4	4	41
Equipment and material	LS	1	1	1	1	1	1	1	1	1	1	10	4,000	4	4	4	4	4	4	4	4	4	4	41
Subtotal Pest and Disease Surveillance														8	8	8	8	8	8	8	8	8	8	81
Subtotal Priority oil palm R&D activities														477	129	129	136	130	18	25	18	18	19	1 100
Total Investment Costs														509	157	157	165	158	47	54	47	47	47	1 388
II. Recurrent Costs																								
A. Facilitation costs																								
Vehicle operating costs	LS	1	1	1	1	1	1	1	1	1	1	10	12,000	12	12	12	12	12	12	12	12	12	12	122
Office operating costs	LS	1	1	1	1	1	1	1	1	1	1	10	6,000	6	6	6	6	6	6	6	6	6	6	61
Field and laboratory consumables	LS	1	1	1	1	1	1	1	1	1	1	10	12,000	12	12	12	12	12	12	12	12	12	12	122
Subtotal Facilitation costs														30	30	30	30	30	30	31	31	31	31	305
B. Field lab staff																								
Lab assistant	person/year	1	1	1	1	1	-	1	1	1	1	9	12,000	12	12	12	12	12	-	12	12	12	12	110
Field w orker	person/year	2	2	2	2	2	2	-	2	2	2	18	2,000	4	4	4	4	4	4	-	4	4	4	37
Cleaner	person/year	1	1	1	1	1	1	1	-	1	1	9	800	1	1	1	1	1	1	1	-	1	1	7
Security	person/year	2	2	2	2	2	-	2	2	2	2	18	800	2	2	2	2	2	-	2	2	2	2	15
Subtotal Field lab staff														18	18	19	19	19	5	15	18	19	19	168
Total Recurrent Costs														48	49	49	49	49	35	45	49	50	50	473
Total														558	205	206	214	207	82	99	96	97	97	1 861

\a visits mainly on technical and research focus

Uganda
National Oil Palm Programme
Table 4.1. Programme Management, M&E and Know ledge Management
Detailed Costs
(USD)

		Quantities												Totals Including Contingencies ('000)									
	Unit	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total	Unit Cost	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Total
I. Investment Costs																								
A. Programme Management																								
1. Building technical knowledge, documentation and communication																								
a. OP sector database	LS													3	3	3	3	3	3	3	3	3	3	30
b. Study tour - M&E and KM	visits	-	1	-	-	-	-	-	1	-	-	2	10,000	-	10	-	-	-	-	-	10	-	-	20
c. GIS database	LS													40	20	20	20	20	20	20	20	21	21	223
d. KM and communication /a	LS													40	40	40	40	40	40	40	40	40	40	400
Subtotal Building technical knowledge, documentation and communication														83	73	63	63	63	63	63	74	64	64	674
2. Workshops, training and studies																								
Participation in international w orkshops	LS	-	1	-	1	-	1	-	1	-	1	5	20,000	-	20	-	20	-	20	-	20	-	21	102
Staff training	LS	-	1	-	1	-	1	-	1	-	1	5	10,000	-	10	-	10	-	10	-	10	-	10	51
TA for various support	pers/m	1	-	-	1	-	-	1	-	-	1	4	15,000	15	-	-	15	-	-	15	-	-	15	61
Subtotal Workshops, training and studies														15	30	-	45	-	30	15	31	-	46	213
3. Vehicles, furniture and equipment																								
a. Vehicles																								
Double cabin pickups	LS	7	-	-	-	-	-	-	-	-	-	7	42,000	294	-	-	-	-	-	-	-	-	-	294
Station w agon	LS	-	2	-	-	-	-	-	-	-	-	2	25,000	-	50	-	-	-	-	-	-	-	-	50
Subtotal Vehicles														294	50	-	-	-	-	-	-	-	-	345
b. Office equipment																								
Laptops	LS	13	-	-	-	13	-	-	-	13	-	39	1,500	20	-	-	-	20	-	-	-	20	-	59
Desktop computers	LS	3	-	-	-	3	-	-	-	3	-	9	1,500	5	-	-	-	5	-	-	-	5	-	14
Heavy duty printer	LS	1	-	-	-	-	1	-	-	-	-	2	10,000	10	-	-	-	-	10	-	-	-	-	20
GPS machines	number	30	-	-	-	-	-	-	-	-	-	30	500	15	-	-	-	-	-	-	-	-	-	15
Scanner	number	1	-	-	-	-	-	-	-	-	-	1	4,200	4	-	-	-	-	-	-	-	-	-	4
Projector	number	-	1	-	-	-	1	-	-	-	-	2	1,000	-	1	-	-	-	1	-	-	-	-	2
Furniture	LS	-	-	-	1	-	-	1	-	-	-	2	3,000	-	-	-	3	-	-	3	-	-	-	6
Kitchen equipment /b	LS	-	1	1	1	1	1	1	1	1	1	9	500	-	1	1	1	1	1	1	1	1	1	5
Subtotal Office equipment														53	2	1	4	25	12	4	1	25	1	125
Subtotal Vehicles, furniture and equipment														348	52	1	4	25	12	4	1	25	1	470
Subtotal Programme Management														446	155	64	112	88	106	82	105	89	110	1 357
B. Monitoring and Evaluation																								
1. Development of central M&E system /c	Ls													15	15	-	-	-	-	-	-	-	-	30
2. Studies																								
Baseline study	study	1	-	1	-	1	-	-	-	-	-	3	50,000	50	-	50	-	51	-	-	-	-	-	151
Mid-term study	study	-	-	-	-	1	-	-	-	-	-	1	800,000	-	-	-	-	811	-	-	-	-	-	811
Impact assessment study	study	-	-	-	-	-	-	-	-	1	-	1	100,000	-	-	-	-	-	-	-	-	103	-	103
Thematic surveys and participatory surveys /d	LS	-	1	1	1	1	1	1	1	1	-	8	20,000	-	20	20	20	20	20	20	20	21	-	162
Subtotal Studies														50	20	71	20	882	20	20	20	123	-	1 227
3. Ex-post environmental impact review	study	-	-	-	-	-	-	-	-	-	1	1	85,000	-	-	-	-	-	-	-	-	-	87	87
Subtotal Monitoring and Evaluation														65	35	71	20	882	20	20	20	123	87	1 345

Total Investment Costs														511	190	134	132	970	126	103	125	212	198	2 701
II. Recurrent Costs																								
A. Personnel																								
Programme Manager	pers/m	6	12	12	12	12	12	12	12	12	12	114	5,000	30	60	60	60	60	60	60	60	60	60	570
Secretary	pers/m	6	12	12	12	12	12	12	12	12	12	114	1,000	6	12	12	12	12	12	12	12	12	12	114
Operations Manager	pers/m	6	12	12	12	12	12	12	12	12	12	114	4,000	24	48	48	48	48	48	48	48	48	48	456
Oil Palm Agronomist	pers/m	6	12	12	12	12	12	12	12	12	12	114	3,000	18	36	36	36	36	36	36	36	36	36	342
Environment, Health and Safety Specialist	pers/m	6	12	12	12	12	12	12	12	12	12	114	3,000	18	36	36	36	36	36	36	36	36	36	342
Programme Engineer	pers/m	6	12	12	12	12	12	12	12	12	12	114	3,000	18	36	36	36	36	36	36	36	36	36	342
Mobilization and participatory planning specialist	pers/m	12	12	12	12	12	12	12	12	12	12	120	3,000	36	36	36	36	36	36	36	36	36	36	360
Socilogist	pers/m	6	12	12	12	12	12	12	12	12	12	114	3,000	18	36	36	36	36	36	36	36	36	36	342
Socio-Economist	pers/m	6	12	12	12	12	12	12	12	12	12	114	3,000	18	36	36	36	36	36	36	36	36	36	342
M&E & Learning Manager	pers/m	6	12	12	12	12	12	12	12	12	12	114	4,000	24	48	48	48	48	48	48	48	48	48	456
KM and Communication Officer	pers/m	6	12	12	12	12	12	12	12	12	12	114	3,000	18	36	36	36	36	36	36	36	36	36	342
M&E Officer	pers/m	6	12	12	12	12	12	12	12	12	12	114	3,000	18	36	36	36	36	36	36	36	36	36	342
M&E Assistant	pers/m	6	12	12	12	12	12	12	12	12	12	114	2,000	12	24	24	24	24	24	24	24	24	24	228
Financial Manager	pers/m	6	12	12	12	12	12	12	12	12	12	114	4,000	24	48	48	48	48	48	48	48	48	48	456
Accounting Officer	pers/m	6	12	12	12	12	12	12	12	12	12	114	3,000	18	36	36	36	36	36	36	36	36	36	342
Office Administrator	pers/m	6	12	12	12	12	12	12	12	12	12	114	1,000	6	12	12	12	12	12	12	12	12	12	114
Procurement Officer	pers/m	6	12	12	12	12	12	12	12	12	12	114	3,000	18	36	36	36	36	36	36	36	36	36	342
Office Attendants	pers/m	12	24	24	24	24	24	24	24	24	24	228	500	6	12	12	12	12	12	12	12	12	12	114
Drivers /e	pers/m	30	60	60	60	60	60	60	60	60	60	570	500	15	30	30	30	30	30	30	30	30	30	285
Medical insurance /f	months	161	312	312	312	312	312	312	312	312	312	2 969	70	11	22	22	22	22	22	22	22	23	23	212
NSSF contribution /g	cost per year													36	69	69	69	69	69	69	69	69	69	657
Gratuity /h	cost/per													41	78	78	78	78	78	78	78	78	78	743
Subtotal Personnel														433	823	823	823	823	823	823	823	824	824	7 843
B. Operating costs for PMU																								
Office rent	LS	-	1	1	1	1	1	1	1	1	1	9	55,000	-	55	55	55	55	55	55	55	55	55	495
Internet and communication	LS	-	1	1	1	1	1	1	1	1	1	9	9,000	-	9	9	9	9	9	9	9	9	9	82
Operational travels /i	LS	1	1	1	1	1	1	1	1	1	1	10	10,000	10	10	10	10	10	10	10	10	10	10	102
Office operating cost /j	LS	-	1	1	1	1	1	1	1	1	1	9	16,000	-	16	16	16	16	16	16	16	16	16	146
Vehicle and motocycle O&M	LS	-	1	1	1	1	1	1	1	1	1	9	50,400	-	51	51	51	51	51	51	52	52	52	461
Subtotal Operating costs for PMU														10	141	141	141	142	142	142	142	143	143	1 286
Total Recurrent Costs														443	964	964	965	965	965	965	966	966	966	9 129
Total														954	1 154	1 098	1 097	1 935	1 091	1 068	1 091	1 178	1 164	11 831

\a To include e.g. publicity & promotional activities, dissemination of strategies and guidelines, networking with key NOPP stakeholders/interest groups.
\b Replacement budget for refrigerator, water dispenser, coffee maker, and microwave, etc
\c M&E system is expected to be web-based
\d (at least two on social inclusion and / or HH Mentoring)
\e Five full time
\f UGX 250000 per person month
\g 10% of gross salary to be financed by government.For presentation purpose it has been treated as duty
\h @ 15% of a monthly salary paid at end of two years.
\i Inclusive of accomodation costs, per diems, transportation
\j Inclusive of stationary costs

Annex 10

Economic and financial analysis

Annex 10: Economic and Financial Analysis

A. Introduction

1. The National Oil Palm Project (NOPP) aims at sustainable and inclusive rural transformation in selected agro-ecological zones suitable for oil palm cultivation in Uganda. The Project development objective is to enhance incomes and promote sustainable livelihoods across poor and vulnerable rural households in communities responding to opportunities generated by an efficient oil palm industry, complying with modern environmental and social standards. The objective is expected to be achieved through the Project interventions under three components: (1) Scaling-up Smallholder Oil Palm Development; (2) Sustainable Livelihood; and (3) Oil Palm Sector Growth Framework. The Scaling-up Smallholder Oil Palm Development component will support an expansion of commercially successful oil palm production through investments in and institutional support to smallholder farmers to develop oil palm on 15,000 ha and facilitation of oil palm development on 5,000 ha by a nucleus estate, and development of supporting road and ferry infrastructure. Additionally, the Project will finance maintenance cost of about 824 ha to be developed under the VODP-2 in 2018/19. The Sustainable Livelihood component will support inclusive and sustainable development in the oil palm growing communities by (i) assisting the communities in the oil palm development areas to exploit opportunities created by the oil palm development in terms of increased incomes of smallholder farmers and nucleus estate employees and improved transport infrastructure to start income generating business activities; (ii) promoting an agriculture intensification in agricultural lands within the oil palm growing communities; (iii) increasing awareness about the social and health risks associated with increased incomes combined with migratory lifestyle. The Oil Palm Sector Growth Framework component will support the country's long term vision for the oil palm sector development and assist it with development of policy, legal, strategic and institutional framework and building national technical knowledge base for the oil palm development sector.

2. The Project is designed to support oil palm development in four hubs – Buvuma, Kalangala and Masaka and Hub 4 yet to be identified. The hubs cover districts located in mainland and islands. Depending on the location, most of the villages in remote areas are engaged in fisheries and subsistence and semi-subsistence farming systems, while some villages are engaged in production and marketing of commercial crops such as coffee. The Project therefore will deliver wide range of activities including support for increased resilience of subsistence crop and livestock farming systems to climate events, improve food insecurity and nutrition of subsistence farmers through increased food productivity and reduction of production losses, and increase financial returns to farm and non-farm households by increasing value added to products and promoting micro- and small-scale entrepreneurship to exploit business opportunities created by the Project investments.

3. Major direct benefits from the NOPP will include: (i) increased incomes of oil palm growing smallholders through switching from a low-income subsistence and semi-subsistence farming to farming with commercial potential and (ii) increased household incomes from investments in income generating economic activities in agriculture, livestock, and services sectors. The private sector partner of the Project will, in addition to palm oil production, also invest in palm oil mill and associated infrastructure, costs of which are presented in the Project costs. Benefits to these investments however are not accounted for in the analysis; hence the associated investments costs are deducted from the economic and financial analysis for the overall Project.

4. The Project investments are also expected to generate additional direct and indirect benefits that are either not easily measurable in monetary values or because of unavailability of reliable and complete set of required data for accurate and meaningful estimation. The most important unquantified benefits are the impacts of Project investments on the rural transformation through spill over and multiplier effects. Measuring the magnitude of the multiplier and spill over effects was not possible during the design, given the information available[107].

5. Other unquantified benefits from the Project investments include: (i) increased investments in and efficient development of oil palm sector through development of enabling policy, legal and institutional framework for the sector and increased capacity of the government for planning,

[107] An in-depth study is ongoing to assess the multiplier effects of the oil palm investment in Kalangala on the overall economy using the Local Economy-wide Impact Evaluation (LEWIE) methodology, in collaboration with University of California Davis. The results of the study are expected by mid-2018.

programming and management; (ii) improved institutional and financial capacities of local (district) governments resulting from the institutional support from the Project and incremental taxes paid by the nucleus estate; (iii) improved food security and nutrition status of local population through the Project investments in intensification of agriculture production; and (iv) improved environmental sustainability of local land and water resources through the Project investments in improved land tenure and security and awareness about environmental issues.

B. Methodology

6. Using the cost benefit analysis methodology, the financial and economic analysis examines viability of the Project investments in oil palm development and economic activities measured through gross and net margins, returns to family labour, internal rate of return (IRR) and net present value (NPV) of incremental benefits.

7. The Project benefits from the investments in oil palm development are estimated on the basis of three models:(i) smallholder farmers supported by the Project's development loan; commercial farmers developing, with own or commercial financing, an area above the maximum threshold financed by the Project (2 ha/farmer); and (iii) nucleus estate. The benefits from the Project investments in alternative economic livelihoods are measured through: (i) two models of self-financed micro-enterprises; (ii) two models for small enterprises partly financed through loans from the VSLAs and RFIs through the Project facilitation; and (iii) two models for agriculture intensification. The models are prepared using field level data on oil palm, crop and livestock production, including existing farm management practices and labour requirements, and existing entrepreneurship activities recorded by local financing institutions. These data were collected under VODP2 and during the Project design mission. Additionally, statistical data of the local districts, monitoring and evaluation data of ongoing IFAD projects, and findings of the various studies conducted by research institutes and development agencies were used.

8. Incremental benefits to investments are estimated by comparing the future without project (WoP) and future with-project (WiP) net margins. The overall Project impact is calculated by aggregating benefits to the investments in oil palm development and income generating economic activities. The Project benefits are assessed for a period of 25 years at 2017 financial prices and using opportunity cost of capital of 10% and assuming a 70% adoption rate for investments in alternative economic livelihoods and 100% in oil palm development.

9. Financial prices of locally traded outputs and inputs are converted into economic prices by deducting direct agricultural subsidies and taxes. Prices for fertilizer imported for oil palm as well as oil palm seedling production are exempt from taxes which had been reflected. Financial cost of unskilled labour is converted into economic one using a shadow wage rate conversion factor of 0.85 due to a low supply of unskilled wage labour in the Project areas for the oil palm sector. The official exchange rate used in the analysis is Ugandan Shilling (UGX) 3,550 to USD 1.0. Value Added Tax rate is 18%, custom duty for imported goods are around 10%.

10. Sensitivity analysis is conducted to test robustness of economic returns of the project/programme investments for nine sensitivity variables: (i) a 20% reduction in oil palm areas; (ii) a 20% reduction in fresh fruit bunches (FFB) yields; (iii) a 20% increase in the Project costs; (iv) 1- and 2-year delays in Project implementation; (v) a 10% and 20% reduction in Crude Palm Oil (CPO) prices; (vi) a simultaneous 20% reduction in FFB yields and 20% decline in the CPO prices; (vii) a 20% increases in unskilled labour wage hired for the oil palm development; and (viii) 10% and 20% reductions in adoption rates for sustainable livelihoods activities.

C. Key assumptions

11. **Project scope.** The Project investments are expected to develop oil palm production on 20,000 ha distributed among smallholders eligible for the Project's development loan (12,000 ha); area expanded by commercial farmers (3,000 ha) and nucleus estate (5,000 ha). Around 9,231 new households[108] are expected to benefit from oil palm development investments, while the number of OP and non-OP growing households benefiting from the alternative economic livelihood activities are assumed to be 12,513 for food production support and 11,409 for enterprise development.

[108] To be added to the 1,810 households already supported in Kalangala.

12. **Benefits**. Key benefits estimated in the analysis are increased incomes to smallholders and nucleus estate and increased incomes to rural population engaged in the income-generating activities. Other Project benefits are not quantified under the Financial Analysis and are briefly mentioned and discussed.

13. **Prices**. Inputs and outputs prices are 2016 prices. Prices are collected from KOPGT, OPUL, farmers, entrepreneurs, markets and district offices in Kalangala and Buvuma. FFB price estimated in January 2017 is estimated for the analysis.[109]

14. **Smallholder development loans.** Smallholder farmers are eligible for the development loan to finance the oil palm establishment and maintenance costs on an area of up to 2 ha. The loan consists of in-kind (seedling, fertilizer, farm tools) and cash parts, and is provided over a five-year period, until first harvest. The cash portion of the loan is fixed, while the in-kind portion depends on the actual costs of the inputs. The actual loan amount is therefore determined at the end of five-year period. When 2017 prices are applied, the loan amount is estimated at USD 3,407 per ha which is used for the current analysis. This carries an annual service charge of 10%. Repayment of principal and interests start from year 5 with annual instalments at 33% of the net FFB value for the given year. The payment duration therefore depends on the FFB yields and prices for each year.

15. **Potential micro and small enterprise investments**. The investment activities for self-financed micro-enterprises are presented through indicative investment models for a female entrepreneur starting a laundry services enterprise and an entrepreneur investing in a small door-to-door marketing business selling personal goods and items. Potential investment options for small enterprises to be financed through the Project's partnership with Rural Finance Institutions (RFIs) and promotion of Village Savings and Loans Associations (VSLA) are illustrated through investment models for trade in improved cooking stoves and groundnuts processing and marketing activities. The investment activities under the agriculture production intensification interventions are illustrated through production models for food crops and goat. Although these illustrative models reflect natural resource bases, common issues and priorities of each Project areas, the actual investment options however may differ.

16. **Benefit accumulation phases**. The benefit accumulation phases reflect the Project schedule for the oil palm development and implementation of livelihood interventions. The oil palm development schedule, which is presented below, shows that the oil palm planting will start in 2019 and will be completed in 2026. Benefits to oil palm investments expected to start yielding in 2023.

Table 2: Oil Palm planting schedule

			18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28
NOPP	Nucleaus estate		-	1,200	1,200	1,200	1,400	-	-	-	-	-
	Smallholder (devt loan)	Area planted	-	1,250	3,000	3,250	1,500	1,500	1,500		-	-
	Commercial farmers	Area planted	-	-	-	-	553	1,026	473	474	474	-
	Smallholder, total	Cumulative area	-	1,250	4,250	7,500	9,553	12,079	14,052	14,526	15,000	15,000
	All Oil	Area planted	-	2,450	4,200	4,450	3,453	2,526	1,973	474	474	-
	Palm	Cumulative area	-	2,450	6,650	11,100	14,553	17,079	19,052	19,526	20,000	20,000

The Project schedule for the activities under the component 2 is presented in the table below. The benefits to investments in alternative economic activities are expected to realize in full by end of 2030.

Table 3: Phasing of adoption of alternative economic activities

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Laundry	105	157	268	427	534	545	490	334	200	134
Retail seller	105	157	268	427	534	545	490	334	200	134
Improved cookstoves	26	39	67	107	134	136	122	83	50	33
Groundnuts processing	26	39	67	107	134	136	122	83	50	33
Food crops	201	301	515	820	1025	1046	940	641	384	256
Goat rearing	86	129	221	352	439	448	403	275	165	110

17. **Project cost**. The financial base cost of the Project in 2016 prices, inclusive of physical contingencies, is estimated at USD 207.3 million (UGX 735.8 billion). The economic base cost of the Project is estimated by removing all taxes and duties from the financial base cost.

[109] See Attachments 5 and 6 to this Annex as well as Annex 4 for a detailed description for the FFB calculation.

D. Financial analysis

18. The financial analysis examines financial feasibility of the Project investments in oil palm development through models representing the smallholder eligible for a development loan, spontaneous smallholder investing in oil palm development using own resources or commercial loan, and nucleus estate. The Project returns to the investments in economic activities are measured through four models: (i) micro-enterprise models for laundry services and small retail trade in personal goods and items and (ii) small enterprise models for retail marketing of improved cooking stove and groundnuts processing and marketing. The investments in agriculture production intensification are represented through food crop and goats production models. Financial sustainability of KOGPT and other farmer organisations is analysed by assessing the costs of KOPGT support services in relation to the smallholder incomes over the 25 year of oil palm's agronomical life.

a. Oil Palm Development Models[110]

19. **Smallholder oil palm development model.** The model illustrates a smallholder farmer eligible for the Project supported development loan, who is presently engaged in a semi-subsistence farming, investing in oil palm development. It is developed on the basis of the actual results achieved on Bugala Island, latest prices for inputs and outputs, and adapted to conditions and costs in the new hub development areas in Uganda. Main technical and financial assumptions used in the model are as below:

- **Land preparation** costs assume the conversion from existing agricultural areas and preparation works are manually carried out. The cost of land preparation is estimated at USD 328/ha. A fee (USD 182/ha) for contour bunding has been included into the model but only farmers with sloping lands will need to carry it out.
- **Planting** assumes lining and holing in a triangular pattern with a spacing of 9.0 m, with 143 trees per ha. Seedlings will be provided by the private sector at a cost of USD 4.5 each.
- **Crop maintenance** includes: (1) inter-row weeding and circle weeding initially every two months and (2) application of fertilizers including dolomite, rock phosphate, ammonium nitrate, NPK blue, kieserite, boron, NPK super, di-ammonium phosphate and MOP. Farmers intercrop oil palm with maize, vegetables, and leguminous plants in ally during the initial three years. The model however does not assume intercropping.
- **Yields**. FFBs start yielding in year 4 but the yields are low at 2 t/ha. The yields will be around 4.0 t/ha in year 5 gradually increasing to 16 t/ha in year 14-16 then slowly declining to 10 t/ha in year 25. FFB production can continue after the year 25 for another 5 years but yields will be low and financial unfeasible to maintain the old trees.

Table 4: Detailed yield projection for the smallholder oil palms

Yield projection for smallholder																						
Age in years after planting	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Option 1. FFBs (tons/ha)	2	4	6	8	9	11	13	14	15	15	16	16	16	15	15	14	13	13	13	12	12	10

[110] See Attachment 1 to this Annex.

- **Operating costs** include continuous crop maintenance such as circle and inter row weeding, pruning, and fertilizer application with occasional pest and disease application costs.
- **Harvesting costs** include the wage of agricultural labour and raise as yields increase. These are calculated per ha using the projected yields.
- **FFB prices.** The price paid for FFB is calculated each month on the basis of the pricing formula[111]. A price of CPO at USD 800 per ton recorded in January 2017 has been used in the model.
- **Transport** of the FFBs from farmer fields to the mill is organized by KOPGT, the cost of which will be deducted from farmer earnings.
- **Investment costs.** The initial investments in smallholder oil palm development will be financed by the Project through a development loan to smallholders for an area up to 2 ha/farmer to finance land preparation, planting and maintenance costs over a five-year period until the trees start yielding. The loan is provided both in-kind and in cash over the five-year period. In kind portion of loan includes seedlings, fertilizer, and tools and other inputs prices.
- **WoP benefits**. The farmer is assumed to be a semi-subsistence farmer similar to one described under the food crop production model in para 26 of this report (see WoP scenario). The farmer would produce food crops (cassava, matoke, beans, and maize) with a low input-low output farming practices, with annual net returns of USD 104/ha.

20. Annual net returns (before loan service) will become positive when trees start yielding in year 4 and will gradually increase reaching its peak at USD 1,698 in year 13. The net returns are projected to decline gradually to USD 914 in year 25. The financial analysis demonstrates FIRR of 21% and FNPV of USD 4,318.

21. Cash flow analysis suggests that the smallholder will maintain positive cash flow after service the loan throughout the 25-year period. S/he is expected to repay the principal and interests over 10 to 12 years after the five-year grace period ends. Assuming an average farm of 1.3 ha per household, the annual net household income after debt service will start to be positive as of year 4 with the first harvest and will start to gradually increase after year 8, to stabilize at its peak around USD 2,000 between years 18 and 19.

22. **Commercial farmers model.** The model describes farmers with capacity to invest in more than the 2 ha supported by the Project through the development loan, using either his/her own resources or a commercial loan. All the agronomic and financial parameters of the model are similar to the smallholder oil palm development model described above, except the use of a commercial loan repayable in a 12-month period with 18% interest rate. In the WoP scenario, the commercial farmer is assumed to be a semi-commercial farmer with annual net benefits of USD 300/ha.

23. Annual net returns and financial results to the commercial farmer are similar to those of the smallholder farmer eligible for the development loan. However, as the commercial loan is repayable in one year , the commercial farmer will have negative cash flows until year 6. Assuming an average of 2.1 ha per household, developed by the commercial farmer above the 2 ha supported by the development, the annual net household income after debt service will be negative until year 4, to gradually increase to over USD 6,000 between years 13 and 16.

24. **Nucleus estate oil palm development model.** The model illustrates oil palm development in the nucleus estate and is built based on the actual agronomical and financial parameters of oil palm development in the nucleus estate in Kalangala district with some modifications to adjust to new oil palm development areas. The main assumptions used in the model are similar to those in smallholder oil palm development model except for the following:

- **Oil palm establishment and maintenance costs** are higher since the nucleus estate:(i) finances costs of access and collection roads; (ii) uses machinery for land clearing; (iii) applies higher rate of fertilizer; and (iv) pays higher wages for labour.

[111] Refer to the Annex 10, Attachment 6 for details.

Table 5: Fertilizer dosage used by smallholder and nucleus estate.

	Smallholder						Nucleus Estate					
Fertiliser type	**Yr0**	**Yr1**	**Yr2**	**Yr3**	**Yr4**	**Yr5-YrX**	**Yr0**	**Yr1**	**Yr2**	**Yr3**	**Yr4**	**Yr5-YrX**
GRP	0.5						0.5					
Dolomite	0.5	0.5	1.0	0.5	0.5		0.5	1.0	1.0	1.0	-	
CAN	0.3	0.4	0.4				0.3	0.3	0.4	0.3	0.3	0.3
NPK Blue	1.0	1.5	1.5				0.3	1.0	1.5	0.5		
Kieserite	0.3	0.5	0.5				-	0.3	0.5	0.3	0.3	0.3
Boron	0.040	0.040	0.040				0.040	0.040	0.040	0.0	0.040	0.0
NPK Super			1.0	2.0	1.5	1.0		-	1.0	1.0	1.5	1.0
Diammonium Phosphate											1.0	
MOP			0.3	0.5	1.0	2.0	0.3	0.3	0.3	0.5	1.0	2.0
Total/Tree (kg)	2.6	2.9	4.7	3.0	3.0	3.0	1.8	2.8	4.7	3.6	4.1	3.6
Total per ha (kg)	370.4	441.4	670.7	429.0	429.0	429.0	263.1	426.4	670.7	513.4	584.9	513.4

- **Yields**. The nucleus estate obtains 25-30% higher yields than smallholder farmers for a number of reasons including: (i) better farming practices; (ii) even planting periods; and (iii) higher use of fertilizer.
- **Transportation** of FFBs are carried out by the nucleus estate.
- **WoP benefits** on the land used by the nucleus estate are assumed to be similar to those of a semi-commercial farmer with annual net returns of USD 300/ha.

25. The nucleus estate investments in oil palm development show annual net incremental returns before debt service at USD 215/ha in year 5 which would gradually increase to about USD 2,500 in years 11-16 then decline to USD 1,369 in year 25. The model demonstrates FIRR of 22% and FNPV of 6,309. The Financial indicators for the oil palm development models are summarized as follows.

Table 6: Summary of Financial Results for Smallholder Farmers and Nucleus Estate

	Smallhold. (devt loans)	Commercial farmer	Nucleus estate
NPV (USD)	4 318	4 318	6 309
FIRR	21.5%	21.5%	22.1%
Net annual income before financing, YR 13 (USD/ha)	1 698	1 698	2 573
Net household annual income after financing, YR 13 (USD)	1 659	6 118	n.a.

b. Financial Sustainability of KOPGT

26. Operational and financial sustainability of KOPGT is essential for the sustainability of past and future investments in oil palm development. Currently its main support services to smallholder farmers include marketing services (transportation of fertilizer and FFBs, pricing services), loan management (both development and commercial loans) and field extension services. Transportation services among them are fully recovered from the smallholder farmers and charged as percentage from the gross FFB values. When the KOPGTs costs, VOPD 1-2 oil palm areas and FFB yields of 2016 assumed, KOPGTs costs per ha are estimated at USD 43 (UGX 151,500) for transportation costs, USD 6.0 (UGX 20,600) for loan management, USD 22 (UGX 77,700) for field extension services, and USD 22 (UGX 77,200) for management and administration. When the marketing costs (recovered), the remaining KOPGT costs for recovery is estimated at USD 49 (UGX 175,500) per ha. As presented in the table below, these unrecovered costs will be around 20% of the net (after loan service) FFB value per ton when the FFB yields of year 2 assumed. But this proportion would decline over time as the FFB yields increases. Starting from the year 9 of oil palm, for instance, the unrecovered KOPGT services costs would be below 5% and after year 12 below 3% of the net FFB value per ton. These

would reduce further if the field extension services would reduce due to improved efficiency (see relevant chapters of PDR on the KOPGT transformation–Annex 4, Appendix 4). If the 10% reduction in the field extension services costs will take place, the costs of field extension and loan management services would be below 5% of the net FFB value per ton starting from the year 9 (below 5%) suggesting its affordability to smallholders if/when charged[112].

Table 7: Oil palm production, net FFB value and cost recovery flows.

	Years																					
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Oil palm production and values																						
Yields, t/ha	2	4	6	8	9	11	13	14	15	15	16	16	16	15	15	14	13	13	13	12	12	10
Extraction rate, %	18%	18%	20%	20%	21%	22%	22%	22%	22%	22%	21%	21%	21%	21%	21%	21%	21%	20%	20%	20%	20%	20%
Gross FFB value @ 01/2017 prices, UGX '000 /t	465	465	516	516	542	568	568	568	568	568	542	542	542	542	542	542	542	516	516	516	516	516
Gross FFB value, UGX '000/ha	929	1,858	3,097	3,871	4,878	6,246	7,097	7,949	8,233	8,517	8,401	8,401	8,401	7,859	7,859	7,588	7,046	6,710	6,452	6,194	5,936	5,162
Transportation cost, (UGX 000/ha)	46	93	155	194	244	312	355	397	412	426	420	420	420	393	393	379	352	336	323	310	297	258
Total net FFB value, UGX '000 per ha	**883**	**1,765**	**2,942**	**3,678**	**4,634**	**5,933**	**6,742**	**7,551**	**7,821**	**8,091**	**7,980**	**7,980**	**7,980**	**7,466**	**7,466**	**7,208**	**6,693**	**6,375**	**6,129**	**5,884**	**5,639**	**4,904**
Total net FFB values after loan service, UGX '000	**883**	**743**	**1,665**	**2,068**	**2,573**	**3,591**	**4,119**	**4,835**	**6,321**	**8,091**	**7,980**	**7,980**	**7,980**	**7,466**	**7,466**	**7,208**	**6,693**	**6,375**	**6,129**	**5,884**	**5,639**	**4,904**
Cost recovery and sustainability																						
Total costs, excl. marketing (UGX '000/ha)	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
Total costs, excl. marketing (UGX '000/t)	88	44	29	23	19	16	14	13	12	12	11	11	11	12	12	13	13	13	14	15	15	18
% of support services in net FFB values per ton	18.9%	9.4%	5.7%	4.5%	3.6%	2.8%	2.5%	2.2%	2.1%	2.1%	2.1%	2.1%	2.1%	2.2%	2.2%	2.3%	2.5%	2.6%	2.7%	2.8%	3.0%	3.4%
% of support services in net FFB values per ton (after loan service)	19.9%	23.6%	10.5%	8.5%	6.8%	4.9%	4.3%	3.6%	2.8%	2.2%	2.2%	2.2%	2.2%	2.4%	2.4%	2.4%	2.6%	2.8%	2.9%	3.0%	3.1%	3.6%

c. Enterprise and Production Investment models[113]

27. **Micro-enterprise model: Laundry services.** The model illustrates a small laundry service established by a women entrepreneur with self-financing. Laundry services are in high demand especially among the fishing communities in Kalangala and Buvuma as the majority of fishermen migrate to islands without families. The demand will be increased further with the inflow of nucleus estate workers as the experience in Kalangala suggests. The laundry services will be operated by the female entrepreneur with an additional family labour contribution of about 30%. Initial investment and operating costs are estimated at USD 180. The investment cost will finance purchase of an iron and an iron board, while operating costs will finance purchase of washing essentials (soap bar, detergent) and cost of electricity and water consumption. The entrepreneur is expected to wash and iron around 400 clothing items per month and generate gross monthly revenue at USD 93 and net profit at USD 65 per month. Annual net income generated to the entrepreneur, not discounting her own family labour, is estimated at USD 668. The net return to investment ratio is estimated at USD 3.7 per USD 1.0 of investment costs. The model shows a FIRR of 19% and FNPV of USD 36.

28. **Micro-enterprise model: Small retail trade of health and hygiene products**. Impact assessment survey results suggest that the incremental incomes of oil palm smallholders increased demand for food and non-food items whereby creating opportunities for the small businesses in trade. The model describes an entrepreneur investing in door-to-door marketing of health and hygiene products. A similar arrangement is currently promoted by the company Living Goods.[114] The entrepreneur would buy a monthly basket of goods from a close trading centre for a value of about USD 125 USD comprising of health products and goods for personal hygiene which will be sold in the adjacent villages. Because the islands are isolated and have small markets with limited choices and availability for personal goods and items, the door-to-door marketing model is proven to be successful.

29. The start-up of the enterprise requires investment costs at USD 290. The investment will be used to buy a bicycle and uniform and finance initial operating costs. With an annual sales turnover of USD 2,525, the entrepreneur is expected to generate annual net income of USD 623. The net return to investment ratio is estimated at 2.1. The model shows a FIRR of 26% and FNPV of USD 66.

30. **Small enterprise model: Retail marketing of improved cook stoves**. This model illustrates an entrepreneur investing in a retail marketing of energy saving stoves to final consumers through door-to-door marketing. The entrepreneur would buy an initial stock of stoves for a value of USD 325 from a distributor located in the nearest city and sell them in the villages. The marketing of stoves involves demonstration of benefits of using the stove in predominantly charcoal using communities. The model assumes that the entrepreneur would target the oil palm smallholders and employers of

[112] See table 26 in Attachment 1
[113] See Attachment 2.
[114] The reports of Living Goods suggest that the sales in the islands twice higher than in some areas in mainland areas where population maintain similar purchasing powers.

nucleus estate. The business model would not only generate profit but also environmental and health benefits to immediate users and communities. The use of biomass fuel would also free the time of female household members which could be used for other productive or social and leisure activities.

31. The start-up investment costs for this model is estimated at USD 524. The entrepreneur is assumed to obtain a loan from a partner RFI equivalent to 50% of the investment, repayable over one year period with a grace period of 3 months and annual interest rate of 18%.

32. When a monthly sale volume at 12 units of stoves with a 21% profit margin on each stove are assumed, the annual sales turnover is estimated at USD 4,908 and net annual profits at USD 325 to the entrepreneur. Cash flow analysis demonstrate that the entrepreneur would maintain a positive cash flow. The investment is estimated to generate FIRR of 33% and FNPV of USD 131.

33. **Small enterprise model: Groundnut processing machine**. The model illustrates an entrepreneur investing in small-scale groundnuts processing to produce groundnut powder and semi-paste for restaurants and retailers. The entrepreneur would invest in a locally produced groundnut processing machine with a monthly capacity of 1 ton. The monthly output would meet demands of around six restaurants and 15 re-sellers. The business would employ two workers, one full-time and one part-time.

34. The total investment cost is estimated at USD 1,930, structured with the entrepreneur's contribution of USD 965 and loan of USD 965 to be obtained from the Project's partner RFI, repayable over 12 month with a grace period of 3 months and interest rate at 18%.

35. The model shows an annual net income of USD 1,062. S/he is expected to maintain a positive cash flow after the loan service. The investment is estimated to yield a FIRR of 30% and FNPV of USD 453.

36. **Agriculture production intensification model: food crop production**. This model would be an example for an intensified food production on 2.0 acres of agricultural land by a farmer household through investments in higher quality and improved seeds, fertilizers and pest control, and improved farm management practices. The cropping pattern assumes a mixture of food crops for which market demand is high and stable, and include sweet potatoes, maize, beans, cassava and matoke. In the WoP scenario, the farmer produces the same crops but using a traditional low input-low output farming practices with suboptimal yields due to limited access to quality seeds and extension services. The WiP scenario assumes improved yields for all crops resulting from the use of improved seeds, fertilizers and improved farm practices from 50% to 67%.

The incremental costs of improved inputs for the first agricultural season are estimated at USD 118. Starting from the second season, the farmer is expected to receive a seasonal agriculture loan from the partner RFIs or through VSLA, repayable in a 6 month period. The investment activity is expected to generate an incremental net margin of USD 278.

37. **Agriculture production intensification model: goat rearing**. This model describes a farm household investing in goat production using own resources. Traditional goat breeds are less prone to disease than pigs and cows and require lower production costs. The goat meat is also the preferred choice of local population and can easily be marketed through different outlets including restaurants, direct consumers and butcheries. The model assumes that the farmer will invest in purchasing of two does and maintain the herd at two does. Birth rates are assumed at 1.5 per kidding with three kidding in two years and mortality rates 7% for mature goats and 12% per kids. One-year-old kids are assumed to weigh 15 kg and does 25 kg. Flock size would stabilize at six does. The 9-month-old kids would be sold live weight for UGX 12,000 per kg.

38. The initial investment cost is estimated at USD 248. The investment is expected to generate positive annual net returns starting from year 3 at USD 170. When a five-year benefit accumulation period is assumed, the investment would yield FIRR of 40% and FNPV of USD 337.

39. The financial indicators for the enterprise and food production models are summarized as follows:

Table 8. Summary Financial Results for Enterprise Models

	Laundry services	Retail selling	Improved cookstoves	G.nuts processing
NPV (USD)	36	66	132	454
FIRR	19.0%	25.8%	33.3%	29.6%
Investment (USD)	180	298	262	967
Net annual income (USD)	668	623	325	1 178

d. Other (unquantified) potential benefits

40. **The most important unquantified benefits are the impacts of Project investments on the rural transformation through spill over and multiplier effects** from the increased incomes of oil palm farmers and workers employed by smallholders and nucleus estate, increased frequency of free public ferry services between mainland and islands, and improved public infrastructure such as roads and schools built and/or supported by the nucleus estate. As reported by the local government and population in Kalangala, the rural transformation is taking place and it is considerable (if not fully) attributable to the oil palm investments of VOPD 1 and 2. This is in line with the existing empirical evidences that suggest that agriculture investments have a strong stimulus impact on the local economy by creating incremental demands for products and services both upstream (inputs, services for agriculture) and downstream (processing, storage, transportation) and generating demands for consumption goods and services. The multiplier effect of increased agricultural production also found to have a strong positive impact on poverty reduction through increased demand for unskilled labour.

41. Although the multiplier effect of investments in agriculture sector is definitive, measuring its magnitude is a difficult task and require thorough studies. This is because the strength of multiplier effect depend on multiple factors including who receives initial incremental income[115], the size and dynamics of local economy, quality of rural public infrastructure and degree of integration and openness of rural economy, policy environment, population density and distribution, quality of entrepreneurial and technical skills, proportions of incremental incomes spent on non-tradable goods and services, and per capita income. Empirical studies conducted between 1984 and 2014[116] found that the multiplier effect of agriculture investments is highest in the ranges of 1.6 to 1.8 for Asian countries. While the multiplier for the African countries were estimated at around 1.3 and 1.5 meaning that a USD 1.0 increase in agriculture income would raise a national/local (or non-farm income in some cases) income by USD 1.50. A recent study in Tanzania, which covered 43 sectors, found even stronger multiplier (direct, indirect and induced[117]) exceeding 3.0 to (i) processing of meat and dairy products at 3.11; (ii) processed food at 3.10; (iii) grain milling at 3.09; (iv) cassava production at 3.02 and (v) fruits and vegetable production at 3.01.[118] The induced effect for these sectors were estimated in the ranges of 1.17 and 1.22.

42. Although the potential impact of the Project investments on the rural economy is an undisputable fact, its magnitude is however difficult to measure with a great certainty. When to assume the average multiplier effect for the African countries at 1.4, the total (undiscounted) incremental net incomes generated over the 32-year period at USD 779.8 million may result in creation of additional incremental incomes at USD 222.8 million thorough the multiplier and spill over effects.

43. **The Project investments will have a positive fiscal impact further contributing to the socio-economic development in the Project areas.** In 2016 alone, the private sector partner of VODP 1 and 2 (Bidco and OPUL) jointly paid VAT and corporate taxes at USD 44.4 million. The impact of fiscal revenues on the socio-economic development in the Project areas will be considerable as

[115]Haggbale et.al. found that the largest rural non-farm consumption linkages generated by the resident farmer consume and send children to school in rural areas.
[116]USAID Agricultural Transformation in Sub-Saharan Africa and the Role of Multiplier, August 2014 for the summary of the studies.
[117] Direct multiplier effect represents the direct economic impact to the sector; indirect effect represents inter-sectoral forward/backward linkages; and induced effect represents impacts of household spending due to increased income/employment
[118]A. Kaliba et.al, Economic multipliers for Tanzania: implications on developing poverty reduction programs, 2004

these resources will be invested in improved public services in sectors such as health, education, infrastructure, agriculture among others.

E. Economic Analysis

44. Economic rate of return to the Project investments is estimated at 14.3% with an economic net present value of USD 28 million (UGX 96 billion).

45. **Sensitivity analysis** The sensitivity analysis shows that the EIRR is rather robust as it remains above 12% in most cases, except for a combined reduction by 20% of both FFB yields and prices, which severely affects the economic viability of the project, as well as for a reduction of 20% of oil palm areas, for which the EIRR remains however acceptable, at 10.9%.

Table 9: Summary Economic Analysis

SENSITIVITY ANALYSIS (SA)				
	Δ%	**Link with the risk matrix**	**IRR**	**NPV (USD M)**
Base scenario			14.3%	28
Project benefits: OP areas	-20%	Combination of risks affecting output prices, yields and areas	10.9%	5
Project benefits: OP yields	-20%		14.0%	23
Programme costs	20%	Increase of construction material, input and labor prices	12.8%	20
1 year lag in ben.		Risks affecting delays in OP devt, adoption rates and low implementation capacity	13.1%	19
2 years lag in ben.			11.9%	12
Output prices: FFB prices	-10%	Fluctuations in international CPO prices	12.8%	17
Output prices: FFB prices	-20%		12.8%	17
Input prices: Fertilizer	+20%	Market price fluctuations	13.4%	22
Simultaneous reductions both in FFB prices and FFB yields	+20%		7.7%	- 12
Unskilled OP labour wage	20%		14.3%	28
Adoption rates	-10%	Extension service outreach is limited, low uptake of good practices, vaccination uptake is low, epidemic diseases, failure to access finance	13.5%	21
Adoption rates	-20%		12.5%	14

Attachment1: Financial Models – Oil Palm

Table 1: Smallholder Economic Unit Costs

	Unit	USD	UGX
Technical services			
extension officer	**md**	**10**	35 500
administration	**md**	**10**	35 500
Manpower Costs			-
Contract labour	md	2.00	7 100
Casual labour	md	2.00	7 100
Permanent labour	md	2.25	7 988
Skilled labour	md	2.00	7 100
Surveyor	md	15.00	53 250
Headman	md	2.30	8 165
Overseer/foreman	md	3.50	12 425
Supervisor	md	8.00	28 400
Fertiliser Costs			-
Calcium ammonium Nitrate	kg	0.60	2 130
NPK yellow	kg	0.80	2 840
NPK blue	kg	0.54	1 924
NPK green	kg	0.68	2 414
NPK super	kg	0.66	2 343
Muriate of Potash MOP	kg	0.60	2 141
Kieserite	kg	0.41	1 456
Ground rock phosphate	kg	0.60	2 141
Borax	kg	0.88	3 125
Dolomite	kg	0.30	1 065
DAP	kg	0.60	2 130
Sulphate of ammonia	kg	0.31	1 101
Urea	kg	0.52	1 841
Single super phosphate	kg	0.58	2 059
Agricultural chemicals			-
Glyphosate	L	5	18 815
2,4 D Amine	L	3.5	12 425
Triclopyr	L	20	71 000
Diuron	kg	4	14 200
Glyphosate + Diuron	L	9	31 950
Dithane M45	kg	10	35 500
Evisect	kg	70	248 500
Fipronil	kg	15	53 250
Herbicide	lt	12	42 600
Tools			
Malaysia knife	pieces	10	35 500
FFB cart	pieces	150	532 500
Safety gloves	pieces	5	17 750
Knap sack sprayer	pieces	40	142 000
overall	pieces	25	88 750
Gum boots	pieces	7.5	26 625
Safety mask	pieces	5	17 750
Vehicles			-
Tractor+trailer	hr	10	35 500
Cat D4	hr	40	142 000
Cat D6	hr	80	284 000
Cat D8	hr	100	355 000
Grader	hr	70	248 500
Pay-loader/excavator	hr	80	284 000
Lorry	hr	26.50	94 057
Chain saw	hr	3	10 650
Motor bike	km	0.20	710
Other materials			-
Culverts, 8 units pipes	Unit	2000	7 100 000
Pueraria(cover crop seeds)	kg	4.5	15 975
Oil palm seedlings	Unit	4.5	15 975
Wire net	Unit	35	124 250

Exchange rate 1 USD = 3 550 UGX

Table 2: Nucleus Estate Unit Costs

	Unit	USD	UGX
Manpower Costs			
Contract labour	md	5.00	17 750
Casual labour	md	6.00	21 300
Permanent labour	md	9.00	31 950
Skilled labour	md	12.50	44 375
Surveyor	md	30.00	106 500
Headman	md	10.00	35 500
Overseer/foreman	md	12.50	44 375
Supervisor	md	17.50	62 125
Costs of Operations N3 upwards			
Circle weeding	ha	22.50	79 875
Interline weeding	ha	25.00	88 750
paths weeding	ha	15.00	53 250
Pruning	ha	20.00	71 000
Fertiliser Costs			-
Calcium ammonium Nitrate	kg	0.60	2 130
NPK yellow	kg	0.80	2 840
NPK blue	kg	0.54	1 924
NPK green	kg	0.68	2 414
NPK super	kg	0.66	2 343
Muriate of Potash MOP	kg	0.60	2 141
Kieserite	kg	0.41	1 456
Ground rock phosphate	kg	0.60	2 141
Borax	kg	0.88	3 125
Dolomite	kg	0.30	1 065
DAP	kg	0.60	2 130
Sulphate of ammonia	kg	0.31	1 101
Urea	kg	0.52	1 841
Single super phosphate	kg	0.58	2 059
Liquid fertilizer	l	6.00	21 300
Agricultural chemicals			
Glyphosate	L	5.30	18 815
2,4 D Amine	L	3.50	12 425
Triclopyr	L	20.00	71 000
Diuron	kg	4.00	14 200
Glyphosate + Diuron	L	9.00	31 950
Dithane M45	kg	10.00	35 500
Evisect	kg	70.00	248 500
Herbicide	lt	12.00	42 600
Deltamethrin	l	-	-
Furadan	kg	10.00	35 500
Fluroxypyr	L	16.00	56 800
Vehicles			
Tractor+trailer	hr	15.00	53 250
Cat D4	hr	40.00	142 000
Cat D6	hr	81.00	287 550
Cat D8	hr	90.00	319 500
Grader	hr	60.00	213 000
Pay-loader/excavator	hr	80.00	284 000
Compactor	hr	50.00	177 500
Lorry	hr	20.00	71 000
Chain saw	hr	2.00	7 100
Motor bike	km	2.50	8 875
Other materials			-
Culverts, 8 units pipes	Unit	2 000.00	7 100 000
Pueraria(cover crop seeds)	kg	4.50	15 975
Oil palm seedlings	Unit	4.50	15 975
Wire net roll	Unit	35.00	124 250
Oil palm seed (fusarium wilt tolerant)	Unit	1.20	4 260
Oil palm seed(fusarium +Ganoderma tolerant)	Unit	1.60	5 680
Oil Palm Seedling 15 months old	Unit	4.00	14 200
Oil palm seed soaking bags	Unit	2.50	8 875
Oil palm seed germination bags	Unit	0.50	1 775
Prenurswery bags 23cm *15 cm layflat	Unit	0.03	89
Main nursery polybags 50cm*45cm layflat	Unit	0.10	355
Wooden sieves for soil sieving	Unit	25.00	88 750
Cost of seedling transport	Unit	0.40	1 420
Machinery hiring costs			
Bulldozer clearing felling and stacking	ha	600.00	2 130 000
Bull dozer Roads opening	metre	1.50	5 325
Grader	metre	1.00	3 550
Compactor	metre	1.00	3 550
Excavator	metre	1.50	5 325
Filling of trenches	metre	5.00	17 750
Equipment and infrastucture costs			
Nursery irrigation 20 ha	unit	150 000.00	532 500 000
Water tanks 169 m3 type	unit	8 000.00	28 400 000
Boreholes units	unit	40 000.00	142 000 000
Electricity gen sets	unit	11 267.61	40 000 001
Bulldozer (D6 R)	unit	300 000.00	1 065 000 000
Excavator (CAT 320)	unit	300 000.00	1 065 000 000
Grader (CAT 120)	unit	200 000.00	710 000 000
Compactor (40 t)	unit	150 000.00	532 500 000

Exchange rate 1 USD = 3 550 UGX

Table 3: Smallholder Agronomic Assumptions

		Units
Palms per ha	143	palms
Time to maturity	3-4	years
m roads/ha outgrower	50	metres
m roads/ha smallholder	80	metres
Replacement %	5%	
No burning in land preparation		

Table 4: Smallholder Vehicle Operating Costs (USD)

Item	Trucks	Pickups	Motor Bikes
Purchase cost US $	85 000	45 000	4 000
Depreciation time years	5	5	3
Depreciation cost/annum $	17 000	9 000	1 333
Depreciation cost/month $	1 417	750	111
Depreciation cost/km $	0.27	0.36	0.04
Km per day	250	100	150
km/month of 20 days	5 000	2 000	3 000
km/year	62 500	25 000	37 500
number of working days	250	250	250
fuel/km litres	0.30	0.10	0.05
fuel costs/L	1.20	1.20	1.20
fuel costs/month	1 800	240	180
driver + mate	225	150	150
maint. cost as % of Dep	4	4	4
maintenance cost/ month	5 667	3 000	444
insurance/month*	354	188	17
total cost/month	9 463	4 328	902
costs/km	1.89	2.16	0.30
km/hr	14		
cost per hr	26.50		

*changed this value to 5% of asset value per annum

Table 5: Nucleus Estate Agronomic Assumptions

		Units
Palms per ha	143	palms
Time to maturity	3-4	years
m roads/ha outgrower	50	metres
m roads/ha smallholder	80	metres
Replacement %	5%	
No burning in land preparation		

Table 6: Nucleus Estate Vehicle Operating Costs (USD)

Item	Trucks	Pickups	Motor Bikes
Purchase cost US $	85 000	45 000	4 000
Depreciation time years	5	5	3
Depreciation cost/annum $	17 000	9 000	1 333
Depreciation cost/month $	1 417	750	111
Depreciation cost/km $	0.27	0.36	0.04
Km per day	250	100	150
km/month of 20 days	5 000	2 000	3 000
km/year	62 500	25 000	37 500
number of working days	250	250	250
fuel/km litres	0.30	0.10	0.05
fuel costs/L	1.20	1.20	1.20
fuel costs/month	1 800	240	180
driver + mate	225	150	150
maint. cost as % of Dep	4	4	4
maintenance cost/ month	5 667	3 000	444
insurance/month	16	10	5
total cost/month	9 124	4 150	891
costs/km	1.82	2.08	0.30
km/hr	14		
cost per hr	25.55		

Table 7: Smallholder Year 1 Crop Establishment Costs (USD/ha)

	Unit	No	Unit Cost	USD
Land Preparation				
Hired surveyors for preliminary field survey	Md	2	15.00	31.50
Tracing-field alignment	Md	2	2.25	5.40
Land clearing				
Under-brushing	Md	16	2.00	32.00
Felling and lopping with chain saw	Units/ha	30	3.00	90.00
Windrow stacking	Md	10	2.00	20.00
Cover-crop sowing				
Labour	Md	6	2.00	12.00
Pueraria seeds	kg	10	4.50	45.00
Weed control				
Manual labour	Md	12	2.00	24.00
Labour for chemical application	Md	1	2.00	2.00
Herbicide	L	1.0	5.30	5.30
Cutting of pegs, lining and pegging	Md	9.0	2.25	20.25
Transport	L-hours	1.3	26.50	33.12
Loose tools costs		5%	147.15	7.36
		Total Land Preparation		**327.93**
Extra Costs for Contour Planning/Bunds				
Excavator	Cat-Hr	2	80.00	160.00
Manual labour	md	8	2.00	21.60
		Total Contour Planting		**181.60**
Seedlings				
Seedlings	Unit	143	4.50	643.50
Load/Offload	Md	3	2.00	6.00
Transport	T-hours	3	26.50	66.24
			Total Seedlings	**715.74**
Fertilizers				
Rock Phosphate	kg/tree	0.5	0.60	43.13
CAN	kg/tree	0.5	0.60	42.90
NPK blue	kg/tree	1.0	0.54	77.50
Kieserite	kg/tree	0.3	0.41	14.66
MOP	kg/tree	0.0	0.60	0.00
dolomite	kg/tree	0.5	0.30	21.45
Labour	Md/ha	1.6	2.00	3.20
Lorry	L-Hr/ha	0.2	26.50	5.30
			Total Fertilizers	**208.14**
Other planting costs				
Lining	Md	3	2.00	6.00
Pegging	Md	3	2.00	6.00
Distribution	Md	4	2.00	8.00
Holing and Planting	Md	6	2.00	12.00
Weed control				
Manual interrow weeding - up-rooting	Md	12	2.00	24.00
Manual ring establishment & weeding	Md	9	2.00	18.00
Pest and Disease Control				
Labour	Md	1.5	2.00	3.00
Phyto products	$/ha	18	1.00	18.00
Protective clothing: 5% of chemical cost	$/ha			0.90
Rodent Control				
Wire cutting	Md/ha	1.0	2.00	2.00
Wire fitting	Md/ha	1.0	2.00	2.00
Wire material	$/roll	1	35.00	35.00
Transport	L-hr/ha	1.00	26.50	26.50
Loose tools and PPE	small holder	1	92.50	92.50
		Total other planting costs		**253.90**
			TOTAL	**1687.30**

Table 8: Nucleus Estate Year 1 Crop Establishment Costs (USD/ha)

	Unit	No	Unit Cost	USD
Land Preparation				
Hired surveyors for preliminary field survey	Md	2.1	30.00	63.00
Tracing-field alignment	Md	2.5	9.00	22.50
Land clearing				
Bulldozer	hrs/ha	8	90.00	720.00
Ripping/Disc harrowing	Units/ha	0	50.00	0.00
Windrow stacking	Md	1	80.00	40.00
Cover-crop sowing				
Labour	Md	3	5.00	15.00
Pueraria seeds	kg	10	4.50	45.00
Weed control				
Manual labour	Md	2	5.00	10.00
Labour for chemical application	Md	1	9.00	4.50
Herbicide	L	1.0	5.30	5.30
Cutting of pegs, lining and pegging	Md	1.5	5.00	7.50
Transport	L-hours	0.2	15.00	3.00
Labour transport	L-hours	1.3	20.00	25.00
Loose tools costs		10%	882.50	88.25
		Total Land Preparation		**1049.05**
Road Opening				
Bulldozer	hr	1	90.00	63.00
Grader	hr	0	60.00	24.00
Compactor	hr	0	50.00	17.50
Culvert and bridges	units	0	2 000.00	20.00
		Total Road Opening		**37.50**
Contour Terracing				
Lining of terraces	Md	0	12.50	2.00
Bulldozer	hr	2	81.00	129.60
		Total Contour Terracing		**131.60**
Planting costs				
Seedlings	Unit	143	4.50	643.50
Load/Offload	Md	3	5.00	15.00
Transport	T-hours	3	20.00	50.00
Lining	Md	2	12.50	18.75
Pegging	Md	2	9.00	13.50
Distribution	Md	3	5.00	15.00
Holing and Planting	Md	5	6.00	30.00
Weed control				
Manual interrow weeding - up-rooting	Md	9	5.00	45.00
Manual ring establishment & weeding	Md	9	5.00	45.00
Pest and Disease Control				
Labour	Md	1.2	5.00	6.00
Phyto products	$/ha	1	3.75	3.75
Protective clothing: 5% of chemical cost	$/ha	5%		0.19
Fertiliser				
Rock Phosphate	kg/tree	0.5	0.60	43.13
CAN	kg/tree	0.3	0.52	22.25
NPK blue	kg/tree	0.3	0.54	19.38
Kieserite	kg/tree	0.0	0.41	0.00
MOP	kg/tree	0.3	0.60	21.56
dolomite	kg/tree	0.5	0.30	21.45
Boron	kg/tree	0.0	0.30	1.72
Labour	Md/ha	1.5	5.00	7.50
Lorry	L-Hr/ha	0.1	20.00	2.00
Rodent Control				
Wire cutting	Md/ha	1.0	5.00	5.00
Wire fitting	Md/ha	1.0	5.00	5.00
Wire material	$/roll	1	35.00	35.00
Transport	L-hr/ha	1.00	20.00	20.00
Supervision				
Headman	Md/ha	1.00	10.00	10.00
Foreman	Md/ha	0.15	12.50	1.88
Supervisor	Md/ha	0.08	17.50	1.40
M-bike	km/ha	6.00	2.50	15.00
Loose tools	5%	5%	217.63	10.88
		Total Planting Costs		**1128.82**
			TOTAL	**2346.97**

Table 9: Smallholder Year 2 Crop Maintenance Costs (USD/ha)

	Unit	No	Unit Cost	USD
Replacement palms (seedlings) 5%				
Seedlings	u/ha	7.15	4.50	32.18
Load/unload	Md/Ha	0.5	2.00	1.00
Transport	T-hr/Ha	0.5	26.50	13.25
			Total seedlings	**46.42**
Fertilizers				
Cal.Amm. Nitrate	kg/tree	0.4	0.60	34.32
GRP	kg/tree	0	0.60	0.00
NPK Blue	kg/tree	1.5	0.54	116.25
SS Phosphate	kg/tree		0.58	0.00
Kieserite	kg/tree	0.5	0.41	29.33
MOP	kg/tree	0	0.60	0.00
dolomite	kg/tree	0.5	0.30	21.45
Labour	Md/ha	1.1	2.00	2.20
Lorry	L-hr/ha	1.1	26.50	29.14
			Total fertilizers	**232.69**
Other maintenance costs				
Distribution	Md/Ha	0.5	2.00	1.00
Holing	Md/Ha	0.5	2.00	1.00
Planting	Md/Ha	0.5	2.00	1.00
Wire cutting	Md/Ha	0.5	2.00	1.00
Wire fitting	Md/Ha	0.5	2.00	1.00
Wire material	$/Ha	1.75	4.00	7.00
Weed control				
Manual interrow weeding - up-rooting	Md/ha	12	2.00	24.00
Manual ring weeding	Md/ha	10	2.00	20.00
Pest and disease control				
Labour	Md/ha	2	2.00	4.00
Phyto products: 75% of cost in year 1	$/ha	13.5	1.00	13.50
Protective clothing:	small holder	1	42.50	42.50
Transport	L-hr/ha	1	26.50	26.50
Loose tools	small holder	1	10.00	10.00
Final Developed Land Survey				
Licensed Surveyor	Md/ha	60	1.00	60.00
			Total other maintenance costs	**212.50**
			TOTAL	**491.61**

Table 10: Nucleus EstateYear 2 Crop Maintenance Costs (USD/ha)

	Unit	No	Unit Cost	USD
Replacement palms **5%**				
Seedlings	u/ha	2.86	4.50	12.87
Load/unload	Md/Ha	0.5	5.00	2.50
Transport	T-hr/Ha	0.5	20.00	10.00
Distribution	Md/Ha	0.5	12.50	6.25
Holing	Md/Ha	0.5	9.00	4.50
Planting	Md/Ha	0.5	5.00	2.50
Wire cutting	Md/Ha	0.5	6.00	3.00
Wire fitting	Md/Ha	0.5	6.00	3.00
Wire material	$/Ha	0.00	35.00	0.04
Weed control				
Manual interrow weeding - up-rooting	Md/ha	12	5.00	60.00
Circle weeding				
Labour	Md/ha	10	5.00	50.00
Chemical application labour	Md/ha	0.5	12.50	6.25
Chemical products	L	1	16.00	16.00
PPE	%	5%	16.00	0.80
Pest and disease control				
Labour	Md/ha	2	12.50	25.00
Phyto products: 75% of cost in year 1	$/ha	1	2.81	2.81
Protective clothing: 5% of chemical cost	%	5%	2.81	0.14
Fertiliser				
Cal.Amm. Nitrate	kg/tree	0.3	0.52	22.25
GRP	kg/tree	0	0.60	0.00
NPK Blue	kg/tree	1	0.54	77.50
SS Phosphate	kg/tree		0.58	0.00
Kieserite	kg/tree	0.25	0.41	14.66
MOP	kg/tree	0.25	0.60	21.56
dolomite	kg/tree	1	0.30	42.90
Labour	Md/ha	1.5	5.00	7.50
Lorry labour	L-hr/ha	0.5	20.00	10.00
Transport fertiliser	L-hr/ha	1	20.00	20.00
Supervision				
Headman	Md/ha	1.00	10.00	10.00
Foreman	Md/ha	0.15	12.50	1.88
Supervisor	Md/ha	0.08	17.50	1.40
M-bike	km/ha	5.00	2.50	12.50
Loose tools	5%	5%	114.25	5.71
			Total	**453.52**

Table 11: Smallholder Year 3 Crop Maintenance Costs (USD/ha)

	Unit	No	Unit Cost	USD
Fertilizers				
Cal.Amm. Nitrate	kg/tree	0	0.60	34.32
NPK Blue	kg/tree	1.5	0.54	116.25
NPK Super	kg/tree	1.0	0.66	94.38
SS Phosphate	kg/tree		0.58	0.00
Kieserite	kg/tree	1	0.41	29.33
MOP	kg/tree	0.3	0.60	21.56
Boron	kg/tree	0.04	0.88	5.04
Dolomite	kg/tree	1.0	0.30	42.90
Labour	Md/Ha	1.4	2.00	2.80
Lorry labour	L-hr/Ha	1.1	26.50	29.14
Transport	L-hr/Ha	0.5	26.50	13.25
			Total fertilizers	**388.97**
Other maintenance costs				
Manual interrow weeding - up-rooting	Md/Ha	15	2.00	30.00
Manual ring weeding	Md/Ha	9	2.00	18.00
Pest and Disease Control				
Labour	Md/Ha	3	2.00	6.00
Phyto products	Md/Ha	1	9.00	9.00
Protect. Cloth.	small holder	1	42.50	42.50
Flower Castration	Md/Ha	4	2.00	8.00
Lorry	L-hr/Ha	0.50	26.50	13.25
			Total other maintenance costs	**126.75**
			TOTAL	**515.72**

Table 12: Nucleus Estate Year 3 Crop Maintenance Costs (USD/ha)

	Unit	No	Unit Cost	USD
Manual interrow weeding - up-rooting				
Labour	Md/Ha	6	5.00	30.00
Chemical application labor	Md/Ha	1	12.50	6.25
Chemical products	Lt	1	20.00	10.00
Circle weeding				
Labour	Md/Ha	10	5.00	50.00
Chemical application labor	Md/Ha	1	12.50	6.25
Chemical products	Lt	1	16.00	16.00
PPE	%	5%	0.80	0.04
Pest and Disease Control				
Labour	Md/Ha	3	9.00	27.00
Phyto products	Md/Ha	1	1.88	1.88
Protect. Cloth.	%	5%	0.09	0.00
Flower Castration	Md/Ha	4	9.00	36.00
Harvesting platforms	Md/Ha	1	5.00	6.00
Sanitary pruning	Md/Ha	3	9.00	22.50
Fertilizer				
Cal.Amm. Nitrate	kg/tree	0	0.52	22.25
NPK Blue	kg/tree	0.5	0.54	38.75
NPK Super	kg/tree	1.0	0.66	94.38
SS Phosphate	kg/tree		0.58	0.00
Kieserite	kg/tree	0	0.41	14.66
MOP	kg/tree	0.5	0.60	43.13
Boron	kg/tree	0.04	0.88	5.04
Dolomite	kg/tree	1.0	0.30	42.90
Labour	Md/Ha	1.5	5.00	7.50
Lorry labour	L-hr/Ha	1.2	20.00	24.00
Transport of fertilser	L-hr/Ha	0.5	20.00	10.00
Lorry	L-hr/Ha	0.10	20.00	2.00
Supervision				
Headman	Md/ha	1.00	10.00	10.00
Foreman	Md/ha	0.15	12.50	1.88
Supervisor	Md/ha	0.08	17.50	1.40
M-bike	km/ha	5.00	2.50	12.50
Road Maintenance				
Bulldozer	hr	0	90.00	0.00
Grader	hr	0	60.00	15.00
Compactor	hr	0	50.00	12.50
Culvert and bridges	units	0	2 000.00	2.00
Loose tools	5%	0.05	72.38	3.62
			Total	**575.42**

TABLE 13: Smallholder Year 4 Crop Maintenace Costs (USD/ha)

	Unit	No	Unit Cost	USD
Fertilizer				
Cal.Amm. Nitrate	kg/tree	0.00	0.60	0.00
NPK Super	kg/tree	2.00	0.66	188.76
SS Phosphate	kg/tree		0.58	0.00
MOP	kg/tree	0.50	0.60	43.13
Dolomite	kg/tree	0.50	0.30	21.45
Kieserite	kg/tree		0.41	0.00
Labour	Md/Ha	1.50	2.00	3.00
Tractor trailer	Hr/Ha	0.50	10.00	5.00
Lorry -Transport	Hr/Ha	0.50	26.50	13.25
			Total fertilizers	**274.58**
Other maintenance costs				
Manual ring weeding				
Labour	Md/Ha	12	2.00	24.00
Manual interrow weeding - up-rooting				
Labour	Md/Ha	9	2.00	18.00
Sanitary pruning	Md/ha	6	2.00	12.00
Pests and Diseases Monitoring & Treatment				
Protect. Cloth.	small holder	1	42.50	42.50
Monitoring	Md/Ha	0.75	2.00	1.50
Treatment	Md/Ha	0.03	2.00	0.06
Chemical	kg/ha	0.10	70.00	7.00
Transport tractor & trailer	Hr/Ha		10.00	0.00
Loose tools	small holder	1.00	150.00	150.00
			Total other maintenance costs	**255.06**
			TOTAL	**529.64**

TABLE 14: Nucleus Estate Year 4 Crop Maintenace Costs (USD/ha)

	Unit	No	Unit Cost	USD
Manual ring weeding				
Labour	Md/Ha	6	6.00	36.00
Chemical application labor	Md/Ha	1	12.50	6.25
Chemical products	Lt	1	4.00	2.00
Manual interrow weeding - up-rooting				
Labour	Md/Ha	10	6.00	60.00
Chemical application labor	Md/Ha	1	12.50	6.25
Chemical products	Lt	1	16.00	8.00
Harvesting platforms	Md/Ha	1	6.00	3.60
Sanitary pruning	Md/ha	4	12.50	50.00
Pests and Diseases Monitoring & Treatment				
Monitoring	Md/Ha	0.00	12.50	0.00
Treatment	Md/Ha	3.00	12.50	37.50
Chemical	kg/ha	0.50	5.30	2.65
Transport tractor & trailer	Hr/Ha		15.00	0.00
Fertilizer				
Cal.Amm. Nitrate	kg/tree	0.30	0.52	22.25
NPK Super	kg/tree	1.50	0.66	141.57
SS Phosphate	kg/tree		0.58	0.00
MOP	kg/tree	1.00	0.60	86.25
Dolomite	kg/tree	0.00	0.30	0.00
Kieserite	kg/tree	0.25	0.41	14.66
Diammonium Phosphate	kg/tree	1.00	0.60	85.80
Boron	kg/tree	0.04	0.30	1.72
Labour	Md/Ha	1.50	5.00	7.50
Tractor trailer	Hr/Ha	0.00	15.00	0.00
Lorry -Transport	Hr/Ha	0.100	20.00	2.00
Lorry for labour	Hr/Ha	1.200	20.00	24.00
Supervision				
Headman	Md/ha	0.50	10.00	5.00
Foreman	Md/ha	0.15	12.50	1.88
Supervisor	Md/ha	0.08	17.50	1.40
M-bike	km/ha	8.00	2.50	20.00
Road Maintenance				
Bulldozer	hr	0	90.00	0.00
Grader	hr	0	60.00	15.00
Compactor	hr	0	50.00	12.50
Culvert and bridges	units	0	2 000.00	2.00
Loose tools	5%	0.05	191.00	9.55
			Total	**665.33**

TABLE 15: Smallholder Year 5-25 Crop Maintenace Costs (USD/ha) a/

	Unit	No	Unit Cost	USD
Fertilizer				
Cal.Amm. Nitrate	kg/tree	0	0.60	0.00
NPK Super	kg/tree	1	0.66	94.38
SS Phosphate	kg/tree		0.58	0.00
MOP	kg/tree	2	0.60	172.51
Dolomite	kg/tree	0	0.30	0.00
Kieserite	kg/tree	0	0.41	0.00
Borate	kg/tree	0	0.88	0.00
Labour	Md/Ha	2.5	2.00	5.00
Tractor trailer	Hr/Ha	0.5	10.00	5.00
			Total fertilizers	**276.89**
Other maintenance costs				
Manual ring weeding				
Labour	Md/Ha	9	2.00	18.00
Chemical ring weeding				
Labour	Md/Ha	1	2.00	2.00
Glyphosate + Diuron	Ltr/Ha	1	9.00	9.00
Tractor + trailer	Hr/Ha		10.00	0.00
Manual interrow weeding - up-rooting				
Labour	Md/Ha	6	2.00	12.00
Chemical interrow weeding				
Labour	Md/Ha	0.5	2.00	1.00
Glyphosate	Ltr/Ha	1	5.30	5.30
Tractor + trailer	Hr/Ha		10.00	0.00
Pruning	Md/ha	9.0	2.00	18.00
Pests and Diseases Monitoring & Treatment				
Monitoring	Md/Ha	0.4	2.00	0.80
Treatment	Md/Ha	0.03	2.00	0.06
Chemical	kg/ha	0.1	70.00	7.00
Transport tractor & trailer	Hr/Ha	0.4	10.00	4.00
Lorry -Transport	Hr/Ha	4	26.50	105.98
Loose tools	small holde	1	90.50	0.00
	Total other maintenance costs			**183.14**
			TOTAL	**460.03**

TABLE 16: Nucleus Estate Year 5-25 Crop Maintenace Costs (USD/ha) a/

	Unit	No	Unit Cost	USD
Manual interrow weeding - up-rooting				
Labour	Md/Ha	6	6.00	36.00
Chemical application labour	Md/Ha	0.5	12.50	6.25
Glyphosate	Ltr/Ha	0.5	4.00	2.00
Manual ring weeding				
Labour	Md/Ha	15	6.00	90.00
Pests and Diseases Monitoring & Treatment				
Monitoring	Md/Ha	0	12.50	0.00
Treatment	Md/Ha	3	12.50	37.50
Chemical	kg/ha	0.1	3.75	0.38
Pruning	Md/ha	2.5	9.00	22.50
Fertilizer				
Cal.Amm. Nitrate	kg/tree	0.3	0.52	22.25
NPK Super	kg/tree	1	0.66	94.38
SS Phosphate	kg/tree		0.58	0.00
MOP	kg/tree	2	0.60	172.51
Dolomite	kg/tree	0	0.30	0.00
Kieserite	kg/tree	0.25	0.41	14.66
Borate	kg/tree	0.04	0.30	1.72
Labour	Md/Ha	1.5	5.00	7.50
Lorry	Hr/Ha	0.1	20.00	2.00
Lorry -Transport	Hr/Ha	1.2	20.00	24.00
Supervision				
Headman	Md/ha	1.00	10.00	10.00
Foreman	Md/ha	0.15	12.50	1.88
Supervisor	Md/ha	0.08	17.50	1.40
M-bike	km/ha	5.00	2.50	12.50
Road Maintenance				
Bulldozer	hr	0	90.00	0.00
Grader	hr	0	60.00	15.00
Compactor	hr	0	50.00	12.50
Culvert and bridges	units	0	2 000.00	2.00
Loose tools	5%	0	79.90	4.00
			Total	**592.91**

a/ Harvesting costs not included

Table 17. Oil Palm Yield Projections

Yield projections for smallholder																						
Age in years after planting	4	6	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
FFBs (tons/ha)	4	6	6	8	9	11	13	14	15	15	16	16	16	15	15	14	13	13	13	12	12	10
Extraction rate (%)	22%	22%	22%	22%	22%	22%	22%	22%	22%	22%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%
CPO (tons/ha)	0.9	1.3	1.3	1.7	2.0	2.4	2.8	3.1	3.2	3.3	3.3	3.3	3.3	3.0	3.0	2.9	2.7	2.7	2.6	2.5	2.4	2.1

	Yield projections for nucleus plantation																					
Age in years after planting	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
FFBs (tons/ha)	4.0	6.0	8.0	10.0	12.0	17.0	20.0	21.0	22.0	22.0	22.0	22.0	22.0	20.0	20.0	18.0	18.0	16.0	16.0	15.0	15.0	15.0
Extraction rate (%)	20%	20%	20%	20%	21%	22%	22%	22%	22%	22%	21%	21%	21%	21%	21%	21%	21%	20%	20%	20%	20%	20%
CPO (tons/ha)	0.8	1.2	1.6	2.0	2.5	3.7	4.4	4.6	4.8	4.8	4.6	4.6	4.6	4.2	4.2	3.8	3.8	3.2	3.2	3.0	3.0	3.0

Table 18: Financial Model for One Hectare of Smallholder Oil Palm (USD)

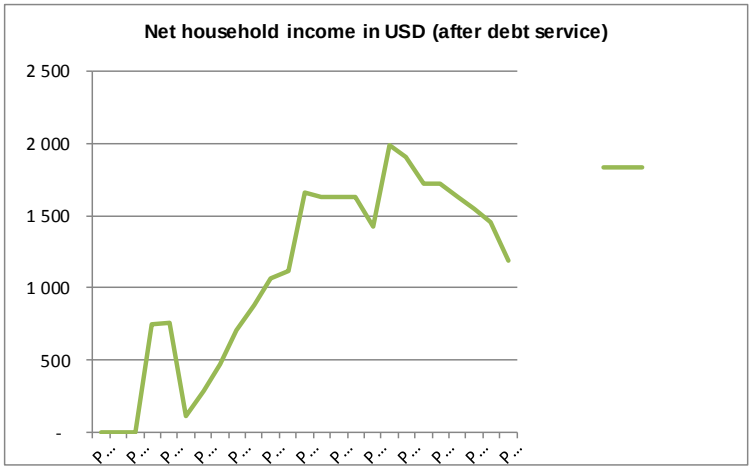
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25
Investment Costs																									
Land preparation	328																								
Contour planting and bunds	182																								
Seedlings and fertilizers	924																								
Other Planting costs	254																								
Crop maintenance		492	516	530	183																				
Total Investment Costs	**1,687**	**492**	**516**	**530**	**183**																				
Operating Costs																									
Crop maintenance					277	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460
Harvesting costs				64	96	96	120	144	176	240	224	232	240	237	237	237	221	221	214	198	198	191	183	176	153
Total Operating Costs				**64**	**373**	**556**	**580**	**604**	**636**	**700**	**684**	**692**	**700**	**697**	**697**	**697**	**681**	**681**	**674**	**658**	**658**	**651**	**643**	**636**	**613**
Income																									
Yield/ha ffb				4.0	6.0	6	7.5	9	11	12.5	14	14.5	15	15.5	15.5	15.5	14.5	14.5	14	13	13	12.5	12	11.5	10
Extraction rate				22%	22%	22%	22%	22%	22%	22%	22%	22%	22%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%
Tonnes CPO/ha				0.9	1.3	1.3	1.7	2.0	2.4	2.8	3.1	3.2	3.3	3.3	3.3	3.3	3.0	3.0	2.9	2.7	2.7	2.6	2.5	2.4	2.1
Price of CPO landed Mombasa (USD/t)				800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
+ Transport price (13%)				104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
Price of CPO landed Jinja (USD/t)				904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904
Factor in price formula				1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Farmer price of CPO (USD/t)				753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753
Less transport of CPO to Jinja (USD/t)				26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Net farmer price of CPO (USD/t)				727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727
Farmer price of ffb (USD/t)				160	160	160	160	160	160	160	160	160	160	153	153	153	153	153	153	153	153	153	153	153	153
Transportation of ffb to mill (@5%)				0.2	0.3	0.3	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.5
Total Income/ha				**640**	**959**	**959**	**1,199**	**1,439**	**1,759**	**1,999**	**2,238**	**2,318**	**2,398**	**2,366**	**2,366**	**2,366**	**2,213**	**2,213**	**2,137**	**1,984**	**1,984**	**1,908**	**1,831**	**1,755**	**1,526**
Net Cash Flow Before Debt Service	**-1,687**	**-492**	**-516**	**46**	**403**	**403**	**619**	**835**	**1,123**	**1,299**	**1,555**	**1,626**	**1,698**	**1,669**	**1,669**	**1,669**	**1,532**	**1,532**	**1,463**	**1,326**	**1,326**	**1,257**	**1,188**	**1,120**	**914**
Cumulative Net cash Flow	-1,687	-2,179	-2,695	-2,649	-2,245	-1,842	-1,223	-388	735	2,034	3,588	5,215	6,913	8,582	10,251	11,920	13,452	14,984	16,446	17,772	19,098	20,355	21,543	22,662	23,576
Financial IRR	21	**%**																							
Financial NPV	4302																								
Financing																									
Opening Loan Balance		1,687	2,179	2,695	3,224	3,407	3,432	3,379	3,242	2,986	2,625	2,149	1,599	1,336	1,053	741	398	0	0	0	0	0	0	0	0
Borrowings	1,687	492	516	530	183																				
Interest (10% per annum)						341	343	338	324	299	262	215	160	134	105	74	40	0	0	0	0	0	0	0	0
Repayments						317	396	475	580	660	739	765	423	417	417	417	438	0							
Closing Balance	1,687	2,179	2,695	3,224	3,407	3,432	3,379	3,242	2,986	2,625	2,149	1,599	1,336	1,053	741	398	0	0	0	0	0	0	0	0	1
Net Cash Flow After Debt Service	**0**	**0**	**0**	**576**	**586**	**87**	**223**	**360**	**542**	**639**	**816**	**861**	**1,276**	**1,252**	**1,252**	**1,252**	**1,094**	**1,532**	**1,463**	**1,326**	**1,326**	**1,257**	**1,188**	**1,120**	**914**

Table 19: Financial Model for One Hectare of Smallholder Oil Palm (UGX'000)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25
Investment Costs																									
Land preparation	1,164																								
Contour planting and bunds	645																								
Seedlings and fertilizers	3,280																								
Other Planting costs	901																								
Crop maintenance		1,745	1,831	1,880	650																				
Total Investment Costs	**5,990**	**1,745**	**1,831**	**1,880**	**650**																				
Operating Costs																									
Crop maintenance					983	1,633	1,633	1,633	1,633	1,633	1,633	1,633	1,633	1,633	1,633	1,633	1,633	1,633	1,633	1,633	1,633	1,633	1,633	1,633	1,633
Harvesting costs				227	341	341	426	511	624	851	795	823	851	840	840	840	786	786	759	704	704	677	650	623	542
Total Operating Costs				**227**	**1,324**	**1,974**	**2,059**	**2,144**	**2,257**	**2,485**	**2,428**	**2,456**	**2,485**	**2,473**	**2,473**	**2,473**	**2,419**	**2,419**	**2,392**	**2,337**	**2,337**	**2,310**	**2,283**	**2,256**	**2,175**
Income																									
Yield/ha ffb				4	6	6	7.5	9	11	12.5	14	14.5	15	15.5	15.5	15.5	14.5	14.5	14	13	13	12.5	12	11.5	10
Extraction rate				22%	22%	22%	22%	22%	22%	22%	22%	22%	22%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%
Tonnes CPO/ha				0.9	1.3	1.3	1.7	2.0	2.4	2.8	3.1	3.2	3.3	3.3	3.3	3.3	3.0	3.0	2.9	2.7	2.7	2.6	2.5	2.4	2.1
Price of CPO landed Mombasa (UGX '000/t)				2,839	2,839	2,839	2,839	2,839	2,839	2,839	2,839	2,839	2,839	2,839	2,839	2,839	2,839	2,839	2,839	2,839	2,839	2,839	2,839	2,839	2,839
+ Transport price (13%)				369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369
Price of CPO landed Jinja (UGX '000/t)				3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208	3,208
Factor in price formula				1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Farmer price of CPO (UGX'000/t)				2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673
Less transport of CPO to Jinja (UGX '000/t)				92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Net farmer price of CPO (UGX '000/t)				2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581
Farmer price of ffb (UGX'000/t)				568	568	568	568	568	568	568	568	568	568	542	542	542	542	542	542	542	542	542	542	542	542
Transportation of ffb to mill @5%				0.2	0.3	0.3	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.5
Total Income/ha				**2,271**	**3,406**	**3,406**	**4,258**	**5,110**	**6,245**	**7,097**	**7,948**	**8,232**	**8,516**	**8,400**	**8,400**	**8,400**	**7,858**	**7,858**	**7,587**	**7,045**	**7,045**	**6,774**	**6,503**	**6,232**	**5,419**
Net Cash Flow Before Debt Service	**-5,990**	**-1,745**	**-1,831**	**164**	**1,433**	**1,433**	**2,199**	**2,966**	**3,988**	**4,612**	**5,520**	**5,776**	**6,031**	**5,927**	**5,927**	**5,927**	**5,439**	**5,439**	**5,195**	**4,708**	**4,708**	**4,464**	**4,220**	**3,976**	**3,244**
Cumulative Net cash Flow	-5,990	-7,735	-9,566	-9,402	-7,970	-6,537	-4,338	-1,372	2,615	7,227	12,748	18,524	24,555	30,482	36,409	42,336	47,775	53,214	58,409	63,117	67,824	72,288	76,508	80,483	83,728
Financial IRR	21	**%**																							
Financial NPV	15,282																								
Financing																									
Opening Loan Balance		5,990	7,735	9,566	11,446	12,096	12,182	11,995	11,508	10,598	9,316	7,625	5,671	4,737	3,731	2,624	1,407	0	0	0	0	0	0	-1	-1
Borrowings	5,990	1,745	1,831	1,880	650																				
Interest (10% per annum)						1,210	1,218	1,199	1,151	1,060	932	762	567	474	373	262	141	0	0	0	0	0	0	0	0
Repayments						1,124	1,405	1,686	2,061	2,342	2,623	2,717	1,501	1,480	1,480	1,480	1,548								
Closing Balance	5,990	7,735	9,566	11,446	12,096	12,182	11,995	11,508	10,598	9,316	7,625	5,671	4,737	3,731	2,624	1,407	0	0	0	0	0	0	-1	-1	-1
Net Cash Flow After Debt Service	**0**	**0**	**0**	**2,044**	**2,083**	**309**	**794**	**1,279**	**1,927**	**2,270**	**2,898**	**3,059**	**4,531**	**4,447**	**4,447**	**4,447**	**3,892**	**5,439**	**5,195**	**4,708**	**4,708**	**4,464**	**4,220**	**3,976**	**3,244**

Table 20: Household's net income for oil palm smallholder

	PY1	PY2	PY3	PY4	PY5	PY6	PY7	PY8	PY9	PY10	PY11	PY12	PY13	PY14	PY15	PY16	PY17	PY18	PY19	PY20	PY21	PY22	PY23	PY24	PY25
Net margin/ha (USD, after debt service)	-	-	-	576	586	87	223	360	542	679	816	861	1 276	1 252	1 252	1 252	1 094	1 532	1 463	1 326	1 326	1 257	1 188	1 120	914
Net margin/ha (UGX '000, after debt service)	-	-	-	2 044	2 083	309	794	1 279	1 927	2 412	2 898	3 059	4 531	4 447	4 447	4 447	3 892	5 439	5 195	4 708	4 708	4 464	4 220	3 976	3 244
Average farm size	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Net household income in USD (after debt se	**-**	**-**	**-**	**748**	**762**	**113**	**291**	**468**	**705**	**883**	**1 061**	**1 120**	**1 659**	**1 628**	**1 628**	**1 628**	**1 422**	**1 991**	**1 902**	**1 723**	**1 723**	**1 634**	**1 545**	**1 455**	**1 188**
Net household income in UGX '000 (after de	**-**	**-**	**-**	**2 657**	**2 708**	**401**	**1 032**	**1 663**	**2 505**	**3 136**	**3 767**	**3 977**	**5 890**	**5 781**	**5 781**	**5 781**	**5 059**	**7 071**	**6 754**	**6 120**	**6 120**	**5 803**	**5 486**	**5 169**	**4 218**



A development loan smallholder farmer with an average farm sizen of 1.6ha, a household is expected to start earning a net margin of USD 294 in the fifth of year of the plantation. The earning will gradually increase to USD 1023 in year ten and reach to USD 2,595 in the fifteenth year.

Table 21: Financial Model for One Hectare of Commercial Oil Palm (USD)

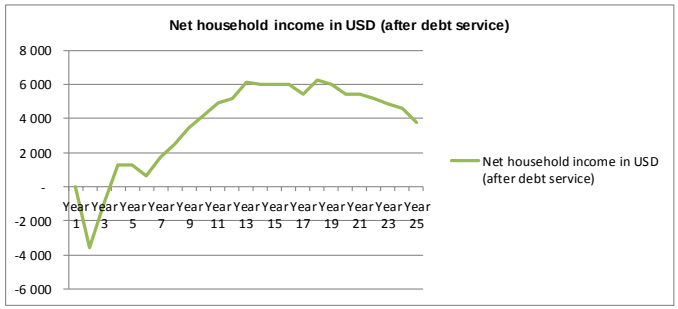
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25
Investment Costs																									
Land preparation	328																								
Contour planting and bunds	182																								
Seedlings and fertilizers	924																								
Other Planting costs	254																								
Crop maintenance		492	516	530	183																				
Total Investment Costs	**1 687**	**492**	**516**	**530**	**183**																				
Operating Costs																									
Crop maintenance					277	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460	460
Harvesting costs				64	96	96	120	144	176	200	224	232	240	237	237	237	221	221	214	198	198	191	183	176	153
Total Operating Costs				64	**373**	**556**	**580**	**604**	**636**	**660**	**684**	**692**	**700**	**697**	**697**	**697**	**681**	**681**	**674**	**658**	**658**	**651**	**643**	**636**	**613**
Income																									
Yield/ha ffb				4.0	6.0	6	7.5	9	11	12.5	14	14.5	15	15.5	15.5	15.5	14.5	14.5	14	13	13	12.5	12	11.5	10
Extraction rate				22%	22%	22%	22%	22%	22%	22%	22%	22%	22%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%
Tonnes CPO/ha				0.9	1.3	1.3	1.7	2.0	2.4	2.8	3.1	3.2	3.3	3.3	3.3	3.3	3.0	3.0	2.9	2.7	2.7	2.6	2.5	2.4	2.1
Price of CPO landed Mombasa (USD/t)				800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
+ Transport price (13%)				104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
Price of CPO landed Jinja (USD/t)				904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904
Factor in price formula				1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Farmer price of CPO (USD/t)				753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753
Less transport of CPO to Jinja (USD/t)				26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Net farmer price of CPO (USD/t)				727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727
Farmer price of ffb (USD/t)				160	160	160	160	160	160	160	160	160	160	153	153	153	153	153	153	153	153	153	153	153	153
Transportation of ffb to mill (@5%)				0.2	0.3	0.3	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.5
Total Income/ha				**640**	**959**	**959**	**1 199**	**1 439**	**1 759**	**1 999**	**2 238**	**2 318**	**2 398**	**2 366**	**2 366**	**2 366**	**2 213**	**2 213**	**2 137**	**1 984**	**1 984**	**1 908**	**1 831**	**1 755**	**1 526**
Net Cash Flow Before Debt Service	**-1 687**	**-492**	**-516**	**46**	**403**	**403**	**619**	**835**	**1 123**	**1 339**	**1 555**	**1 626**	**1 698**	**1 669**	**1 669**	**1 669**	**1 532**	**1 532**	**1 463**	**1 326**	**1 326**	**1 257**	**1 188**	**1 120**	**914**
Cumulative Net cash Flow	-1 687	-2 179	-2 695	-2 649	-2 245	-1 842	-1 223	-388	735	2 074	3 628	5 255	6 953	8 622	10 291	11 960	13 492	15 024	16 486	17 812	19 138	20 395	21 583	22 702	23 616
Financial IRR	21	%																							
Financial NPV	4318																								
Financing																									
Opening Loan Balance		1 991	884	1 001	1 110	796	613	613	613	613	613	613	613	613	613	613	613	613	613	613	613	613	613	613	613
Borrowings	1 687	492	516	530	183																				
Interest (10% per annum)	304	88	93	95	33	0																			
Repayments		1 687	492	516	530	183	0																		
Closing Balance	1 991	884	1 001	1 110	796	613	613	613	613	613	613	613	613	613	613	613	613	613	613	613	613	613	613	613	613
Net Cash Flow After Debt Service	**0**	**-1 687**	**-492**	**60**	**57**	**220**	**619**	**835**	**1 123**	**1 339**	**1 555**	**1 626**	**1 698**	**1 669**	**1 669**	**1 669**	**1 532**	**1 532**	**1 463**	**1 326**	**1 326**	**1 257**	**1 188**	**1 120**	**914**

Table 22: Financial Model for One Hectare of Commercial Oil Palm (UGX'000)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25
Investment Costs																									
Land preparation	1 164																								
Contour planting and bunds	645																								
Seedlings and fertilizers	3 280																								
Other Planting costs	901																								
Crop maintenance		1 745	1 831	1 880	650																				
Total Investment Costs	**5 990**	**1 745**	**1 831**	**1 880**	**650**																				
Operating Costs																									
Crop maintenance					983	1 633	1 633	1 633	1 633	1 633	1 633	1 633	1 633	1 633	1 633	1 633	1 633	1 633	1 633	1 633	1 633	1 633	1 633	1 633	1 633
Harvesting costs				227	341	341	426	511	624	709	795	823	851	840	840	840	786	786	759	704	704	677	650	623	542
Total Operating Costs				**227**	**1 324**	**1 974**	**2 059**	**2 144**	**2 257**	**2 343**	**2 428**	**2 456**	**2 485**	**2 473**	**2 473**	**2 473**	**2 419**	**2 419**	**2 392**	**2 337**	**2 337**	**2 310**	**2 283**	**2 256**	**2 175**
Income																									
Yield/ha ffb				4	6	6	7.5	9	11	12.5	14	14.5	15	15.5	15.5	15.5	14.5	14.5	14	13	13	12.5	12	11.5	10
Extraction rate				22%	22%	22%	22%	22%	22%	22%	22%	22%	22%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%
Tonnes CPO/ha				0.9	1.3	1.3	1.7	2.0	2.4	2.8	3.1	3.2	3.3	3.3	3.3	3.3	3.0	3.0	2.9	2.7	2.7	2.6	2.5	2.4	2.1
Price of CPO landed Mombasa (UGX '000/t)				2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839
+ Transport price (13%)				369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369
Price of CPO landed Jinja (UGX '000/t)				3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208
Factor in price formula				1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Farmer price of CPO (UGX'000/t)				2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673
Less transport of CPO to Jinja (UGX '000/t)				92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Net farmer price of CPO (UGX '000/t)				2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581
Farmer price of ffb (UGX'000/t)				568	568	568	568	568	568	568	568	568	568	542	542	542	542	542	542	542	542	542	542	542	542
Transportation of ffb to mill @5%				0.2	0.3	0.3	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.5
Total Income/ha				**2 271**	**3 406**	**3 406**	**4 258**	**5 110**	**6 245**	**7 097**	**7 948**	**8 232**	**8 516**	**8 400**	**8 400**	**8 400**	**7 858**	**7 858**	**7 587**	**7 045**	**7 045**	**6 774**	**6 503**	**6 232**	**5 419**
Net Cash Flow Before Debt Service	**-5 990**	**-1 745**	**-1 831**	**164**	**1 433**	**1 433**	**2 199**	**2 966**	**3 988**	**4 754**	**5 520**	**5 776**	**6 031**	**5 927**	**5 927**	**5 927**	**5 439**	**5 439**	**5 195**	**4 708**	**4 708**	**4 464**	**4 220**	**3 976**	**3 244**
Cumulative Net cash Flow	-5 990	-7 735	-9 566	-9 402	-7 970	-6 537	-4 338	-1 372	2 615	7 369	12 890	18 666	24 697	30 624	36 551	42 478	47 917	53 356	58 551	63 259	67 966	72 430	76 649	80 625	83 870
Financial IRR	21	**%**																							
Financial NPV	15337																								
Financing																									
Opening Loan Balance		7 068	3 138	3 553	3 941	2 827	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177
Borrowings	5 990	1 745	1 831	1 880	650																				
Interest (10% per annum)	1078	314	330	338	117	0																			
Repayments		5 990	1 745	1 831	1 880	650	0																		
Closing Balance	7 068	3 138	3 553	3 941	2 827	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177	2 177
Net Cash Flow After Debt Service	**0**	**-5 990**	**-1 745**	**213**	**203**	**783**	**2 199**	**2 966**	**3 988**	**4 754**	**5 520**	**5 776**	**6 031**	**5 927**	**5 927**	**5 927**	**5 439**	**5 439**	**5 195**	**4 708**	**4 708**	**4 464**	**4 220**	**3 976**	**3 244**

Table 23: Household's net income for oil palm commercial farmer

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25
Net margin/ha USD (after debt service) - commercial	-	- 1 687	- 492	60	57	220	619	835	1 123	1 339	1 555	1 626	1 698	1 669	1 669	1 669	1 532	1 532	1 463	1 326	1 326	1 257	1 188	1 120	914
Net margin/ha USD (after debt service) - devt. loan	-	-	-	576	586	87	223	360	542	679	816	861	1 276	1 252	1 252	1 252	1 094	1 532	1 463	1 326	1 326	1 257	1 188	1 120	914
Net margin/ha UGX '000 (after debt service) - commerci	-	- 5 990	- 1 745	213	203	783	2 199	2 966	3 988	4 754	5 520	5 776	6 031	5 927	5 927	5 927	5 439	5 439	5 195	4 708	4 708	4 464	4 220	3 976	3 244
Net margin/ha UGX '000 (after debt service) - devt. Loan	-	-	-	2 044	2 083	309	794	1 279	1 927	2 412	2 898	3 059	4 531	4 447	4 447	4 447	3 892	5 439	5 195	4 708	4 708	4 464	4 220	3 976	3 244
Average farm size - commercial	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Average farm size - devt. loan	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Net household income in USD (after debt service)	**-**	**- 3 543**	**- 1 032**	**1 277**	**1 292**	**636**	**1 747**	**2 474**	**3 443**	**4 170**	**4 896**	**5 139**	**6 118**	**6 009**	**6 009**	**6 009**	**5 404**	**6 280**	**5 998**	**5 435**	**5 435**	**5 153**	**4 872**	**4 590**	**3 745**
Net household income in UGX '000 (after debt service	**-**	**- 12 579**	**- 3 665**	**4 535**	**4 591**	**2 261**	**6 206**	**8 787**	**12 227**	**14 808**	**17 388**	**18 248**	**21 728**	**21 340**	**21 340**	**21 340**	**19 205**	**22 300**	**21 300**	**19 301**	**19 301**	#####	**17 301**	**16 301**	**13 302**



A self financed smallholder farmer with an average farm sizen of 1.6ha is expected to start earning a net margin of USD 199 sixth of year of the plantation. The earning will gradually increase to USD 2,078 in year ten and reach to USD 2,595 in the fifteenth year.

Table 24: Financial Model for One Hectare of Nucleus Estate Oil Palm (USD)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25
Investment Costs																									
Land preparation	1 087																								
Contour planting and bunds	132																								
Planting costs	1 129																								
Crop maintenance		454	575	665	339																				
Total Investment Costs	**2 347**	**454**	**575**	**665**	**339**																				
Operating Costs																									
Crop maintenance					254	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593
Harvesting costs				23	65	54	145	183	272	320	336	352	352	336	336	336	305	305	275	275	233	233	218	218	218
Total Operating Costs				**23**	**318**	**647**	**738**	**776**	**865**	**913**	**929**	**945**	**945**	**929**	**929**	**929**	**898**	**898**	**868**	**868**	**825**	**825**	**811**	**811**	**811**
Income																									
Yield/ha ffb				4	6	8	10	12	17	20	21	22	22	22	22	22	20	20	18	18	16	16	15	15	15
Extraction rate				20%	20%	20%	20%	21%	22%	22%	22%	22%	22%	21%	21%	21%	21%	21%	21%	21%	20%	20%	20%	20%	20%
Tonnes CPO/ha				1.2	1.2	1.6	2.0	2.5	3.7	4.4	4.6	4.8	4.8	4.6	4.6	4.6	4.2	4.2	3.8	3.8	3.2	3.2	3.0	3.0	3.0
Price of CPO landed Mombasa (USD/t)				800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
+ Transport price (13%)				104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
Price of CPO landed Jinja (USD/t)				904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904	904
Factor in price formula				1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Farmer price of CPO (USD/t)				753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753	753
Less transport of CPO to Jinja (USD/t)				26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Net farmer price of CPO (USD/t)				727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727	727
Farmer price of ffb (USD/t)				145	145	145	145	153	160	160	160	160	160	153	153	153	153	153	153	153	145	145	145	145	145
Transportation of ffb to mill (@5%)				0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total Income/ha				**581**	**872**	**1 163**	**1 453**	**1 831**	**2 718**	**3 198**	**3 358**	**3 518**	**3 518**	**3 358**	**3 358**	**3 358**	**3 052**	**3 052**	**2 747**	**2 747**	**2 326**	**2 326**	**2 180**	**2 180**	**2 180**
Net Cash Flow Before Debt Service	**-2 347**	**-454**	**-575**	**-107**	**215**	**516**	**715**	**1 055**	**1 853**	**2 285**	**2 429**	**2 573**	**2 573**	**2 429**	**2 429**	**2 429**	**2 154**	**2 154**	**1 879**	**1 879**	**1 500**	**1 500**	**1 369**	**1 369**	**1 369**
Cumulative Net cash Flow	-2 347	-2 800	-3 376	-3 483	-3 268	-2 752	-2 037	-981	872	3 157	5 586	8 159	10 732	13 161	15 590	18 018	20 173	22 327	24 206	26 086	27 586	29 086	30 455	31 825	33 194
Financial IRR	22	**%**																							
Financial NPV	6309																								

Table 25: Financial Model for One Hectare of Nucleus Estate Oil Palm (UGX'000)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25
Investment Costs																									
Land preparation	3 857																								
Contour planting and bunds	467																								
Planting costs	4 007																								
Crop maintenance		1 610	2 043	2 362	1 204																				
Total Investment Costs	**8 332**	**1 610**	**2 043**	**2 362**	**1 204**																				
Operating Costs																									
Crop maintenance					901	2 105	2 105	2 105	2 105	2 105	2 105	2 105	2 105	2 105	2 105	2 105	2 105	2 105	2 105	2 105	2 105	2 105	2 105	2 105	2 105
Harvesting costs				82	229	190	516	650	965	1 135	1 192	1 249	1 249	1 192	1 192	1 192	1 084	1 084	975	975	826	826	774	774	774
Total Operating Costs				**82**	**1 130**	**2 295**	**2 621**	**2 755**	**3 070**	**3 240**	**3 297**	**3 354**	**3 354**	**3 297**	**3 297**	**3 297**	**3 188**	**3 188**	**3 080**	**3 080**	**2 930**	**2 930**	**2 879**	**2 879**	**2 879**
Income																									
Yield/ha ffb				4	6	8	10	12	17	20	21	22	22	22	22	22	20	20	18	18	16	16	15	15	15
Extraction rate				20%	20%	20%	20%	21%	22%	22%	22%	22%	22%	21%	21%	21%	21%	21%	21%	21%	20%	20%	20%	20%	20%
Tonnes CPO/ha				0.8	1.2	1.6	2.0	2.5	3.7	4.4	4.6	4.8	4.8	4.6	4.6	4.6	4.2	4.2	3.8	3.8	3.2	3.2	3.0	3.0	3.0
Price of CPO landed Mombasa (UGX '000/t)				2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839	2 839
+ Transport price (13%)				369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369
Price of CPO landed Jinja (UGX '000/t)				3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208	3 208
Factor in price formula				1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Farmer price of CPO (UGX'000/t)				2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673	2673
Less transport of CPO to Jinja (UGX '000/t)				92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Net farmer price of CPO (UGX '000/t)				2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581	2581
Farmer price of ffb (UGX'000/t)				516	516	516	516	542	568	568	568	568	568	542	542	542	542	542	542	542	516	516	516	516	516
Transportation of ffb to mill @5%				0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total Income/ha				**2 064**	**3 097**	**4 129**	**5 161**	**6 503**	**9 651**	**11 355**	**11 922**	**12 490**	**12 490**	**11 922**	**11 922**	**11 922**	**10 838**	**10 838**	**9 755**	**9 755**	**8 258**	**8 258**	**7 742**	**7 742**	**7 742**

Table 26. Cost recovery and sustainability of KOPGT

	Years 1	2	3	Years 4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Oil palm production and values																									
Yields, t/ha				2	4	6	8	9	11	13	14	15	15	16	16	16	15	15	14	13	13	13	12	12	10
Extraction rate, %				18%	18%	20%	20%	21%	22%	22%	22%	22%	22%	21%	21%	21%	21%	21%	21%	21%	20%	20%	20%	20%	20%
Gross FFB value @ 01/2017 prices, UGX '000 /t				465	465	516	516	542	568	568	568	568	568	542	542	542	542	542	542	542	516	516	516	516	516
Gross FFB value, UGX '000/ha				929	1 858	3 097	3 871	4 878	6 246	7 097	7 949	8 233	8 517	8 401	8 401	8 401	7 859	7 859	7 588	7 046	6 710	6 452	6 194	5 936	5 162
Transportation cost, (UGX 000/ha)				46	93	155	194	244	312	355	397	412	426	420	420	420	393	393	379	352	336	323	310	297	258
Total net FFB value, UGX '000 per ha				**883**	**1 765**	**2 942**	**3 678**	**4 634**	**5 933**	**6 742**	**7 551**	**7 821**	**8 091**	**7 980**	**7 980**	**7 980**	**7 466**	**7 466**	**7 208**	**6 693**	**6 375**	**6 129**	**5 884**	**5 639**	**4 904**
Total net FFB values after loan service, UGX '000				**883**	**743**	**1 665**	**2 068**	**2 573**	**3 591**	**4 119**	**4 835**	**6 321**	**8 091**	**7 980**	**7 980**	**7 980**	**7 466**	**7 466**	**7 208**	**6 693**	**6 375**	**6 129**	**5 884**	**5 639**	**4 904**

Support services by KOPGT	UGX '000/ha	Cost recovery (%)
Marketing function	152	100%
Loan management function	21	0%
Field extension services function	78	0%
Management and administration	77	0%
Total costs	327	0%
Total costs, excl. marketing (UGX '000/ha)	175	

Cost recovery and sustainability																									
Total costs, excl. marketing (UGX '000/ha)				175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
Total costs, excl. marketing (UGX '000/t)				88	44	29	23	19	16	14	13	12	12	11	11	11	12	12	13	13	13	14	15	15	18
% of support services in net FFB values (UGX '000/ha)				19.9%	9.9%	6.0%	4.8%	3.8%	3.0%	2.6%	2.3%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.4%	2.4%	2.4%	2.6%	2.8%	2.9%	3.0%	3.1%	3.6%
% of support services in net FFB values per ton				18.9%	9.4%	5.7%	4.5%	3.6%	2.8%	2.5%	2.2%	2.1%	2.1%	2.1%	2.1%	2.1%	2.2%	2.2%	2.3%	2.5%	2.6%	2.7%	2.8%	3.0%	3.4%
% of support services in net FFB values per ton (after loan service)				19.9%	23.6%	10.5%	8.5%	6.8%	4.9%	4.3%	3.6%	2.8%	2.2%	2.2%	2.2%	2.2%	2.4%	2.4%	2.4%	2.6%	2.8%	2.9%	3.0%	3.1%	3.6%

Table 27. Projection for Reflows of Smallholder Devt Loan Provided under NOPP

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
NOPP																						
Smallholder OP areas	-	1 250	3 000	3 250	1 500	1 500	1 500	-	-	-												
Annual reflows (USD '000)	-	-	-	-	-	-	396	1 444	2 810	3 911	5 177	6 569	7 492	7 796	7 243	5 869	4 244	2 407	1 259	625	-	-
Cumulative reflows (USD '000)							396	1 840	4 650	8 561	13 738	20 307	27 799	35 596	42 839	48 707	52 952	55 358	56 617	57 243	57 243	57 243
VODPs																						
Cumulative reflows (USD '000)	5 060	6 436	7 885	9 330	10 554	11 626	12 357	12 828	13 109	13 296	13 356	.....										

Attachment 2: Financial Models – enterprises and agricultural intensification

Table 28. Micro-enterprise model (self-financed): Laundry services

Particulars	Unit	Quantity	Unit rate, UGX	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
GROSS REVENUE															
Washing + ironing of pairs	Nos.	100	1 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000
Ironing fees of pairs	Nos.	100	500	50 000	50 000	50 000	50 000	50 000	50 000	50 000	50 000	50 000	50 000	50 000	50 000
Washing of gum boots	Nos.	40	1 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000
Washing of canvas shoes	Nos.	40	1 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000
Washing of pairs of socks	Nos.	200	500	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000
TOTAL GROSS REVENUET				**330 000**	**330 000**	**330 000**	**330 000**	**330 000**	**330 000**	**330 000**	**330 000**	**330 000**	**330 000**	**330 000**	**330 000**
INVESTMENT COSTS															
Iron	Nos.	1	266 000	266 000											
Ironing board	Nos.	1	114 000	114 000											
Operating costs	Ls	1	60 760	60 760											
TOTAL INVESTMENT COSTS				**440 760**											
VARIABLE COST															
Electricity	Kwh	14	200		2 760	2 760	2 760	2 760	2 760	2 760	2 760	2 760	2 760	2 760	2 760
Soap (bar)	bar	4	4 000		16 000	16 000	16 000	16 000	16 000	16 000	16 000	16 000	16 000	16 000	16 000
Detergent (tin)	tin	4	2 500		10 000	10 000	10 000	10 000	10 000	10 000	10 000	10 000	10 000	10 000	10 000
Water (jerrycan - 20 liter)	jerrycan	160	200		32 000	32 000	32 000	32 000	32 000	32 000	32 000	32 000	32 000	32 000	32 000
TOTAL VARIABLE COSTS				**-**	**60 760**	**60 760**	**60 760**	**60 760**	**60 760**	**60 760**	**60 760**	**60 760**	**60 760**	**60 760**	**60 760**
LABOUR															
Hired labour	Ls														
Family labour	Ls	1	160 000	160 000	160 000	160 000	160 000	160 000	160 000	160 000	160 000	160 000	160 000	160 000	160 000
TOTAL LABOUR				**160 000**	**160 000**	**160 000**	**160 000**	**160 000**	**160 000**	**160 000**	**160 000**	**160 000**	**160 000**	**160 000**	**160 000**
FIXED COST															
Rent	Nos.	4	10 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000	40 000
TOTAL FIXED COSTS				**40 000**	**40 000**	**40 000**	**40 000**	**40 000**	**40 000**	**40 000**	**40 000**	**40 000**	**40 000**	**40 000**	**40 000**
TOTAL COSTS	Rs.			**640 760**	**260 760**	**260 760**	**260 760**	**260 760**	**260 760**	**260 760**	**260 760**	**260 760**	**260 760**	**260 760**	**260 760**
NET PROFIT WITHOUT FAMILY LABOUR				**- 150 760**	**229 240**	**229 240**	**229 240**	**229 240**	**229 240**	**229 240**	**229 240**	**229 240**	**229 240**	**229 240**	**229 240**
NET PROFIT WITH FAMILY LABOUR	Rs.			**- 310 760**	**69 240**	**69 240**	**69 240**	**69 240**	**69 240**	**69 240**	**69 240**	**69 240**	**69 240**	**69 240**	**69 240**
FIRR				**19%**											
FNPV				**126 325**											
B:C				**0.04**											

Assumptions	
cost of power per kWh (below 15 kwh per month), UGX	150
Time required to iron 1 item, mins	6
Number of items ironed per hour, nos	10
Number of soap bars used per week, unit	1
Number of tins of detergent used per week, unit	1
Number of jerrycans of water used per week, unit	40
Price of jerrycan of water (20 liters), UGX	200
Rent per month, UGX	25000
Total hours of ironing per month, UGX	20

	Laundry
Sales turnover in a year	3 960 000
Assets	380 000

	UGX	USD
Total investment costs	640 760	180
Total annual returns	2 370 880	668
Net return to investment ratio	3.7	3.7

Table 29. Micro-enterprise model (self-financed): Door-to-door retail seller

Particulars	Unit	Quantity	Rate	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
GROSS REVENUE															
Gross Income from basket of goods sales	Nos.	1	747 000	747 000	747 000	747 000	747 000	747 000	747 000	747 000	747 000	747 000	747 000	747 000	747 000
TOTAL GROSS REVENUE				**747 000**	**747 000**	**747 000**	**747 000**	**747 000**	**747 000**	**747 000**	**747 000**	**747 000**	**747 000**	**747 000**	**747 000**
INVESTMENT COSTS															
Fisrt basket of goods	Nos.	1	456 450	456 450											
Bycicle	Nos.	1	250 000	250 000											
Salesperson's uniform	Nos.	1	50 000	50 000											
Trade licence	Ls	1	100 000	100 000											
TOTAL INVESTMENT COSTS				**856 450**											
VARIABLE COST															
Basket of goods	Nos.				456 450.00	456 450	456 450	456 450	456 450	456 450	456 450	456 450	456 450	456 450	456 450
Transport per restoking	Nos.	1	55 000	55 000	55 000	55 000	55 000	55 000	55 000	55 000	55 000	55 000	55 000	55 000	55 000
Other operating costs	Months	1	15 000	15 000	15 000	15 000	15 000	15 000	15 000	15 000	15 000	15 000	15 000	15 000	15 000
Maintenance of bicycle	lump sum	1	3 000	3 000	3 000	3 000	3 000	3 000	3 000	3 000	3 000	3 000	3 000	3 000	3 000
TOTAL VARIABLE COSTS				**73 000**	**529 450**	**529 450**	**529 450**	**529 450**	**529 450**	**529 450**	**529 450**	**529 450**	**529 450**	**529 450**	**529 450**
LABOUR															
Hired labour	Ls														
Family labour	Ls	1	130 000	130 000	130 000	130 000	130 000	130 000	130 000	130 000	130 000	130 000	130 000	130 000	130 000
TOTAL LABOUR				**130 000**	**130 000**	**130 000**	**130 000**	**130 000**	**130 000**	**130 000**	**130 000**	**130 000**	**130 000**	**130 000**	**130 000**
FIXED COST															
Taxes	Nos.	-		-											
TOTAL FIXED COSTS				**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
TOTAL COSTS	Rs.			**1 059 450**	**659 450**	**659 450**	**659 450**	**659 450**	**659 450**	**659 450**	**659 450**	**659 450**	**659 450**	**659 450**	**659 450**
NET PROFIT BEFORE FAMILY LABOUR				**- 182 450**	**217 550**	**217 550**	**217 550**	**217 550**	**217 550**	**217 550**	**217 550**	**217 550**	**217 550**	**217 550**	**217 550**
NET PROFIT AFTER FAMILY LABOUR	Rs.			**- 312 450**	**87 550**	**87 550**	**87 550**	**87 550**	**87 550**	**87 550**	**87 550**	**87 550**	**87 550**	**87 550**	**87 550**
FIRR				**26%**											
FNPV				**232 902**											
B: C				**0.048**											

	Sales Promoter
Sales turnover in a year	8 964 000
Assets	250 000

	UGX	USD
Total investment costs	1 059 450	298
Total annual returns	2 210 600	623
Net return to investment ratio	2.1	2.1

Table 30. Small enterprise model (loan financed): Marketing of Improved Cookstoves (ICSs)

Description	Unit	Quantity	Rate	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
GROSS REVENUE															
Gross Income from ICS sale	Nos.	12.00	121,000	1,452,000	1,452,000	1,452,000	1,452,000	1,452,000	1,452,000	1,452,000	1,452,000	1,452,000	1,452,000	1,452,000	1,452,000
TOTAL GROSS REVENUE				**1,452,000**	**1,452,000**	**1,452,000**	**1,452,000**	**1,452,000**	**1,452,000**	**1,452,000**	**1,452,000**	**1,452,000**	**1,452,000**	**1,452,000**	**1,452,000**
INVESTMENT COSTS															
Stock of stoves	Nos.	12	100,000	1,200,000											
Bycicle	Nos.	1.00	250,000	250,000											
Salesperson's uniform	Nos.	1.00	50,000	50,000											
Trade licence	Ls	1.00	250,000	250,000											
Operating costs	Ls	1.00	110,000	110,000											
TOTAL INVESTMENT COSTS				**1,860,000**											
VARIABLE COST															
Stock of stoves	Nos.	12	100,000		1,200,000.00	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Transport per restoking	Nos.	2	30,000		60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000
Other operating costs	months	1	30,000		30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Maintenance of bicycle	Ls	1	20,000		20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
TOTAL VARIABLE COSTS				**-**	**1,310,000**	**1,310,000**	**1,310,000**	**1,310,000**	**1,310,000**	**1,310,000**	**1,310,000**	**1,310,000**	**1,310,000**	**1,310,000**	**1,310,000**
LABOUR															
Hired labor	Ls	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL LABOR			-	-	-	-	-	-	-	-	-	-	-	-	-
FIXED COST															
Taxes	Ls	-	-	-											
TOTAL FIXED COSTS				-	-	-	-	-	-	-	-	-	-	-	-
TOTAL COSTS	UGX			**1,860,000**	**1,310,000**	**1,310,000**	**1,310,000**	**1,310,000**	**1,310,000**	**1,310,000**	**1,310,000**	**1,310,000**	**1,310,000**	**1,310,000**	**1,310,000**
CASH FLOW BEFORE FINANCING	UGX			**- 408,000**	**142,000**	**142,000**	**142,000**	**142,000**	**142,000**	**142,000**	**142,000**	**142,000**	**142,000**	**142,000**	**142,000**
FIRR				**33%**											
FNPV				**467,544**	131.70										
B:C				**0.05**											

Financing															
Opening Loan Balance					930,000	930,000	930,000	826,667	723,333	620,000	516,667	413,333	310,000	206,667	103,333
Borrowings				930,000											
Interest (18% per annum)				13,950	13,950	13,950	13,950	12,400	10,850	9,300	7,750	6,200	4,650	3,100	1,550
Repayments				13,950	13,950	13,950	117,283	115,733	114,183	112,633	111,083	109,533	107,983	106,433	104,883
Closing Balance				930,000	930,000	930,000	826,667	723,333	620,000	516,667	413,333	310,000	206,667	103,333	0
Net Cash Flow After Loan Service				**508,050**	**128,050**	**128,050**	**24,717**	**26,267**	**27,817**	**29,367**	**30,917**	**32,467**	**34,017**	**35,567**	**37,117**

Loans	
Loan amount, UGX	UGX 930,000
Interest rate, %	18%
Grace period, months	3

Assumptions	
Wholesale price of ICS, UGX	100,000.00
Nos of working days per month, nos	20
Operational months, nos	12
Average sales per day, nos	0.6
Margin	21%
Transport cost per trip	30,000.00

	Sales Promoter
Sales turnover in a year	17,424,000
Assets	250,000

	UGX	**USD**
Total investment costs	930,000	262
Total annual returns	1,154,000	325
Net return to investment ratio	1.2	1.2

Table 31. Small Enterprise Model (loan financed): Groundnuts Processing and Marketing

Description	Unit	Quantity	Rate	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
GROSS REVENUE															
Sales of powder	kg	450	4 800	2 160 000	2 160 000	2 160 000	2 160 000	2 160 000	2 160 000	2 160 000	2 160 000	2 160 000	2 160 000	2 160 000	2 160 000
Sales of semi-paste	kg	678	5 000	3 051 000	3 390 000	3 390 000	3 390 000	3 390 000	3 390 000	3 390 000	3 390 000	3 390 000	3 390 000	3 390 000	3 390 000
TOTAL GROSS REVENUE				**5 211 000**	**5 550 000**	**5 550 000**	**5 550 000**	**5 550 000**	**5 550 000**	**5 550 000**	**5 550 000**	**5 550 000**	**5 550 000**	**5 550 000**	**5 550 000**
INVESTMENT COSTS															
Groundnut machine+Transport and in	Nos.	1	1 700 000	1 700 000											
License	Nos.	1	100 000	100 000											
Working capital	Ls	1	5 064 989	5 064 989											
TOTAL INVESTMENT COSTS				**6 864 989**											
VARIABLE COST															
Purchase of gnut grains	kg	1 199	3 800		4 555 929	4 555 929	4 555 929	4 555 929	4 555 929	4 555 929	4 555 929	4 555 929	4 555 929	4 555 929	4 555 929
Transport	kg	36	7 500		270 000	270 000	270 000	270 000	270 000	270 000	270 000	270 000	270 000	270 000	270 000
Power for powder production	Nos.	45	157		7 076	7 076	7 076	7 076	7 076	7 076	7 076	7 076	7 076	7 076	7 076
Power for semi-paste production	kwh	68	472		31 985	31 985	31 985	31 985	31 985	31 985	31 985	31 985	31 985	31 985	31 985
Power for paste production	kwh	-	629		-	-	-	-	-	-	-	-	-	-	-
Maintenance of machine	kwh	2	40 000		80 000	80 000	80 000	80 000	80 000	80 000	80 000	80 000	80 000	80 000	80 000
Cavera's	Nos.	2	10 000		20 000	20 000	20 000	20 000	20 000	20 000	20 000	20 000	20 000	20 000	20 000
TOTAL VARIABLE COSTS				**-**	**4 964 989**	**4 964 989**	**4 964 989**	**4 964 989**	**4 964 989**	**4 964 989**	**4 964 989**	**4 964 989**	**4 964 989**	**4 964 989**	**4 964 989**
LABOUR															
Hired labour	Ls	1	100 000		100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000
TOTAL LABOUR				**-**	**100 000**	**100 000**	**100 000**	**100 000**	**100 000**	**100 000**	**100 000**	**100 000**	**100 000**	**100 000**	**100 000**
FIXED COST															
Rent	Nos.	1	50 000	50 000	50 000	50 000	50 000	50 000	50 000	50 000	50 000	50 000	50 000	50 000	50 000
TOTAL FIXED COSTS				**50 000**	**50 000**	**50 000**	**50 000**	**50 000**	**50 000**	**50 000**	**50 000**	**50 000**	**50 000**	**50 000**	**50 000**
TOTAL COSTS	Rs.			**6 914 989**	**5 014 989**	**5 014 989**	**5 014 989**	**5 014 989**	**5 014 989**	**5 014 989**	**5 014 989**	**5 014 989**	**5 014 989**	**5 014 989**	**5 014 989**
NET PROFIT	Rs.			**- 1 703 989**	**535 011**	**535 011**	**535 011**	**535 011**	**535 011**	**535 011**	**535 011**	**535 011**	**535 011**	**535 011**	**535 011**
FIRR				**30%**											
FNPV				**1 609 942**											
B:C ratio				**0.04**											

Financing												
Opening Loan Balance		3 432 495	3 432 495	3 432 495	3 051 106	2 669 718	2 288 330	1 906 942	1 525 553	1 144 165	762 777	381 388
Borrowings	3 432 495											
Interest (18% per annum)	51 487	51 487	51 487	51 487	45 767	40 046	34 325	28 604	22 883	17 162	11 442	5 721
Repayments	51 487	51 487	51 487	432 876	427 155	421 434	415 713	409 992	404 272	398 551	392 830	387 109
Closing Balance	3 432 495	3 432 495	3 432 495	3 051 106	2 669 718	2 288 330	1 906 942	1 525 553	1 144 165	762 777	381 388	0
Net Cash Flow After Loan Service	**1 677 018**	**483 523**	**483 523**	**102 135**	**107 856**	**113 576**	**119 297**	**125 018**	**130 739**	**136 460**	**142 181**	**147 901**

Loans	
Loan amount, UGX	UGX 3 432 495
Interest rate, %	18%
Grace period, months	3

Sales turnover in a year	66 261 000
Assets	1 700 000

	UGX	**USD**
Total investment costs	3 432 495	967
Total annual returns	4 181 126	1 178
Net return to investment ratio	1.2	1.2

Table 32. Food Production Model: Food crops (2 acres)

			Without Project			With Project (season 1)				With Project (Season 2)			
Item	**Unit**	**Area (acre)**	**Quantity**	**Price (UGX)**	**Value (UGX)**	**Area (acre)**	**Quantity (kgs)**	**Price (UGX)**	**Value (UGX)**	**Area (acre)**	**Quantity (kgs)**	**Price (UGX)**	**Value (UGX)**
RETURNS													
Sw potat	Sweet potato 1	kg	0.1	158	420	66 316	0.50	1184	420	497 368	-			-
	Sweet potato 2	kg	0.5	987	420	414 474				-	0.5	1316	420	552 632
Maize/be	Maize (1&2)	kg	0.5	164	910	149 671	1.0	526	910	478 947	0.5	263	910	239 474
	Beans (1&2)	kg	0.5	79	1 470	116 053	1.0	237	1 470	348 158	0.5	118	1 470	174 079
Cassava	Cassava (12 month)	kg	0.75	1480	333	492 188	0.25			-	0.75	2072	333	689 063
	Cassava 6 month	kg				-				-		0		-
Banana	(Matoke -all year)	kg	0.5	1118	455	508 882	0.5			-	0.5	1645	455	748 355
Gross Returns				**3987**		**1 747 582**		**1947**		**1 324 474**		**5414**		**2 403 602**
VARIABLE COSTS														
Inputs		**Unit/acre**												
Seed														
	Sweet potato 1	bags	5	0.5	20 000	10 000		2.5	30 000	75 000				-
	Sweet potato 2	bags	5		-	-		-	-	-			-	-
	Maize (1&2)	kg	10	5.0	1 250	6 250		10.0	2 500	25 000		5.0	2 500	12 500
	Beans (1&2)	kg	20	10.0	1 725	17 250		20.0	2 588	51 750		10.0	2 588	25 875
	Cassava (12 month)	bags	6.5	4.9	40 000	195 000		1.6	60 000	97 500		3.3	60 000	195 000
	(Matoke -all year)	plantlets	600	220.0	1 000	220 000		220.0	1 500	330 000				-
Fertiliser									-					
	manure/organic	truck	0.5		180 000	-		0.5	180 000	90 000		0.5	180 000	90 000
	NPK - blue	50 kg	2	-	89 000			1.0	89 000	89 000				-
	Urea	50 kg	2	-	75 650			1.0	75 650	75 650		0.5	75 650	37 825
Bag/boxes		unit		40	250	9 967		19	250	4 750		54.1	250	13 536
Sub-total Variable Costs						**458 467**				**838 650**				**374 736**
Labour														
	land preparation	acre	1	4.0	100 000	400 000		-	100 000	-		1.5	100 000	148 500
	manure/fertilizer application	bags/day		-	5 000	-		2.5	5 000	12 500		1.5	5 000	7 425
	weeding (twice per acre)	day/acre		4.0	50 000	200 000		5.0	50 000	250 000		3.0	50 000	150 000
	harvesting	day/bag		39.9	750	29 901		7.8	750	5 842		21.7	750	16 275
	other crop care tasks	day				-				-				-
sub-total				47.9		629 901		15.3		268 342				322 200
Transportation	/100 kg			40	500	19 934		19	500	9 737		54	500	27 072
Total Variable Costs						**1 108 303**				**1 116 729**				**724 009**
Fixed Costs														
Land tax	UGX			1	10 000	10 000		1	10 000	10 000		1	10 000	10 000
Other costs	UGX			-	10 000	-		-	10 000	-		-	10 000	-
sub-total						10 000				10 000				10 000
Total costs						**1 118 303**				**1 126 729**				**734 009**
GROSS MARGIN	**UGX**					**639 280**				**207 745**				**1 679 593**
NET MARGIN	**UGX**					**629 280**				**197 745**				**1 669 593**
INCREMENTAL NET MARGIN										**197 745**				**1 040 314**
Gross margin without labour	**UGX**					**1 269 181**				**485 824**				**2 028 866**
Net margin without labour	**UGX**					**1 259 181**				**466 087**				**1 991 793**
Incremental net margin without labor										**466 087**				**732 613**
Return to family labour	**UGX/day**					**14 992.60**				**13 027**				**46 364**

TABLE 33: FOOD PRODUCTION MODEL. GROWTH AND GROSS INCOME OF TRADITIONAL GOAT HERD, YEARS 1-5 (stabilizing at 6 does/flock)

CATEGORY	YEAR 1						YEAR 2					
Herd Growth	Start of the year	Births	Deaths	Entrants	Sales	End of the year	Start of the year	Births	Deaths	Entrants	Sales	End of the year
Does (over 9 months)	2.0		0.2	1.8		3.6	3.6		0.4	2.4		5.6
Female Kids (0-6 months)		2.25	0.45		0.00			4.05	0.81		0.84	
Male Kids (0-1 year)		2.25	0.45		1.80			4.05	0.81		3.24	
Costs and Income	Unit Type	No. Units	Unit Scale	Cost/Unit	Total		Unit Type	No. Units	Unit Scale	Cost/Unit	Total	
Gross Income	Sale of Kids	1.80	15 Kg	180 000.0	**324 000**		Sale of Kids	4.08	15 Kg	180 000.0	**734 400**	
Does (over 9 months)	Doe	2.00		80 000.0	160 000							
Pharmaceuticals	Lumpsum	7.2	1.0	10 000.0	72 000		Lumpsum	12.1	1.0	10 000.0	121 200	
Stud Service Fees	Doe/Yr	2.0		6 000.0	12 000		Doe/Yr	3.6		6 000.0	21 600	
Other expenses (salt supplements, extra vet expenses)	Lumpsum	1.5	1.0	50 000.0	75 000		Lumpsum	2.0	1.0	50 000.0	100 000	
Labour	month	0.4	12.0	130 000.0	561 600		month	0.6	12.0	130 000.0	879 840	
Total Expenses					**880 600**						**1 122 640**	
Net Income					**-556 600**						**-388 240**	

CATEGORY	YEAR 3						YEAR 4					
Herd Growth	Start of the year	Births	Deaths	Entrants	Sales	End of the year	Start of the year	Births	Deaths	Entrants	Sales	End of the year
Does (over 9 months)	5.6		0.6	0.4		5.5	5.5		0.5	0.5		5.4
Female Kids (0-1 year)		6.35	1.3		4.7			6.16	1.2		4.4	
Male Kids (0-1 year)		6.35	1.3		5.1			6.16	1.2		4.9	
Costs and Income	Unit Type	No. Units	Unit Scale	Cost/Unit	Total		Unit Type	No. Units	Unit Scale	Cost/Unit	Total	
Gross Income	Sale of Kids	9.8	15 Kg	180 000.0	**1 755 360**		Sale of Kids	9.36	15 Kg	180 000.0	**1 684 224**	
Pharmaceuticals	Lumpsum	15.6	1.0	10 000.0	156 280		Lumpsum	15.3	1.0	10 000.0	152 852	
Stud Service Fees	Doe/Yr	5.6		6 000.0	33 840		Doe/Yr	5.5		6 000.0	32 856	
Other expenses (salt supplements, extra vet expenses)	Lumpsum	2.0	1.0	50 000.0	100 000		Lumpsum	2.0	1.0	50 000.0	100 000	
Labour	month	0.5	12.0	130 000.0	854 256		month	0.5	12.0	130 000.0	846 830	
Total Expenses					**1 144 376**						**1 132 538**	
Net Income					**610 984**						**551 686**	

CATEGORY	YEAR 5					
Herd Growth	Start of the year	Births	Deaths	Entrants	Sales	End of the year
Does (over 9 months)	5.4		0.5	1.4	1.0	5.3
Female Kids (0-1 year)		6.11	1.22		3.5	
Male Kids (0-1 year)		6.11	1.22		4.9	
Costs and Income	Unit Type	No. Units	Unit Scale	Cost/Unit	Total	
Gross Income	Sale of Kids	8.4	15 Kg	180 000.0	**1 506 802**	
Pharmaceuticals	Lumpsum	15.1	1.0	10 000.0	150 567	
Stud Service Fees	Doe/Yr	5.4		6 000.0	32 570	
Other expenses (salt supplements, extra vet expenses)	Lumpsum	2.0	1.0	50 000.0	100 000	
Labour	month	0.5	12.0	130 000.0	824 547	
Total Expenses					**1 107 685**	
Net Income					**399 117**	

Total Gross Income (Yrs 1-5):	**NPR**	**6 004 786**
Total Net Income (Yrs 1-5):	**NPR**	**616 947**

Assumptions:

Birth rates assumed as 1.5/kidding, 3 kiddings/2 years
Mortality assumed at 10% (mature females) and 20% (kids).
Year-old kids are assumed to weigh 15 kg. Mature females, 25 kg.
All goats realize liveweight price of UGX 300 per kg
Flock size is stabilized at 6 does
Only does are retained in flock (servicing fee paid to buck owner)

Attachment 3: Economic Analysis

Table 34. Phasing of oil palm planting (ha)

			18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28
Buvuma Hub	Nucleus estate	Area planted		1 200	1 200	1 200	1 400					
	Smallholders (devt loan)	Area planted		1 250	1 250							
Mayuge Hub	Smallholders (devt loan)	Area planted			1 750	1 750						
	Connercial farmers	Area planted					553	552				
Masaka Hub	Smallholders (devt loan)	Area planted				1 500	1 500					
	Commercial farmers	Area planted						474	473			
Hub 4	Smallholdes (devt loan)	Area planted						1 500	1 500			
	Commercial farmers	Area planted							474	474		
Total	Nucleus estate	Area Planted		1 200	1 200	1 200	1 400					
		Cumulative		1 200	2 400	3 600	5 000	5 000	5 000	5 000	5 000	5 000
	Smallholders (devt loan)	Area planted		1 250	3 000	3 250	1 500	1 500	1 500			
		Cumulative		1 250	4 250	7 500	9 000	10 500	12 000	12 000	12 000	12 000
	Commercial farmers	Area planted					553	1 026	947	474		
		Cumulative					553	1 579	2 526	3 000	3 000	3 000
	Total	Area planted		2 450	4 200	4 450	3 453	2 526	2 447	474		
		Cumulative		2 450	6 650	11 100	14 553	17 079	19 526	20 000	20 000	20 000

Table 35. Incremental Net Economic Benefits from oil palm ('000 UGX)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Phasing of Planting																									
Smallholders (development loans)	-	1 250	3 000	3 250	1 500	1 500	1 500	-	-	-															
Commercial farmers	-	-	-	-	553	1 026	947	474	-	-															
Nucleus estate	-	1 200	1 200	1 200	1 400	-	-	-	-	-	-														
Incremental Net Economic Benefits/ha for Smallholders (devt. Loans)																									
WOP net benefits \1	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2	369.2
WP net benefits	-6 287	-1 831	-1 993	80	1 323	1 323	2 090	2 856	3 878	4 645	5 411	5 666	5 922	5 817	5 817	5 817	5 330	5 330	5 086	4 598	4 598	4 354	4 110	3 866	3 135
Incremental net benefits	-6 656	-2 201	-2 362	-289	954	954	1 721	2 487	3 509	4 275	5 042	5 297	5 553	5 448	5 448	5 448	4 960	4 960	4 717	4 229	4 229	3 985	3 741	3 497	2 766
	2 869	10 183 301																							
Incremental Net Economic Benefits/ha for Commercial Farmers																									
WOP net benefits \2	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065	1065
WP net benefits	-6 287	-1 831	-1 993	80	1 323	1 323	2 090	2 856	3 878	4 645	5 411	5 666	5 922	5 817	5 817	5 817	5 330	5 330	5 086	4 598	4 598	4 354	4 110	3 866	3 135
Incremental net benefits	-7 352	-2 896	-3 058	-985	258	258	1 025	1 791	2 813	3 580	4 346	4 601	4 857	4 752	4 752	4 752	4 265	4 265	4 021	3 533	3 533	3 289	3 045	2 801	2 070
	2 173	7 713 211																							
Total Incremental Net Benefits from Oil Palm (M UGX)																									
Smallholder (development loans)	-	- 8 320	- 22 719	- 31 186	- 24 582	- 20 635	- 13 711	837	8 826	19 868	29 396	38 274	47 216	54 625	59 924	63 123	64 699	64 699	63 463	61 416	59 343	56 355	53 368	51 234	48 308
Commercial farmers	0	0	0	0	-4 066	-9 145	-11 625	-9 909	-5 136	-1 974	610	2 409	4 486	7 048	9 589	11 727	13 219	14 029	14 285	14 307	13 988	13 487	12 890	12 139	11 408
TOTAL	**0**	**-8 320**	**-22 719**	**-31 186**	**-28 648**	**-29 779**	**-25 336**	**-9 072**	**3 690**	**17 894**	**30 006**	**40 683**	**51 703**	**61 673**	**69 513**	**74 850**	**77 919**	**78 728**	**77 747**	**75 723**	**73 330**	**69 843**	**66 258**	**63 373**	**59 716**

Notes:

1. Assumes net margin per ha for a subsistence farmer
2. Assumes net margin per ha for a semi-commercial farmer
3. Assumes average net margins per ha for the subsistent and semi-commercial farmers

NB: DO NOT INCLUDE TABLES BELOW IN PDR

	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(8 320 164.04)	(2 750 743.16)	(2 952 279.47)	- 360 894	1 192 575	1 192 575	2 150 637	3 108 699	4 386 115	5 344 176	6 302 238	6 621 592	6 940 946	6 810 273	6 810 273	6 810 273	6 200 599	6 200 599	5 895 762	5 286 088	5 286 088	4 981 251	4 676 414	4 371 577
			(19 968 393.71)	- 6 601 784	- 7 085 471	- 866 145	2 882 181	2 862 181	5 161 529	7 460 877	10 526 675	12 826 023	15 125 371	15 891 821	16 658 270	16 344 654	16 344 654	16 344 654	14 881 437	14 881 437	14 149 829	12 686 611	12 686 611	11 955 003	11 223 394
				(21 632 426.52)	- 7 151 932	- 7 675 927	- 938 324	3 100 696	3 100 696	5 591 656	8 082 617	11 403 898	13 894 858	16 385 819	17 216 139	18 046 459	17 706 709	17 706 709	17 706 709	16 121 557	16 121 557	15 328 981	13 743 829	13 743 829	12 951 253
Smallholder (devt loan)					(9 984 196.85)	- 3 300 892	- 3 542 735	- 433 073	1 431 090	1 431 090	2 580 765	3 730 439	5 263 337	6 413 012	7 562 686	7 945 910	8 329 135	8 172 327	8 172 327	8 172 327	7 440 719	7 440 719	7 074 914	6 343 306	6 343 306
						9 984 197	- 3 300 892	- 3 542 735	- 433 073	1 431 090	1 431 090	2 580 765	3 730 439	5 263 337	6 413 012	7 562 686	7 945 910	8 329 135	8 172 327	8 172 327	8 172 327	7 440 719	7 440 719	7 074 914	6 343 306
							9 984 197	- 3 300 892	- 3 542 735	- 433 073	1 431 090	1 431 090	2 580 765	3 730 439	5 263 337	6 413 012	7 562 686	7 945 910	8 329 135	8 172 327	8 172 327	8 172 327	7 440 719	7 440 719	7 074 914
								-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**-**	**- 8 320 164**	**- 22 719 137**	**- 31 186 490**	**- 24 582 494**	**- 20 634 585**	**- 13 711 392**	**836 814**	**8 826 206**	**19 867 756**	**29 396 413**	**38 274 452**	**47 216 362**	**54 625 373**	**59 923 716**	**63 122 994**	**64 699 367**	**64 699 335**	**63 462 534**	**61 415 738**	**59 342 847**	**56 355 445**	**53 368 043**	**51 234 185**	**48 307 750**

	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spontaneous smallholder																									
					- 4 065 618	- 1 601 706	- 1 690 866	- 544 437	142 818	142 818	566 664	990 511	1 555 640	1 979 486	2 403 333	2 544 615	2 685 897	2 628 087	2 628 087	2 628 087	2 358 368	2 358 368	2 223 508	1 953 788	1 953 788
						- 7 543 081	- 2 971 701	- 3 137 122	- 1 010 113	264 975	264 975	1 051 352	1 837 729	2 886 232	3 672 609	4 458 986	4 721 112	4 983 238	4 875 981	4 875 981	4 875 981	4 375 561	4 375 561	4 125 351	3 624 930
							- 6 962 279	- 2 742 886	- 2 895 570	- 932 336	244 572	244 572	970 400	1 696 228	2 663 998	3 389 825	4 115 653	4 357 595	4 599 538	4 500 540	4 500 540	4 500 540	4 038 651	4 038 651	3 807 707
								- 3 484 815	- 1 372 891	- 1 449 314	- 466 660	122 415	122 415	485 712	849 009	1 333 405	1 696 702	2 059 999	2 181 098	2 302 197	2 252 646	2 252 646	2 252 646	2 021 458	2 021 458
Total	**-**	**-**	**-**	**-**	**- 4 065 618**	**- 9 144 788**	**- 11 624 846**	**- 9 909 260**	**- 5 135 755**	**- 1 973 856**	**609 552**	**2 408 851**	**4 486 184**	**7 047 658**	**9 588 949**	**11 726 832**	**13 219 364**	**14 028 920**	**14 284 705**	**14 306 806**	**13 987 535**	**13 487 114**	**12 890 366**	**12 139 248**	**11 407 883**

Programme	**-**	**- 8 320 164**	**- 22 719 137**	**- 31 186 490**	**- 28 648 112**	**- 29 779 373**	**- 25 336 238**	**- 9 072 446**	**3 690 451**	**17 893 900**	**30 005 965**	**40 683 303**	**51 702 546**	**61 673 031**	**69 512 665**	**74 849 826**	**77 918 731**	**78 728 254**	**77 747 239**	**75 722 543**	**73 330 381**	**69 842 559**	**66 258 409**	**63 373 432**	**59 715 633**

Table 36. Phasing of enetrprise adoption

	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28
Phasing of households training/support										
Kalangala hub										
Enterprises	374	561	561	374	0	0	0	0	0	0
Food crops	410	615	615	410	0	0	0	0	0	0
Buvuma										
Enetrprises			397	596	596	397	0	0	0	0
Food crops			436	654	654	436	0	0	0	0
Mayuge hub										
Enetrprises				556	835	835	556	0	0	0
Food crops				610	915	915	610	0	0	0
Masaka hub										
Enterprises					477	716	716	477	0	0
Food crops					523	785	785	523	0	0
Hub 4										
Enterprises							477	716	716	477
Food crops							523	785	785	523
Total										
Enterprises	374	561	958	1527	1908	1948	1749	1193	716	477
Food crops	410	615	1051	1674	2092	2136	1918	1308	785	523
Phasing of enterprise adoption										
Laundry	105	157	268	427	534	545	490	334	200	134
Retail seller	105	157	268	427	534	545	490	334	200	134
Improved cookstoves	26	39	67	107	134	136	122	83	50	33
Groundnuts processing	26	39	67	107	134	136	122	83	50	33
Food crops	201	301	515	820	1025	1046	940	641	384	256
Goat rearing	86	129	221	352	439	448	403	275	165	110

Cumulative Phasing of enterprise adoption

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Laundry	105	262	530	958	1492	2037	2527	2861	3061	3195
Retail seller	105	262	530	958	1492	2037	2527	2861	3061	3195
Improved cookstoves	26	65	133	239	373	509	632	715	765	799
Groundnuts processing	26	65	133	239	373	509	632	715	765	799
Food crops	201	502	1018	1838	2863	3909	4849	5490	5874	6130
Goat rearing	86	215	436	788	1227	1675	2078	2353	2517	2627

Table 37. Incremental net benefits enterprise models '000 UGX

	Per model (UGX '000)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Laundry service	2 371	248 279	620 696	1 256 927	2 270 288	3 536 708	4 829 549	5 990 550	6 782 187	7 257 169	7 573 824	7 573 824	7 573 824	7 573 824
Small trade	2210.6	231 494	578 735	1 171 954	2 116 809	3 297 614	4 503 054	5 585 567	6 323 687	6 766 558	7 061 806	7 061 806	7 061 806	7 061 806
Food crop	1 238	248 847	622 118	1 259 767	2 275 357	3 544 466	4 840 025	6 003 395	6 796 589	7 272 505	7 589 782	7 589 782	7 589 782	7 589 782
Goat model		(7 477)	(5 896)	90 940	226 601	436 629	734 591	1 071 894	1 325 385	1 363 919	1 169 114	868 431	583 750	293 906
Small stove trade	1 154	30 212	75 529	152 949	276 260	430 364	587 683	728 959	825 289	883 087	921 619	921 619	921 619	921 619
Groundnuts processing	4 181	109 462	273 655	554 158	1 000 932	1 559 276	2 129 268	2 641 134	2 990 153	3 199 565	3 339 173	3 339 173	3 339 173	3 339 173
Total		860 816	2 164 838	4 486 694	8 166 247	12 805 056	17 624 169	22 021 499	25 043 290	26 742 803	27 655 317	27 354 634	27 069 953	26 780 109

TABLE 38. ECONOMIC ANALYSIS FOR THE OVERALL PROGRAMME (UGX M)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Incremental benefits																									
Oil palm development	-	- 8 320	- 22 719	- 31 186	- 28 648	- 29 779	- 25 336	- 9 072	3 690	17 894	30 006	40 683	51 703	61 673	69 513	74 850	77 919	78 728	77 747	75 723	73 330	69 843	66 258	63 373	59 716
Enterprise and marketing	861	2 165	4 487	8 166	12 805	17 624	22 021	25 043	26 743	27 655	27 355	27 070	26 780	26 780	26 780	26 780	26 780	26 780	26 780	26 780	26 780	26 780	26 780	26 780	26 780
																			-			-			
Total incremental net benefits	861	- 6 155	- 18 232	- 23 020	- 15 843	- 12 155	- 3 315	15 971	30 433	45 549	57 361	67 753	78 483	88 453	96 293	101 630	104 699	105 508	104 527	102 503	100 110	96 623	93 039	90 154	86 496
Programme costs																									
Scaling-up investment in smallholder oil palm d	10 062	58 249	50 365	57 631	62 820	57 485	101 906	78 935	69 012	63 782															
Livelihoods diversification and resilience	2 206	2 516	5 055	6 844	7 252	5 684	4 240	2 935	1 702	775															
OP Sector Development Framework	2 113	1 664	1 406	1 144	1 104	642	677	652	654	654															
Programme Management	2 768	3 441	3 300	3 292	5 688	3 269	3 205	3 270	3 505	3 474															
Less: Costs financed by private sector	-	(30 796)	(12 354)	(11 555)	(13 916)	(16 011)	(71 000)	(53 250)	(53 250)	(53 250)															
Less: Costs already deducted in the models	(1 325)	(8 234)	(20 479)	(27 442)	(35 039)	(32 930)	(24 647)	(18 711)	(9 613)	(4 594)															
O&M afrer project closure/a	-	-	-	-	-	-	-	-	-	-	5 754	5 754	5 754	5 754	5 754	5 754	5 754	5 754	5 754	5 754	5 754	5 754	5 754	5 754	5 754
Total costs	15 824	26 840	27 292	29 914	27 910	18 140	14 381	13 831	12 009	10 842	5 754	5 754	5 754	5 754	5 754	5 754	5 754	5 754	5 754	5 754	5 754	5 754	5 754	5 754	5 754
Overall incremental benefits	- 14 963	- 32 996	- 45 524	- 52 934	- 43 753	- 30 295	- 17 696	2 140	18 424	34 708	51 606	61 999	72 728	82 699	90 538	95 875	98 944	99 754	98 773	96 748	94 356	90 868	87 284	84 399	80 741

ENPV (UGX m)	98 570
ENPV (USD M)	28
EIRR (@ 10%)	14.3%

a/ includes maintenance costs of roads and costs of TSS (salaries + operational costs).

Net incremental net benefits (UGX M)	1 959 567
Net incremental net benefits (USD M)	551.99
Multiplier	1.4
Total incremental net benefits (USD M)	772.79
Additional incremental net benefits (USD M)	220.80

Attachment 4: Summary of Economic and Financial Analysis

UGANDA - NATIONAL OIL PALM PROGRAMME (NOPP)

A)

FINANCIAL ANALYSIS	PRODUCTION		PROCESSING					
	Farm models' net benefits (in '000 UGX)		Enterprise and marketing models' net incremental benefits (in '000 UGX)					
	OP Smallholder - Devt loan	OP Smallholder - Commercial	Food crops	Goats	Laundry services	Retail marketing-Living Goods	Groundnut Processing & Marketing	Retail marketing - cooking stoves
PY1	(5,990)	(5,990)	1,238	(87)	2,371	2,211	4,181	4,181
PY2	(1,745)	(1,745)	1,238	62	2,371	2,211	4,181	4,181
PY3	(1,831)	(1,831)	1,238	1,165	2,371	2,211	4,181	4,181
PY4	164	164	1,238	1,095	2,371	2,211	4,181	4,181
PY5	1,433	1,433	1,238	914	2,371	2,211	4,181	4,181
PY6	1,433	1,433	1,238	914	2,371	2,211	4,181	4,181
PY7	2,199	2,199	1,238	914	2,371	2,211	4,181	4,181
PY8	2,966	2,966	1,238	914	2,371	2,211	4,181	4,181
PY9	3,988	3,988	1,238	914	2,371	2,211	4,181	4,181
PY10	4,612	4,754	1,238	914	2,371	2,211	4,181	4,181
PY11	5,520	5,520	1,238	914	2,371	2,211	4,181	4,181
PY12	5,776	5,776	1,238	914	2,371	2,211	4,181	4,181
PY13	6,031	6,031	1,238	914	2,371	2,211	4,181	4,181
PY14	5,927	5,927	1,238	914	2,371	2,211	4,181	4,181
PY15	5,927	5,927	1,238	914	2,371	2,211	4,181	4,181
PY16	5,927	5,927	1,238	914	2,371	2,211	4,181	4,181
PY17	5,439	5,439	1,238	914	2,371	2,211	4,181	4,181
PY18	5,439	5,439	1,238	914	2,371	2,211	4,181	4,181
PY19	5,195	5,195	1,238	914	2,371	2,211	4,181	4,181
PY20	4,708	4,708	1,238	914	2,371	2,211	4,181	4,181
PY21	4,708	4,708	1,238	914	2,371	2,211	4,181	4,181
PY22	4,464	4,464	1,238	914	2,371	2,211	4,181	4,181
PY23	4,220	4,220	1,238	914	2,371	2,211	4,181	4,181
PY24	3,976	3,976	1,238	914	2,371	2,211	4,181	4,181
PY25	3,244	3,244	1,238	914	2,371	2,211	4,181	4,181
NPV ('000 UGX)	15,282	15,337	11,238	6,992	21,521	20,066	37,952	37,952
NPV (USD)	4,305	4,320	3,355	2,087	6,424	5,990	11,329	11,329
FIRR (@10%)	21%	21%						

B)

PROGRAMME COSTS AND INDICATORS FOR LOGFRAME

TOTAL PROGRAMME COSTS (in million USD)	210	Base costs	207	PMU	11.8
Beneficiaries	**154,185** people	30,837 Households			799 enterprises
Cost per beneficiary	**1,365** USD x person	6,824 USD x HH		**Adoption rates**	

Components and Cost (USD million)		Outcomes and Indicators			
Oil Palm Devt	179	Increased incomes from oil palm prod-n	Increased farmers annual average income in USD	43,381	12
Sustainable Livelihood	12	Increased incomes from non OP farm and non-farm activities	Yield & production btw **55% and 100%** increase		
Oil Palm Sector Growth	4	Create business environment	Setting up of **0** agro-processing enterprises		
PMU	12				

C)

MAIN ASSUMPTIONS & SHADOW PRICES[1]

	Output	Av. Incremental Yields (%)	Price (in UGX)	Input prices	Price (UGX)
FINANCIAL	Oil palm	100%	325	Fertilizer \1	18912.5
	Sweet potato	55%	350	Pesticides	42600
	Maize	60%	1000	Seeds \2	23522
	Beans	67%	100	OP seedling	15975
	Cassava	67%	100	Rural wage (daily)	7,100
	Matoke	65%			

ECONOMIC				
Official Exchange rate (OER)	3550		Discount rate (opportunity cost of capital)	10%
Shadow Exchange rate (SER)	3550		Social Discount rate	7%
Standard Conversion Factor	0.90		Output conversion factor	0.95
Labour Conversion factor \3	0.85-1.0		Input Conversion factor	0.9

Footnote:
\1 Average prices for fertilizers used for OP
\2 Average prices for sweet potato, cassava, beans, matoke. Please refer to Attachment to Working Paper on Economic and Financial Analysis for details
\ 3 Labour conversion factor is 0.85 for unskilled labour hired for OP and 1 for skilled labour

D)

	PY1	PY2	PY3	PY4	PY5	PY6	PY7	PY8	PY9	PY10	Total
Oil palm	920	2,208	2,392	1,511	1,859	1,801	349	0	0	0	11,041
Alternative economic activities											
Laundry	*105*	*157*	*268*	*427*	*534*	*545*	*490*	*334*	*200*	*134*	3,195
Retail seller	*105*	*157*	*268*	*427*	*534*	*545*	*490*	*334*	*200*	*134*	3,195
Improved cookstoves	*26*	*39*	*67*	*107*	*134*	*136*	*122*	*83*	*50*	*33*	*799*
Groundnuts processing	*26*	*39*	*67*	*107*	*134*	*136*	*122*	*83*	*50*	*33*	*799*
Food crops	*201*	*301*	*515*	*820*	*1,025*	*1,046*	*940*	*641*	*384*	*256*	6,130

E)

ECONOMIC ANALYSIS	NET INCREMENTAL BENEFITS			NET INCREMENTAL COSTS						
	Total Oil Palm Net Incremental Benefits ('000 UGX)	Total Agr.Intensification Net Incremental Benefits	Total Net Inc. Benefits	Economic Investment Costs ('000 UGX)	Economic recurrent Costs ('000 UGX)	Private sector costs ('000 UGX)	Costs already included in the models	Economic O&M Costs * ('000 UGX)	Total Incremental Costs	**Cash Flow ('000 UGX)**
PY1	-	860.82	861	15,297.81	1,850.99	-	1,325.22	-	15,823.57	**(14,963)**
PY2	(6,155)	2,165	(3,990)	62,539	3,332	(30,796)	(8,234)	-	26,840	**(30,831)**
PY3	(22,719)	4,487	(18,232)	56,654	3,471	(12,354)	(20,479)	-	27,292	**(45,524)**
PY4	(31,186)	8,166	(23,020)	65,300	3,611	(11,555)	(27,442)	-	29,914	**(52,934)**
PY5	(28,648)	12,805	(15,843)	73,114	3,751	(13,916)	(35,039)	-	27,910	**(43,753)**
PY6	(29,779)	17,624	(12,155)	63,369	3,711	(16,011)	(32,930)	-	18,140	**(30,295)**
PY7	(25,336)	22,021	(3,315)	106,290	3,739	(71,000)	(24,647)	-	14,381	**(17,696)**
PY8	(9,072)	25,043	15,971	82,044	3,748	(53,250)	(18,711)	-	13,831	**2,140**
PY9	3,690	26,743	30,433	71,121	3,751	(53,250)	(9,613)	-	12,009	**18,424**
PY10	17,894	27,655	45,549	64,935	3,751	(53,250)	(4,594)	5,754	16,596	**28,953**
PY11	29,829	27,355	57,183	-	-	-		5,754	5,754	**51,429**
PY12	40,258	27,070	67,328	-	-	-		5,754	5,754	**61,573**
PY13	51,241	26,780	78,021	-	-	-		5,754	5,754	**72,267**
PY14	61,460	26,780	88,240	-	-	-		5,754	5,754	**82,486**
PY15	69,300	26,780	96,080	-	-	-		5,754	5,754	**90,325**
PY16	74,637	26,780	101,417	-	-	-		5,754	5,754	**95,663**
PY17	77,919	26,780	104,699	-	-			5,754	5,754	**98,944**
PY18	78,728	26,780	105,508	-	-			5,754	5,754	**99,754**
PY19	77,747	26,780	104,527	-	-			5,754	5,754	**98,773**
PY20	75,723	26,780	102,503	-	-			5,754	5,754	**96,748**
PY21	73,330	26,780	100,110	-	-			5,754	5,754	**94,356**
PY22	69,843	26,780	96,623	-	-			5,754	5,754	**90,868**
PY23	66,258	26,780	93,039	-	-			5,754	5,754	**87,284**
PY24	63,373	26,780	90,154	-	-			5,754	5,754	**84,399**
PY25	59,716	26,780	86,496	-	-			5,754	5,754	**80,741**
NPV@ 10 % ('000 UGX)			**97,656**							
NPV@ 10 % ('000 USD)			28							
EIRR			**14%**							

F)

SENSITIVITY ANALYSIS (SA)

	Δ%	Link with the risk matrix	IRR (%)	NPV (USD M)
Base scenario			14.3%	28
Project benefits: OP areas	-20%	Combination of risks affecting output prices, yields and areas	10.9%	5
Project benefits: OP yields	-20%		14.0%	23
Programme costs	20%	Increase of construction material, input and labor prices	12.8%	19
1 year lag in ben.		Risks affecting delays in OP devt, adoption rates and low implementation capacity	13.1%	19
2 years lag in ben.			11.9%	12
Output prices: FFB prices	-10%	Fluctuations in international CPO prices	12.8%	17
Output prices: FFB prices	-20%		12.8%	17
Input prices: Fertilizer	+20%	Market price fluctuations	13.4%	22
Simultaneous reductions both	+20%		7.7%	- 12
Unskilled OP labour wage	20%		14.3%	28
Adoption rates	-10%	Extension service outreach is limited, low uptake of good practices, vaccination uptake is low, epidemic diseases, failure to access finance	13.5%	21
Adoption rates	-20%		12.5%	14

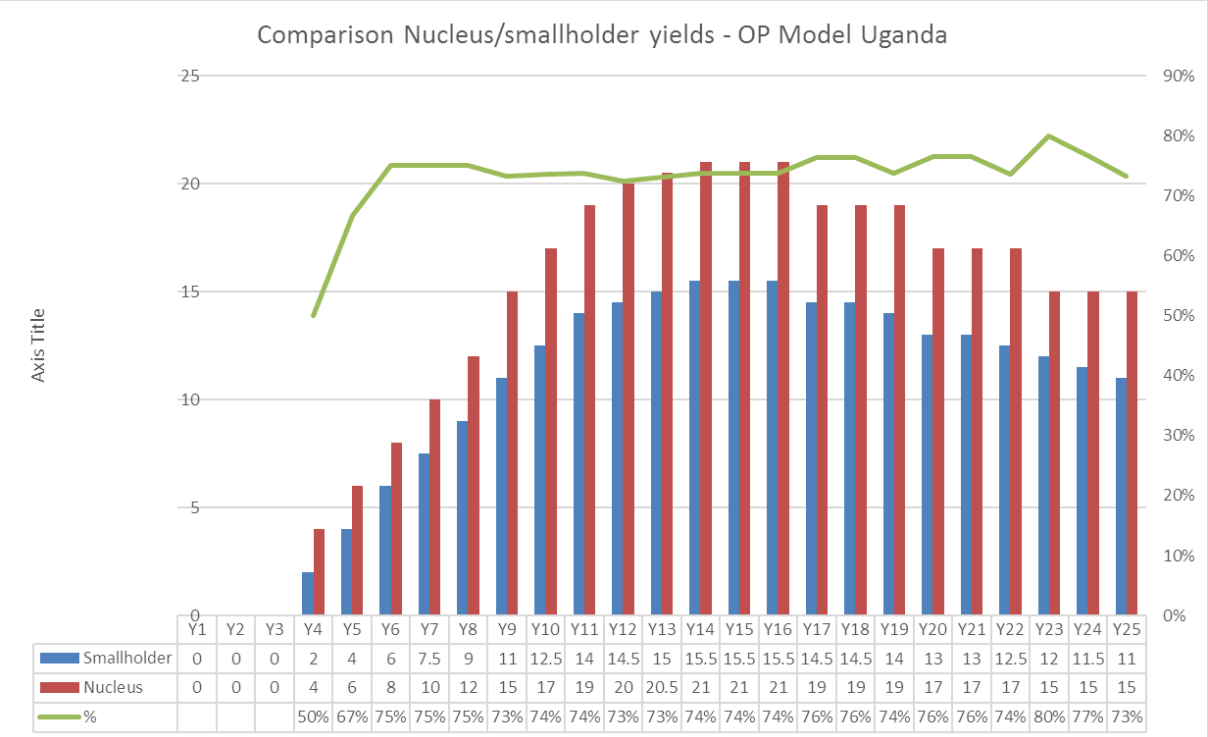
Attachment 5: FFB yields and production in Kalangala (nucleus and smallholders): experience and realities

1. The Oil Palm production model for Kalangala had been developed for the nucleus and smallholder growers when VODP2 investments were prepared. These models were revisited at mid-term review (2013) and adjusted to better fit to field realities. In 2017, three further production years provide additional information of OP FFB yields and productions to allow for further consolidation on the basis of additional data collected and shared by OPUL (mill reception for both nucleus and smallholders) and KOPGT (smallholder selling). These data allow for comparing expected productions (as generated by the OP models) against realities of FFB delivered to the mill, and to consolidate the models by adjusting them to better fit to field realities.

2. Considering the VODP mid-term review models, it appears that the average FFB yields and productions for the Kalangala OPUL nucleus estate (6,050 ha) have been over-estimated[119] by about 20%, while FFB yields and productions for smallholder growers (currently 4,424 ha) were underestimated by about 10%. Considering that most nucleus plantations reached their full production level while smallholder plots are still in early harvesting years, harvest values show that: (i) the proposed plateau yields (20-21 to of FFB per annum from Y12 on) for the nucleus estate are probably too high; while (ii) smallholder OP produce higher yields than predicted during early harvesting years. Furthermore, the smallholder learning curve has to be readjusted to reach about 75% of the nucleus yield levels from Y6-7 on.

3. The proposed model for smallholder OP production has thus been adjusted to take these elements in account and to allow for a better alignment of model prediction and real FFB productions in the field. Main changes are (i) reduction of the nucleus plateau yield from 22 to 21 tons/year; (ii) adjustment of the smallholder learning curve to reach 75% of nucleus performance from Y6 on (3th harvesting year) with a gradual increase from 50% in Y4 to 67% in Y5. The comparison between nucleus and smallholder yields along the OP age has been estimated as follows.

Figure 1: Comparison OP nucleus versus smallholder yields (Kalangala model)



	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	Y21	Y22	Y23	Y24	Y25
Smallholder	0	0	0	2	4	6	7.5	9	11	12.5	14	14.5	15	15.5	15.5	15.5	14.5	14.5	14	13	13	12.5	12	11.5	11
Nucleus	0	0	0	4	6	8	10	12	15	17	19	20	20.5	21	21	21	19	19	19	17	17	17	15	15	15
%				50%	67%	75%	75%	75%	73%	74%	74%	73%	73%	74%	74%	74%	76%	76%	74%	76%	76%	74%	80%	77%	73%

[119] It has been argued that the drought spell experienced in 2016 would have decreased the yields. However, these lower than predicted average yields have been recorded since 2014 but also that the impacts of a dry spell in 2016 would be recorded in 2018 or about 22-24 months after the stress happened.

4. **Reality check of the new model**. On the basis of FFB delivery at the mill the following productions have been recorded over the past years:

Table 10: Reality check for the nucleus and smallholder OP model

	2010	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*
Smallholder total FFB production (to/year)										
Total expected	8,000	19,600	34,000	50,600	69,200	84,000	96,400	108,900	115,700	120,650
Total reality			**56,655**	**71,529**	**65,101**	**75,883**	**83,770**			
			167%	141%	94%	90%	87%			
Smallholder total FFB production (to/year)										
Total expected	298	2,010	4,494	6,919	11,047	16,040	22,316	27,956	35,817	42,167
Total reality	**653**	**3,556**	**7,728**	**11,409**	**10,760**	**16,332**	**22,924**			
%	219%	177%	172%	165%	97%	102%	103%			

Note: The total productions of each respective year are calculated by adding the expected production of each year planting (area-ha multiplied by its respective yield in the considered year).

5. Except for the highly variable and underestimated early harvestings, the model allows for a fair estimation of smallholder productions during the 3 last years (+/-3%). The FFB production in the nucleus appears still overestimated by about 10% against current field realities.

6. Finally, the production of CPO requires further attention as the oil extraction appear much higher than expected reaching about 22.5% for both the nucleus and smallholders against about 20% extraction expected for current harvests.

Theory of yield gap management and best management practices (BMPs)

7. The potential yield of a progeny under a given soil type and climate can be measured through the analysis of the results of long term trials and in blocks under good management practices in the plantation to serve as the standard. The difference between the potential yields and the actual yields is known as the yield gap:

i. Yield gap 1 are caused by deficiencies in planting technique and these are

a) Poor plantation establishment
b) Poor nursery technique and culling
c) Erosion and compaction at land clearing
d) Incorrect planting density or inaccurate lining
e) Failure to replace unproductive palms
f) Poor gap filling at planting
g) Gaps due to palm death
h) Failure to establish legume cover plants

ii. Yield gap 2 caused by nutrient deficiencies and these are

a) Nutrient constraints due to ??
b) Failure to take account of soil variability
c) Faulty leaf sampling
d) Insufficient field inspection to corroborate results of leaf analysis
e) Failure to use long term data trends
f) Failure to make spatial analysis of nutritional trends

iii. Causes of Yield Gap 3

a) Poor harvesting and management
b) Poor accessibility to the bunch by inadequate weeding and pruning
c) Inadequate infrastructure (mill-to-palm access)
d) Poor round control
e) Poor harvest supervision
f) Failure to implement fertilizer and crop residue application programmes

8. The oil palm sector in Uganda has been on the ground since 2005 on Bugala Island and availability of suitable land for oil palm cultivation is limited due to climatic limitations. The small holders are performing well below their potential, with yields as low as one-third of the optimum. In order to improve oil palm yields and productivity in Uganda there is the need to adopt the Best management approach where the aim is to assist extension staff and smallholder farmers in the identification and implementation of improved agronomic techniques and facilitate the effective use of production inputs, such as crop residues and mineral fertilizers, and for improved yields and productivity. These activities will mean removal of the identified constraints to the yield potential

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Attachment 6: Pricing committee and OP FFB pricing formula[120]

1. The Government-Bidco agreement for the oil palm component of VODP was signed on 4 April 2003. Article 19 of the agreement refers to the formula for the price for FFBs to be supplied by smallholders to the company at the factory gate, and the establishment of a pricing committee to monitor and verify that the pricing formula is adhered to. The tripartite agreement signed on 28 April 2006 between the Government, OPUL and the registered Trustees KOPGT lays out the composition of the pricing committee and gives further details on the pricing formula in Article 9.

1. Oil Palm Pricing Committee

2. **Purpose**: The members of the pricing committee are expected to review, negotiate and set prices for farmers FFBs sold to OPUL.

3. **Membership**: The membership of the committee will be made up of representatives of MAAIF, KDLG, OPUL and KOPGT (representing farmers). Meetings will be chaired by MAAIF and KOPGT will act as secretary. Members of the committee shall serve for a period of three years (renewable) and adopt their own rules of procedure. The terms of committee of the committee are as follows:

(i) The pricing committee is to meet every fourth week of the month.

(ii) Aspects of pricing to be considered by the committee will include items 1-13 in the Excel spreadsheet explained below (FFB pricing formula).

(iii) Determination of the previous month's pricing formula factors will be from the 24th day of the previous month to the 23rd day of the meeting month.

(iv) Communication of the FFB prices to the farmers will be done within the first week of the month for which the price applies.

(v) For KOPGT management costs (item 12 in the spreadsheet), the farmers will agree with KOPGT on the applicable rate but the committee may advise as appropriate.

2. Pricing Formula for Payment by OPUL for FFBs to KOPGT

4. The IFAD supervision mission of September 2009 carefully reviewed and discussed the price formula with all parties, and prepared a model Excel spreadsheet. This section provides the specific details of and an explanation about how the price for FFBs should be determined relative to the agreed pricing formula. The pricing formula as laid out in Article 9 of the tripartite agreement is as follows:

"FFB price = (H/J) x K where

FFB price is the factory gate price per metric ton of FFB of a standard quality
H is the price of CPO ex mill
K is the oil extraction rate per mt
J is a constant of 1.2"

5. The calculation starts with the average of the world price of CPO in Malaysia for the previous month. The cost of transport, insurance and freight (cif) from Malaysia to Jinja is added to this price, in order to obtain the import parity price per metric ton of CPO at the refinery in Jinja. From this price, the cost of transporting CPO from Bugala Island to Jinja is deducted to obtain the ex-mill price of CPO (H). The agreed milling constant (J) of 1.2 is applied to cover the milling costs (operating, repairs, maintenance and depreciation) associated with extracting one metric ton of CPO at the mill on Bugala Island. The oil extraction rate (reflecting how many metric tons of FFBs are required to produce 1 mt of CPO) (K) from the previous month is applied, to arrive at the FFB price at the CPO mill gate. Further deductions are made to the FFB price at the mill gate to cover the cost of KOPGT transporting bunches from the farmers' fields to the mill and a management fee for KOPGT services to farmers, in order to arrive at the final price that farmers will be paid per metric ton of FFBs at the farmgate, to be

120 Extracted and adapted from VODP-2 Appraisal Report

expressed in Ugandan shillings. This mechanism means that the prices that farmers receive are directly determined by world prices and will fluctuate accordingly. The price paid each month will be determined, using this formula, on the basis of the previous month's prices and oil extraction rate.

6. The spreadsheet presents the price calculation (see details provided in table below):

- The monthly average of the daily price of CPO fob Kuala Lumpur is found in the Malaysian Palm Oil Board (MPOB) prices published on their website

  http:/econ.mpob.gov.my/economy/EID_web.htm, and will be the initial reference price.
- Transport Malaysia to Mombasa: an average shipping and handling cost per metric ton of CPO from Malaysia to Mombasa based on the actual costs Bidco pays will be provided by Bidco. A copy of this calculation, certified by Bidco's auditors, will be provided once every six months or more frequently if costs change dramatically. The pricing committee may compare this cost with the per metric ton cost of merchandise transport by sea, the source of which will be determined by the committee from time to time.
- Transport Mombasa to Jinja: the overland cost of CPO transport from Mombasa to Jinja will be provided by Bidco on the basis of its actual costs either by road or by rail. A copy of this calculation, certified by Bidco's auditors, will be provided once every six months or more frequently if price costs change dramatically.
- The two elements for transport costs are added to the CPO Kuala Lumpur price to arrive at the Jinja reference price of CPO.
- Transport Bugala Island to Jinja: the cost of CPO transport from the mill on Bugala Island to Jinja will be based on the actual cost provided by Bidco, which may initially be by truck and, at a later date, by barge. A copy of this calculation, certified by Bidco's auditors, will be provided once every six months or more frequently if price costs change dramatically.
- To arrive at the ex-mill price on Bugala Island, the cost of transport from Bugala Island to Jinja is subtracted from the Jinja reference price in line 4.
- The oil extraction rate (K in the formula) will be provided by Bidco, based on the monthly average of the weight of the all FFBs milled daily. This should be monitored and copies of the daily and monthly production reports provided to the pricing committee.
- The milling constant of 1.2 (J in the formula) is provided in the April 2006 Tripartite Agreement, Article 9.
- To arrive at the FFB price at the mill gate on Bugala, the ex-mill price on Bugala Island is divided by the milling constant (J) and multiplied by the oil extraction rate (K).
- The cost of transport from farmer fields to the mill has been estimated at USD 10/ton, until KOPGT can provide an actual cost on the basis of experience. The costs of transporting the crop from the collection point or farmgate to the mill will be determined by KOPGT and the farmers' representatives, using the three-tier system of charges now prevailing for transport costs of inputs transported to the farmer.
- To arrive at the farmgate price, the cost of transport from farmer fields to the mill is deducted.
- A KOPGT management fee to cover the cost of the services it provides (technical support to farmers, management of input provision, monitoring and advice on farmer fields, and the cost of maintaining its computer system for monitoring farmer loans and allocating payments to farmers for FFBs), and will be added once it has been determined.
- To arrive at the final price paid to farmers, the KOPGT management fee is deducted from the farmgate price.

7. **Summary**. The calculation is to use the average of the world price of CPO in Malaysia for the previous month, add on the transportation cost from Malaysia to Jinja to arrive at the cost per metric ton of CPO, equivalent to the price that the oil refinery in Jinja would be paying if the CPO was imported.

8. From this price, the cost of transport of CPO from Bugala Island to Jinja is deducted. The agreed milling constant of 1.2 and oil extraction rate (OER) from the previous month is applied, thus arriving at an FFB price at the mill gate on Bugala Island.

9. The cost of transporting bunches from the farmer fields to the mill, which is paid to KOPGT, is then deducted, along with a management fee for the services KOPGT provides to farmers, in order to

arrive at the final price that farmers will be paid per metric ton of FFB, to be expressed in Ugandan shillings.

10. **Exchange rates**. Exchange rates between the Ugandan shilling and the United States dollar, and between the Malaysian ringit and the United States dollar, should be determined with the exchange rates as provided by an agreed-upon bank, for the last Friday of the month within which the prices are being determined. Thus, for the month of December, the prices to be determined will be based on the November prices of CPO and the exchange rates for the last Friday of November.

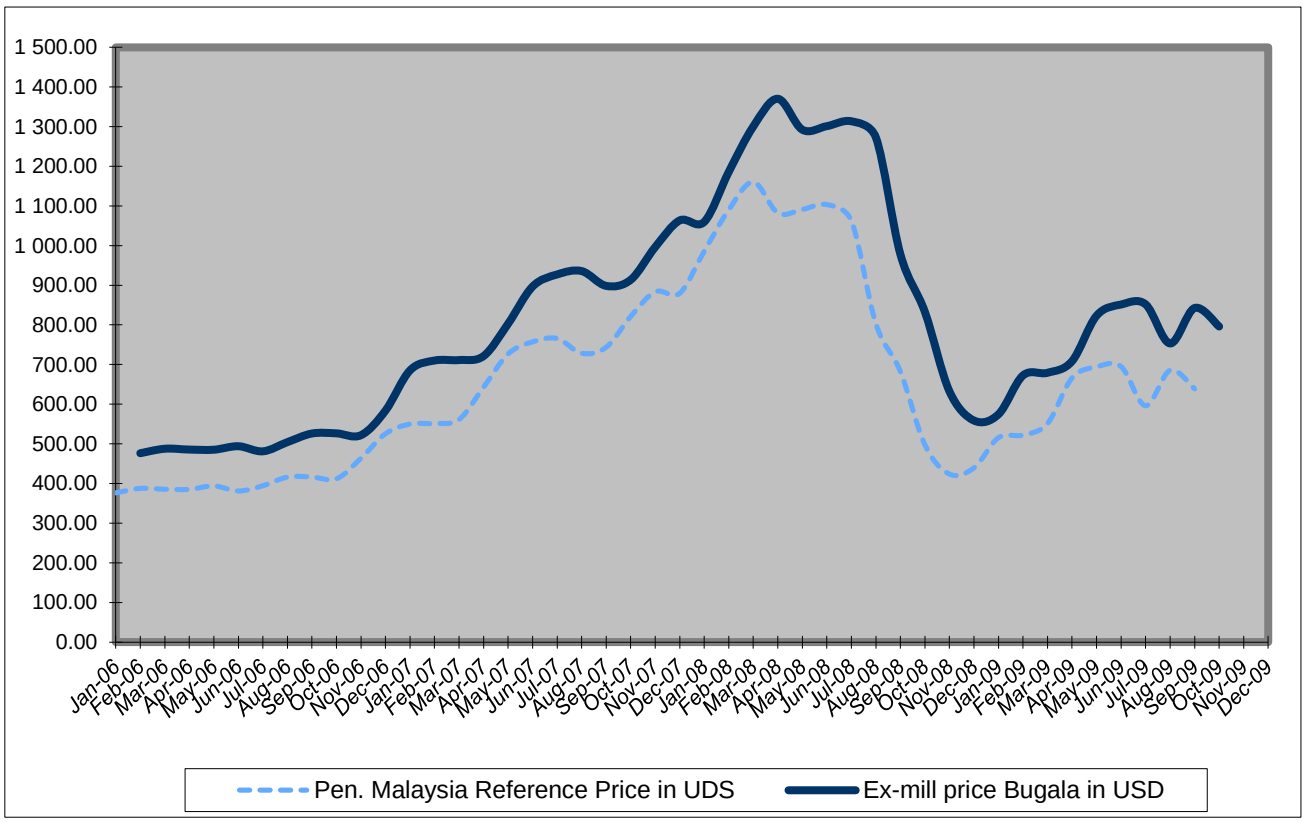
3. Other Pricing Matters

11. **Initial pricing of FFBs in the first two months**. As no data will be initially available on the elements of the pricing model, like OER, the initial pricing will be agreed by the committee based on the expected OER.

12. **Payment periods.** For fruits delivered to OPUL, payment will be made with a one month lag. Thus, for the June crop, payment will be made by 10 July, for example. KOPGT will receive the payment in bulk for crop supplied to OPUL. The administration of payments and deduction of loans and other services will be the responsibility of KOPGT.

13. **Communication of prices**. The price agreed by the committee should be published the next day following the meeting so that it is available at the beginning of the month to farmers. This can be done by setting up a notice board for prices at the KOPGT offices, which is updated monthly.

Figure 2: Graph of Malaysian Average Monthly CPO and Ex-Mill Bugala CPO Price



The above graph shows the application of the pricing formula in determining the ex-mill Bugala CPO price, which is then used to calculate the price of FFBs/mt paid to farmers.

Table 11:Agreed Pricing Formula calculations

FACTORY GATE FFB PRICE =(H/J) x K

H = Crude Palm Oil (CPO)Import parity price cifJinja
less transport cost Bugala to Jinja
K = Oil Extraction Rate (OER)
J=Milling constant

		DETAILS OF THE FFB PRICE BUILD UP PER MONTH	PRICE IN USD	PRICE IN UGX	%	REMARKS
		USD1 exchange rate to UGX	1	2100		Use bank rate, averaged for the preceding month
1.		Reference price Kuala Lumpur fob	500	1 050,000		Average of previous month daily prices collected from agreed upon source
2.		Shipping cost Malaysia-Mombasa	57	119 700	11 %	Certified copy of accounting of actual transportation costs provided by Bidco
3.		Overland transport Mombasa-Jinja	110	231,000	22 %	Certified copy of accounting of actual transportation costs provided by Bidco
		Subtotal total transport cost Kuala Lumpur to Jinja	167			Subtotal of transportation costs ADDED to reference fob price Kuala Lumpur
4.		***Reference price CPO cifJinja***	667	1 400 700	133 %	Import parity price, which includes all transportation and other charges to mill at refinery in Jinja
5.		Transport costs Bugala Island to Jinja	10	21,000	2 %	Certified copy of accounting of actual transportation costs provided by Bidco
6.	(H)	***Ex-mill price Bugala Island***	657	1 379 700	131 %	
7.	(K)	Oil Extraction Rate (OER)			20 %	To be determined from previous month's figures by Bidco, with details of data to be (monitored by the committee)
8.	(J)	Milling constant			1.2	From 28 April 2006, tripartite agreement, Article 9
9.		***FFB price at mill gate Bugala Island***	110	229 950		USD per metric ton of FFB
10.		FFB transport cost from farmer fields to mill	10	21,000		USD per metric ton of FFB
11.		Farmgate price	100	208 950		USD per metric ton of FFB
12.		KOPGT management cost	5	10 448	5 %	To be revised from time to time in light of actual costs
13.		***Farmer FFB price***	95	198 503		Price farmers receive per metric ton of FFB delivered

Annex 11

Project Implementation Manual (PIM)

Annex 11: Project Implementation Manual (PIM)

VODP2 already uses a set of operating procedures. NOPP implementation readiness will be enhanced by the elaboration under VODP2 of a series of operating procedures that will build on those of VODP2 (see Annex 4, Attachment 1).

In particular, prior to the completion of VODP2, the PMU will contract capacity to support them in drafting:

- a manual for Project operations, financial and human resource management;
- up-date of the current oil palm guidelines to reflect the rollout and oil palm hub strategy of NOPP and the business approach of the Project for promoting oil development;
- criteria for the selection of oil palm growers and households to benefit from alternative livelihoods activities;
- a framework for the Hub Development Plan (drawing on the matrix in Attachment 1); and
- the various Standard Operating Procedures required (drawing on those listed in Attachment 2).

Attachment 1: Framework for Oil Palm Hub Work Plan

Objectives	Activities	Outputs	IFAD / consultant support	PMU	PMU Project Start Up Team	Farmers' Association/co opera	Private Sector Partner	District Local Government	UOPGT	NARO	NEMA	Services Providers	Banks
Recruitand Up skill PMU & Project Start Up Team													
Recruit Staff	Recruitemnt campaighn	Complete PMU and Start up team	x										
Train Staff, Oil Palm Agronomist, Extension Manager, extensino staff	Send staff on training	Up skilled team	x	x	x								
Equip Staff	Procure vehicles (pickups,)Organize office space and equipment	Staff have vehicles, furnished and equiped office		x									
Produce Area Level Feasibility Assessment for Oil Palm Hub Development													
Determine which areas at a sub county level are suitable for the cultivation of oil palm	Preliminary Land suitability assessment to identify sub counties in the identified production areas that are suitable for oil palm growing	1:10 000 scale Inter active Land suitability map (GIS Based) that evaluates, soils, topography,climate, land cover, exisiting land use, population, roads and public infrastructure, HCV areas, water bodies	x	x	x		x	x			x		
Identify and map farmers that are interested in growing oil palm with in the areas located as being suitable for growing oil palm	Discussions with sub county and district leadership.Identification of potentially interested farmers associations, Sensitization on pros and cons of oil palm and details of project Survey and Mapping exercise.ID locations,areas, and pre qualification of farmers fields (GPS co ordinate, area, land ok?)	Sensitize interested and affected parties about the plan and identify farmer groups interested in growing oil palm. Produce a map with the qualified farmers fields. Signed Expression of Interest from qualified farmers		x	x	x		x					
	ID locations,areas, and pre qualification of farmers fields (GPS co ordinate, area, land ok?)	Map with farmers locations		x	x	x		x				x	
	Assess eligibility of farmer?	Map of all eligible farmers											
Design and Lay out of Oil Palm Hub													
Design OP hub	Identify nursery and mill site, major roads, units and blocks, design project lay-out	Plantation and infrastructure plan showing location of Mill,Nursery, Collection points, roads, small holder oil palm blocks and units and the size and location of each farmers site (min 3500ha in 15km radius of the mill site)	x	x	x	x	x	x				x	
Sign off on tripartite agreement for OP Hub (project, farmers association, PSP)	Obtain agreement and commitment from all parties	Agreement signed	x	x		x	x						
Implementation of oil Palm Hub													
Register oil palm grower, map and mark boudries of fields for development. Sample soils	registration of farmers, participatory mapping of oil palm growing areas including HCV assessment, soil sampling	Soil Map. Plantation Map with growers. Registered farmers (3500ha)		x	x		x			x	x	x	
Set up infrastructure	start construction of nursery facility, order oil palm seeds	Nursery to supply 3500 ha over 2 year period		x	x		x					x	
	start construction of district roads and community access roads	Adequate road network for Oil Palm Hub		x	x			x				x	
	start construction of warehouse and office at nursery site	Completed office and warehouse before land clearing starts		x	x							x	
Set up Farmer Co operatives	Train and build capacity of small holders to form and manage the cooperatives	Formation of small holder oil palm co operative		x	x	x			x			x	
Train small holders on Oil Palm growing	Produce Training material and present training courses	OP course for small holders, all registered small holders trained before planting		x	x							x	
Disperse Small holder loans	Payments to Small holders	Small holders provided with Finance		x	x				x				x
Roads construction	roads construction	Sufficient roads network constructed iin unit and block areas before planting		x	x		x	x					
clear 3500ha in 2 years	land clearing	3500 ha of land cleared for oil palm (synchronised)		x	x	x							
Levelling & Terracing 3500ha in 2 years	terracing and leveling areas identified for these measures (not all fields)			x	x	x						x	
Soil amelioration	Soil amelioration of small holders fields			x	x	x							
Operationalizing procurement and distribution of inputs & extension services to farmers	extension service fully functional, and inputs distribution to small holders	all registered small holders have technical support and are provided with inputs		x	x	x							
Planting of seedlings (by block, by unit)	planting	synchronized planting of 3500ha in 2 years		x	x	x							
establishing cover crop / intercrop	planting cover crop	full soil cover on oil palm plantation		x	x	x							
Management of oil palm hub													
Field Husbandry	Palm Replanting	**According to SOP**		x		x						x	
	Palm Ablation			x		x						x	
	Palm frond Prunning			x		x						x	
	Weed control			x		x						x	
	Pest control			x		x						x	
	Fertilizer Application			x		x						x	
	FFB harvest			x		x						x	
	FFB Transport			x		x						x	

Attachment 2: Standard Operating Procedures

The following SOPs have been drafted, as a part of the Project design process. These are available at:

https://xdesk.ifad.org/sites/ESAop/Lists/UGA/2000001484/Detailed%20Design%20Report/Standard%20Operating%20Procedures_Oil%20Palm%20NOPP.pdf

1. Oil palm nursery
2. Design of hub road system
3. Field Design
4. Land preparation techniques for undulating and hilly terrain
5. Lining for planting oil palm
6. Planting of oil palm
7. Establishment of ground cover crops
8. Ablation
9. Frond pruning
10. Palm replacement during maturity
11. Thinning of etiolated palms
12. Weed control on plantations
13. Placement of pruned fronds
14. Effective fertilizer application in oil palm
15. Commercial utilization of palm oil mill effluent as a source of organic fertilizer for smallholder farmers
16. Commercial utilization of empty fruit bunches (EFB)
17. Harvesting and collection standards to ensure high oil extraction rate from FFB

Annex 12

Compliance with IFAD policies

Annex 12: Compliance with IFAD policies

Policy	Alignment with IFAD Policy
IFAD Strategic Framework 2016-2025: « Enabling Inclusive and Sustainable Rural Transformation »	IFAD's fifth Strategic Framework covers the period 2016-2025, serving as an overarching policy guideline to provide direction to IFAD's work, and as a key instrument for consolidating IFAD's development effectiveness. It positions IFAD to play a crucial role within the new global environment – by enabling an inclusive and sustainable transformation of the rural areas. The framework has three strategic objectives: 1. **SO1: Increase poor rural people's productive capacities** – investing in rural people to enhance their access to and control over assets and resources. NOPP will increase rural people's access to productive assets, in terms of OP production opportunities, increase their productive capacities to generate off-farm alternative income streams, as well as build their human and social capital. 2. **SO2: Increase poor rural people's benefits from market participation** – improving the engagement in markets for goods, services and wage labour. NOPP will, as its predecessors, be a leading example of market-led development through its PPPP nature. Oil palm producers will access a reliable market within a tightly integrated value chain. 3. **SO3: Strengthen the environmental sustainability and climate resilience of poor rural people's economic activities.** Recognizing the key importance of environmental sustainability to ensure continued profits and improved livelihoods, NOPP has integrated a variety of activities on environment ranging from operational to strategic level. Climate resilience will be increased by promoting alternative income generating activities that are not sensitive to climate change. NOPP PMU will develop Environmental and Social Management Plans for all hubs, and will seek to achieve first compliance with, and then certification for, RSPO principles.
Private Sector Strategy	IFAD's Private Sector Strategy (2011) and the IFAD toolkit on Public-Private-Producer Partnerships in Agricultural Value Chains (2016) provide guidance on IFAD's engagement with the private sector, recognizing that IFAD's experience in this regard is still limited. VODP1 and VODP2 have actually been instrumental in defining IFAD's engagement with the private sector, and providing lessons learnt which are now applied throughout IFAD-supported projects worldwide. NOPP will continue building on that partnership model and ensure that also larger agribusiness companies are interested in working with smallholder farmers.
Targeting policy	IFAD's targeting policy: (a) defines IFAD's target group and establishes a shared conceptual understanding of targeting; (b) outlines the general principles that guide IFAD in identifying and reaching the target group, and the methods and means that it uses to this end; and (c) provides an overview of how targeting should be addressed in IFAD's operations. NOPP design clearly defines the target group, with different sub-groups; it defines a clear targeting strategy, based on geographical, direct and self-targeting methods; and it proposes measures for mobilisation and empowerment of the target group. For more detail see Annex 2, Attachment 1.
Gender equality and women's empowerment policy	IFAD's gender policy aims to promote economic empowerment to enable rural women and men to participate in and benefit from profitable economic activities; enable women and men to have equal voice and influence in rural institutions and organizations; and achieve a more equitable balance in workloads and in the sharing of economic and social benefits between women and men. NOPP design is based on gender-differentiated analysis; it will promote women's economic empowerment and strengthen women's decision-making role at household and

	community levels, based on a NOPP gender strategy and targets for women's participation. For more details see Annex 2, Attachment 2.
Climate Change Strategy	IFAD's Climate Change Strategy notes that IFAD's goal is to maximize the fund's impact on rural poverty in a changing climate. Climate change has been actively integrated into the design of NOPP, informed by a basic climate risk analysis (see SECAP Review Note). NOPP will furthermore increase smallholders' climate resilience by diversifying income streams through alternative income generating activities.
Rural finance policy	IFAD's Rural Finance Policy has six guiding principles to be applied at the micro, meso and macro levels: (i) support access to a variety of financial services; (ii) promote a wide range of financial institutions, models and delivery channels; (iii) support demand driven and innovative approaches; (iv) encourage market-based approaches that strengthen rural financial markets, avoid distortions in the financial sector and leverage IFAD's resources; (v) develop and support long-term strategies focusing on sustainability and poverty outreach; and (vi) participate in policy dialogues that promote an enabling environment for rural finance. The model developed under VODP/VODP2 was one of dedicated development financing for establishment of oil palm and meeting the initial pre-harvest costs – an appropriate approach in a sector that required long-term credit and which the financial institutions knew nothing about. Under NOPP efforts will be made to go beyond this model and develop the emergence of market-based approaches that engage the financial institutions in the provision of long-term credit and other products and services to smallholder OP growers.
Knowledge management	The Knowledge Management strategy suggests that projects should have baseline studies and should have dedicated frameworks for knowledge management in order to "learn systematically and collectively from its own projects and programmes, and from the experience of its partners, particularly poor rural people, in order to deliver high-quality services and to enable its partners to find innovative ways to overcome poverty, and to use the knowledge acquired to foster pro-poor policy reforms." The NOPP PMU will have a strong M&E and learning section which will be responsible to achieve this objective, led by a M&E and Learning Manager and consisting of an M&E officer plus M&E assistants, and a Knowledge Management and Communications Officer.
Country level policy engagement	IFAD promotes policy engagement in projects in order to reach two main objectives: (i) help create an enabling environment for implementation and achieving the project's impact, and (ii) help create the conditions for a large number of rural population to out of poverty. It is a key element of the scaling up agenda. IFAD's role is not intended to advocate for specific policy outcomes; it is rather to assist Governments to use the project experience in the design or reform of policies, and to facilitate dialogue among national stakeholders on key policy issues. Recognizing its leadership role in the subsector and the need for policy engagement, NOPP has a specific component aiming to support GOU to establish a conducive policy and institutional framework for sustainable upscaling of oil palm development in the country.
Scaling-up	The definition adopted by IFAD for scaling-up is: "expanding, adapting and supporting successful policies, programmes and knowledge, so that they can leverage resources and partners to deliver larger results for a greater number of rural poor in a sustainable way". Scaling up results does not mean transforming small IFAD projects into larger projects. While NOPP has a significant size on its own, the objective is to leverage even greater impact by establishing a conducive policy and institutional framework for the future development of a modern, environmentally responsible and socially inclusive sector, and by encouraging financial institutions to finance the establishment of oil palm development by smallholder farmers.

Attachment 1: SECAP Review Note for NOPP

I. Major landscape characteristics and issues

A. Socio-cultural context

1. According to the last census data of 2014, Uganda is home to 34.6 million people and 77% live in rural areas where livelihoods are mainly based on smallholder low-input low-yields rainfed agricultural production systems. The country has seen an important decrease in poverty in three decades from 56.6% in 1992/93 to 19.7% in 2012/13 due to favourable policies, average weather conditions, prices and the advent of peace. The Western and Northern Regions, which have poor agro-ecological conditions, are the worst hit and migration from these areas to other, highly-productive areas is common. About 43.3% of the country´s population remains vulnerable to poverty and is facing major shocks such as adverse weather conditions, price fluctuations and HIV/AIDS.

2. Vulnerability primarily stems from low-output household level agricultural production systems and the scarcity of profitable alternatives. While food insecurity is most acute in the Northern Region, pockets of food insecurity are found throughout the country: overall, an average of 34% of children under 5 years of age are stunted.

3. Women-headed households form approximately 30% of the total and are more common among the ranks of the poor. Gender disparities are recorded especially in access to education and employment, and on average women have less control over productive assets when compared to men. Women also work longer hours and have a wider range of responsibilities and higher participation levels in decision-making at household and community level. As such, women are often not able to enjoy the benefits of their own efforts. Women in Uganda are ultimately responsible for their children. See Annex 2 for more details.

B. Natural resources

4. Uganda comprises about 200,000 km^2 of land at altitudes of 1000-2500 meter asl, of which 72% is agricultural area and 14% is under forest cover[121]. 57,450 km^2 is planted with food crops.

5. ***Soils***. 78% of the country's soils are rated to be of very low to fair productivity potential and soil fertility is declining due to nutrient mining by continuous cropping without significant fertility restoration.

6. ***Forests.*** Deforestation driven by shifting cultivation and domestic fuel wood demand is a very serious issue in Uganda, with an estimated 63% of forest lost over the period 1990-2015[122].

7. ***Water.*** Despite the presence of many water bodies and rivers, Uganda's renewable water resources per capita are limited at 1030 m^3/year and are rapidly declining due to strong population growth.

8. Lake Victoria is providing natural resources for an estimated 35 million people in the region. Pressure on fish stocks and biodiversity in the lake is increasing because of overfishing, unsustainable fishing methods, deteriorating water quality due to sewage, waste and agro-chemical inflow, and ecological disruptions due to the introduction of alien species (Nile perch). High nutrient levels have in turn stimulated algae growth and the proliferation of water hyacinth, which are affecting sensitive lakeshore areas including fish breeding grounds.

C. Climate

9. Uganda's climate is relatively humid and warm, with large differences in **rainfall** patterns across the country due to the influence of topography and water bodies. Annual rainfall ranges between 800mm to 1500mm, with the south experiencing two rainy seasons (March-May and Sep-Nov), and the north experiencing a transitional regime of a long season with pronounced rainfall peaks (April-Oct). Historic records show a decreasing trend in rainfall[123], but downscaled climate models predict a

[121] FAOSTAT 2014, http://www.fao.org/countryprofiles/index/en/?iso3=uga
[122] Uganda State of the Environment 2014.
[123] McSweeney, C., New, M. & Lizcano, G. 2010. UNDP Climate Change Country Profiles: Uganda. Available at: http://country-profiles.geog.ox.ac.uk/

probable increase in precipitation during the short rainy season as well as a potential increase in extreme events.

10. Mean annual **temperature** has increased by 0.3°C per decade since 1960, a trend which is expected to continue to reach an increase of 1.0 – 3.0°C by the 2060s. **El Niño** events tend to have less pronounced impact in Uganda than in Kenya and Ethiopia, with >30% higher rainfall anomalies confined to the north-eastern border with Kenya and other regions experiencing 0-30% increase[124] and occasional flooding events.

11. The Lake Victoria region has its specific dynamics related to climate change, with large historic variations in the lake water levels and significant impact on hydropower, agriculture and fisheries. 80% of the lake's water comes from direct precipitation over the lake, making the lake's water level very sensitive to changes in rainfall patterns. While the 2000s saw water levels drop rapidly stirring widespread environmental and economic concerns, recent years have seen water levels rise again. While there are voices that state water levels will continue to rise in the near future[125], there are still significant scientific knowledge gaps that make predictions rather unsure.

Figure 3: Historic water level of Lake Victoria.

Source: Image source http://earthobservatory.nasa.gov/Features/Victoria/ (Graph does not include increase in water level in recent years.)

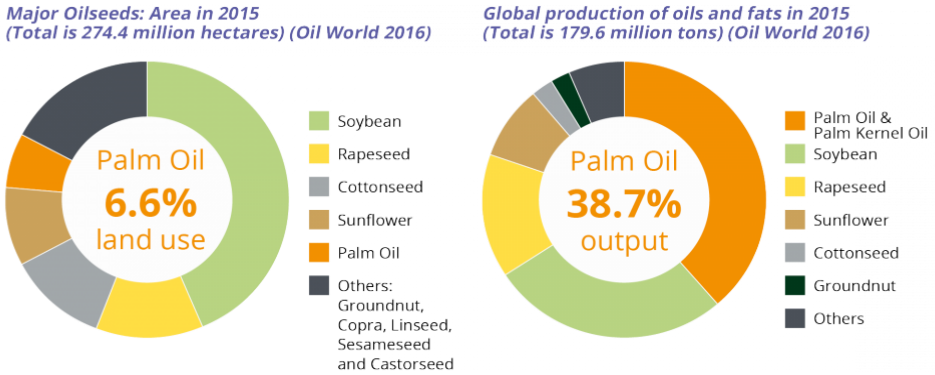
II. Background on oil palm development

A. Demand, production and known global issues

12. **Palm oil** is the oil derived from the mesocarp of fruits of the oil palm, and is the most widely used vegetable oil in the world. Palm oil is one of the fastest growing agricultural commodities, with a global annual production of 62 million tonnes on 17 million hectares in 2015, up from 15 million tonnes in 1995. Palm oil is the cheapest vegetable oil available on the market and used in approximately half of all products available in western supermarkets. Its increasing use in emerging markets and its use in biofuels (currently 5% of demand) are driving further increases in demand and production, with the FAO-OECD expecting a 29% increase in production by 2025[126]. Palm oil has the highest oil productivity per unit of land used (around 4-5 mt of crude palm oil/ha/year) compared to other vegetable oil crops such as soybean (~ 0.4 mt oil/ha/year) and sunflower (~ 0.5 mt oil/ha/year), an important argument used in the environmental debate surrounding the crop. 84% of the global production comes from Indonesia and Malaysia (2015), and 40% of the world's palm oil is produced by smallholders.

[124] WFP-VAM (2015). El Niño: Implications and Scenarios for 2015/16. Available at: http://documents.wfp.org/stellent/groups/public/documents/ena/wfp280227.pdf
[125] See www.nation.co.ke/news/Scientists-predicts-L-Victorias-water-level-increase-/1056-2979008-11fapt8z/index.html
[126] OECD-FAO Agricultural Outlook 2016-2025, available at http://www.agri-outlook.org/

Figure 4: Global land use and production by type of oil crop (2015)



13. **Known environmental and climate issues.** The fast growth in palm oil production has been accompanied by significant environmental controversy. Major environmental and climate issues related to global oil palm development are:

(a) **Large-scale conversion of forests and peatlands** to oil palm plantations. More than 56% of oil palm extension between 1990 and 2005 occurred at the expense of forest cover[127], both legal and illegal;

(b) **Loss of habitat for endangered species**, most infamously affecting the orangutans in Indonesia. Plantations provide less niches for certain species, and increased accessibility can lead to illegal hunting and logging;

(c) **Increased risk of soil erosion**, when forests are cleared and top soils removed. Apart from soil loss itself, environmental degradation can happen downstream through, for instance, disruption of fish breeding grounds;

(d) **Soil and water pollution** as a result of Palm Oil Mill Effluents (POME) and the run-off of pesticides and fertilizer when not applied correctly;

(e) **Greenhouse gas (GHG) emissions contributing to climate change**, notably the CO_2 emissions from land clearing and forest fires, as well as CH_4 (methane gas) from POME storage lagoons.

14. **Known social issues.** The fast development induced by oil palm investments has often brought along significant social challenges, including:

(a) **Uneven distribution of economic benefits.** While people who engage in oil palm cultivation can multiply their income many times over, people not engaged in oil palm do not always benefit from indirect economic opportunities and may be negatively affected by increasing land, housing and food prices.

(b) **Health and safety of farmers and workers**. The adoption of health and safety procedures remains poor if not properly enforced, especially for smallholder farmers.

(c) **Migrant workers issues.** The influx of migrant workers can cause social and health issues, such as increased conflict and increase in HIV prevalence.

(d) **Land acquisition and land conversion.** Globally, past oil palm developments have not always recognized the land and natural resource rights of all users, and land transfer agreements have sometimes not been transparent and legally binding.

B. Important initiatives in the global oil palm development sector

15. Cognizant of these issues and pressured by environmental activists, palm oil producers, traders and consumer goods producers have taken steps to avoid unnecessary adverse environmental impacts through the **Roundtable on Sustainable Palm Oil (RSPO)**. The RSPO manages a scheme for Certified Sustainable Palm Oil (CSPO), the largest certification scheme which currently covers 21%

[127]Koh, L. P. and Wilcove, D. S. (2008), Is oil palm agriculture really destroying tropical biodiversity?. Conservation Letters, 1: 60–64. doi:10.1111/j.1755-263X.2008.00011.x

of global palm oil production and includes 134.000 smallholders[128] (June 2017). The conditions for certification are captured in the RSPO Principles and Criteria[129], which have been further tailored to context through national interpretations currently available for 11 countries, not including Uganda. Certified production is guaranteed through technical audits by accredited Certification Bodies, which monitor compliance with the Principles and Criteria.

16. One of the major private sector stakeholders in VODP-2 and potential partner for NOPP, Wilmar International (the world's largest oil palm producer and main supplier to Unilever) has furthermore adopted a new sustainability policy of "no deforestation, no peat, no exploitation"[130]. Pursuing effective implementation of this policy would be one of the priorities of NOPP.

17. It is important to note that none of the major global environmental institutions (e.g. WWF, Greenpeace) are opposed to palm oil per se, especially as the available alternatives carry even higher environmental risks and footprints. They do however campaign for more focus on sustainability in the subsector, and have at times criticized RSPO and the Certification Bodies of being slow in introducing stricter rules, and being lax in their enforcement.

18. Other IFIs have supported oil palm development in the past, notably the World Bank, IFC and the Asian Development Bank. Recognizing the significant challenges in the subsector and responding to criticism from NGOs, the World Bank and IFC have developed a special framework for engagement in the palm oil sector[131]. This framework has also informed the design of NOPP.

C. Lessons learned from VODP and VODP2

19. The lessons learned from previous projects are essential to inform the design and implementation of NOPP. The two phases of the Vegetable Oil Development Project (VODP-1 and VODP-2) have together supported the development of 3,863 ha of smallholder oil palm on Bugala Island, while the nucleus estate currently comprises 6,440 ha and two mills[132]. VODP-2 was classified as a Category A project under the environmental assessment procedures active at the time of Board approval. Environmental and Social Impact Assessments (ESIAs) have been carried out for Bugala (in 1997, 2001 and 2003), for Buvuma and for the Kalangala outlying islands (both in 2013); and an Impact Monitoring System has been active to monitor environmental impact.

20. As part of the design of NOPP, a technical audit of the oil palm smallholders on Bugala was carried out by an external consultant[133], and independent audits carried out for the private sector partner were reviewed. The main conclusions of these documents are:

- The VODP PMU, KOPGT and OPUL are making great efforts to ensure sustainable production of oil palm and there is clearly willingness to ensure continual improvement;
- A strategy on stakeholder engagement needs to be developed to facilitate a meaningful discussion on national policies and investment strategies for sustainable oil palm development and the challenges associated with it;
- Land acquisition processes need to be strengthened and better documented and mitigation measures to address negative impacts of land conversion to oil palm growing need to be strengthened;
- Occupational health and safety procedures need continuous sensitization and enforcement to be adopted by smallholder farmers and their workers;
- Community health and safety needs more attention, including nutrition security and HIV/AIDS awareness;
- R&D for enhanced use of adapted best agricultural practices by smallholder oil palm growers needs to be strengthened, involving specialised public and private technical support services

[128] See http://www.rspo.org/about/impacts
[129] See http://www.rspo.org/key-documents/certification/rspo-principles-and-criteria
[130] See http://www.wilmar-international.com/sustainability/integrated-policies/
[131] The World Bank Group Framework and IFC Strategy for Engagement in the Palm Oil Sector (2011), available at:http://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/agribusiness/resources/palmoil_strategydocument
[132] Data from VODP Mid-Term Review, January 2016
[133] A. Inamdar – Willets (2016) Environmental and Social Audit of the Vegetable Oil Development Project 2 (VODP-2) on Bugala Island (Kalangala District), Uganda

- Good practices are often not documented, which is a requirement for RSPO compliance. The private sector partner can assist the smallholders in developing documentation;
- District authorities need to be facilitated to monitor environmental impact, including adherence to buffer zone requirements, and implement a biodiversity offsetting plan.

21. VODP2 has initiated a process to gather evidence on deforestation, land use change and changes in carbon stocks. Preliminary evidence[134]suggests that deforestation rates have decreased during the implementation of VODP-2. Further detailed analysis is being carried out through the European Space Agency-funded Earth Observation for Sustainable Development (EO4SD) programme[135] to establish more precise figures on land use changes, specifically for any changes in HCV and HCS. This remote-sensing information will be complemented with on-the-ground qualitative research to establish the root causes of any deforestation encountered, and to identify strategies to prevent such events under NOPP. This analysis will be available separately from this document.

III. Potential project social, environmental & climate change impacts and risks

A. Key potential impacts

22. NOPP's main expected positive impacts are:

- Increased income for both oil palm farmers and non-oil palm farmers in the Project area;
- Creation of employment opportunities;
- Improvement in infrastructure and social services;
- Utilization and rehabilitation of already degraded land.

23. NOPP's main potential negative impacts are:

- Loss of natural vegetation; loss or fragmentation of habitat; increased pressure on remnant forests;
- Loss of access to land and associated livelihoods especially by women and vulnerable groups with increased risk to food insecurity and increased land disputes, especially for those target groups;
- Net increase in GHG emissions from land clearing and operations (see below);
- Influx of migrant workers and associated social and health issues;
- Increased risk of HIV acquisition;
- Decrease of surface and groundwater quality;
- Increase in soil erosion.

24. A longer list of potential impacts, and associated mitigation measures, is included in Attachment 2.

B. Climate change and adaptation

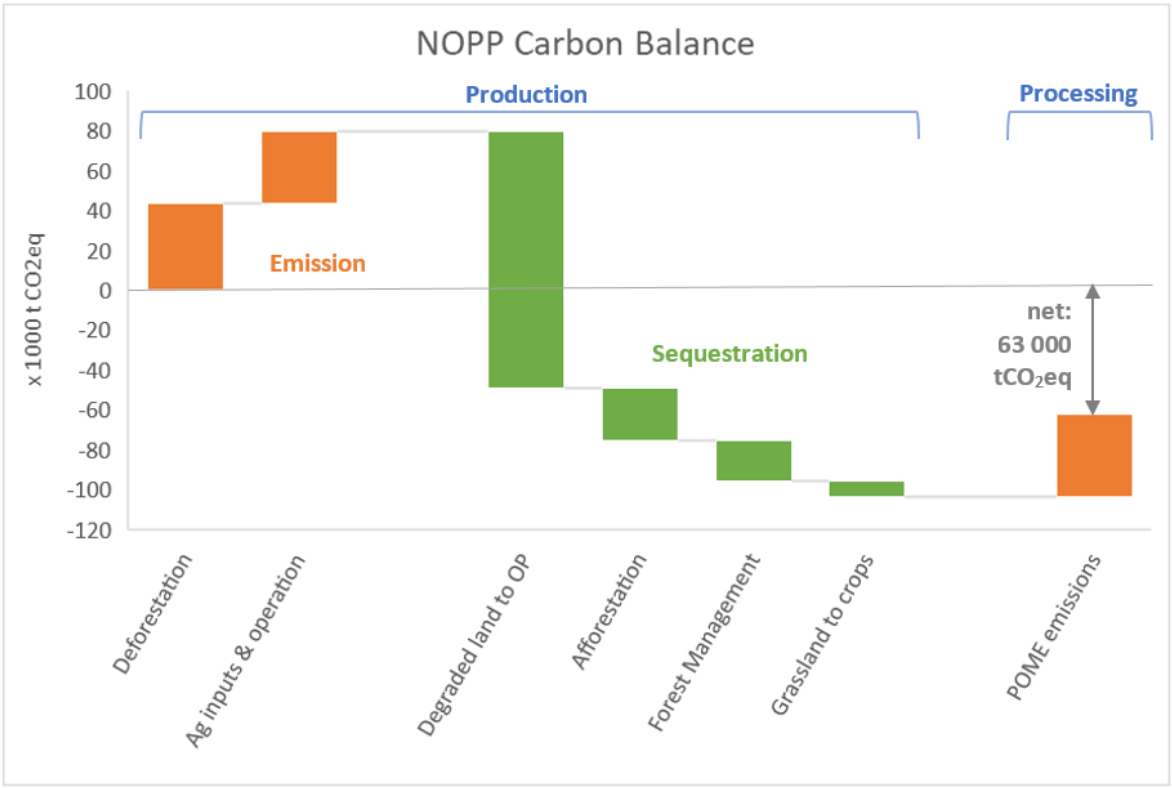
25. **Mitigating GHG emissions**. Greenhouse gas (GHG) emissions from palm oil production can be categorized as: (i) emissions from oil palm growing and processing; and (ii) emissions from changes in carbon stocks, e.g. related to land use change. Emissions in this second category greatly depend on the type of vegetation originally present, and are much higher for many of the oil palm plantations in Indonesia and Malaysia where carbon-rich tropical forests and peatlands are being developed, than in Uganda.

26. A GHG Assessment was carried out to review the likely impact of NOPP on carbon stocks and GHG emissions, see attachment 7 to this annex. Bearing in mind that the exact location of oil palm plantations is not known at this stage, assumptions had to be made in terms of land use change which

[134]VODP-2 recruited a consultant to carry out a Land Use Change Analysis (LUCA) on Bugala Islandon the period between 2007 and 2014 for which the draft report was made available. Furthermore, an analysis was made using Global Forest Watch, http://www.globalforestwatch.org/ .
[135] See http://eo4sd.esa.int/

are outlined in attachment 7. The assessment focused on land use change and the production of FFBs, but included POME emissions as the major component of processing emissions. It was found that the Project is expected to have a net sequestration effect compared to Business-As-Usual (BAU) of 63 000 tCO2eq per year. In a worst-case scenario, where land conversion to oil palm targets forests with relatively high carbon stocks and environmental management activities are not implemented, there would be a net emission compared to BAU of 4 200 tCO_2eq / year.

Figure 5 NOPP Carbon Balance in '000 tonnes CO_2eq per year.



27. To minimize emissions from the Project, it is recommended to:

a. Raise awareness on the importance of forests as carbon stocks amongst stakeholders;

b. Develop and enforce strict eligibility guidelines for smallholder farmers to access oil palm development in terms of avoiding high carbon stocks. A High Carbon Stock (HCS) assessment can assist to avoid clearing areas with high carbon stocks, thus reducing overall emissions;

c. Develop and implement Standard Operating Procedures for appropriate fertilizer application;

d. Develop and implement a vehicle emission management plan to minimize emissions from oil palm operations;

e. Develop monitoring protocols to establish actual emissions during Project implementation and serve as a management tool for new Project areas;

f. Engage with the private sector partners on possibilities of capturing POME emissions through biogas capture, co-composting with empty fruit bunches, decanting or denitrification.[136]

28. **Adapting to climate change**. A basic climate risk analysis (see Attachment 4: Basic Climate Risk Analysis) has been carried out. While climatic changes will in principle have a positive effect on the suitability of the main target area for oil palm development, a number of secondary effects may occur such as increased occurrence of pests and diseases, or lower productivity of workers due to heat.

29. Besides continuing the existing adaptive measures as applied under VODP-2, such as cover cropping, new elements under NOPP to further improve climate resilience include:

- **Promote alternative income-generating activities** that diversify household income streams to include sources that are resilient to climate change
- **Support active rehabilitation of degraded ecosystems** by focusing oil palm development on degraded lands; supporting reforestation of forest reserves; and supporting enrichment planting in buffer zones.
- **Expand site assessments** to include predicted climatic changes over the lifetime of the oil palm development.

IV. Environmental and social category

30. NOPP has been classified as a SECAP Social and Environmental **Category A** project/programme, as its risk profile includes potential adverse environmental and social impacts that are sensitive, irreversible and affect an area broader than the sites subject to physical intervention.

V. Climate risk category

31. NOPP is expected to be moderately sensitive to the impacts of climate change, mainly driven by the long lifetime and thus exposure of the investments (25 years for oil palms, with investments designed for multiple cycles). The risk is assessed as **Moderate**, and the Project design includes specific measures to increase farmers' climate resilience[137].

VI. Recommended features of project design and implementation

A. Design features

32. NOPP will include the following measures aimed at mitigating potential negative impact and incentivizing for good multi-benefit practices.

33. As confirmed in a 2017 IFAD-supported review (see Annex 3, Attachment 1), the land acquisition process on Buvuma (the only hub where a nucleus estate is to be established) that undertaken by Government complied well with IFAD's SECAP. Land was acquired on a 'willing buyer' and 'willing seller' basis. **Free, Prior and Informed Consent** (FPIC) was achieved through: (i) Initial sensitization of the local population, (ii) valuation of willing sellers, and (iii) disclosure of values prior to final agreements being signed. In addition, through the review a **Stakeholder Engagement Framework** has been developed, to ensure transparency and accountability in Project operation, engage the full range of stakeholders in formulation, implementation and monitoring of projects/programmes (see Attachment 5).

34. IFAD has developed a Complaints Procedure for "Alleged Non-Compliance with its Social and Environmental Policies and Mandatory Aspects of its Social Environmental and Climate Assessment Procedures". Parties adversely or potentially adversely affected by IFAD-funded projects and programmes may bring issues to existing programme-level grievance redress mechanisms or to the Fund's attention using SECAPcomplaints@ifad.org. For guidance on the steps involved for submitting complaints, please visit https://www.ifad.org/topic/gef/secap/tags.

[136] While POME emissions from methane gasses account for the majority of processing-related emissions, mitigation strategies are currently applied in less than 5% of mill worldwide. See http://ensia.com/voices/fixing-palm-oils-other-climate-threat/
[137] See also Attachment 4: Basic climate risk analysis

35. **Environmental and Social Management (and monitoring) System**. An Environmental and Social Management System (ESMS)[138] has been integrated into the design of NOPP, in a way that places emphasis on the smallholders' adoption of good practices in EHS. The ESMS is described in Attachment 6.

36. **Stakeholder and policy engagement** are, given the national scale of the Project, essential to assure sustainability of its impact. A Strategic Environmental Assessment (SEA) will be carried out to answer questions related to cumulative impact of upscaling oil palm development in the country and to provide guidance to the Government and private sector on sustainable oil palm development in the Ugandan context. Component 3 includes further measures related to this objective.

[138] Here, the term ESMS is used in reference to IFC's Performance Standards on Environmental and Social Sustainability. The key elements are however the same for IFAD's SECAP and the RSPO Principles and Criteria.

Box: ESIAs and related sustainability studies, plans and audits

The increasing sustainability requirements of oil palm development go hand in hand with an increasing number of studies, plans, monitoring requirements and audits, which partially overlap. In NOPP, an effort will be made to streamline these activities to ensure that they are used in the most effective and efficient way: ensuring that actual implementation is done in line with good practice, generating evidence of those good practices, but keeping administrative burden on the project and farmers as low as possible.

Studies that need to be undertaken prior to approval of investment are:

- An **Environmental and Social Impact Assessment (ESIA)**. This is the main vehicle for assessing the impact of a project on the environment and on society. Each ESIA needs to be carried out in coherence with the policies and procedures of Uganda's National Environmental Management Authority (NEMA) as well as those of IFAD, and also approved by both.
- A **High Conservation Value (HCV)** assessment is the approach used in most exported and certified commodities (RSPO palm oil, FSC wood, biofuel). Though there is a lot of overlap with the ESIA in terms of issues assessed, the approach is different and the HCV assessment needs to be carried out by a HCV licensed assessor.
- A **High Carbon Stock (HCS)** assessment is specifically intended to determine expected changes in carbon stock. A net decrease in carbon stock (e.g. from a dense forest to an oil palm plantation) means greenhouse gas emission, while an increase in carbon stock (e.g. from barren land to oil palm plantation) means a net carbon sequestration effect.
- A **Green House Gas (GHG)** assessment looks at the overall impact in terms of greenhouse gas emissions. This is the combination of changes in carbon stock and other emissions related to oil palm development, such as methane emissions from the mill or emissions from transport.

Under NOPP, an effort will be made to integrate the HCV, HCS and GHG assessments into the ESIA exercise.

The studies identify issues that need to be managed during implementation, which are detailed in various **plans**:

- An **Environmental and Social Management Plan (ESMP)** is an integral part of the ESIA and contains the major actions needed to mitigate potential negative impacts, and enhance expected positive impacts. The ESMP defines actions, frequency or timeline, and assigns responsibility for each action.
- A **High Conservation Value Management Plan** is aimed at conserving and enhancing the HCV identified. This may include a **Biodiversity Offsetting Plan** and could for instance entail the enhancement of a certain habitat (e.g. wetland protection) to compensate for loss of habitat elsewhere.
- A **Green House Gas Management Plan** aims at reducing operational GHG emissions, for instance by recycling of waste flows and better transport planning. This is primarily important for the private sector partner, but smallholders can also contribute to emission reduction.

Implementation of plans is verified through **audits**:

- An **annual audit** is a requirement under NEMA's guidelines, focusing on environmental issues, especially those raised in the approval of the ESIA. The NOPP PMU will ensure that these audits are used as much as a learning exercise as a compliance exercise.
- An **external audit** is a requirement for the private sector partner and will also be a requirement for RSPO certification.

37. **Increasing climate resilience.** A basic climate risk analysis (Attachment 4) was carried out and the following measures are included in the Project design to improve climate resilience:

a. Ensuring sustained yields. Annex 4 details a number of agronomic practices that will assist in making oil palm investments climate-proof, including soil and water conservation, seed variety trials, improved climate monitoring, etc.

b. Alternative income-generating activities will be promoted that diversify household income streams to include sources that are resilient to climate change.

c. Active rehabilitation of degraded ecosystems will be supported by focusing oil palm development on degraded lands and supporting reforestation of forest reserves and rehabilitation of buffer zones.

38. **RSPO compliance**. NOPP will strive to ensure compliance with the RSPO Principles and Criteria and develop the capacity of smallholder organisations to, in collaboration with their private sector partner, monitor compliance and take remedial actions where needed. RSPO certification will be considered as a mid-term goal for each of the hubs in the Project, taking into account that this involves significant capacity building and that currently as a result of high supply of certified palm oil compared to demand, the premiums on certified oil are limited to 1-4%[139]. Further details on RSPO compliance can be found in Attachment 3.

B. Potential for collaboration

39. **Climate change.** Various initiatives are underway in Uganda to inform farmers about climate change, and how to adapt to it. Particular initiatives of interest to NOPP include the CGIAR – CCAFS Climate Smart Village learning site in Rakai district[140] and similarly the UNDP Climate Change Adaptation Centres[141]. Farmers may also access climate information through their phone using the 3-2-1 service on Airtel networks[142].

40. **Social and health issues**. Potential partners for collaboration include the Ministry of Lands, Housing and Urban Development in the strengthening of decentralized land administration institutions and members of the Uganda Land Alliance in the establishment of para-legal "Land Information and Resource Centres".

41. Activities in support of HIV/AIDS prevention and mitigation will be coordinated with healthsector authorities at District level, as well as relevant specialized organizations, which could operate in the Project area over the life of the Project. NOPP will also liaise with the Ministry of Agriculture, Health and others to ensure alignment of messages related to promoting improved nutrition, in line with GoU guidelines. The Project will communicate with the Ministry of Local Government and the Ministry of Gender to share experiences and results in the use of Household Mentoring.

42. **Lake Victoria environmental management**. Potential partners for collaboration on environmental monitoring and disseminating best practices include the Lake Victoria Environmental Management Project, and the Lake Victoria Basin Commission.

VII. Institutional analysis

A. Institutional framework

43. **Social**. The Ministry of Gender, Labour and Social Development (MGLSD) is responsible drives 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.

44. **Nutrition**. The multisector Nutrition Action Plan falls under convenes at 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.

45. **Land**. The Ministry of Lands, Housing and Urban Development (MLHUD) is responsible for policy and legislative formulation on land administration, ensuring national standards, maintaining a national land administration system and, in collaboration with the Ministry of Local Government, providing support for the decentralization process. Technical services in land administration and training to District land administration institutions are provided through Ministry Zonal Offices (MZOs).

[139]Rietberg, P. (2016). Barriers to smallholder RPSO certification. SEnSOR project.
[140]See https://ccafs.cgiar.org/uganda#.WKKbaW997AV
[141]See http://www.ug.undp.org/content/uganda/en/home/presscenter/articles/2016/05/06/uganda-launches-climate-change-adaptation-centres-.html
[142]See http://321online.org/countries/uganda/

District Lands Offices are located in the District Natural Resource Department (DNRD). The DNRDs are meant to be staffed with a District Natural Resource Officer (DNRO), District Land Officer (DLO), District Surveyor (DS), District Valuer (DV), District Physical Planner (DPP), District Registrar of Titles (DRT), District Environment Officer (DEO) and District Forestry Officer (DFO). In addition there are meant to be various technical and administrative support staff, including: cartographers, draftsmen, recorders, clerks and secretaries. District Lands Offices are supported by District Land Boards (DLBs), District Land Tribunals (DLTs) and Area Land Committees (ALCs). Most DNRDs do not have the full contingent of staff – typically they may have a DLO or DPP – DLTs are not operating in most districts and DLBs and ALCs tend to be under-resourced.

46. **Environment.** 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. A 2012 World Bank review[143] noted that: (i) the environment and natural resources sector is a low priority for GoU with very low funding; (ii) there is weak mainstreaming of environmental issues across sectors; and (iii) political interference and corruption undermines local environmental management.

47. **Climate.** At central level, a Climate Change Department under MWE was created to coordinate climate change action. 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. GoU also approved a Climate Change Policy in 2015. Implementation of climate change action at LGA level however remains a challenge.

B. Capacity building

48. The design of NOPP includes various efforts to build long-term capacity on environmental and social issues. At an operational level, the technical capacity of LGAs will be improved and staff will be facilitated to carry out their duties. At a central and strategic level, NOPP will fund the development of various strategies related to the subsector's environmental and social issues. Finally, the NOPP PMU will continue to function as the Government's dedicated capacity to deal with the oil palm subsector.

VIII. Monitoring and Evaluation

49. M&E of social and environmental issues will be carried out at different levels, with a two-way flow of information: (i) at farmer group level, to increase the sense of responsibility for EHS issues; (ii) at OPG organisations' and private sector partner level for each hub; (iii) at the Project level including the Impact Monitoring System as described in section VI – A. In addition, environmental and social audit will be carried out on an annual basis coordinated by the NOPP EHS officer in consultation with NEMA and complemented by independent experts based on the needs identified by IFAD and Government.

IX. Record of consultations

50. The NOPP design, and the various exercises carried out to inform it, has included consultations with a wide variety of stakeholders. A full list of organizations and people consulted can be found in the Project Life File.

[143] World Bank (2012). Uganda Country Environmental Analysis. Available at https://openknowledge.worldbank.org/handle/10986/12407

Attachment 2: Terms of Reference for ESIAs and ESMPs

1. This attachment provides generic Terms of Reference (ToRs) for the ESIAs to be carried out under NOPP, and puts forward minimum requirements for the Environmental and Social Management Plans (ESMPs) that are contained within each ESIA. The final TORs will reflect the particularities of each Project site. After the initial scoping assessment for the ESIA has been carried out, agreement will be required between the project proponent (NOPP), IFAD and NEMA on the final ToRs.

A. Generic Terms of Reference for ESIAs

2. The below ToRs are based on Uganda's environmental and social regulatory framework, as well as IFAD's SECAP. They seek to integrate specific oil-palm related approaches to environmental and social sustainability such as High Conservation Value assessments. It should be noted that this integration will need to be tested and further refined during Project implementation.

TERMS OF REFERENCE
Environmental and Social Impact Assessment (ESIA)
National Oil Palm Project (NOPP)

A: Background information

The National Oil Palm Project (NOPP) is public-private partnership Project that aims to sustainably increase incomes of smallholder farmers, through opportunities generated by the establishment of an efficient oil palm industry that complies with modern environmental and social standards. The Project will work in a limited number of geographical hubs, where a hub is defined as an agro-climatically suitable area (not an administrative district), within a radius of 30 km around a planned or actual CPO mill, and in which a minimum of 3,000 ha of oil palm production can be assured.

Drawing on this model, NOPP will concentrate its activities on smallholder OP development in four hubs. Each of these hubs will undergo a separate Environmental and Social Impact Assessment, which need to be approved by both Uganda NEMA as well as IFAD. In this regard, the ESIA will need to adhere to Uganda's EIA regulations (1998) and EIA guidelines (1997), as well as IFAD's Social, Environmental and Climate Assessment Procedures (SECAP). Furthermore, the Consultant will be requested to integrate elements of specific requirements relating to compliance with the Roundtable on Sustainable Palm Oil (RSPO) Principles and Criteria, as outlined in these TORs.

This ESIA will only cover smallholder oil plantations and related NOPP-financed investments such as feeder roads, offices and smallholder warehouses. The development of mills and related infrastructure, as well as plantations (if any), will be covered by a separate ESIA which will need to be initiated and managed by the private sector partner.

B: Objectives

The objectives of this ESIA study are to:

1. Identify and assess the potential environmental and social impacts of the proposed project on the natural resource base and livelihoods of communities in the target areas;
2. Identify options to mitigate potential negative impacts and improve expected positive impacts, in order to improve environmental and social sustainability of the Project as a whole; and
3. Recommend key opportunities to influence NOPP towards environmental sustainability and climate smart development.

C: Scope of Work

Phase 1: Carry out scoping exercise and produce TORs for full ESIA

In this phase, the consultant will carry out a scoping exercise based on available literature and, where needed, reconnaissance field visits. The output will be a scoping report and final TORs, for approval by NEMA.

Phase 2: Carry out full ESIA, including development of an ESMP

In this phase, the full ESIA is carried out, including the development of an ESMP. The following elements should be considered in the ESIA:

- Description of the project as relevant to this specific location, outlining project interventions in different project phases (development and operation).
- Description of the socio-environmental baseline conditions of the area. Guided by the Scoping Report, assemble, evaluate and present all relevant baseline data on the relevant environmental, climate change and social characteristics of the project area. This should include rates of forest and other natural resources degradation, physical cultural resources, river flow and sedimentation rates, pollution sources and levels. Data should be relevant to decisions about project location, design, operation, or mitigatory measures.
    - Physical and biological environment: topography, climate, geology and soils, surface water and groundwater quality, rainfall, infrastructure, seismic hazard, forested area, protected areas, wetlands, flora, fauna, aquatic ecology, endangered species, sensitive sites and significant natural sites.
    - Socio-cultural and socio-economic environment: demographic characteristics including population dynamics, land use, land tenure systems and status, poverty trends, community structure, sources of livelihoods / economic activities, distribution of income, health status including HIV/AIDS, access to health facilities, access to water and sanitation, cultural heritage, goods and services, energy use and sources, level of community environmental awareness on issues such as poverty and environment, biodiversity loss and climate change, and extent of community dependence on natural resources for livelihoods.
    - [for RSPO compliance] Determine the likelihood of the presence of High Conservation Values (HCVs) in the project area, and if possible, narrow down specific geographies where these HCVs are most likely to be found. *The actual HCV assessment will need to be carried out separately by an HCV licensed assessor, and is not part of these TORs.*
- Regulatory, policy and legislative framework. Review current national policies, legislation and legislative instruments governing environmental management, climate change (mitigation and adaptation) and governance with their implementation structures, identify challenges, and recommend appropriate changes for effective implementation. Review and summarize relevant international treaties and conventions to which the country is a signatory. Review RSPO Principles and Criteria.
- Assessment of potential environmental, climate and social impacts. Identify and analyse (quantitatively where possible) potential positive and negative impacts, direct and indirect, immediate and long-term, of the proposed project on the natural resource base and livelihoods. Include an assessment of the potential cumulative impacts of the proposed project. Assess impacts using a probability / impact / risk or intensity / sensitivity / severity framework, both before and after implementation of the mitigation measures identified in the ESMP. The assessment should apply the mitigation hierarchy: if avoidance is not possible, reduce and minimise potential adverse impact; if reduction or minimisation is not sufficient, mitigate and/or restore, and as a last resort compensate for residual impacts. [for RSPO compliance] Highlight those impacts that would compromise compliance with RSPO Principles and Criteria for smallholders.
- Analysis of alternatives. Based on and complementing the assessment of potential impacts, explore project alternatives including the no-project scenario. Evaluate the advantages and

disadvantages of alternative scenarios against the project proposal and provide recommendations for specific actions to be considered by NOPP.

- Greenhouse gas analysis. Based on the data gathered and using internationally-established GHG accounting tools adequate for oil palm growing (e.g. ExAct or RSPO Palm GHG), determine the likely GHG emissions / sequestration effects. The GHG analysis should be limited to the smallholder palm growing areas (including land use change), excluding emissions from processing in the mills which will be dealt with in the ESIA for the mill, to be handled by the private sector partner. Identify key measures to reduce emissions or increase sequestration and include these in the ESMP.
- Basic environmental cost-benefit analysis. Based on the data gathered and the economic and financial models available under NOPP, prepare a basic cost-benefit analysis taking into account the environmental impact using internationally recognized valuation techniques. Based on the outcomes, suggest measures to improve environmental benefits for inclusion in the ESMP.
- Development of an ESMP. Formulate an integrated environmental and social management plan to avoid, minimize, mitigate or compensate for the identified potential environmental and social impacts and to avoid or mitigate climate change risks. Include the "minimum requirements for ESMPs" as contained in the NOPP design report.
    - Prepare a detailed, realistic plan to manage environmental and social impacts, specifying the actions to be taken for each impact, entity responsible for taking the action, the timing according to the phases of the project, and the estimated cost. Include suggestions for offsetting any biodiversity loss (a biodiversity offsetting plan) through the NOPP environmental management budget assigned to each hub.
    - Establish a monitoring plan outlining key indicators to be managed, monitoring method, frequency of monitoring, suggested responsibility for monitoring, estimated costs and additional equipment needed.
    - Review capacity needs of institutions at national, provincial, county and sub-county levels to implement recommended activities, including staffing, equipment and training.
    - Based on NOPP's Stakeholder Engagement Framework, propose a transparent complaints / grievance procedure at hub level, both internally for the smallholder oil palm growers' organization, as well as a facilitation of the existing government grievance procedure, indicating processes, responsibilities, maximum allowed timeframes and proper filing of complaints.
    - [For RSPO compliance] Indicate in the monitoring plan the most important elements to be monitored for RSPO compliance.
- Stakeholder consultation. In line with NOPP's Stakeholder Engagement Framework and the therein respected principle of Free, Prior and Informed Consent (FPIC), assist in coordinating the environmental and social assessment with other government agencies, in disclosure of documents in accessible locations in appropriate form and language, in obtaining the views of local NGOs and affected groups (especially the marginalized poor), and in keeping records of meetings and other activities, communications, and comments and their disposition. The meetings can include both formal meetings (e.g. with village leadership) as informal, one-to-one interactions; and should be carried out both during development of the ESIA as well as upon finalization of the draft ESIA to seek feedback. Attach lists of people met and records of consultation to the ESIA report.

D: Skills and qualifications

The consultant (company) should meet the following minimum requirements:

- The team should comprise a team leader with a graduate education in environment, biology, social sciences or related studies and at least 10 years of experience in carrying out ESIAs in Uganda, including carrying out ESIAs for projects funded by large international donors; furthermore the team should include experts on (i) biodiversity, (ii) terrestrial and aquatic ecology, (iii) water resources / hydrology / water quality, (iv) geology and soils, (v) sociology,

(vi) health impact and occupational health and safety, (vii) stakeholder engagement, (viii) environmental cost-benefit analysis, and (ix) greenhouse gas accounting.

- The team leader and key team members should be registered practitioners in Uganda with NEMA
- The consultant should submit evidence of prior ESIAs carried out and approved by NEMA

E: Deliverables and timeline

The consultant is expected to produce the following deliverables by the agreed timeline:

Deliverable	Timeline
D1: Scoping report and final TORs for submission to NOPP, NEMA and IFAD	Tbd
D2: Draft ESIA for feedback by NOPP, NEMA and IFAD	Tbd
D3: Final ESIA	Tbd

B. Minimum requirements for Environmental, Social and Management Plans (ESMPs)

3. The following table contains key common elements for Environmental and Social Management Plans (ESMPs) for all NOPP sites. Additional site-specific and more detailed measures will be included in the ESMP for each location.

Impact	Mitigation measures
Social and Health issues	
Increased risk of HIV acquisition **Food insecurity**	(i) Use facilitative methodologies (Household Mentoring) for household members to adopt lower risk HIV prevention measures; (ii) Disseminate information on services available at community and health facility level; (iii) Coordinate interventions with other sector players working on education, prevention and mitigation of HIV/AIDS.
Increased malnutrition **Enhancement of gender imbalances at household**	(i) Smallholder oil palm growers will be required to allocate land to food production; (ii) Promoting improved and more resilient / climate smart agricultural practices for food crops; (iii) Strengthening alternative livelihood strategies among non-oil palm growers.
	(i) Facilitating analysis of factors conducive to malnutrition (child and adult) at household level; (ii) Provide key information on nutritional eating and feeding practices.
Marginalization of poor households, women headed households and youth	(i) Implementation of an adaptation of the Gender Action Learning System (GALS), referred to herein as Household Mentoring; (ii) Offering opportunities to men and women to engage in strengthening income generating activities.
	(i) Ensuring that Project related information is explicitly delivered to these groups; (ii) Building capacity to meet their needs; (iii) Offering livelihood improvement opportunities.
Loss of access to land and livelihoods, especially of poorer and more vulnerable people	(i) Capacity building on mitigation measures for land acquisition and land conversion for oil palm growing, including for Kalangala, Buvuma and new areas of OP growing. (ii) Support for physical and land use planning to better regulate different land uses in oil palm growing communities, including for: food crops, oil palm growing, settlements, infrastructure and facilities. This will include landing sites, plans should include identifying areas for food crop production at market centres and fish landing sites. (iii) Strengthening and tenure security measures, including: civic education and public sensitization on land rights; dispute resolution support and legal advice; support for mapping of land parcels and land registration. (iv) Support for decentralized land administration, including for the establishment of independent para-legal advice centres.
Environment and Climate issues	
Increased rate of soil erosion	(i) avoid clearing large areas at once, (ii) adjust planting to slope, (iii) install erosion protection barriers, (iv) establish and maintain groundcover
Loss of natural vegetation	(i) limit construction activities to the absolutely minimum requirements, (ii) avoid ecologically sensitive areas, (iii) conduct High Conservation Value (HCV) assessment, (iv) support active rehabilitation of impacted ecosystems
Increased pressure on	(i) conduct HCV assessment, (ii) train smallholder farmers on need to conserve forests, (iii)

remnant forests	support tree planting and woodlot establishment, (iv) promote alternative energy technologies
Habitat loss	(i) avoid habitat disturbance during road construction, (ii) minimize vegetation clearing, (iii) have Environmental Control Officer on site to monitor compliance
GHG emissions	(i) focus development on low carbon stock areas, (ii) implement responsible vegetation clearing policies, (iii) implement SOPs for fertilizer application
Decreased air quality – dust	(i) limit height of construction stockpiles and spray on sunny/dry/windy days, (ii) limit speed of vehicles, (iii) avoid long time between clearance and planting
Decreased air quality – gas emissions	(i) equip boiler with air injection device and monitoring instrumentation to ensure complete combustion, (ii) monitor air quality, (iii) prohibit equipment idling
Noise	(i) enclose or shield noisy equipment, (ii) prohibit idling of machines, (iii) monitor noise levels; (iv) limit activity to daytime where possible
Decreased water quality	(i) implement erosion control programme during construction, (ii) implement construction wastewater management plan, (iii) respect buffer zones around lakeshore and rivers, (iv) implement water quality monitoring programme, (v) introduce containment measures for fuels, oils and lubricants, (vi) implement SOPs for agrochemicals application

Attachment 3: Compliance with RSPO principles and criteria

1. The RSPO is a not-for-profit organization that unites more than 2,500 stakeholder organizations in the palm oil industry, comprising oil palm producers, processors and traders, consumer goods manufacturers, retailers, banks and investors and environmental and social NGOs. Initiated by the World Wildlife Fund, the RSPO was formally established in 2004 with a mission to "transform markets to make sustainable palm oil the norm".

2. The RSPO has developed a set of environmental and social criteria which companies must comply with in order to produce Certified Sustainable Palm Oil (CSPO). These criteria aim to minimize negative impact of oil palm cultivation on the environment and communities in palm-producing regions. The certification system was launched in 2007, with the first certificates issued in 2010. The current revised RSPO Principles and Criteria (P&C) were approved in 2013, and the next revision is due in 2018.

3. **National Interpretations.** As the RSPO P&C give global criteria that need to be implemented across a range of different social, biophysical and legal contexts, countries with major oil palm production can develop National Interpretations. This document provides definitions, indicators and guidance specific to the country. Nine National Interpretations have been developed and endorsed by the RSPO Board of Governors to date. For countries that do not have National Interpretations, such as Uganda, generic indicators and guidance have been developed. The RSPO is cognizant of the differences between large estate production and smallholder production, and encourages the development of separate National Interpretation guidance for smallholders.

4. **RSPO for smallholders**. While the RSPO initially focused on working with large scale producers, there has recently been significant development in making the certification scheme also accessible to smallholders. Two types of smallholders are distinguished here: *scheme* smallholders, who are certified through the private sector-owned mill, and *independent* smallholders, who are certified through their cooperative or association. The RSPO is and has been developing various adapted guidance documents for smallholders, has put in place a separate fund to enable smallholders to participate, and has recently funded a research programme to analyse smallholder access to RSPO[144]. Key messages from this research project include:

a. Lack of smallholder organization and the costs and skills needed to meet RSPO's organizational demands hamper smallholder certification, especially of independent smallholders.

b. Proving compliance with laws and regulation (principle 2) was difficult in smallholder certification projects. Where smallholders do not possess the necessary legal documents, obtaining those is costly and time-consuming, and can be impossible when land use is contested.

c. Most uncertified independent smallholders do not use appropriate best practices or keep records (principle 4). Adoption of best practices proved both crucial and challenging for smallholder certification projects. These challenges are linked to smallholders' motivation and to wider agronomic and institutional constraints.

d. Smallholders lack the skills and knowledge to conduct HCV assessments and digital mappings. Little is known about conservation of wildlife and HCV areas by certified smallholders (principle 5).

e. Requirements about conditions that cannot easily be changed, notably prior land use and availability of legal documents, led to exclusion of an estimated 5-10% of farmers from certified groups. Larger numbers of smallholders are expected to be excluded when the whole smallholder population is considered.

f. Smallholders need organizational and technical support to meet RSPO requirements, while funding and capacity to provide this support is limited.

g. Certification costs in combination with low CSPO uptake and low premium prices hamper smallholder certification. Smallholders' motivation to comply with certification

[144] Socially and Environmentally Sustainable Palm Oil Research (SEnSOR) project, see http://www.sensorproject.net/

requirements is hampered by limited visible benefits, while time and/or financial investment are required. Consideration of smallholders' needs and perspectives in designing rules and procedures at the RSPO are essential to spur smallholder engagement and certification

5. The RSPO is currently in the process of simplifying some of the requirements for smallholders, for instance on planting procedures. The HCV Network is similarly working on a simplified HCV approach for smallholders and an integration of HCV with HCS assessments. In parallel, a number of NGOs and companies have been developing field guidance to carry out HCV assessment in a manner more suitable to smallholders.

6. **NOPP approach to RSPO compliance.** For NOPP, the first objective is to achieve *compliance* with the RPSO P&C and to develop the capacity of smallholder organisations to, in collaboration with their private sector partner, monitor compliance and take remedial actions where needed. A number of activities will be undertaken in the preparation and start-up phase for each hub to ensure that certification will be possible in the future, including carrying out EHS assessments. Here, the NOPP PMU will maintain a strong collaboration with the private sector partner who are experienced in carrying out these assessments and can assist the project in keeping up to date with the latest developments in this fast-developing space. Furthermore, RSPO compliance will focus on the uptake of good EHS practices as indicated in the component description.

7. Certification will be considered as a mid-term goal for each of the hubs in the Project, taking into account that this would require substantial financial and human resources which needs to be sustainable also without NOPP support. NOPP's palm oil market is domestic, and there is currently very limited demand for certified palm oil in Uganda. However, certified palm oil may be sold through a regulated trade system (Greenpalm) which uses a book and claim method, for smallholders to obtain premiums. It should be noted that there are further requirements to RSPO certification that may causes challenges for the Project, such as the remediation and compensation procedures for existing plantations where no HCV assessment has been carried out. These challenges will be addressed as and when they emerge, in strong collaboration with the private sector partner.

8. The following table lists the RSPO Principles and Criteria (2013).

	Principles and Criteria	**Indicators**
Principle 1: Commitment to Transparency		
1.1	Growers and millers provide adequate information to relevant stakeholders on environmental, social and legal issues relevant to RSPO Criteria, in appropriate languages and forms to allow for effective participation in decision making.	1.1.1 There shall be evidence that growers and millers provide adequate information on (environmental, social and/or legal) issues relevant to RSPO Criteria to relevant stakeholders for effective participation in decision making. 1.1.2 (M) Records of requests for information and responses shall be maintained.
1.2	Management documents are publicly available, except where this is prevented by commercial confidentiality or where disclosure of information would result in negative environmental or social outcomes.	1.2.1 (M) Publicly available documents shall include, but are not necessarily limited to: • Land titles/user rights (Criterion 2.2); • Occupational health and safety plans (Criterion 4.7); • Plans and impact assessments relating to environmental and social impacts (Criteria 5.1, 6.1, 7.1 and 7.8); • HCV documentation (Criteria 5.2 and 7.3); • Pollution prevention and reduction plans (Criterion 5.6); • Details of complaints and grievances (Criterion 6.3); • Negotiation procedures (Criterion 6.4); • Continual improvement plans (Criterion 8.1); • Public summary of certification assessment report; • Human Rights Policy (Criterion 6.13).
1.3	Growers and millers commit to ethical conduct in all business operations and transactions.	1.3.1 There shall be a written policy committing to a code of ethical conduct and integrity in all operations and transactions, which shall be documented and communicated to all levels of the workforce and operations.

Principle 2: Compliance with applicable laws and regulations		
2.1	There is compliance with all applicable local, national and ratified international laws and regulations.	2.1.1 (M) Evidence of compliance with relevant legal requirements shall be available. 2.1.2 A documented system, which includes written information on legal requirements, shall be maintained. 2.1.3 A mechanism for ensuring compliance shall be implemented. 2.1.4 A system for tracking any changes in the law shall be implemented.
2.2	The right to use the land is demonstrated, and is not legitimately contested by local people who can demonstrate that they have legal, customary or user rights.	2.2.1 (M) Documents showing legal ownership or lease, history of land tenure and the actual legal use of the land shall be available. 2.2.2 Legal boundaries shall be clearly demarcated and visibly maintained. 2.2.3 Where there are or have been disputes, additional proof of legal acquisition of title and evidence that fair compensation has been made to previous owners and occupants shall be available, and that these have been accepted with free, prior and informed consent (FPIC). 2.2.4 (M) There shall be an absence of significant land conflict, unless requirements for acceptable conflict resolution processes (see Criteria 6.3 and 6.4) are implemented and accepted by the parties involved. 2.2.5 For any conflict or dispute over the land, the extent of the disputed area shall be mapped out in a participatory way with involvement of affected parties (including neighbouring communities where applicable). 2.2.6 (M) To avoid escalation of conflict, there shall be no evidence that palm oil operations have instigated violence in maintaining peace and order in their current and planned operations.
2.3	Use of the land for oil palm does not diminish the legal, customary or user rights of other users without their free, prior and informed consent.	2.3.1 (M) Maps of an appropriate scale showing the extent of recognised legal, customary or user rights (Criteria 2.2, 7.5 and 7.6) shall be developed through participatory mapping involving affected parties (including neighbouring communities where applicable, and relevant authorities). 2.3.2 Copies of negotiated agreements detailing the process of free, prior and informed consent (FPIC) (Criteria 2.2, 7.5 and 7.6) shall be available and shall include: a) Evidence that a plan has been developed through consultation and discussion with all affected groups in the communities, and that information has been provided to all affected groups, including information on the steps that shall be taken to involve them in decision making; b) Evidence that the company has respected communities' decisions to give or withhold their consent to the operation at the time that this decision was taken; c) Evidence that the legal, economic, environmental and social implications for permitting operations on their land have been understood and accepted by affected communities, including the implications for the legal status of their land at the expiry of the company's title, concession or lease on the land. 2.3.3 All relevant information shall be available in appropriate forms and languages, including assessments of impacts, proposed benefit sharing, and legal arrangements. 2.3.4 (M) Evidence shall be available to show that communities are represented through institutions or representatives of their own choosing, including legal counsel.
Principle 3: Commitment to long-term economic and financial viability		
3.1	There is an implemented management plan that aims to achieve long-term economic and financial viability.	3.1.1 (M) A business or management plan (minimum three years) shall be documented that includes, where appropriate, a business case for scheme smallholders. 3.1.2 An annual replanting programme projected for a minimum of five years (but longer where necessary to reflect the management of fragile soils, see Criterion 4.3), with yearly review, shall be available.
Principle 4: Use of appropriate best practices by growers and millers		
4.1	Operating procedures are appropriately documented, consistently implemented and monitored.	4.1.1 (M) Standard Operating Procedures (SOPs) for estates and mills shall be documented. 4.1.2 A mechanism to check consistent implementation of procedures shall be in place. 4.1.3 Records of monitoring and any actions taken shall be maintained and available, as appropriate. 4.1.4 (M) The mill shall record the origins of all third-party sourced Fresh Fruit Bunches (FFB).

4.2	Practices maintain soil fertility at, or where possible improve soil fertility to, a level that ensures optimal and sustained yield.	4.2.1 There shall be evidence that good agriculture practices, as contained in Standard Operating Procedures (SOPs), are followed to manage soil fertility to a level that ensures optimal and sustained yield, where possible. 4.2.2 Records of fertiliser inputs shall be maintained. 4.2.3 There shall be evidence of periodic tissue and soil sampling to monitor changes in nutrient status. 4.2.4 A nutrient recycling strategy shall be in place, and may include use of Empty Fruit Bunches (EFB), Palm Oil Mill Effluent (POME), and palm residues after replanting.
4.3	Practices minimise and control erosion and degradation of soils.	4.3.1 (M) Maps of any fragile soils shall be available. 4.3.2 A management strategy shall be in place for plantings on slopes above a certain limit (this needs to be soil and climate specific). 4.3.3 A road maintenance programme shall be in place. 4.3.4 (M) Subsidence of peat soils shall be minimised and monitored. A documented water and ground cover management programme shall be in place. 4.3.5 Drainability assessments shall be required prior to replanting on peat to determine the long-term viability of the necessary drainage for oil palm growing. 4.3.6 A management strategy shall be in place
4.4	Practices maintain the quality and availability of surface and ground water.	4.4.1 An implemented water management plan shall be in place. 4.4.2 (M) Protection of water courses and wetlands, including maintaining and restoring appropriate riparian and other buffer zones (refer to national best practice and national guidelines) shall be demonstrated. 4.4.3 Appropriate treatment of mill effluent to required levels and regular monitoring of discharge quality, especially Biochemical Oxygen Demand (BOD), shall be in compliance with national regulations (Criteria 2.1 and 5.6). 4.4.4 Mill water use per tonne of Fresh Fruit Bunches (FFB) (see Criterion 5.6) shall be monitored.
4.5	Pests, diseases, weeds and invasive introduced species are effectively managed using appropriate Integrated Pest Management techniques.	4.5.1 (M) Implementation of Integrated Pest Management (IPM) plans shall be monitored. 4.5.2 Training of those involved in IPM implementation shall be demonstrated.

4.6	Pesticides are used in ways that do not endanger health or the environment	4.6.1 (M) Justification of all pesticides used shall be demonstrated. The use of selective products that are specific to the target pest, weed or disease and which have minimal effect on non-target species shall be used where available. 4.6.2 (M) Records of pesticides use (including active ingredients used and their LD50, area treated, amount of active ingredients applied per ha and number of applications) shall be provided. 4.6.3 (M) Any use of pesticides shall be minimised as part of a plan, and in accordance with Integrated Pest Management (IPM) plans. There shall be no prophylactic use of pesticides, except in specific situations identified in national Best Practice guidelines. 4.6.4 Pesticides that are categorised as World Health Organisation Class 1A or 1B, or that are listed by the Stockholm or Rotterdam Conventions, and paraquat, are not used, except in specific situations identified in national Best Practice guidelines. The use of such pesticides shall be minimised and eliminated as part of a plan, and shall only be used in exceptional circumstances. 4.6.5 (M) Pesticides shall only be handled, used or applied by persons who have completed the necessary training and shall always be applied in accordance with the product label. Appropriate safety and application equipment shall be provided and used. All precautions attached to the products shall be properly observed, applied, and understood by workers (see Criterion 4.7). 4.6.6 (M) Storage of all pesticides shall be according to recognised best practices. All pesticide containers shall be properly disposed of and not used for other purposes (see Criterion 5.3). 4.6.7 Application of pesticides shall be by proven methods that minimise risk and impacts. 4.6.8 (M) Pesticides shall be applied aerially only where there is documented justification. Communities shall be informed of impending aerial pesticide applications with all relevant information within reasonable time prior to application. 4.6.9 Maintenance of employee and associated smallholder knowledge and skills on pesticide handling shall be demonstrated, including provision of appropriate information materials (see Criterion 4.8). 4.6.10 Proper disposal of waste material, according to procedures that are fully understood by workers and managers shall be demonstrated (see Criterion 5.3). 4.6.11 (M) Specific annual medical surveillance for pesticide operators, and documented action to treat related health conditions, shall be demonstrated. 4.6.12 (M) No work with pesticides shall be undertaken by pregnant or breast-feeding women.
4.7	An occupational health and safety plan is documented, effectively communicated and implemented.	The health and safety plan shall cover the following: 4.7.1 (M) A health and safety policy shall be in place. A health and safety plan covering all activities shall be documented and implemented, and its effectiveness monitored. 4.7.2 (M) All operations where health and safety is an issue shall be risk assessed, and procedures and actions shall be documented and implemented to address the identified issues. All precautions attached to products shall be properly observed and applied to the workers. 4.7.3 (M) All workers involved in the operation shall be adequately trained in safe working practices (see Criterion 4.8). Adequate and appropriate protective equipment shall be available to all workers at the place of work to cover all potentially hazardous operations, such as pesticide application, machine operations, and land preparation, harvesting and, if it is used, burning. 4.7.4 (M) The responsible person/persons shall be identified. There shall be records of regular meetings between the responsible person/s and workers. Concerns of all parties about health, safety and welfare shall be discussed at these meetings, and any issues raised shall be recorded. 4.7.5 Accident and emergency procedures shall exist and instructions shall be clearly understood by all workers. Accident procedures shall be available in the appropriate language of the workforce. Assigned operatives trained in First Aid should be present in both field and other operations, and first aid equipment shall be available at worksites. Records of all accidents shall be kept and periodically reviewed. 4.7.6 All workers shall be provided with medical care, and covered by accident insurance. 4.7.7 Occupational injuries shall be recorded using Lost Time Accident (LTA) metrics.

4.8	All staff, workers, smallholders and contract workers are appropriately trained.	4.8.1 (M) A formal training programme shall be in place that covers all aspects of the RSPO Principles and Criteria, and that includes regular assessments of training needs and documentation of the programme. 4.8.2 Records of training for each employee shall be maintained.
Principle 5: Environmental responsibility and conservation of natural resources and biodiversity		
5.1	Aspects of plantation and mill management, including replanting, that have environmental impacts are identified, and plans to mitigate the negative impacts and promote the positive ones are made, implemented and monitored, to demonstrate continual improvement.	5.1.1 (M) An environmental impact assessment (EIA) shall be documented. 5.1.2 Where the identification of impacts requires changes in current practices, in order to mitigate negative effects, a timetable for change shall be developed and implemented within a comprehensive management plan. The management plan shall identify the responsible person/persons. 5.1.3 This plan shall incorporate a monitoring protocol, adaptive to operational changes, which shall be implemented to monitor the effectiveness of the mitigation measures. The plan shall be reviewed as a minimum every two years to reflect the results of monitoring and where there are operational changes that may have positive and negative environmental impacts.
5.2	The status of rare, threatened or endangered species and other High Conservation Value habitats, if any, that exist in the plantation or that could be affected by plantation or mill management, shall be identified and operations managed to best ensure that they are maintained and/or enhanced.	5.2.1 (M) Information shall be collated in a High Conservation Value (HCV) assessment that includes both the planted area itself and relevant wider landscape-level considerations (such as wildlife corridors). 5.2.2 (M) Where rare, threatened or endangered (RTE) species, or HCVs, are present or are affected by plantation or mill operations, appropriate measures that are expected to maintain and/or enhance them shall be implemented through a management plan. 5.2.3 There shall be a programme to regularly educate the workforce about the status of these RTE species, and appropriate disciplinary measures shall be instigated in accordance with company rules and national law if any individual working for the company is found to capture, harm, collect or kill these species. 5.2.4 Where a management plan has been created there shall be ongoing monitoring: • The status of HCV and RTE species that are affected by plantation or mill operations shall be documented and reported; • Outcomes of monitoring shall be fed back into the management plan. 5.2.5 Where HCV set-asides with existing rights of local communities have been identified, there shall be evidence of a negotiated agreement that optimally safeguards both the HCVs and these rights.
5.3	Waste is reduced, recycled, re-used and disposed of in an environmentally and socially responsible manner.	5.3.1 (M) All waste products and sources of pollution shall be identified and documented. 5.3.2 (M) All chemicals and their containers shall be disposed of responsibly. 5.3.3 A waste management and disposal plan to avoid or reduce pollution shall be documented and implemented.
5.4	Efficiency of fossil fuel use and the use of renewable energy is optimised.	5.4.1 A plan for improving efficiency of the use of fossil fuels and to optimise renewable energy shall be in place and monitored.
5.5	Use of fire for preparing land or replanting is avoided, except in specific situations as identified in the ASEAN guidelines or other regional best practice.	5.5.1 (M) There shall be no land preparation by burning, other than in specific situations as identified in the 'Guidelines for the Implementation of the ASEAN Policy on Zero Burning' 2003, or comparable guidelines in other regions. 5.5.2 Where fire has been used for preparing land for replanting, there shall be evidence of prior approval of the controlled burning as specified in 'Guidelines for the Implementation of the ASEAN Policy on Zero Burning' 2003, or comparable guidelines in other regions.
5.6	Plans to reduce pollution and emissions, including greenhouse gases, are developed, implemented and monitored.	5.6.1 (M) An assessment of all polluting activities shall be conducted, including gaseous emissions, particulate/soot emissions and effluent (see Criterion 4.4). 5.6.2 (M) Significant pollutants and greenhouse gas (GHG) emissions shall be identified, and plans to reduce or minimise them implemented. 5.6.3 A monitoring system shall be in place, with regular reporting on progress for these significant pollutants and emissions from estate and mill operations, using appropriate tools.

Principle 6: Responsible consideration of employees and of individuals and communities affected by growers and millers		
6.1	Aspects of plantation and mill management that have social impacts, including replanting, are identified in a participatory way, and plans to mitigate the negative impacts and promote the positive ones are made, implemented and monitored, to demonstrate continual improvement.	6.1.1 (M) A social impact assessment (SIA) including records of meetings shall be documented. 6.1.2 (M) There shall be evidence that the assessment has been done with the participation of affected parties. 6.1.3 (M) Plans for avoidance or mitigation of negative impacts and promotion of the positive ones, and monitoring of impacts identified, shall be developed in consultation with the affected parties, documented and timetabled, including responsibilities for implementation. 6.1.4 The plans shall be reviewed as a minimum once every two years and updated as necessary, in those cases where the review has concluded that changes should be made to current practices. There shall be evidence that the review includes the participation of affected parties. 6.1.5 Particular attention shall be paid to the impacts of smallholder schemes
6.2	There are open and transparent methods for communication and consultation between growers and/or millers, local communities and other affected or interested parties.	6.2.1 (M) Consultation and communication procedures shall be documented. 6.2.2 A management official responsible for these issues shall be nominated. 6.2.3 A list of stakeholders, records of all communication, including confirmation of receipt and that efforts are made to ensure understanding by affected parties, and records of actions taken in response to input from stakeholders, shall be maintained.
6.3	There is a mutually agreed and documented system for dealing with complaints and grievances, which is implemented and accepted by all affected parties.	6.3.1 (M) The system, open to all affected parties, shall resolve disputes in an effective, timely and appropriate manner, ensuring anonymity of complainants and whistle-blowers, where requested. 6.3.2 (M) Documentation of both the process by which a dispute was resolved and the outcome shall be available.
6.4	Any negotiations concerning compensation for loss of legal, customary or user rights are dealt with through a documented system that enables indigenous peoples, local communities and other stakeholders to express their views through their own representative institutions.	6.4.1 (M) A procedure for identifying legal, customary or user rights, and a procedure for identifying people entitled to compensation, shall be in place. 6.4.2 A procedure for calculating and distributing fair compensation (monetary or otherwise) shall be established and implemented, monitored and evaluated in a participatory way, and corrective actions taken as a result of this evaluation. This procedure shall take into account: gender differences in the power to claim rights, ownership and access to land; differences of transmigrants and long-established communities; and differences in ethnic groups' proof of legal versus communal ownership of land. 6.4.3 (M) The process and outcome of any negotiated agreements and compensation claims shall be documented, with evidence of the participation of affected parties, and made publicly available.
6.5	Pay and conditions for employees and for contract workers always meet at least legal or industry minimum standards and are sufficient to provide decent living wages.	6.5.1 (M) Documentation of pay and conditions shall be available. 6.5.2 (M) Labour laws, union agreements or direct contracts of employment detailing payments and conditions of employment (e.g. working hours, deductions, overtime, sickness, holiday entitlement, maternity leave, reasons for dismissal, period of notice, etc.) shall be available in the languages understood by the workers or explained carefully to them by a management official. 6.5.3 Growers and millers shall provide adequate housing, water supplies, medical, educational and welfare amenities to national standards or above, where no such public facilities are available or accessible. 6.5.4 Growers and millers shall make demonstrable efforts to monitor and improve workers' access to adequate, sufficient and affordable food.
6.6	The employer respects the rights of all personnel to form and join trade unions of their choice and to bargain collectively. Where the right to freedom of association and collective bargaining are restricted under law, the employer facilitates parallel means of independent and free association and bargaining for all such personnel.	6.6.1 (M) A published statement in local languages recognising freedom of association shall be available. 6.6.2 Minutes of meetings with main trade unions or workers representatives shall be documented.
6.7	Children are not employed or exploited.	6.7.1 (M) There shall be documentary evidence that minimum age requirements are met.

6.8	Any form of discrimination based on race, caste, national origin, religion, disability, gender, sexual orientation, union membership, political affiliation, or age, is prohibited.	6.8.1 (M) A publicly available equal opportunities policy including identification of relevant/affected groups in the local environment shall be documented. 6.8.2 (M) Evidence shall be provided that employees and groups including local communities, women, and migrant workers have not been discriminated against. 6.8.3 It shall be demonstrated that recruitment selection, hiring and promotion are based on skills, capabilities, qualities, and medical fitness necessary for the jobs available.
6.9	There is no harassment or abuse in the work place, and reproductive rights are protected.	6.9.1 (M) A policy to prevent sexual and all other forms of harassment and violence shall be implemented and communicated to all levels of the workforce. 6.9.2 (M) A policy to protect the reproductive rights of all, especially of women, shall be implemented and communicated to all levels of the workforce. 6.9.3 A specific grievance mechanism which respects anonymity and protects complainants where requested shall be established, implemented, and communicated to all levels of the workforce.
6.10	Growers and millers deal fairly and transparently with smallholders and other local businesses.	6.10.1 Current and past prices paid for Fresh Fruit Bunches (FFB) shall be publicly available. 6.10.2 (M) Evidence shall be available that growers/millers have explained FFB pricing, and pricing mechanisms for FFB and inputs/services shall be documented (where these are under the control of the mill or plantation). 6.10.3 Evidence shall be available that all parties understand the contractual agreements they enter into, and that contracts are fair, legal and transparent. 6.10.4 Agreed payments shall be made in a timely manner.
6.11	Growers and millers contribute to local sustainable development where appropriate.	6.11.1 Contributions to local development that are based on the results of consultation with local communities shall be demonstrated. 6.11.2 Where there are scheme smallholders, there shall be evidence that efforts and/or resources have been allocated to improve smallholder productivity.
6.12	No forms of forced or trafficked labour are used.	6.12.1 (M) There shall be evidence that no forms of forced or trafficked labour are used. 6.12.2 Where applicable, it shall be demonstrated that no contract substitution has occurred. 6.12.3 (M) Where temporary or migrant workers are employed, a special labour policy and procedures shall be established and implemented.
6.13	Growers and millers respect human rights.	6.13.1 (M) A policy to respect human rights shall be documented and communicated to all levels of the workforce and operations (see Criteria 1.2 and 2.1).
Principle 7: Responsible development of new plantings		
7.1	A comprehensive and participatory independent social and environmental impact assessment is undertaken prior to establishing new plantings or operations, or expanding existing ones, and the results incorporated into planning, management and operations.	7.1.1 (M) An independent social and environmental impact assessment (SEIA), undertaken through a participatory methodology including the relevant affected stakeholders, shall be documented. 7.1.2 Appropriate management planning and operational procedures shall be developed and implemented to avoid or mitigate identified potential negative impacts. 7.1.3 Where the development includes an outgrower scheme, the impacts of the scheme and the implications of the way it is managed shall be given particular attention.
7.2	Soil surveys and topographic information are used for site planning in the establishment of new plantings, and the results are incorporated into plans and operations.	7.2.1 (M) Soil suitability maps or soil surveys adequate to establish the long-term suitability of land for oil palm cultivation shall be available and taken into account in plans and operations. 7.2.2 Topographic information adequate to guide the planning of drainage and irrigation systems, roads and other infrastructure shall be available and taken into account in plans and operations.

7.3	New plantings since November 2005 have not replaced primary forest or any area required to maintain or enhance one or more High Conservation Values (HCVs).	7.3.1 (M) There shall be evidence that no new plantings have replaced primary forest, or any area required to maintain or enhance one or more High Conservation Values (HCVs), since November 2005. New plantings shall be planned and managed to best ensure the HCVs identified are maintained and/or enhanced (see Criterion 5.2). 7.3.2 (M) A comprehensive HCV assessment, including stakeholder consultation, shall be conducted prior to any conversion or new planting. This shall include a land use change analysis to determine changes to the vegetation since November 2005. This analysis shall be used, with proxies, to indicate changes to HCV status. 7.3.3 Dates of land preparation and commencement shall be recorded. 7.3.4 (M) An action plan shall be developed that describes operational actions consequent to the findings of the HCV assessment, and that references the grower's relevant operational procedures (see Criterion 5.2). 7.3.5 Areas required by affected communities to meet their basic needs, taking into account potential positive and negative changes in livelihood resulting from proposed operations, shall be identified in consultation with the communities and incorporated into HCV assessments and management plans (see Criterion 5.2).
7.4	Extensive planting on steep terrain, and/or marginal and fragile soils, including peat, is avoided.	7.4.1 Maps identifying marginal and fragile soils, including excessive gradients and peat soils, shall be available and used to identify areas to be avoided 7.4.2 (M) Where limited planting on fragile and marginal soils, including peat, is proposed, plans shall be developed and implemented to protect them without incurring adverse impacts.
7.5	No new plantings are established on local peoples' land where it can be demonstrated that there are legal, customary or user rights, without their free, prior and informed consent. This is dealt with through a documented system that enables these and other stakeholders to express their views through their own representative institutions.	7.5.1 (M) Evidence shall be available that affected local peoples understand they have the right to say 'no' to operations planned on their lands before and during initial discussions, during the stage of information gathering and associated consultations, during negotiations, and up until an agreement with the grower/miller is signed and ratified by these local peoples.
7.6	Where it can be demonstrated that local peoples have legal, customary or user rights, they are compensated for any agreed land acquisitions and relinquishment of rights, subject to their free, prior and informed consent and negotiated agreements.	7.6.1 (M) Documented identification and assessment of demonstrable legal, customary and user rights shall be available. 7.6.2 (M) A system for identifying people entitled to compensation shall be in place. 7.6.3 (M) A system for calculating and distributing fair compensation (monetary or otherwise) shall be in place. 7.6.4 Communities that have lost access and rights to land for plantation expansion shall be given opportunities to benefit from plantation development. 7.6.5 The process and outcome of any compensation claims shall be documented and made publicly available. 7.6.6 Evidence shall be available that the affected communities and rights holders have access to information and advice, that is independent of the project proponent, concerning the legal, economic, environmental and social implications of the proposed operations on their lands.
7.7	No use of fire in the preparation of new plantings other than in specific situations, as identified in the ASEAN guidelines or other regional best practice.	7.7.1 (M) There shall be no land preparation by burning, other than in specific situations, as identified in the '*Guidelines for the Implementation of the ASEAN Policy on Zero Burning*' 2003, or comparable guidelines in other regions. 7.7.2 In exceptional cases where fire has to be used for preparing land for planting, there shall be evidence of prior approval of the controlled burning as specified in '*Guidelines for the Implementation of the ASEAN Policy on Zero Burning*' 2003, or comparable guidelines in other regions.
7.8	New plantation developments are designed to minimise net greenhouse gas emissions.	7.8.1 (M) The carbon stock of the proposed development area and major potential sources of emissions that may result directly from the development shall be identified and estimated. 7.8.2 There shall be a plan to minimise net GHG emissions which takes into account avoidance of land areas with high carbon stocks and/or sequestration options.

Principle 8: Commitment to continual improvement in key areas of activity		
8.1	Growers and millers regularly monitor and review their activities, and develop and implement action plans that allow demonstrable continual improvement in key operations.	8.1.1 (M) The action plan for continual improvement shall be implemented, based on a consideration of the main social and environmental impacts and opportunities of the grower/mill, and shall include a range of Indicators covered by these Principles and Criteria. As a minimum, these shall include, but are not necessarily be limited to: • Reduction in use of pesticides (Criterion 4.6); • Environmental impacts (Criteria 4.3, 5.1 and 5.2); • Waste reduction (Criterion 5.3); • Pollution and greenhouse gas (GHG) emissions (Criteria 5.6 and 7.8); • Social impacts (Criterion 6.1); • Optimising the yield of the supply base.

Attachment 4: Basic climate risk analysis

9. Uganda's climate is relatively humid and warm, with large differences in **rainfall** patterns across the country due to the influence of topography and water bodies. Annual rainfall ranges between 800mm to 1500mm, with the south experiencing two rainy seasons (March-May and Sep-Nov), and the north experiencing a transitional regime of a long season with pronounced rainfall peaks (April-Oct). Historic records show a decreasing trend in rainfall[145], but downscaled climate models predict a probable increase in precipitation during the short rainy season as well as a potential increase in extreme events.

10. Mean annual **temperature** has increased by 0.3°C per decade since 1960, a trend which is expected to continue to reach an increase of 1.0 – 3.0°C by the 2060s. **El Niño** events tend to have less pronounced impact in Uganda than in Kenya and Ethiopia, with >30% higher rainfall anomalies confined to the north-eastern border with Kenya and other regions experiencing 0-30% increase[146] and occasional flooding events. The Lake Victoria region has its specific dynamics related to climate change, with large historic variations in the lake water levels and significant impact on hydropower, agriculture and fisheries.

11. The main driver of climate **risk** for oil palm investments is the long investment life span. Each oil palm has a life span of about 25 years, and investments are often made for multiple cycles of oil palms. A rapid mapping of current and expected future climate conditions on Buvuma (table 50) shows that, at a very course level of analysis the primary effects of climate change will be positive for the suitability, thereby increasing the potential yield. The actual response of oil palms to changing climatic conditions is however more complex, and will be influenced by the type of soils, the exact type of oil palm trees used etc.

Table 12: Classification of climatic conditions and their suitability for oil palm[147].

Suitability ► ▼ Element	5 (high)	4	3	2	1	0 (low)
Annual rainfall [mm yr^{-1}]	2000 – 2500	1750 – 2000 2500 - 2875	1500 – 1750 2875 - 3250	1250 – 1500 3250 - 3265	1000 – 1250 3265 - 4000	< 1000 > 4000
Number of dry months (< 60mm rain)	0	1	2	3	4-5	>5
Mean annual temperature [°C]	24 – 33	21.6 – 24.0 33.0 – 34.0	20.4 – 21.6 34.0 – 35.0	19.2 – 20.4 35.0 – 36.0	18.2 – 19.2 36.0 – 38.0	< 18.0 > 38.0
Daily solar radiation [MJ m^{-2}][148]	16 – 17	17 – 19 14 – 16	19 – 21 11 – 14	21 – 23 8 – 11	> 23 < 8	
Mean wind speed [m s^{-1}]	< 10	10-15	15 – 25	25 – 40	> 40	

A higher number means more suitable. Solid blue lines indicate current climate conditions in Buvuma, dashed lines indicate expected future climate.

12. **Agronomic impact.** Climatic changes affect the oil palm life cycle and hence tree growth, pest &diseases and yields. Water availability is a key determinant factor for yield, with water deficits negatively affecting yields. Apart from the net rainfall, the distribution is of importance, where consecutive dry days have the most severe impact. On the other hand, more intense rainfall events

[145] McSweeney, C., New, M. & Lizcano, G. 2010. UNDP Climate Change Country Profiles: Uganda. Available at: http://country-profiles.geog.ox.ac.uk/

[146] WFP-VAM (2015). El Niño: Implications and Scenarios for 2015/16. Available at: http://documents.wfp.org/stellent/groups/public/documents/ena/wfp280227.pdf

[147] IIASA (2015). Global oil palm suitability assessment. Interim Report.

[148] Paramananthan, S., Chew, P.S., and Goh, K.J. (2000). Towards a practical framework for land cultivation for oil palm in the 21st century. In: Proc. Int. Planters Conf. 'Plantation tree crops in the new millennium: the way ahead' (Ed. E. Pushparajah), Incorp. Soc. Planters, Kuala Lumpur, pp. 869–885,

increase the risk of flooding and erosion. Increasing temperature improves the ripening process, but makes the working conditions for harvesting of FFB more difficult.

13. **Ecosystem services**. High rainfall intensity or total rainfall increase has a negative effect on the population of the pollinating insect *E. Kamerunicus*.

14. Various strategies have been developed in recent years to increase climate resilience of oil palm production[149]. Some of these are already integrated into the existing VODP-2, and will be continued under NOPP:

Area	Mitigation measures in Place	Additional Measures
Oil Palm Yield	Application of EFB / Fronds in interrow to help preserve soil moisture Planting of cover crop. Use of terraces. Planting along the contour and on panels for soil and water conservation. Use of contour trenches to reduce speed of water flow down the slopes and allow water infiltration	Use of drought tolerant oil palm seeds. Use of hydrogels to help overcome initial drought Use of K fertilizer for better drought tolerance. Planting time to be completed 3 months before cessation of rains to allow root development to dance
Pest & Disease	Continuous monitoring for pest and disease correlation observed	Research to correlate observed climatic data and pest population to facilitate earlier Pest and Disease detection Research into P&D incidence and climate change.
Ecosystem services (low E. *kamerunicus*) numbers	Ablation by removal of only female flowers. Introduction of *Elaeidobiuskamerunicus* Pollinating weevils from other areas.	Use of research into predators of the pollinator, etc. (eg to reduce their number)
Water supply	Record rainfall. Stopping leaks, recycling of process water Use of water harvesting techniques	
Local community livelihoods and Malaria	Track number of Malaria incidents and climate change with local health facilities. Follow up of contagious diseases (clinic) Use of chemical spraying and changing type of chemical used Explore partnership with local or international organizations to implement malaria control programs	

15. Apart from these strategies directly related to oil palm development, NOPP includes a number of additional activities to further improve climate resilience at household and landscape level, including:

- **Promote alternative income-generating activities** that diversify household income streams to include sources that are resilient to climate change
- **Support active rehabilitation of degraded ecosystems** by focusing oil palm development on degraded lands; supporting reforestation of forest reserves; and supporting enrichment planting in buffer zones.

[149] e.g. Sutarta, Santoso and Yusuf (2015) Climate Change on Oil Palm: its impacts and adaptation strategies.

Attachment 5: Stakeholder Engagement Framework[150]

A. Introduction

1. Further to numerous reports by IFAD and partners a Stakeholder Engagement Framework is required for the upcoming National Oil Palm Project in Uganda.

> The aim as described by SECAP is to ensure transparency and accountability in project operation, engage the full range of stakeholders in formulation, implementation and monitoring of projects/programmes. Maintain transparency and accountability to stakeholders and by responding to their concerns in a timely manner (IFAD SECAP, 2014, P11)

2. **The Aim of the Stakeholder Engagement.** Any development requires full stakeholder engagement and buy-in to the Project. The aim of Stakeholder Engagement is to obtain both a formal and informal licence to operate from all levels within and without the country of operation based, in a spirit of co-operation, collaboration and participation.

3. Engagement should be meaningful, timely, accessible and in a culturally appropriate manner. It should provide stakeholders with the opportunity to understand the Project, its potential positive and negative impacts, work collectively to resolve the constraints, ask questions, receive feedback, express concerns or lodge grievances. It is a two-way dialogue, where respecting local and indigenous knowledge is as important as the knowledge transfer. Early engagement at the appropriate levels provides a valuable opportunity to influence public perception and set a positive tone with stakeholders, despite the many uncertainties and unknowns. It is an opportunity to help generate ideas and alternative solutions on early design issues. The Stakeholder Engagement Management Plan provides the structure through which all of this can happen.

Stakeholders may include:

Investors	District Authorities
Partners	Local Traditional Authorities
Shareholders	Non-Government Organisations
Investors	Community Based Organisations
Financial Institutions	Projected Affected Peoples
Government Agencies	The Media
Contractors & Service Suppliers	Outgrowers
Project Affected Peoples	Communities in the Project area of influence

[150] The text is taken from the review of the land acquisition process, conducted by an IFAD consultant in June 2017.

B. The Framework

STAKEHOLDER ENGAGEMENT FRAMEWORK		
1	**WHY**	**UNDERSTAND** why you want a stakeholder engagement strategy and key outcomes**.**
2	**WHO**	**DEFINE** who stakeholders are, their differing agendas and their power and influence.
3	**WHEN**	**REVIEW** the Project life cycle and how those stakeholder relationships may change overtime.
4	**WHERE**	**IDENTIFY** the spatial scope of the stakeholders and how best to engage them.
5	**WHAT**	**MANAGE** expectations through the key messages, information, two-way exchange of ideas and understanding between the parties**.**
6	**HOW**	**STRATEGIZE** the best way to communicate and engage in a culturally appropriate manner using the best medium and language is best
7	**THEN WHAT**	**CAPTURE** the engagement and keep records of all agreements, follow-ups and feedback required by whom and when.

C. Define the Project Vision

4. Project Drivers. The National Oil Palm Project is led by the Government of Uganda (GoU) and supported by IFAD and includes an experienced investor BIDO, registered locally as OPUL. Their collective aim is to unlock the opportunities that investment in the oil palm industry offers for local wealth creation and people development.

5. NOPP Aim. The Project is expected to be a role model for and driver of sustainable growth in Africa's agro-industry development. The Project is aware that environmental sustainability can only be secured if it goes hand-in-hand with social uplift and human development. Hence, the Project overall subscribes to a development model that local communities can actively participate in and are empowered by the growth of the Project.

6. NOPP Values. The NOPP model is built on a value system that fundamentally believes that all people, have the ability, enabled through initial support and training, to successfully become outgrowers

7. NOPP Project Support. NOPP aims to support smallholder farmers by providing a secure and attractive market for their produce and by implementing support services that will enable local farmers to invest in their farms and to apply proper farm and business management practices. These measures will enable farmers to increase their production output and profitability.

8. It will also provide a stepping-stone for farmers to diversify their farming operations to include a high value cash crop. At the same time, NOPP offers support for local entrepreneurs to provide a range of goods and services to the oil palm mill and its employees, as well as to a growing commercial farming class.

9. The NOPP Strategy is based on the following four statements:

- Work with the GoU to support the rural poor develop their economy
- Empower local Districts to deliver the services and support to its local communities;
- Liaise with the investor so as optimise oil palm production to ensure it is economic, social and environmentally sustainable in the local Ugandan context.
- Bridge global climate change challenges in food security with local development needs and opportunities.

D. The NOPP SEMP

10. The Stakeholder Engagement Management Plan (The SEMP) is a working document and requires periodic reviews to address the changing project components as they are rolled out. It should be developed specifically for the NOPP, but the substance can be generally applied to Uganda as a whole.

SEMP Methodology

11. The first stage of developing the SEMP is to identify the rationale and define the outcomes that wish to be achieved. This will include defining the legislative framework and governance of the SEMP, which should embrace Ugandan Law, its constitution and its policies, SECAP guidelines and the RSPO principles.

12. The second stage of the SEMP is to map the key stakeholders. It is important to identify their differing agendas, their power and influence and find basic commonalities from which to commence engagement. The SEMP should be developed in consultation with all the key stakeholders through interviews, undertaking a needs analysis and risk assessment for the multifarious activities of the Project. It should also identify stakeholders' core strengths and weaknesses and plan to build capacity where required. This will ensure compliance and effective implementation.

13. The third stage of the SEMP is to define the changes throughout the Project life cycle, which will change relationships and interactions and plan ahead to embrace engagement needs.

14. The fourth stage of the SEMP is to define the spatial scope of the stakeholders, in Uganda and overseas so as to ensure the most appropriate form of communication. This will include the IFAD HQ, its donors the GoU, the District and traditional authorities, who can advise on the best culturally appropriate models for consultation and engagement with communities.

15. The fifth stage of the SEMP is to identify how to engage and communicate the key messages and roles and responsibilities Project partners must agree on how this is done.

16. The sixth stage of the SEMP is to actually implement the plan and engage.

17. The seventh stage of the SEMP is to capture and catalogue each engagement, the time, location, attendees, the issues covered in the engagement, responses, questions and answers, feedback, assigning roles and responsibilities and timelines to address the issues arising in a timely manner. All of this can be used in the M&E process.

E. Legislative Review on Stakeholder Engagement

18. Stakeholder Engagement Requirements Under Ugandan Law**.** Ugandan Laws have various Articles and Sections that relate to the consultation process, but for development projects, the key elements come from the Constitution of the Uganda, its laws and policies, including Customary Law.

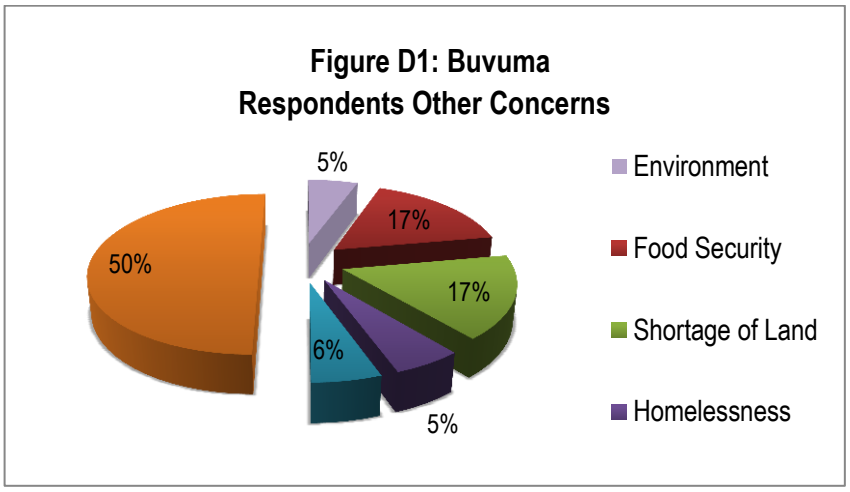
19. Stakeholder Engagement Requirements under International Guidelines. This would include using SECAP, FAO, IFC and RSPO guidelines and policies.

20. The IFC's Good Practice Manual Doing Better Business through Effective Public Consultation and Disclosure (IFC 1998). Public consultation and information disclosure could also use ideas from the IFC to build environmentally and socially responsible successful projects. In particular the manual states that the following principles should be maintained:

- Written and oral communication in local languages and readily understandable formats.
- Easy accessibility by relevant stakeholders to both written information and to the consultation process.
- Use of oral or visual methods to explain information to non-literate people.
- Respect for local traditions or discussion, reflection and decision-making.
- Care in assuring groups being consulted are representative, with adequate representation of women, vulnerable groups, ethnic or religious minorities, and separate meetings for various groups where necessary.

- Clear mechanisms to respond to people's concerns, suggestions and grievances.

21. Information Exchange. The free flow of information between the NOPP partners and stakeholders is essential to promote opportunities for people to voice their concerns and propose alternatives.



F. Project Stakeholders

22. Stakeholder Mapping. The aim of the stakeholder mapping is to not only understand the key players, hierarchies and the protocols, but the underlying power holders that can influence a Project. Stakeholder mapping is an organic process, starting with the initial top-level identification of the key players at national, regional, district and community level during the scoping phase. This may include not just the government officials but religious leaders, unions, community youth and women spokespersons.

23. Itis important to establish genuine and co-operative relationships with each stakeholder group, overcoming initial misunderstandings, understand their fears and concerns of the Project and address them one by one.

24. As each of the Project phases evolves, the stakeholders and interface changes, and where as old relationships must continue, new relationships must be formed with the same transparency and openness with which one can develop trust and move the Project forward.

25. Government Relationships. The Government of Uganda is heading the Project through the Ministry of Agriculture and Managed through the Project Management Unit. (PMU). NOPP PMU liaises with a variety of different Ministries including: Each has a different mission, vision and role to play, protocols of engagement and potentially different agendas. It is important to capture these in the SEMP.

Ministry of Agriculture	Min of Environment
Min of Lands	Ministry of Works
Min of Finance	Ministry of Labour
Min of Natural Resources	Government Related Agencies

The PMU will document all formal meetings.

Regional Office; The District Officers; Town Councils – To be filled

26. Communities Relationships. The surrounding communities will have a variety of relationships with NOPP. They will be host communities and their local residents, workers, suppliers, contractors, partners in community development, impacted persons and outgrowers. The Community Liaison Officer (CLO) and the Corporate Social Responsibility Officer will direct NOPP's interaction towards the communities in their respective remits.

27. Community in the Project Area of Influence. In the case of a small island, this involves all island inhabitants. They will experience all the project impacts and unless empowered will not necessarily benefit from the project.

28. Community Development Service Providers Relationships. The Community Development Service Providers will most likely be a mixture between national and international NGOs, preference should be given to local NGOs. Experience shows that most NGOs are very positive and open towards a business partnership. A Memorandum of Understanding has to be signed to clarify roles and responsibilities.

29. Business to Business Relationships; Partners and Shareholders Relationships; Financial Institutions Relationships; Contractor Relationships; NGOs Relationships – to be filled

30. Non-Governmental Organizations will take a special interest in the Project. This can be in a positive form as service providers, i.e. in environmental, health matters and as service providers or antagonists i.e. NGOs try to point out a poor practice.

31. In the past a range of international NGOs have accused the VODP of land grabbing and deforestation. It is important not only to comply with the various social and environmental guidelines as defined by the GoU, SECAP and RSPO to avoid any credence to these arguments, but it is equally important to ensure that actions taken, can be backed by evidenced records. Key messages need to be coherent among the NOPP partners and all engagement must be dealt with patience, honesty and transparency.

32. NOPP should also work in close collaboration with NGOs to support the various development of skills to improve lives and livelihoods. For each intervention, a 'Memorandum of Understanding' detailing roles and responsibilities should be written.

33. The Media Relationships. The VODP has already had media coverage, and some of it has been critical of the land acquisition process and conditions of workers in the Bugala Oil Palm mill. When asked to respond **to an issue, it is advised that this is done as a face-to-face meeting, which is recorded and transparent.**

G. Previous Stakeholder Engagement Activities

34. Background**.** The SEMP is being developed nineteen years after the first Finance Agreement was signed for VODP in Kalangala and seven years after the Finance Agreement for Buvuma District. Land acquisition is almost completed. The Project now realises the importance of the SEMP, not just as a compliance issue but as a working document to move the project forward positively.

35. The particular challenge of this Stakeholder Engagement Management Plan therefore is to fill the gaps and put measures in place to rebuild relationships where there are issues. The over-riding aim is to develop the appropriate structure within the PMU to lead on all stakeholder engagements, clearing the way for the necessary 'licenses to operate' from every stakeholder group, and to be in compliance with national laws and international best practice.

36. The advantage of developing the SEMP at this point is that the PMU already understands the strengths and weaknesses of its key stakeholders. Plans can be put in place to address the weaknesses, build stakeholder confidence and move forward with alacrity. Importantly, the SEMP affords the opportunity to help the PMU overcome its own weaknesses, especially with regards to methodologies in the field, developing institutional memory and developing a full and collaborative relationship with the local authorities.

37. Capturing Land Acquisition. Provide a summary of the Land Acquisition since the commencement of VODP including Kalangala and Buvuma, the sales Agreements, a spread sheet of all the valuations and dates. Also it is important to accurately capture all the grievances to date,

38. Project Life Cycle. The VODP1 and VODP2 are being combined into the NOPP, but all in different phases of the Project Life Cycle. This needs to be systematically captured in the SEMP.

39. Project Spatial Coverage. VODP1 is based in Kalangala District, VODP2 is based in Buvuma District, both islands Lake Victoria, where internet, mobile phone network coverage and power are constrained and the local communities have poor literacy levels and speak various languages.

- The NOPP Project is now likely to expand to the mainland;
- Entebbe is the nearest city to Kalangala;
- Jinja is the nearest city to Buvuma;
- The various Government Ministries and PMU are based in Kampala.

40. This means the spatial scope of the NOPP is very widespread, communications are constrained, written communications are not always effective and many languages are in play.

H. The SEMP Moving Forward

41. Introduction**.** The SEMP is an organic document that can be built upon as the Project develops, as its stakeholders increase and the interface becomes wider and deeper. The Stakeholder Engagement Strategy is generally developed at the very start of the Project to set the scene for the life of the Project. It aims to capture and support the following:

Introduce the project;
Enable the organic growth of stakeholder mapping;
Establish links and representatives with each stakeholder groups;
Obtain Government / District level approvals and co-operation;
Foster a two-way dialogue with all stakeholders;
Facilitate data collection;
Identify concerns;
Address grievances;
Enable the participatory development of initiatives and programmes;
Create local opportunities
Avoid conflict,
Build the capacity for participatory monitoring and evaluation for improvement,
Establish trust and a positive relationship with all stakeholders throughout the Project Cycle,
Capture all communications in soft copy including signed attendance sheets.

42. Invest in the Stakeholder Engagement**.** Effective public consultation and information disclosure takes time and resources and is a necessary investment in the future of the project. The scheduling of project activities should allow sufficient time for consultation and for addressing unanticipated issues that may arise.

43. The project budget should allow for expenditures such as hiring consultants to perform all the steps necessary for effective public consultation and information disclosure; employing permanent staff with the appropriate qualifications and interns to expand local knowledge; organizing public meetings; printing and distributing written material, including material translated into local languages; and working with the media.

44. Buy-in and Understanding to the Importance of Engagement. Effective Stakeholder engagement impacts every department and every division of the PMU, directly or indirectly. Without the understanding and the commitment to embed this into core management practice, decision-making on seemingly simple internal issues can impact external stakeholders.

45. All departments need to be aware of the importance of the stakeholder engagement policy and embed safeguards to prevent unnecessary conflicts. It is far more difficult to resolve conflicts and rebuild trust than undertake a quick risk assessment during the decision-making.

46. Engagement Strategy. Engagement will be carried out in a transparent, participatory and inclusive manner and in acknowledgement of the various protocols in existence for the various stakeholders and level of education; the appropriate language will be used, and the time and location

of consultations will be considered to minimise interference in the socio-cultural and economic activities of the participants, especially when engaging local communities.

I. Roles and Responsibilities

47. The Project Manager. The PM is overall responsible for the stakeholder engagement strategy and for ensuring that the strategy is carried out across the team.

48. The PMU Communications Officer. The CO will need to be capable of developing good relations with the media, keep the website up to date and be responsible for all public communications, ensuring key messages are disseminated using appropriate languages and media, serving the needs of the NOPP.

49. The CLO. One person, often referred to as a Community Liaison Officer (CLO), needs to take responsibility for day-to-day communications on the ground, supported by appropriate staff. They should have the ability to embrace all members of the community in a culturally appropriate manner, ensuring gender sensitivity. They will have the authority and charisma, not only to establish trust, negotiate and develop a genuine two-way dialogue with the communities, but be able to influence Project decision-making to avoid potential conflicts. The CLO will have their own community-based counterparts in each village so there is effective, direct means to communicate.

50. The Investor. The investor will have a Corporate Social Responsibility CSR Department incorporating elements separate to the core business activities. Co-ordination with the investors CSR Dept. could be mutually beneficial and enable more targeted support and added value, where other institutions have not reached.

51. Consultants. Occasionally specialist consultants will need to be brought in to cover particular issues. It is recommended that these consultants take on local PMU support to empower them further in discharging their duties.

TABLE D1: IFAD COUNTRY OFFICE: STAKEHOLDER ASSESSMENT

Stakeholders	**Design**	**Investment** (First 4-5 years in each hub)	**Management** (after first harvest)	**After Completion**
Central Government				
Min Finance	H	M	L	L
Min Agric	H	H	H	M
Min Works	H	H	M	M
Min Land	H	H	L	L
NEMA (Environment)	H	H	M	M
Forest Auth.	H	H	M	M
Local Government	M	H	H	H
OP Growers	M	H	H	H
Overall communities	M	H	H	H
Donors	M	M	L	L
Private Sector	H	H	H	H
NGOs/CSOs	M	H	M	L
IFAD HQ	H	M	M	L

Table D2: PMU VODP: STAKEHOLDER ASSESSMENT				
Stakeholders	**Design**	**Development**	**Operations**	**Closure**

H = High importance
M = Medium Importance
L = Low importance

J. The SEMP Engagement Planning

52. Engagement Methodology. Stakeholder engagement is not a one-off activity, but an interactive process that should begin during the conceptual design of a project and continue throughout the Project cycle. There are some core activities that can be carried out to ensure effective communications including:

53. Effective Management

(i) Continually update the stakeholder mapping, providing depth of understanding of the power relationships and those that are 'champions' or 'protagonists' to the Project, optimizing this knowledge to the greatest effect;
(ii) Comply with local regulatory requirements calling for public involvement;
(iii) Continually monitor, evaluate and improve stakeholder consultations through accurate record keeping, in-house training addressing issues proactively rather than retroactively;
(iv) Plan meetings, key messages, key inputs and aspired outputs, (language, timing, location, culturally appropriate materials) Q&A sessions and review approach to ensure it meets with its aims and objectives prior to engagement.

54. Protocols**.** Each of the stakeholders will have different protocols for engagement and it is the duty of the CO at the PMU Office to find out these protocols and inform the team how to communicate with each.

55. The CLO will need to ensure the same on the ground to build trust. Local authorities can support this and it is often pertinent to have someone appointed from the District authorities to be the key liaison on all Project matters.

56. Finding Champions. It is important to establish champions at every level to act as information multipliers and avoid rumour mongering, which can destabilize Project development and cause delays. All engagements will be carried out with respect to the different perspectives expressed on the issues, providing consistent messages regarding the Project activities and manage expectations, and following engagements, provide timely, relevant responses to stakeholder concerns and follow-up on commitments made to stakeholders.

57. Inclusiveness. On the community level, efforts must be made to embrace women and youth. Often in traditional societies it is more appropriate to conduct separate women's meetings so they feel empowered to speak, make suggestions and express their own concerns. It is also important to

embrace the youth and the vulnerable to participate in the process of the Project development and again separate meetings, focus group discussions and other engagement tools can embrace the silent majority. Livestock keepers must also be proactively engaged.

58. Community Capacity Building. Where necessary some capacity building and soft investment in filing systems where none currently exist can ensure accuracy in record keeping.

59. Managing Expectations. Throughout the project cycle, consultation provides an opportunity to explain the NOPP role and the limit of its contribution to and responsibility for local communities. In order to avoid unrealistic demands and expectations from local communities or other parties, there needs to be clear communication from the very beginning in describing of what NOPP can and cannot deliver. Try not to overstate the benefits so as not to increase expectations, rather 'under promise and over-deliver'.

60. Work with NGOs and community-based organizations. The CLO will identify and liaise with NGOs and community-based organizations (CBOs), particularly those who represent project-affected people. NGOs often have expertise vital to good public consultation. They can be sources of local knowledge, sounding boards for project design and mitigation, consulting with sensitive groups, and partners in planning and implementing community development programs.

61. It is also important to carry out a capacity audit on their capabilities, strengths and weaknesses. They can also give insight into the local power dynamics and existence of special interest groups to ensure there is a pre-awareness of other issues, often unrelated to the project itself.

62. Grievance Mechanisms. Even with a proactive Stakeholder Engagement plan, an experienced CLO and inclusive engagements, there will be times when some stakeholders will feel that they are not being heard or that there concerns are not being addressed. Whereas with the Government, media and NGOs will have their own way to demonstrate visibly any issues, the stake-holding communities need to have a clear and user-friendly channel to express their concerns peaceably.

63. The development of a user-friendly grievance mechanism introduced and explained at the start of the engagement process will demonstrate that there is a genuine intention to establish a two-way dialogue and empower people to speak more frankly, voice their concerns and empower them to actively contribute to the development process.

K. The SEMP Engagement

64. Meeting Set Ups (where appropriate). Dialogue can be effective only if consultation is convenient and accessible to relevant stakeholders, particularly project affected persons. Prior to any stakeholder engagement where requested by NOPP, the following considerations need to be made:

A. Purpose of Meeting	Preferred Outputs
Meeting Set Up	Location / Venue
Protocols Required	Language
Key Message	Dress Code
Key participants	Timing
Inputs design	Allocate time for Q&A
The Agenda provided*	Responsiveness
Time allotted*	Closure of Meeting
Presentation Equipment prepared	Transport Allowances*
	Sitting Allowance*

65. Co-ordinate and Catalogue Engagements. All stakeholder consultation requires a minimum of two people, one to 'communicate and the other to capture the key elements of the communication. The meeting notes will be written up in soft copy, labelled accordingly for future retrieval and action. Copies will be sent to those who need to take action and a Register of Meeting kept. Each Meeting note should include:

Ref No Time Date Location Presenter Participants	Purpose Q&A Outcomes / Follow up Actions including: o (Roles and Responsibilities (Flagged) o Timelines (Flagged)

66. Attached to the meeting notes there should be a signed list (or thumb print) with all attendees. The meeting notes should remain 'active' until the 'Comment' or 'Action' required is completed and information reverted back to the community on time. This simple technique will ensure that the Project Managers can keep abreast of all outstanding activities and ensure there is close out on each issue.

- A summary schedule of these meetings also needs to be captured and entered into an accessible database for reference.
- This system will also be proof to detractors of the project that full engagement has undertaken in a participatory manner.
- Some relevant templates can be found in the Appendices

L. Participatory Engagements

67. Types of Engagements. There are a range of types of engagements which NOPP can employ throughout the Project lifecycle and it is important to apply the most appropriate dialogue for each forum or event. The method will depend on the intent of the engagement, the particular stakeholders involved and the most culturally appropriate content. For example:

1. Public Disclosure
2. General Meetings
3. Stakeholder Workshops
4. Single Issue Meetings
5. Key Informant Interviews
6. Community Meetings
7. Participatory Surveys
8. One on one meetings
9. Focus Group Discussions
10. Capacity Building
11. Participatory Development Meetings
12. Participatory Monitoring

68. Public Disclosure**.** The aim of public disclosure is to make information available, talk through and share ideas on the Project and receive feedback for improvement. They should be held in a timely manner, in publicly accessible locations and in a language and format readily understood by the different stakeholders. Informing the Government on the nature of the disclosures, the Government will usually take charge in setting up and inviting the appropriate stakeholders with input from the Project to ensure the widest range of participants attends. Potentially invitees would include various ministries and departments, the District, ward councillors and communities, universities, NGOs, press and maybe the relevant union leaders.

69. The invitations could be accompanied by the distribution of suitable designed information and reports to enable participants to review the documents prior to the public disclosure. The presentations should include culturally appropriate media and materials that clarify rather than confuse. The Q&A sessions should aim to address any concerns raised directly.

70. The web can reach the wider audience and transfer public knowledge about the Project from the local to the national or international. The website should be managed to ensure regular updates and include a reader response forum to enhance transparency.

71. General meetings are for the purpose of information exchange that maybe followed by some line items to action from the meeting. Following the Q&A sessions, the meeting holder should ensure that follow up actions are assigned, roles & responsibilities recorded and timelines for feedback

72. Stakeholder Workshops are important sharing events held at key points during the Project lifecycle which enable the stakeholders to understand the Project better and the Project to understand its stakeholders' perspectives. They are an opportunity to collectively improve practice and ensure the Project's holistic success.

73. Although a Project led initiative, collaboration with the key ministries in the set-up can ensure their ownership in the process as well. A Stakeholder Workshop set-up includes: invites to a specific range of stakeholders that can contribute to the workshop aims, the development of appropriate materials for the participants involved, a facilitator, who understands the power dynamics and efficient recorders of the business.

74. Breakout sessions with multi-stakeholder participants exploring various themes can often build bonds of co-operation towards a common goal, which other engagements cannot usually achieve. 'Fun' activities should also be on the agenda to keep participants awake and engaged.

75. Single Issue Meetings. Single-issue meetings may have a variety of stakeholders from various perspectives that can inform on a specific issue to overcome technical obstacles or conflicts in shared resource-use. Attendees should have the appropriate technical or indigenous knowledge.

76. Key Informant Interviews. One–on-one interviews are a useful way of obtaining a variety of opinions on a single topic through informal open-ended questions, which can collectively form an opinion or move forward on issues of particular conflict prior to collective meetings. They are also a way of conducting rapid appraisals (RA) and enable an individual to speak candidly about issues, concerns or constraints sometimes not possible to elicit in collective forums.

77. Participatory Surveys. During the course of any Project a variety of surveys are required for the EIA, RAP, development, communal resources, cultural mapping, transect walks, public services etc. These surveys should be taken accompanied by a member of the village appointed by the village executive or committee and capacity building may be appropriate to fulfil the objectives and allay fears of the purpose and rationale behind the questions.

78. Focus Group Discussions (FGDs). FGDs are multi-functional within a Project development and can ensure that the perspectives of the people can be captured, information disseminated or awareness created. It is also a good engagement tool to embrace the grassroots, women, youth and livestock keepers who are often not part of main executives or community committees.

79. Capacity Building. Capacity building is an important part of the participatory process of engagement and can take many forms. Planned well, it can assist in a range of participatory activities and enable the silent majority to speak and contribute. Training of village liaison officers to interface with the Project on a daily basis can maintain good communications throughout the Project lifecycle.

80. Drama for Development. One of the most useful capacity building techniques is through the use of drama, which can often approach difficult issues and raise contentious subjects in a palatable forum, which can face the uncertainties of a Project development and work through potential scenarios and resolutions or create awareness of possibilities or can explore the outcomes of decision making. All dramas need to be followed-up with engagement and Q&As.

81. Participatory Development. Interface with the investor on proposed CSR activities and initiatives can encourage the use of participatory processes will help ensure more success and sustainability.

82. A qualified and experienced Community development Officer (CDO) should work with their CSR Dept to support the development of initiatives.

83. Grievance Address. However effective the CLO is in maintaining collaborative and positive relationship with local communities, there will be incidences and grievances that will need to be addressed from time to time.

84. It is important at the very outset to ensure that the village executives, committees and community members understand how to raise issues, define roles and responsibilities, timelines and approach when dissatisfaction or grievances arise.

85. Participatory Monitoring. A process of participatory monitoring and evaluation needs to take place, internally and in cooperation with the communities themselves.

86. Taking a pre-emptive and proactive approach to the management of grievances early on will avoid later conflict. Beyond managing a grievance there is also the required sensitivity of dealing with it expediently and transparently. Involvement with an independent NGO can often assist in the conflict resolution where necessary.

87. Engagement with the Districts. Involvement of the District from the start of the Project is essential and they will be invaluable to support the various programmes. Alternatively, if they feel that the Project is going on without them they will feel disenfranchised. Where ‘grievance mechanisms’ will not be used, they can become uncooperative if they feel left out.

M. Tool Kits for Communications

88. Tools. Whereas it is acknowledged that there are low levels of literacy amongst communities generally, in each community there are information multipliers and can be encouraged to support the more vulnerable. A range of communication and engagement tools are needed to address different participants on varying issues. These include:

Posters	Speakers
Radio	Displays and Exhibitions
Slide Shows	Information Centres
Film	Exposure Trips
Websites	Competitions
Notice Boards	Dramas

89. Posters can be an effective solution to provide up-coming events or meetings to dispersed populations.

90. Radios are common in communities especially where access to newspapers or low literacy rates pertain. Announcements on local language radio programmes can also be a way to communicate events, competitions, meetings or other information. Television is irrelevant within the local context, but could be used to influence a national audience or serve marketing purposes.

91. Slideshows can be very useful to present a visual image of a topic. Written words should be kept very minimal, three or four words are sufficient. The presenter’s duty is to talk over the side to explain what the picture is about. This technique helps maintain attention of the participants and adds different dimension rather than just all the talk.

92. Film is another way of projecting ideas and capacity building to a community as long as the language of the film is appropriate. For example, using local language video on HIV Awareness using a laptop strung to a tree has been found to be very effective.

93. Websites. A website on the Project, progress and opportunities can attract comments and is a positive step towards inclusiveness and transparency.

94. Notice Boards. Notice boards placed in communities can hold a variety of Project information, job opportunities, up-coming events, competitions and photos of successful activities. If proactively managed by the CLO, with new photos being displayed every week it will become a focal centre for ongoing trust building and development activities.

95. Speakers. A speaker is a person with a locally made microphone that informs about pending gatherings. This can be a useful tool to announce upcoming meetings or other urgent information that needs to be delivered to each person.

96. Information Centres. In host or outgrower communities a manned information office is important for outgrowers. This manned centre can be in the form of an office with certain hours. It has to be of a welcoming nature with regular office hours.

97. Displays and Exhibitions. The PR department in conjunction with the CLO will handle the imaginative development of non-technical, non-literate dependent communications. Models, drawings photos, exposure trips, dramas can enhance participatory development activities.

98. Competitions are a means of capacity building on a variety of topics embracing whole communities. Awareness of bio-diversity, the environment, health and safety or recycling messages can be introduced to communities and assist in mind-set changes for particular goals. Whether introduced to the schools, various community committees or CBOs, they can embrace the wider community with the messages and outcomes.

99. Dramas. Difficult issues or introduction of new topics can often be introduced through community development dramas. They are also a useful tool for conflict resolution in the community and playing out different options to demonstrate potential chain reactions to decision making.

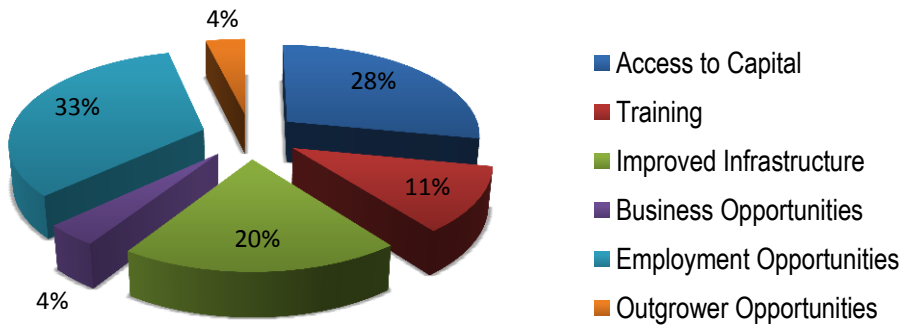
100. Exposure Trips. For isolated communities, exposure trips to see different techniques, markets, skills and opportunities can be a productive means to set goals for improvement on quality, quantity and Practice.

N. NOPP Empowerment Components

101. Introduction. The NOPP has a range of key components to support the outgrowers and the wider communities, this is to address already assessed constraints. They aim to give ‘added value’ to the surrounding communities using a range initiatives and support mechanisms to benefit the widest range of people.

102. Whereas these initiatives are not part of core business activities, they can improve relations and empower the people to optimise the new opportunities of the project, directly and indirectly.

Figure D2: Respondent Perceptions of Project Benefits



103. Approaches to Empowerment. It is important to work within the District structures and development plans and community initiatives already in place can ensure social cohesion. It is unnecessary to reinvent the wheel, copy and paste previous initiatives from other countries onto a community or set up parallel organisations that conflict with the ones in place

104. This does not mean that these existing committees are as empowered as they could be, but working with the community and their own development plans is a good place to start.

105. After a participatory needs analysis, some initial capacity building can be useful to boost effectiveness and discussions on what the Project can and cannot do reflected in a MOU before any initiative is commenced.

106. Managing Community Development Programmes. There is a range of options in the management of Community Development Programmes for any company. It is recommended, that an experienced national community development officer (CDO) with the appropriate qualifications facilitate, manage and develop with the community initiatives that are culturally appropriate and sustainable.

107. The individual programmes however are generally better implemented on the ground by NGOs, local District initiatives or donor organisations that can use their specialist knowledge and experience in the field to achieve the goals of the programme. The CDO can work with them to ensure the programmes are delivered and ensure that a Community Development Register is kept and monitoring and evaluation of the programmes is undertaken for both the community and the Project.

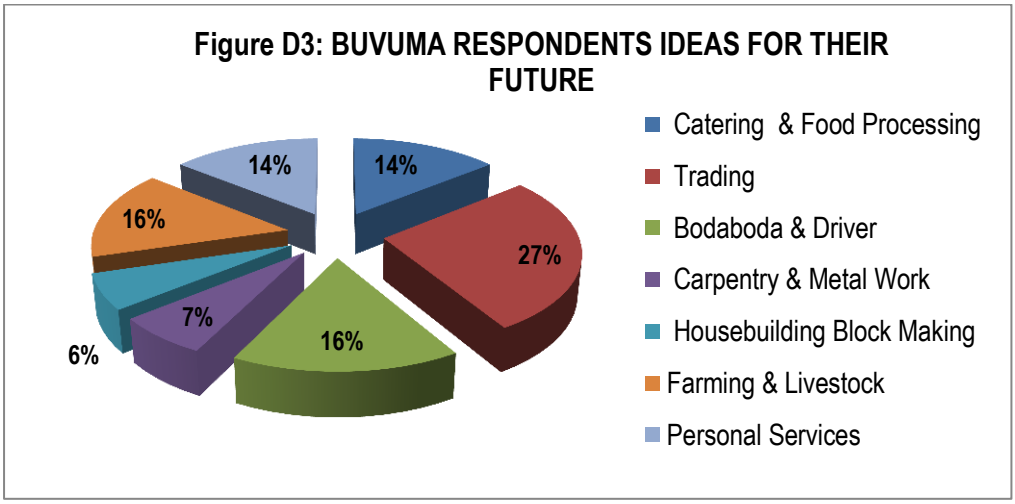
108. Amongst the company staff there will be some who have skills and competences that could be shared in the communities as part of a voluntary staff programme for community development. Example of this could be running football leagues, teaching IT skills or fundraising for specific activities.

109. Managing Expectations. With any initiative it is imperative to set the boundaries on what the Project can and cannot support.

110. Budgeting for Programmes. Starting small and build on programmes, rolling them out as required is better than big gestures which could be seen as an attempt to buy off communities for Project needs. Each initiative should be developed in participation with the community development committee to be fully budgeted and measurable goals set.

111. Continuity of funding for these programmes is important and under-funding can set the programme to fail and worse, create bad perception with the community. It is best to set a budget for community development every year, with which the CDO along with his counterparts in the surrounding villages can start to plan and budget, prioritise and audit together. The budget should also have a sum set aside for unanticipated community emergencies, where the Project would be expected to step in and assist.

Chart 2: Respondents Ideas on what they would like to do in the future.



O. Grievance Mechanisms

112. Throughout this document there has been NOPP references and sub-headings on grievances. This plan is aimed at avoiding any form of conflict although it is clear, that there will always be detractors and issues that must be managed. Grievances can be instigated by sometimes the smallest things and addressing of issues in a timely manner can prevent something small spiralling out of control.

113. At the Ministry level potential 'grievances' to date could be more accurately described as annoyance or frustration often caused by lack of communications and updates or not dealing with the appropriate officers to move things forward. This can be overcome by better communications.

114. As it is planned to have a professional, experienced and well connected External Relations Director to lead on all Project interface, it is hoped for the most part, that protocols will be followed, issues addressed expediently and regular updates and confidence building in the Project will be managed.

115. At the district level, 'bruising' could also be reduced in ensuring that on-going communications are maintained, that requests and advice are sought rather than a plethora of continual demands and respect for the District Official ability to undertake their jobs and knowledge of their people is accorded. Again a professional communicator would avoid potential grievances arising by working with the District as partners.

116. At the community level, the employment of an experienced liaison officer who can anticipate the trends with the people and address their real concerns will also open the way for partnerships and collaboration with the locals.

117. Grievances will undoubtedly occur on issues relating to resettlement for a variety reasons from the amount of compensation paid or delays in the Project causing uncertainty. The on-going communications and interface with early measures and expedient roll out of the resettlement programme, promising less and delivering more will overcome most of the issues arising.

118. Many of the grievances may have nothing to do with the Project, but if they are recognised as stakeholders of the project, a proactive rather than a retroactive approach should be undertaken. Crisis management is not beneficial to a company and where the Project can work hand in hand with the government proffering solutions and supporting conclusions, this is a better way forward. Stakeholder management is not for the feint-hearted, nor undertaken by those who have no experience or the power to negotiate.

119. Failing all, the grievance mechanism for communities must be in place, widely known and accessible to all.

P. Types of Monitoring and Reporting

120. Community monitoring will include all aspects of the project through all project phases. Capacity building of members of the various committees will be undertaken by an NGO to help develop the KPIs and assist in writing the reports. These will be presented to the CLO and on to the Project to assess the various successes, failures, gaps and potential improvement mechanisms on a quarterly basis. The community will be encouraged to look at their own weaknesses and make assessments where they can improve and request assistance for that improvement. Additionally, each of the community development initiatives will be specifically monitored by the participants, users or beneficiaries against pre-determined KPIs which will help improve performance and optimise the benefits in future programmes. Community liaison itself will also be under scrutiny with the on-going assessment of how to improve communications delivery and potential support to involve the wider communities.

121. Internal Project monitoring of all its activities should be embedded into all its core undertakings including stakeholder engagement. KPIs for engagement could include number of grievances filed and number of grievances settled within pre-determined timelines; number of community engagements benchmarked against purpose and actual outcomes; Number of community development programmes, range of participants in terms of age and gender, type of initiative and impact outcomes, (number of trainees to receive certificates, number of jobs offered to the community etc. from the quantitative perspective and the impacts of improvement in access to infrastructure from the qualitative perspective.

122. Managed in the External Relations Department setting targets each quarter or improvement. The results of the M&E should be translated in cultural appropriate media and disclosed to the communities annually, with participatory plans of improvement with the assistance and co-operation with the communities

123. External Monitoring. There will be a series of external monitors visiting the project throughout the course of the year and throughout the Project life cycle, whether from the IFIs, shareholders or NGOs. The Project should avail all project documentation to facilitate these monitoring processes and access to communities to carry out their own independent assessments. The feedback from thee reports should be presented to the project and plans developed to address any anomalies.

124. Annual reports are required by law to be submitted. Generally this only relates to the financial records, income, expenditure etc. These can be placed on the website for review.

125. Website Reporting. The website is an effective medium to reach out and share activities globally. It is useful to have an interactive programme to accept comments and responses, which will be managed by the PR Department. It is the responsibility to feedback to the company management any comments and feedback and trace follow up actions where required.

126. Newsletters. It is envisaged that there are two types of newsletters produced, one monthly publication for the company staff, highlight key achievements, staff of the month, company staff volunteer programmes and commissioning of new activities.

127. The second could be run in conjunction with the local district, highlighting achievements, collaborations and successful developments, written in English and translated into local languages and distributed quarterly to the various wards to encourage innovation and good practice. Essays and inputs from local schools will be encouraged.

128. Sustainability Reports. It is fairly common these days for international corporations to publish a sustainability report. As the Project's mission is to be a champion of sustainable agriculture, it is deemed appropriate that an annual report is published online to address the companies sustainable progress towards this aim.

129. Responsiveness to Results. The main aim of monitoring and evaluation is to actually improve practice, optimise the positive and address the weaknesses. Managed by the External relations department, time and resources are needed to continually improve.

130. Timing. Monitoring is an on-going activity, daily, weekly, monthly, quarterly and annually. It is the effective management of the evaluations and time apportioned to analyse the results, which is important.

131. Budget. On-going monitoring and evaluation can be time consuming and expensive, but managed well and undertaken as part of the core business on a weekly basis can ensure that time set aside for analysis of the results and plans for improvement can justify the resources.

Q. Financial Resources

132. Introduction. The Project is committed to the holistic and sustainable development of its operations in Uganda and the Project stakeholders are key to its success. It takes time, energy and financial resources to build relationships and maintain them through both the good and bad times and time is an essential resource to invest wisely to achieve the vision throughout the project life cycle.

133. Whereas it is understood that this will unfold as the various phases develop, engagement with stakeholders is a core business activity that needs to be embedded into everyday practice and is a necessary Project cost from the development stage.

134. Costs. The External Relations Division and Community liaison under NOPP needs to be allocated their own budgets to effectively manage the stakeholder engagement functions. This may include:

Community Liaison Team
Stakeholder Engagement Forums
Facilitation of Stakeholder Workshops
Events
Publications and Web site management
Local Capacity Building
Exhibitions
Notice Boards
Exposure trips
Information Centres Management
CSR Community Development Initiatives
Adverts
Corporate Events
Grievance Management
Internal Monitoring and Evaluations
M&E Analysis and mitigation plans
External Monitoring costs
Corporate Entertainment

TIMETABLE FOR KEY ENGAGEMENTS

PHASES	PLACE	TIME	PURPOSE	ACTION	PARTICIPANTS
CONCEPT	**TBD**	Future Projects	Stakeholders Buy in to Project	Lessons Learned Workshop	Key Decision Makers
SCOPING	**TBD**	Future Projects	Local Stakeholders Buy in to Project &understandi of potential	Introduction to Region/s District/s	Local Key Decision makers and Communities
DEVELOPMENT	**KAMPALA**	EIA Complete	Share findings get feedback for improvement	Public Disclosure	Shareholders and stakeholders
	NOPP				Local Stakeholders including District, communities and NGOs
	NOPP	Before RAP Implementation	Share Plans & understanding of in-Kind Compensation	Public Disclosure	
	NOPP	Before Mobilisation	Share Plans, implementation, impact mitigation to get feedback & suggestions	Stakeholder Workshop	
	NOPP DISTRICTS	Before Mobilisation	Maintain license to operate	On-going Local Engagement	
CONSTRUCT-ION	**NOPP DISTRICTS**	Before Mobilisation	Share plans of construction, logistics, job opportunities	Stakeholder Workshops, Proactive Local Recruitment Drives	Local Stakeholders including District, communities and NGOs
		During Construction			
OPERATIONS		Before Mobilisation	Share plans of operations, logistics, job opportunities		
		During Construction		On-going Local Engagement	
CLOSURE	**NOPP DISTRICT**	During Construction	Participatory Development of Plans on Closure	Stakeholder Workshops & FGDs	

R. Resources

135. The project life cycle includes concept, scoping, development, construction, operations and closure. Each milestone requires a range of engagements with varying stakeholders.

136. **Concept.** Although VODP has already well passed the conceptual phase it may

137. be useful in the NOPP to first undertake a review of the Lessons Learned to see how improvements can be made.

138. **Scoping.** The important Scoping stage was missed out for NOPP and it is highly recommended that it is undertaken for all future projects to inform on the design and development, potential impacts, avoidance or minimisation of the negative impacts including displacement. It would involve engagement with District Officers and initial interface with the surrounding communities, and local NGOs using a combination of group meetings and one-one one discussions.

139. As the concept is bedded down, it would be appropriate to consider an initial Multi-Government Stakeholder Workshop to get the overall ideas across, seek collective input for improvement and buy-in to the Project. This will ease the way for the fulfilment of all the protocols and permissions from different Ministries during the Development Stage.

140. **Development.** The Development Phase is where all the due diligence is undertaken with the associated surveys on the ground. Preliminary stakeholder mapping undertaken during the Scoping Phase would assist in the development phase to initiate stakeholder engagement in earnest. The CLO is pivotal to ensure that fears and concerns are heard, mistakes are quickly resolved and their input to optimise the overall benefits are considered. It is paramount that there is a feeling of ownership and participation to maintain that local license to operate.

141. **Construction** will include the mobilisation, mass deployment of workers, site clearance and irreversible and physical changes in the site and its environs. Again the CLO will help ensure construction can continue without delays.

142. **Operations**. By the time of operations, the relationships with the stakeholders should have solidified.

143. **Closure** needs to be planned well in advance and in conjunction with all the stakeholders.

Attachment 6:Environmental and Social Management (and monitoring) System (ESMS)

1. An Environmental and Social Management System is the IFC terminology for the framework that integrates environmental and social risk management into a project or an institution or company. For NOPP, the ESMS has been integrated into the design, in a way that places emphasis on the smallholders' adoption of good practices in EHS. This note brings together the various elements of the ESMS as detailed throughout the PDR.

2. In line with IFC's Performance Standard 1[151], and the IFC Handbook on ESMS implementation[152], the NOPP ESMS comprises:

3. **Identification of risks and impacts.** NOPP has two levels of risk management: (i) Project level, for which the risk identification and mitigation measures are identified in this PDR (section III-F, Annex 2, Annex 12); and (ii) Hub level, where the ESIA for each hub will identify key risks and where mitigation measures will be included in the hub-specific ESMP. Annex 12, attachment 2 provides guidance and minimum standards for the elaboration of these hub-level documents, which will in turn be reviewed by IFAD prior to approval.

4. **Management programs.** Similar to (a), NOPP's risk management program is structured at two levels. At Project level, the risk management program is guided by the contents of this PDR and the Project Implementation Manual which will be updated from time to time. At hub level, the risk management programme is guided by the ESMP. Integration and exchanges between these two levels is guaranteed by the overall M&E system and day-to-day exchanges between staff at the two levels.

5. **Organizational capacity and competency.** As outlined in components 1 and 3, NOPP will focus on building capacity of major stakeholders to implement good EHS practices. The NOPP EHS Officer in the PMU will, together with his/her counterparts in the private sector, lead the implementation of an intensive capacity building programme that includes the setting of an EHS policy (operationalized through a code of conduct and standard operating procedures), awareness raising, mandatory provision of PPE equipment on loans and technical training on good EHS practices. A community of oil palm EHS practitioners, comprising private sector, public and farmer organisation EHS practitioners, will be instituted to nurture this emerging profession in the Ugandan context and allow for peer-to-peer exchanges.

6. **Monitoring and review.** The monitoring, review and continuous improvement aspects of NOPP are based on the overall M&E framework, as well as the ESMPs for each hub.The Impact Monitoring System introduced originally under VODP[153], will be revived and will comprise all major stakeholders both at Hub and national level, including OPG organizations and private sector. They will meet on a yearly basis to discuss environmental impact based on the information obtained from the Project's monitoring system, and advise the Steering Committee on actions to be taken. . Audits will be carried out on a yearly basis by the NOPP EHS Officer in collaboration with NEMA and, where need be, an external expert. Finally, an ex-post ESIA will be carried out at the end of the Project as per IFAD requirement, to establish the cumulative impact of the Project and identify areas for improvement, informing the overall NOPP PCR and Impact Assessment.

7. **Ongoing reporting to affected communities.** As NOPP is essentially a community-driven Project, reporting is part of the day-to-day activities of the PMU. Other project-affected people, such as neighbouring farmers who do not sign up for oil palm development, will be kept up to date through existing government communication channels.

[151] IFC (2012) Performance Standard 1: Assessment and management of environmental and social risks and impacts. See http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/performance-standards/ps1

[152] See http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/publications/publications_handbook_esms-general

[153] A sort of monitoring committee that focuses on environment / EHS, with participation also of NGOs etc. Lead would be EHS officer.

8. **External communications and grievance mechanisms.** The PMU will be staffed with a Knowledge Management and Communications Officer in charge of external communications. This PDR contains the National Oil Palm Communication Roadmap (Annex 6 – attachment 2) which, upon start of the Project, will be updated. The PDR furthermore contains a Stakeholder Engagement Framework outlining the Project feedback and grievance mechanism, which will be complemented with hub-level grievance mechanisms. IFAD also has a Complaints Procedure for "Alleged Non-Compliance with its Social and Environmental Policies and Mandatory Aspects of its Social Environmental and Climate Assessment Procedures". Parties adversely or potentially adversely affected by IFAD-funded projects and programmes may bring issues to existing project/programme-level grievance redress mechanisms or to the Fund's attention using SECAPcomplaints@ifad.org.

9. **Stakeholder engagement** is, given the national scale of the Project, essential to assure sustainability of its impact. Component 3 includes various measures related to this objective and Annex 12 includes a Stakeholder Engagement Framework which will be further developed into a Stakeholder Engagement Plan during early implementation.

10. **Policy.** NOPP contains an entire component dedicated to policy engagement (component 3), which will focus on environmental and social sustainability issues. The policy dialogue will be based on the experiences generated by the Project and global best practices, and will be facilitated by the stakeholder engagement framework and communications strategy.

11. **Emergency preparedness and response**. At the operational level, the activities related to Environment, Health and Safety seek to improve occupational health and safety amongst farmers and workers, including preparedness and response strategies for emergencies (e.g. fires, work-related injuries) through standard operating procedures.

Attachment 7: Greenhouse Gas Assessment

A. Purpose

1. This greenhouse gas (GHG) assessment is carried out as an integral part of the design of Uganda's National Oil Palm Project (NOPP), and is intended to facilitate well-informed decision making on promoting environmentally sustainable palm oil production.

2. Specifically, the objectives of this assessment are to:

   (a) Determine the expected GHG emissions from NOPP

   (b) Identify key areas for GHG emission reduction

B. Methodological approach

3. There are quite a number of GHG assessment tools available for the agriculture sector, each with their own strengths and weaknesses and level of detail. For this assessment, two tools have been used: (i) the RSPO GHG tool, as the standard tool for the RSPO-certified oil palm industry, and (ii) the FAO Ex-ACT tool, as the tool most commonly used in IFAD. For this exercise, the FAO Ex-Act tool has been used at it provides more depth in terms of land use change / carbon stock assessment. Some elements of the RSPO GHG tool have however been added to the analysis.

4. This GHG assessment focuses on the production of Fresh Fruit Bunches (FFB)s on smallholder areas, including their transport to the mill, and does *not* comprise company-owned plantations. These will be subject to a separate GHG assessment to be carried out through the private sector partner. The GHG assessment does not include a full assessment on the mill either, but instead provides an estimate of the emissions to be expected POME, from the largest contributor to emissions in processing.

C. NOPP target areas

5. The NOPP Project locations and estimated areas of oil palm development are listed in Table 13.

Table 13 List of NOPP target areas ("hubs") and hectarage of oil palm development expected. [1]Kalangala has been developed under VODP1 and VODP2; under NOPP no new areas will be developed in Kalangala.

(a) Hub	(b) Development financing (ha)	(c) Commercial / own financing (ha) est.	(d) Total (ha)	(e) Remarks
1. Kalangala				Not part of this assessment[1]
2. Buvuma	2 500		2 500	Relatively detailed information available
3. Mayuge	3 500	1 105	4 605	Farmers' interest identified
4. Masaka / Rakai	3 000	947	3 947	Exploratory phase
5. Hub 4 (tbd)	3 000	947	3 947	Area to be determined
Total	**12 000**	**3 000**	**15 000**	

6. The NOPP Project areas are not yet precisely defined at the stage of Project design, and the targets for additional hectarage without NOPP financing (Table 1 column (d)) are estimates only. NOPP does however aim to target the self/private-financed smallholders as part of its overall approach, including improving governance of and capacity building on environment, health and safety issues. This will be an important consideration in terms of prevention of loss of carbon stocks and/or high conservation values.

D. Data availability and assumptions

7. Owing to the programmatic character of NOPP, data availability on actual project areas is very limited and best-guess estimates need to be used. Important considerations for these estimates are discussed here.

8. **Determining the baseline.** As Project areas are not yet precisely defined, estimates of current land use and current carbon stocks are based on scientific and grey literatureas well as district-level land use figures as provided in government estimates (e.g. Drichi 2002) and Environmental and Social Impact Assessments where available[154]. Table 2 provides an overview of land cover in the Project target districts, which can serve as a first indication of the land likely to be converted.

Table 14 Land cover estimates. Area values are in '000 ha. Loss / gain is also in '000 ha based on Global Forest Watch analysis using >30% canopy density threshold. Sources: (a) ESIA for Buvuma, 2015; (b) Drichi, 2002

District (Hub)	Total Land Area	Tropical High Forest - Normal		Tropical High Forest - Depleted		Woodland / Bushland		Grassland		Wetlands		Farmland		Year / Sources	Loss / gain 2002 to 2015	
Buvuma	**20**	0	0 %	1.4	7%	10.5	53 %	2.3	12 %	0.9	5%	5.9	30 %	2015, a		
Mayuge	**108**	1.2	1 %	14.5	13 %	12.7	12 %	7.9	7%	5.7	5%	68.5	63 %	2002, b	-5.7	+3.4
Masaka	**356**	6.0	2 %	9.6	3%	14.1	4%	89.8	25 %	8.3	2%	226.1	63 %	2002, b	-4.6	+1.6
Rakai	**415**	18.3	4 %	3.2	1%	44.6	11 %	192.9	46 %	8.9	2%	146.3	35 %	2002, b	-7.6	+1.3
(Hub 4)	**N/A**															

9. **Establishing carbon stocks.** An evaluation of different country-level biomass / carbon assessments for Uganda (Avitabile et al., 2011; see figure 1) showed large differences between total carbon stocks (between 343 to 2201 Tg) and their spatial distribution. Furthermore, it showed that carbon estimates based on land cover data combined with IPCC Tier 1 default values are strongly overestimated. Using a carbon to biomass ratio of 0.475 and the National Biomass Survey data (left in figure 1), above-ground carbon stocks in Masaka and Rakai are very low at less than 10 tC/ha, while Buvuma and Mayuge have significantly higher carbon stocks up to 50 tC/ha.

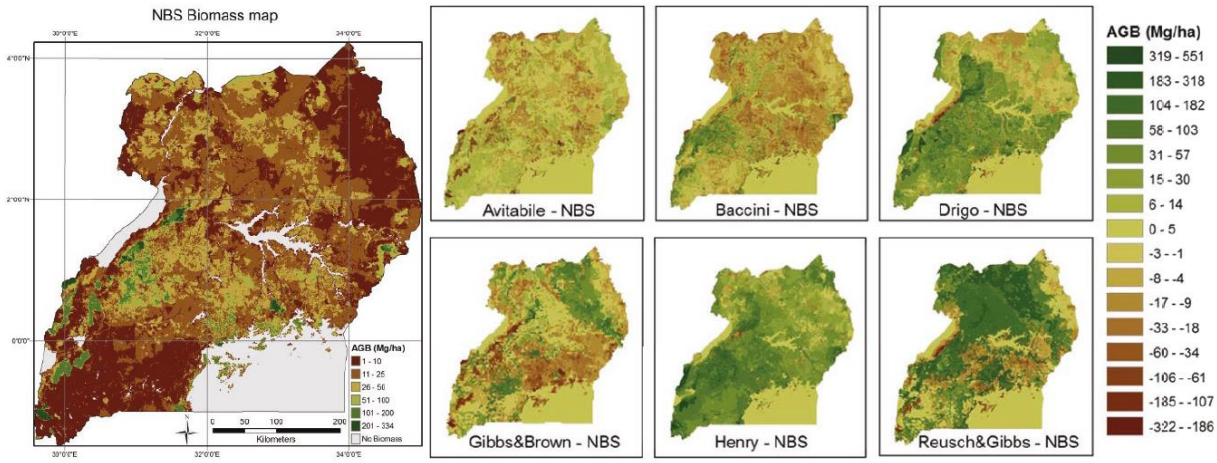


Figure 6 NBS Biomass Reference Map (left) and differences with various other studies (right). Source: Avitabile et al (2011).

[154] At the time of preparing this GHG analysis, only the ESIA for Buvuma was available

10. The study shows that current carbon stocks in Uganda are significantly lower than the Tier 1 values as established by NGGI-IPCC-2006 and used in Ex-Act. For the Tropical Moist agro ecological zone, default values for above-ground biomass are 145.7 tC/ha for tropical rain forest and 32.9 tC/ha for tropical shrub land. For the purpose of this analysis, three classes of carbon stocks have been used: Tropical High Forest – normal, 145.7 tC/ha; Tropical High Forest – depleted, 56.4 tC/ha; and bushland / shrub land, 32.9 tC/ha.

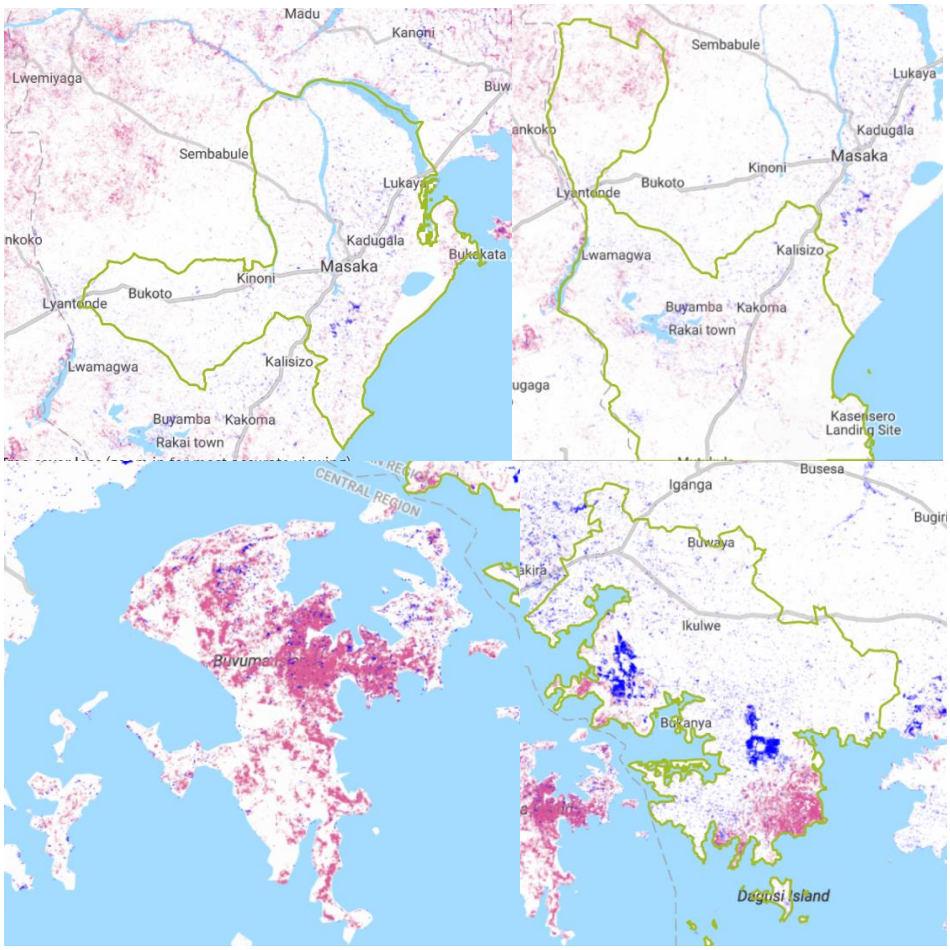


Figure 7 Comparative analysis 2002-2015 with Global Forest Watch. Top left: Masaka, top right: Rakai, lower left: Buvuma, lower right: Mayuge. Red indicates tree cover loss, blue indicates tree cover gain

11. **Establishing ratios for land use change.** The analysis of current / recent land use classifications (Table 2) and deforestation trends (Figure 1) provides a basis for determining the likely land use change to occur under the Project. Data from VODP 1 and 2 for Kalangala (Bugala island) has been used as a proxy to determine the mix of existing land use types that will likely be converted to oil palm under NOPP. Combined with the estimates on current land use and carbon stocks for each NOPP Hub area as determined above, this provides an estimate of the aggregate land use and carbon stock changes to be expected under NOPP. The percentages for land converted to oil palm are as follows:

Previous land use	THF - Normal	THF - Depleted	Bushland	Grassland	Farmland
Conversion to Oil Palm	0%	13%	53%	13%	20%

12. **Establishing the Business-As-Usual (BAU) / no-project scenario.** Uganda is experiencing high rates of deforestation and land degradation (1.1 to 3.1% per year (IRG 2006)), but severity is variable across the different NOPP Hub areas, as can also be seen in Figure 1. In the case of Buvuma Island and parts of Mayuge District, deforestation for charcoal production in recent years has been so high that forest cover is now very limited. It is also important to note that some effects on the environment may precede the actual implementation of the project due to land acquisition and/or

speculation on land prices, triggering people who are selling their land to clear it before handing it over to the buyer.

13. As can be derived from the above, any estimate can only represent the most probable carbon balance as based on the targets set in the NOPP design and with significant uncertainty. The GHG analysis can be updated once the exact Project areas are known to establish more precise figures with higher levels of confidence. During implementation, the actual carbon balance of NOPP will be heavily influenced by two major parameters: the extent of *autonomous* uptake (own or commercial financing rather than NOPP loans) and the *effectiveness* of governance measures put in place by NOPP to prevent loss of high carbon stocks.

14. The land use change parameters used for the analysis are listed in Table 3. NOPP will finance afforestation / reforestation activities on a total of 5751 ha of which 50% have been included in the "with project" scenario as land use change from bushland to THF-depleted equivalent carbon stock. The other 50% is integrated into the Ex-Act analysis within the forest management module.

Table 15 Land Use Change matrix used for GHG analysis. The vertical axis denotes the land use before conversion, the horizontal axis the land use after conversion. The "Net change" rows summarize the net changes after conversion per land use category. THF = Tropical High Forest, * afforestation / reforestation activities

	After→	**THF - Normal**	**THF - Depleted**	**Bushland**	**Grassland**	**Farmland**	**Oil Palm**
↓ *Before*							
THF - Normal	Project		150	0	0	0	0
	No-project		150	0	0	0	0
THF - Depleted	Project	0		500	0	0	2000
	No-project	0		500	0	500	0
Bushland	Project	0	2876*		0	500	8000
	No-project	0	0		0	500	0
Grassland	Project	0	0	0		0	2000
	No-project	0	0	0		0	0
Farmland	Project	0	0	0	0		3000
	No-project	0	0	0	0		0
Oil Palm	Project	0	0	0	0	0	
	No-project	0	0	0	0	0	
		THF - Normal	**THF - Depleted**	**Bushland**	**Grassland**	**Farmland**	**Oil Palm**
NET CHANGE	Project	**-150**	**3401**	**-13751**	**-2000**	**-2500**	**15000**
	No-project	**-150**	**-850**	**0**	**0**	**1000**	**0**

15. **Other emissions during implementation phase**. Further assumptions in the Ex-Act Analysis for the implementation phase include:

- **Construction.** Agricultural buildings (warehouses) of a total 5000 m^2, concrete; 1000 m^2 of office spaces, concrete.
- **Energy consumption.** Electricity for the offices is assumed to come from the national grid or local solar-powered mini-grids, and is not included in the analysis as assumed to be insignificant to the total carbon balance. Fuel consumption for vehicles is included for the transport in-field and to the mill, and calculated as follows:

Table 16 List of vehicles to be procured under NOPP and their expected emissions. * These vehicles are to be replaced after 5 years of service, the number of vehicles is the total to be procured. The number of vehicles operational at any point in time is therefore estimated to be half this number.

Vehicle		**#**	**KMs/yr**	**km/L**	**m3/yr**
4WD	Petrol	15*	15000	10	1125
Bus	Diesel	4	15000	6	360
Motorcycle	Petrol	75*	10000	20	7500
			Hours/yr	**L/hour**	**m3/yr**

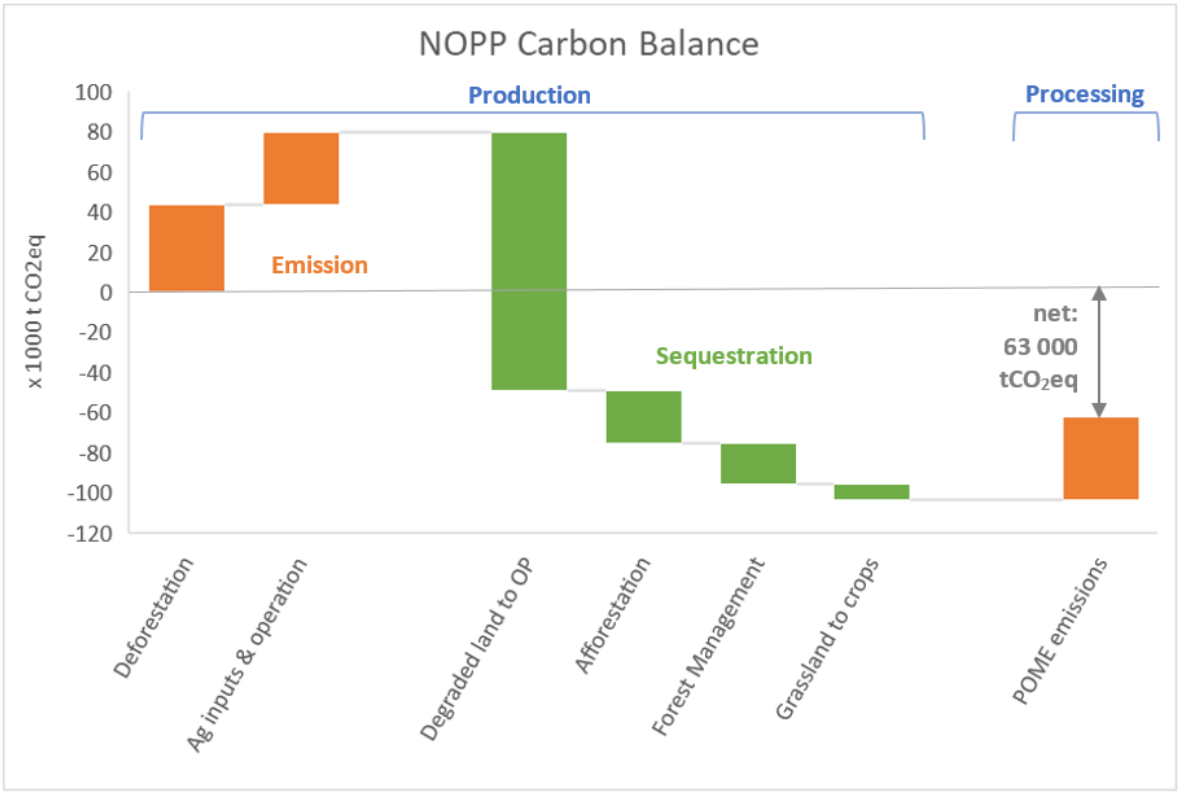
Tractor-trailer	Diesel	8	2000	14	224
7 ton dump truck	Diesel	10	2000	12	240
Total	**Petrol**				**8625**
	Diesel				**824**

- **Agricultural inputs.** Assumptions for the use of NPK fertilizer based on a palm tree density of 140 trees/ha: N 0.1 tonnes/ha/yr; P_2O_5 0.05 tonnes/ha/yr; K_2O 0.2 tonnes/ha/yr. The average yearly application is based on the recommended application after the 3rd year after planting and does not consider the gradual build-up of input use; the actual application rates may be lower.

16. **Emissions from processing.** While this assessment primarily looks at the emissions of the Project related to land use change and production of FFB, the emissions from processing are also reviewed by focusing on the Palm Oil Mill Effluent (POME), the largest contributor to GHG emissions in the processing of FFB to CPO. Literature establishes an emission coefficient of 625 – 1467 kg $CO2_{eq}$ per tonne CPO (RSPO, 2009) which gives an average of 1.046 tonnes $CO2_{eq}$ per tonne CPO. The CPO extraction ratio is estimated at 22%, giving an average emission of 2.76 t $CO2_{eq}$ / ha.

E. Results

17. The results indicate that NOPP will have a net sequestration effect of about 104 000 tCO_2eq per year compared to the Business-As-Usual scenario (emission 1of 20 000 tCO_2eq per year). When including the emissions from POME during processing of FFBs to CPO, the carbon balance becomes 63 000 tCO_2eq per year sequestered compared to BAU.



18. A sensitivity analysis was carried out using a worst-case scenario with the following assumptions:

- The project has an important negative effect on the remaining forests, with an additional 350 ha of normal Tropical High Forest (THF) degrading to depleted THF and 500 ha of depleted THF degrading to bushland / degraded land;
- More than half (8000 ha) of the oil palm land is converted from depleted Tropical High Forest rather than bushland / degraded land.

19. The sensitivity analysis shows that even in this worst-case scenario, the Project would have a net sequestration effect of 42 000 tCO_2eq / year compared to BAU, including POME emissions. Without environmental management activities (afforestation and forest management), the net result in this scenario would be an emission of 4 200 tCO_2eq / year compared to BAU.

F. Discussion

20. Translated per hectare of oil palm and excluding the impact of the environmental management activities (afforestation and forest management) and compared to the baseline situation rather than BAU, the results indicate a + 0.68 tCO_2eq / year or + 0.26 t CO_2eq/t CPO impact (with positive sign being net emission). In the worst-case scenario without environmental management activities and compared to the baseline rather than BAU, there would be a net impact of + 0.76 t CO_2eq/t CPO. Bessou et al (2012) give a benchmark average of + 1.67 t CO_2e/t CPO based on a pilot analysis using the Palm GHG calculator with nine RSPO companies, with a range of -0.02 to +8.32 t CO_2e/t CPO and indicating that previous land use is a main cause of the variation observed.

21. There a number of possible reasons for the relatively "good" score of NOPP. Firstly, the selected RSPO companies are most likely situated in areas with higher initial carbon stocks, such as Malaysia and Indonesia, which significantly adds to the loss of carbon stock during land clearing. Secondly, there will be differences in GHG estimations between the Palm GHG calculator and Ex-Act, particularly related to the land use change component which is more elaborate in Ex-Act.

22. The worst-case scenario however shows that even if NOPP's governance is weak and higher carbon stocks are lost during land clearing, the Project with environmental management activities included, will still have a net sequestration effect compared to both BAU as the baseline situation.

G. Conclusion and recommendations

23. This GHG Assessment reviewed the likely impact of NOPP on carbon stocks and GHG emissions. It was found that the Project is expected to have a net sequestration effect compared to Business-As-Usual of 63 000 tCO_2eq per year. In a worst-case scenario, where land conversion to oil palm targets forests with relatively high carbon stocks and environmental management activities would net be implemented, there would be a net emission compared to the baseline situation, but still a net sequestration effect compared to BAU.

24. To minimize emissions from the Project, it is recommended to:

- Raise awareness on the importance of forests as carbon stocks amongst stakeholders;
- Develop and enforce strict eligibility guidelines for smallholder farmers to access oil palm development in terms of avoiding high carbon stocks;
- Develop and implement a vehicle emission management plan to minimize emissions from oil palm operations;
- Develop monitoring protocols to establish actual emissions during Project implementation and serve as a management tool for new Project areas;
- Engage with the private sector partners on possibilities of capturing POME emissions

H. References

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