



**FOR OFFICIAL USE ONLY**

Report No: PP00181

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT PAPER

ON A

PROPOSED GRANT

IN THE AMOUNT OF

US\$ 2.33 MILLION

FROM THE

GLOBAL AGRICULTURE AND FOOD SECURITY PROGRAM

TO THE

{SOROTI SWEET POTATO PRODUCER AND PROCESSORS ASSOCIATION (SOSPPA)}

FOR A

{STRENGTHENING PRODUCTIVE CAPACITY AND RESILIENCE OF SMALLHOLDER SWEET POTATO PRODUCER ORGANIZATIONS IN UGANDA }

April 15, 2025

Agriculture And Food Global Practice  
{Eastern And Southern Africa Region}

## CURRENCY EQUIVALENTS

(Exchange Rate Effective {Dec 12, 2024})

Currency Unit = SDR

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SDR 0.75 = US\$1

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US\$1.33 = SDR 1

### FISCAL YEAR

January 1 - December 31

Regional Vice President: Amit Dar

Regional Director: Anna Wellenstein

Division Director: Qimiao Fan

Practice Manager: Izabela Leao

Task Team Leader(s): Pushina Kunda Ng'andwe

## ABBREVIATIONS AND ACRONYMS

ACDP	Agriculture Cluster Development Project
ATAAS	Agricultural Technology and Agribusiness Advisory Services
AWP/Bs	Annual Workplans/Budgets
BoU	Bank of Uganda
BCC	Behavioral Change Communication
CAO	Chief Administrative Officer
CIP	International Potato Center
COVID-19	Corona Virus Disease 2019
CSA	Climate Smart Agriculture
DDBIO	Development and Delivery of Biofortified Crops at Scale
DP	Development Partner
DHS	Demographic and Health Survey
DIS	District Inspector of Schools
DNCC	District Nutrition Coordination Committee
DPO	Development Policy Operation
DSIP	Agriculture Sector Development Strategy and Investment Plan
ESFN	An Innovative, Integrated Approach to Enhance Smallholder Family Nutrition
ESMF	Environmental and Social Management Framework
FM	Financial Management
FTA	Field Technical Assistant
GAfSP	Global Agriculture and Food Security Program
GBV	Gender-based Violence
GDP	Gross Domestic Product
GoU	Government of Uganda
GPE	Global Partnership for Education
GRM	Grievance Redress Mechanism
HACCP	Hazard Analysis and Critical Control Points
HC	Health Centre
HDI	Human Development Index
HIB	High Iron Beans
HNP	Health, Nutrition, Population
IEC	Information Education and Communication
IFA	Iron and Folic Acid
IFMS	Integrated Financial Management System
IFR	Interim Financial Report
ISR	Implementation Status and Results Report
IYCF	Infant and Young Children Feeding
IRB	Iron Rich Beans
LGs	Local Governments
MAAIF	Ministry of Agriculture Animal Industry and Fisheries

MIS	Management Information System
M&E	Monitoring and Evaluation
MNR	Micro-Nutrient Rich
MOFPED	Ministry of Finance, Planning and Economic Development
MOGLSD	Ministry of Gender, Labor and Social Development
MFSNP	Multisectoral Food Security and Nutrition Project
MOES	Ministry of Education and Sports
MOH	Ministry of Health
MOLG	Ministry of Local Government
MOU	Memorandum of Understanding
MUK-DFTN	Makerere University Kampala-Department of Food Technology and Nutrition
NAADS	National Agricultural Advisory Services
NARO	National Agricultural Research Organization
NaSARRI	National Semi Arid Resources Research Institute
NDP	National Development Plan
NUSAF	Northern Uganda Social Action Fund
OFSP	Orange Fleshed Sweet Potato
OPM	Office of the Prime Minister
PDO	Project Development Objective
PO	Producer Organization
POM	Project Operations Manual
PMP	Pest Management Plan
PPE	Personal Protective Equipment
PPSD	Project Procurement Strategy for Development
PS	Permanent Secretary
SACCO	Savings and Credit Cooperative Society
SEA	Sexual Exploitation and Abuse
SOSPPA	Soroti Sweet potato Producers and Processors Association
STEP	Systematic Tracking of Exchanges in Procurement
SUN	Scaling Up Nutrition
UBOS	Uganda Bureau of Statistics
UGX	Uganda Shillings
UMFSNP	Uganda Multisectoral Food Security and Nutrition Project
UNAP	Uganda Nutrition Action Plan
UNBS	Uganda National Bureau of Standards
UNSCN	United Nations System Standing Committee on Nutrition.
VHT	Village Health Team
WASH	Water Sanitation and Hygiene
WBG	World Bank Group
WFP	World Food Programme



## The World Bank

Strengthening Productive Capacity and Resilience of Smallholder Sweet Potato Producer Organizations in Uganda (P179537)

### BASIC INFORMATION

Project Beneficiary(ies)		Operation Name
Uganda		Strengthening Productive Capacity and Resilience of Smallholder Sweet Potato Producer Organizations in Uganda
Financing Instrument		Classification
Investment Project Financing (IPF)		Small Grants
Approval Date	Closing Date	Environmental and Social Risk Classification
22-Apr-2025	31-Dec-2028	Substantial
Approval Authority	Bank/IFC Collaboration	
CD Decision	No	

### Proposed Development Objective(s)

The Project Development Objective is to increase production and consumption of sweet potato and build the resilience of the smallholder producers and processors for economic value addition in project areas.

### Components

Component Name	Cost (US\$)
Component 1: Improve market access and farm incomes for SOSPPA farmers through OFSP marketing, processing, and value addition supported by effectively managed facilities and trainings (US\$0.79m).	892,419.00
Component 2: Increase productivity and production of sweet potato roots and vines, and other nutritious crops, amongst farmers with yield-enhancing inputs, and improved and CSA practices	519,681.00
Component 3: Promote diversified utilization and consumption of OFSP amongst SOSPPA members and communities, and in current and new markets	645,094.00
Component 4: Strengthen SOSPPA's governance and management capacities to deliver services to its members	272,806.00



## The World Bank

Strengthening Productive Capacity and Resilience of Smallholder Sweet Potato Producer Organizations in Uganda (P179537)

### Organizations

Borrower:	Soroti Sweet potato Producer and Processors Association (SOSPPA)		
Contact	Title	Telephone No.	Email
Joseph Okalebo	Coordinator	256782966648	josephamikirot@gmail.com
Implementing Agency:	Soroti Sweet potato Producer and Processors Association (SOSPPA)		
Contact	Title	Telephone No.	Email
Joseph Okalebo	Coordinator	256782966648	josephamikirot@gmail.com

### PROJECT FINANCING DATA (US\$, Millions)

#### Maximizing Finance for Development

Is this an MFD-Enabling Project (MFD-EP)? No

Is this project Private Capital Enabling (PCE)? Yes

### SUMMARY

Total Operation Cost	2.33
Total Financing	2.33
Financing Gap	0.00

### DETAILS

#### Non-World Bank Group Financing

Trust Funds	2.33
Global Agriculture and Food Security Program	2.33

### Expected Disbursements (US\$, Millions)

WB Fiscal Year	2025	2026	2027	2028	2029
Annual	0.06	0.46	0.48	0.25	0.00
Cumulative	0.06	0.52	1.00	1.24	1.24



## FINANCING & IMPLEMENTATION MODALITIES

### Situations of Urgent Need of Assistance or Capacity Constraints

<input type="checkbox"/> Fragile State(s)	<input type="checkbox"/> Fragile within a non-fragile Country
<input checked="" type="checkbox"/> Small State(s)	<input type="checkbox"/> Conflict
<input type="checkbox"/> Responding to Natural or Man-made Disaster	

### Other Situations

<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Series of Projects (SOP)
<input type="checkbox"/> Performance-Based Conditions (PBCs)	<input type="checkbox"/> Contingent Emergency Response Component (CERC)
<input checked="" type="checkbox"/> Alternative Procurement Arrangements (APA)	<input type="checkbox"/> Hands-on Expanded Implementation Support (HEIS)

### Practice Area (Lead)

Agriculture and Food

### Contributing Practice Areas

Health, Nutrition & Population

## OVERALL RISK RATING

Risk Category	Rating
Overall	

## POLICY COMPLIANCE

### Policy

Does the project depart from the CPF in content or in other significant respects?

☐ Yes ☒ No

Does the project require any waivers of Bank policies?

☐ Yes ☒ No

## ENVIRONMENTAL AND SOCIAL

### Environmental and Social Standards Relevance Given its Context at the Time of Appraisal



## The World Bank

Strengthening Productive Capacity and Resilience of Smallholder Sweet Potato Producer Organizations in Uganda (P179537)

E & S Standards	Relevance
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	Relevant
ESS 10: Stakeholder Engagement and Information Disclosure	Relevant
ESS 2: Labor and Working Conditions	Relevant
ESS 3: Resource Efficiency and Pollution Prevention and Management	Relevant
ESS 4: Community Health and Safety	Relevant
ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
ESS 8: Cultural Heritage	Relevant
ESS 9: Financial Intermediaries	Not Currently Relevant

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

### LEGAL

#### Legal Covenants

##### Sections and Description

The Recipient shall establish and thereafter maintain, throughout the implementation of the Project, a Project Coordination Unit ("PCU"), provided with: (i) functions and resources satisfactory to the Bank; and (ii) adequate staff with qualifications and experience satisfactory to the Bank, all for the purposes of ensuring prompt and efficient implementation of the Project and in accordance with the ESCP.

#### Conditions

Type	Citation	Description	Financing Source
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### PROJECT TEAM

#### Bank Staff

Name	Role	Specialization in this operation	Unit
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## The World Bank

Strengthening Productive Capacity and Resilience of Smallholder Sweet Potato Producer Organizations in Uganda (P179537)

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Bodomalala Sehenoarisoa Rabarijohn	Team Member	Administration	SAEA2
Nushrat Sharmin	Team Member	Institution Capacity Building	SAEA2
John Ilukor	Team Member	Monitoring and Evaluation	DECLS
Esther Ampumuza	Team Member	Operational Support	AEMUG
Joseph Oryokot	Team Member	Agriculture speciality	SAEA2
Damalie Evalyne Nyanja	Team Member		AEMUG
<b>Extended Team</b>			
Name	Title	Organization	Location
Nushrat Sharmin	Institutional Development Consultant	World Bank	Uganda



UGANDA

Strengthening Productive Capacity and Resilience of Smallholder Sweet Potato Producer Organizations in  
Uganda

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## I. STRATEGIC CONTEXT

1. **This Project Appraisal Document seeks the approval of the Regional Vice President for a grant in the amount of US\$2.33 million to the Soroti Sweet potato Producers and Processors Association (SOSPPA) to be financed through a grant from the Global Agricultural and Food Security Program (GAFSP) for the Strengthening Productive Capacity and Resilience of Smallholder Sweet potato Producer Organizations In Uganda Project. The project will be implemented by SOSPPA (lead implementing agency) with capacity building support from CIP (International Potato Center) in Uganda.**

2. The proposed project will respond to the threat of COVID-19 to food, nutrition, and income security by supporting SOSPPA to increase its investment in production, processing, and value addition of biofortified orange-fleshed sweet potato (OFSP) products. This project will strengthen the organizational capacity and professional performance of the SOSPPA to support their member farmers through technical, business, and financial services to increase farm productivity and economic value of harvested crops and thereby build the resilience of the rural economy and livelihoods in the Teso sub-region of Eastern Uganda to shocks including COVID-19.

### A. Country Context

3. **Ugandan economy had achieved consistent progress in the last six decades, especially before COVID-19.** Between 1960 and 2018, GDP (in current US\$) increased from US\$423 million to US\$2.75 billion<sup>1</sup>. Annual rates of economic growth were favorable from the 1980s to 2018 with only 10 years during that period when GDP growth fell below 5 percent. Since 2000, Uganda attained an average growth rate of 5.5 percent<sup>2</sup>. As a result of the economic growth, mainly in industry, the percentage of people living in poverty declined by over half between 1992 and 2009/10, from 56 percent to 24 percent<sup>3</sup>. According to the Uganda Statistical Abstract for fiscal year 2020, this further reduced to 21 percent as of the end of 2019. Income per capita increased from USD 833 in 2016/17 to USD 891 in 2018/19, and Ugandans are living longer with an average life expectancy of 63.7 years. Gains had been registered in the education sector as manifested in improved literacy levels and increased enrollment<sup>4</sup> at all levels, before COVID era.

4. **In marked contrast, Uganda's progress in reducing hunger (SDG2) is still poor and unacceptable, despite a notable record of sustained poverty reduction.** According to the latest Demographic and Health Survey (DHS) (UBOS and ICF<sup>5</sup> 2018), 2.2 million children under 5 years (remains at 29 percent) suffer from stunting which is still high and becomes a significant concern for the policy makers in Uganda and necessitates investment in nutrition support for malnourished children as well as multisectoral collaborations and partnerships for nutrition. According to UNHS 2016/17, many Ugandans consume a poorly diversified diet, and overall 37 percent<sup>6</sup> of households were food poor. Although refugees in Uganda are given land and mobility rights, food security remains a serious concern with 7 out of 10 refugee households experiencing severe food insecurity in 2018, compared with 5 out of 10 host communities. Therefore, significant regional disparities in malnutrition persist and food poverty remains a big challenge.

5. **Human capital development in Uganda remains 'low' as per the 2019 Human Development Index (HDI), with it being ranked 159 out of 189 countries slightly up from the position of 161 in 2013, still underscoring the need to improve**

<sup>1</sup> <https://data.worldbank.org/country/uganda>

<sup>2</sup> <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=UG>

<sup>3</sup> *Ibid*, 2014

<sup>4</sup> <https://sustainabledevelopment.un.org/memberstates/uganda>

<sup>5</sup> International Classification of Functioning (ICF)

<sup>6</sup> National Review Report on the implementation of the 2030 Agenda for Sustainable Development, 2020



**pro-poor policies in social sectors.** Food insecurity including undernutrition is a critical element in this ranking because of its contributions to productivity losses from poor physical status, increased health care costs, and reduced cognitive functions and learning performance. Slow progress on improving nutrition hampers poverty reduction and all other human and economic development goals. Micronutrient deficiencies in vitamin A, iron, iodine and zinc among many Ugandans cost lives, diminish productivity and cause significant human capital and economic losses. Estimated<sup>7</sup> undernutrition costs Uganda US\$899 million, an equivalent of 5.6 percent of its GDP annually.

6. **Uganda's development progress towards achieving the Vision 2040** that envisions a transformed society from a predominantly peasant and low-income country to an industrial and competitive upper middle-income country, had been steadfast in its deliberate and well-planned efforts of adopting the 2030 Agenda for Sustainable Development in 2015. But this development trends, especially the progressive economic growth of the previous two years (FY18-19) averaging 6.3 percent dropped<sup>8</sup> to 2.9 percent by FY20 mainly due to devastating effect of the COVID-19 pandemic and the locust invasion in 2020. The decline in economic activity and revenue strains the government's ability to finance development priorities.

7. **Uganda has been hit hard by COVID-19.** As of June 30, 2022, the country had registered a total of 163,301 COVID-19 confirmed cases, 3,588 deaths, and 16,672,943 people vaccinated. The pandemic has not only caused high levels of morbidity and mortality but also disrupted continuity of essential services, health systems, education systems by the closure of educational institutions including schools for more than two years, livelihoods, and other socio-economic activities. The COVID-19 pandemic, and some of the measures taken in the country to combat the pandemic adversely affected the economy in various ways including disruptions in supply chain management both across borders and domestic channel; reduced revenue in the tourism sector; affected livelihoods of many importers, traders and consumers; and badly affected Small & Medium Enterprises (SMEs) including the processed foods and ingredients sector as it created unprecedented challenges to smallholder farm households and communities across the rural and urban food systems. There have also been reports of private businesses suffering from reduced salaries, reduced business, and loss of market opportunities caused by extended lockdown duration. The latest Uganda Bureau of Statistics (UBOS 2020) indicates the incidence of income poverty increased to 21.9% from 21% in 2019. COVID 19 has thus, undermined any precarious gains in poverty reduction. The pandemic has disrupted Uganda's progress in many sectors but has also accelerated the country's industrialization drive. It has sparked discussions on how Uganda develops its systems to build the resilience needed to withstand such shocks.

8. **To curb the outbreak of the Corona virus in the country, the GoU activated public health emergency multisectoral Task Force** led by the Prime Minister and comprised of members from both public and private sectors at national and sub-national levels since March 18, 2020. To mitigate the impact of pandemic and support reopening of the socio-economic activities, the government developed COVID-19 Prevention and Control activities/measures for various entities including the academic institutions. To date, these measures taken have been largely successful in preventing widespread infections and deaths. **The World Bank has provided support to the country through the agriculture, health and education sectors.** In response to the Desert Locust invasion, the World Bank approved a US\$48 million Emergency Desert Locust Response Project (P173702) in May 2020, additional GAFSP funding of US\$7 million for Uganda Multisectoral Food Security and Nutrition Project (P149286), and reallocated US\$1 million in the Agriculture Cluster Development Program (P145037). Under the health sector, the World Bank has provided a total of US\$30.2 million of which US\$ 27.5 million was drawn from the country's allocation under the World Bank's COVID-19 Strategic Preparedness and Response Program (SPRP) - Multiphase Programmatic Approach (MPA) approved by the World Bank's Board on April 2, 2020 (Report

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<sup>7</sup> <https://www.unicef.org/uganda/what-we-do/nutrition>

<sup>8</sup> Ministry of Finance Planning and Economic Development Budget.



No. PCBASIC0219761). In addition, the Bank provided US\$300 million Emergency COVID-19 Economic Crisis and Recovery Development Policy Financing (P173906), focusing both on response through expanding some safety nets and measures to cushion the impact on businesses, but also addressing longstanding reform issues, including increased debt transparency, improved targeting of agricultural subsidies and measures to address Gender-based Violence (GBV) and Sexual Exploitation and Abuse (SEA).

## **B. Sectoral and Institutional Context**

9. **Agriculture sector context.** Turnover declined due to a sharp reduction in volumes produced, which had been exacerbated by fewer distribution points due to COVID related travel restrictions<sup>9</sup> as well as closures of weekly and monthly markets, difficulties in accessing agricultural inputs, and large fluctuations in food prices caused by the pandemic and the recent Russia-Ukraine war. COVID-19 also affected agricultural households' ability to sell their outputs due to the disruption in the respective value chains. Overall, 18 percent of all farming households could not sell their agricultural product. Up to 23 percent of the households that were engaged in farming in 2020 reported that the pandemic had influenced their crop cultivation decisions. While the wealthier households increased both crop area under cultivation and the diversity of crops cultivated on the farm. On the other hand, 38 percent of these households have changed crop-planting activities as a result of COVID-19 reduced crop area under cultivation, particularly in Eastern Uganda and 11 percent reduced the diversity of crops cultivated on the farm. The main reported reasons for changing crop-planting activities were, being advised to stay home (51 percent), movement restrictions (42 percent), lack of availability of labor (17 percent) and lack of other input availability (6 percent). Many agribusinesses were unable to pay the operational costs, sustain salaries or wages for workers, utility bills and rent, and extra costs for field operations among others. Opportunities for on-farm work have also been impacted, and all these have had serious implications to household incomes. The demand for financial credit is high but recovery is difficult.

10. **Moreover, persistent vulnerabilities and wide-regional disparities exist in attaining required poverty reduction targets.** For example, the percentage of people living below the poverty line (1.00 USD per day) was 21% in 2019 compared to the previous NDP II target of 14.2%. There are wide-regional disparities among Bukedi (47%), Busoga (42%), Bugisu (40.7%) and Teso (53%) districts experiencing reversals compared to the previous poverty levels. Households in these districts depend on crop agriculture as their biggest source of income and this circumstance highlights the urgent need for an industrialization strategy to add value to agricultural produce. At the same time, the mitigation of natural disasters caused by climate change and its negative effect on poverty reduction strategies needs to be integrated into future planning.

11. **Project context.** The Teso sub-region (project area) of Uganda has a population of about 2.5 million people, 70 percent<sup>10</sup> of whom are youth (35 years or younger). The region has one of the highest poverty levels in the country with at least 53 percent living in extreme poverty, where more than 50 percent of agricultural households' experience food shortages. This region is the largest producer of sweet potato, which is their staple food (UBOS, 2019). However, immediate and midterm negative effects of COVID-19 on production and processing of foods, commodity prices, household incomes of farmers, and diet quality in that region have been observed. These outcomes further compounded the pre-COVID challenges for smallholder-based agricultural value chains in Uganda stemming from high input and transaction costs in addition to limited investments in infrastructure and services.

12. **Hence, there is an urgent need to target technical and business development support to strengthen the capacity**

<sup>9</sup> Uganda COVID-19 Impact Monitoring Report of High Frequency Phone Survey on COVID – 19, UBOS, 2021

<sup>10</sup> Akampumuza et al., 2020



of key stakeholders to pursue new and promising market opportunities in this value chain. In this regard, producer organizations (POs) can play a pivotal role including amongst others: providing farmers with reliable input and output markets and mitigate market failures that constrains their associated ability to do business; using collective bargaining to get discounted input prices and higher output prices for members; and facilitating farmers' access to distant markets through joint marketing. POs therefore play a critical role in building the resilience of rural communities during systemic shocks such as pandemics and droughts. However, in countries like Uganda, weak technical competence and management capacity and poor governance often severely limit the performance of POs and prevent them from harnessing collective action amongst their members to thrive and grow. These limitations must and can be overcome through targeted capacity strengthening of POs such as SOSPPA. In case of this proposed project, there are strong market opportunities for expanding and diversifying production and value addition of sweet potato and other crops grown by its members. In particular, for sweet potato, SOSPPA can utilize technologies and management practices developed by its partners, including the International Potato Center (CIP), to accelerate product development and marketing on the basis of a solid understanding of market demand.

### C. Higher Level Objectives to which the Project Contributes

13. **Responsive to the goals of the World Bank to serve clients as a "development solutions" bank**, this project reflects the application of science of delivery methodologies by combining the Bank's global knowledge and experience with its financial resources to achieve integrated solutions of critical national priority. COVID-19 has caused a severe impact on client countries, raising global poverty for the first time in more than two decades, setting back progress towards meeting the Sustainable Development Goals. At no time in recent history has timely development advice – paired with development finance – been more needed to help countries **build back better** and set their economies on a sustainable and inclusive development path with the private sector playing a leading role in economic recovery. In connection to that, this project design reflects collaborative efforts with the client and development partners to provide Uganda with integrated solutions and synergies to contribute in achieving greater agricultural economic and nutrition improvement impact. The approach integrates systematically harnessing and sharing knowledge embedded in financing operations across the income spectrum; helping countries share experience on maximizing finance for development; convening the public and private sectors on pressing global challenges; supporting innovative approaches through investment in operational analysis and data collection related to measurable targets, and to do so in a learning-by-doing approach.

14. **The Government of Uganda, however, took steps to overcome the aforesaid economic challenges by setting high targets in the current National Development Plan (NDPIII)** for FY21-25, the overarching planning frameworks for the country, which is in line with Uganda Vision 2040, EAC<sup>11</sup> Vision 2050, Africa Agenda 2063 and the Sustainable Development Goals (SDGs). Recognizing that nutrition sensitive agricultural interventions are essential investments for long-term economic development, GOU has identified priority actions to strengthen smallholder household incomes and nutrition within key social sectors, including agriculture, health, and education. Hence, the proposed project is a contributory effort to Government's initiatives to respond to the COVID-19 pandemic and other shocks by improving food, nutrition, and income security especially of smallholder communities by building upon existing major programs within each of these sectors.

15. **Government identifies agriculture as the primary growth sector** because subsistence farming by smallholders accounts<sup>12</sup> for around 96% of all farm production, a quarter of total GDP, employs over two-third of workers, and earns

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<sup>11</sup> East African Community

<sup>12</sup> THE WORLD BANK, Nutrition at a glance: Uganda. 2010. Produced with support from the Japan Trust Fund for Scaling up Nutrition.  
<http://siteresources.worldbank.org/NUTRITION/Resources/281846-1271963823772/Uganda>





over 40% of household income. The **Agriculture Sector Development Strategy and Investment Plan (DSIP)** aims to increase rural incomes, increase livelihoods and improve household food and nutrition security. The GoU has specifically identified value addition and processing as key priorities for the commercialization of commodity value chains, which reflected through the current **NDPIII** that aims at increasing household incomes and improving quality of life, which is to be achieved under the overall theme of sustainable agro-industrialization for inclusive growth, employment, and sustainable wealth creation. The proposed project will be well aligned with the NDPIII industrialization strategy to expand markets for increased demand of locally produced goods, wherein government will promote an expansion and diversification of local manufacturing activity, through both strategic public and private sector investment in industry. The **Uganda Food and Nutrition Policy**, on the other hand, stated that goal of Government in food processing and preservation is to promote adequate, safe, high quality and nutritious food with a long shelf-life for local, regional and international markets, achievement of which will significantly contribute to the Uganda Nutrition Action Plan (UNAP). Moreover, the 2021-2026 **National Resistance Movement's (NRM)** will continue to prioritize industrialization and its pace doubled with initiatives to attract more investments in agro-processing to add value to primary products. To be aligned with the Government's operational structure, this proposed project will be anchored into the Parish Development Model (PDM<sup>13</sup>), a new platform under the Ministry of Local Government, and implemented in close collaboration with agriculture departments to ensure that it contributes to the execution of Uganda's national development strategies and programs including response to COVID-19. This project design is therefore being benefitted from the national plans, as it is well aligned with the government's priorities of Moving forward by sustained and strengthened collaboration with all actors, and commitment to the regional integration agenda as a means of accelerating efforts to achieve the 2030 Agenda.

16. **However, despite a strong policy environment and comprehensive plans, GoU capacity to implement NDPIII, DSIP and UNAP is limited** by challenges of coordination, implementation and finance; limited availability of improved farm inputs; inadequate production and post-harvest facilities; limited agricultural extension support; weak food chain value addition; weak institutional frameworks to mainstream and scale up nutrition interventions; high risks and costs of rural finance through formal banking; COVID-19 induced unprecedented challenges to smallholder farm households; and dependence on donor support for current nutrition-sensitive agriculture programming. Needed is an opportunity to test private sector's contributory and collaborative approach, and pro-poor innovations to demonstrate the potential of community-level nutrition and agricultural economic activities to improve livelihood among smallholder producers/farmers and quality of life among children and women. This is particularly important for the "hidden hunger" of micronutrient deficiencies, which are widespread among these groups but not currently prioritized. The proposed project, therefore will add strategic value to both human and economic development interventions.

## II. PROJECT DEVELOPMENT OBJECTIVES

### A. Project Development Objectives (PDO)

17. The Project Development Objective is **to increase production and consumption of sweet potato and build the resilience of the smallholder producers and processors for economic value addition in project areas.**

18. The overarching goal of this project is to build the capacity and resilience of SOSPPA in Uganda to respond to the COVID-19 pandemic and other shocks by improving food, nutrition, and income security of its members. This will be

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<sup>13</sup> It's a Government strategy or approach for organizing and delivering public and private sector interventions for wealth creation and employment generation at the parish level as the lowest economic planning unit.



achieved through processing and value addition and the promotion of profitable and sustainable sweet potato-based innovations and linkage to markets, financing, and weather insurance in six project districts namely Katakwi, Serere, Soroti, Bukedea, Ngora, and Amuria. The project will harness the experiences of Uganda Multi-Sectoral Food Security and Nutrition Project (UMFSNP) and International Potato Center (CIP), together with the Development and Delivery of Biofortified Crops at Scale project of World Food Programme, and build on the ongoing Agriculture Cluster Development Project's (ACDP) value chain development initiative, in pursuing the specific objectives of the proposed project components.

**19. The project has four components, namely:**

- *Component 1:* Improve market access and farm incomes for SOSPPA farmers through OFSP marketing, processing, and value addition supported by effectively managed facilities and trainings. (US\$ 0. 892,419 million)
- *Component 2:* Increase productivity and production of sweet potato roots and vines, and other nutritious crops, amongst SOSPPA farmers with yield-enhancing inputs, improved and climate smart agricultural practices. (US\$ 0.519,681million)
- *Component 3:* Promote diversified utilization and consumption of OFSP products amongst SOSPPA members and in current and new markets. (US\$ 0.645,094 million)
- *Component 4:* Strengthen SOSPPA's governance and management capacities to deliver services to its members. (US\$ 0.272,806 million)

**B. Project Beneficiaries**

**20. The project is expected to reach a total number of 20,029 direct beneficiaries including farmers (including youth), pregnant and lactating women (PLW) and under-2 children.** This project will target 1,200 smallholder farmers in Serere district who are currently enrolled as members of SOSPPA and comprise 50% women, 40% men, and 10% youth, and are organized in groups. In addition, 1,500 new beneficiary farmers in five new districts namely Katakwi, Bukedea, Ngora, Soroti, and Amuria will be enrolled in this project following the current SOSPPA membership eligibility criteria<sup>14</sup>, and organized into groups through which they will be reached to the project interventions. The project interventions will be implemented at group level by master trainers (e.g. Executive Committee/Operational staff/FTA). On an average, 3,000 primary school and college students are being benefitted now by SOSPPA with fresh roots supplied and will continue to be targeted. Following the UMFSNP project strategy, the proposed project will use primary schools as the entry point for demand creation activities (e.g. setting up OFSP demonstration plots and school gardens) aimed at reaching schools and colleges in new districts to grow this market segment. Likewise, UMFSNP, this project will utilize the services of the agricultural extension workers from the sub counties in setting up and backstopping such school demonstration gardens, alongside the project agronomist. This will create ownership in these government institutions, hence sustainability of the project. Aside from these institutional customers, the project will identify and define new consumer market segments for processed micronutrient-rich products through market research, including an assessment of the feasibility of supplying OFSP puree to street vendors and high-end market pasta products to supermarkets in urban areas.

**C. PDO-Level Results Indicators**

**21. Furthermore, activities proposed in the project are fully consistent with the PDO. The project seeks to achieve its development objective by increasing the production and consumption of sweet potato and builds the resilience of the**

<sup>14</sup> SOSPPA membership eligibility criteria: 1) a farmer (male or female) from the geographical area covered by the Association, 2) a cultivator of roots crops (cassava and sweet potato), and 3) a smallholder farmer with 1 acre of land or less.





smallholder producers and processors for economic value addition in project areas. The key indicators at the PDO level are: (1) Percentage increase in crop yield (sweetpotato) among SOSPPA farmers in project areas; (2a) Percentage of households reporting to have experienced moderate and severe food insecurity; (2b) Percentage of vulnerable households (or, children 6-23 months) with minimum dietary diversity (Disaggregated by PLW and age); and (3) Percentage of SOSPPA members participating in OFSP value-added activities in project areas.

### III. PROJECT DESCRIPTION

#### A. Project Components

22. **Component-wise activities.** Aligned with the WBG COVID-19 Crisis Response Approach Paper (June 2020), the proposed project will achieve sustainable gains through mitigating risks associated with the impacts of COVID-19 in the project areas through effective implementation of the planned interventions under four components over a four-year period. Specifically, the key project activities will be financed include amongst others: (a) increasing productivity and production of sweet potato roots and vines, and other nutritious crops, amongst SOSPPA farmers with yield-enhancing inputs, improved and climate smart agricultural practices; (b) promoting diversified utilization and consumption of OFSP products amongst SOSPPA members and in current and new markets; and (c) improving market access and farm incomes for SOSPPA farmers through OFSP marketing, processing, and value addition supported by effectively managed facilities and trainings. The proposed PO-led project will provide immediate and seamless support to the 6 districts implement the COVID-19 response activities, alongside the key project activities, thus increasing access to finance for project beneficiaries. The theory of change detailing impact pathways of the project activities is provided in Annex-3. The project will implement a specific set of activities under each project component as described below and provided the detail under project description in Annex- 2 as project description:

- a. **Component 1: Improve market access and farm incomes for SOSPPA farmers through OFSP marketing, processing, and value addition supported by effectively managed facilities and trainings.** Teso sub-region is the leading producer of sweet potatoes, with farmers usually harvesting their crops at the same time of two seasons (June-August and November-January). During these peak-harvesting seasons, high supply and other local market failures (e.g. underground storage for long time, and weevil infestation makes roots lose market and consumption value), result in very low prices for fresh roots. This project will help its target beneficiaries overcome such constraints, and increase their farm incomes, by developing commercial value chains for sweet potato (especially OFSP). Building on experience and the on-going ACDP/MAAIF and the NaSaRRI's cassava, sweet potato, and millet value chain development projects, SOSPPA will pursue a three-pronged approach to OFSP value chain development namely - the production and sale of quality vines, production and sale of fresh roots, and cottage-based processing of fresh roots into dry chips and assortment of fried products. Under this Component, the project will therefore implement three broad sets of activities include:
  - (i) **Upgrading OFSP value addition and processing into nutritious products for low, middle, and high-end markets.** This project will: prepare a market assessment to identify most promising and profitable market segments for specific OFSP products; develop and test commercial value added OFSP products including laboratory analysis to assess the nutritional composition of processed products; and construct a processing facility focused on OFSP-based commercial consumer products to upgrade processing activities into profitable commercial business. It will also train SOSPPA members on equipment use and good food manufacturing practices complying with the requisite food industry standards, including hazard analysis and critical control points to obtain certification by the Uganda National Bureau of Standards.



- (ii) **Expanding the market for fresh roots and quality vines.** To deepen markets access, the proposed project will continue strengthening institutional markets (currently focusing on primary schools and colleges in Serere district only) while exploring new market opportunities by: expanding to other districts (Katakwi, Ngora, Soroti, Amuria, and Bukedea); extending the list of institutional markets to include secondary and high schools, prisons, and hospitals; targeting the expanded institutional markets offering a wider portfolio of OFSP products; and promoting the use of nutritious OFSP puree in the low-end informal markets, especially the street vendors.
- (iii) **Converting by-products of OFSP processing to nutrition animal feed (namely, silage).** OFSP production and processing can generate large amounts of by-products, specifically non-marketable roots and vines that contain 19-22% crude protein making it a high-quality animal feed. This project will therefore process these by-products into nutritious animal feed through silage processing thus creating a market for the wastes and income for farmers. Specifically, the project will: establish sweet potato “silage processing hub<sup>15</sup>” in each of the six project districts to provide market for vines and waste roots generated by SOSPPA group members in the district. The project will also train youth, women, and men farmers on silage production, management, utilization and animal feed diversification, and advocacy for improved and cost-effective livestock productivity and to lobby for a better business environment. Moreover, it will provide training to the hubs on silage marketing to make them sustainable businesses.

#### Box 1: Training and Hub Development Plan

Bavubuka Tweekembe Youth Group, a non-profit organization will initially conduct training of trainers (ToT) to all the 20 FTAs. The FTAs will work with district agricultural/production officers to identify one youth farmer group (25 members, at least 50% women) in each project district that will be responsible for hosting and managing the silage-processing hub. These groups will initially be trained by Bavubuka Tweekembe Youth Group with support from the trained FTA on silage making, handling, utilization, and marketing. The groups will also be equipped with skills to provide mobile silage making services to other farmers and linked to other project services (for example, credit and insurance schemes and the marketing program). Around each silage-processing hub, 4 other farmer groups (each with 25 members, at least 50% women) will be trained on the benefits of silage in livestock feeding and feed supplementation, its utilization and marketing.

- b. **Component 2: Increase productivity and production of sweet potato roots and vines, and other nutritious crops, amongst SOSPPA farmers with yield-enhancing inputs, and improved and climate smart agricultural practices.** A year-round supply of fresh roots and vines is important to ensure processing facilities receive a continuous supply of roots and operate at full capacity. Under this component, SOSPPA's group members (25-30 farmers in each group) will continue producing sweet potato roots and planting material. To integrate the root production activities with the processing and value addition initiatives, manage weather risks and encourage investment, the project will provide support to the following activities:
  - (i) **Strengthening capacity of vine multipliers to provide quality seeds/vines to farmers.** The project will increase farmers' access to quality seed by strengthening capacity of the existing ten vine-multipliers in Serere district, and recruiting and training two multipliers (1 male, 1 female) in each of the five new districts. The project will

<sup>15</sup> Silage hub will be set up based on the model developed by CIP, and currently in successful use in central and eastern Uganda by a youth group (the Bavubuka Tweekembe Youth Group) providing employment and income to the youth.



link the vine multipliers with source of foundation seed, and certification services. Vine multipliers will also have access to a weather-based crop insurance scheme, which is to be repaid through vine/crop sales. The scheme will encourage investment in foundation seed, irrigation, and other complementary inputs (fertilizer and pesticides), increased yields and thus ensure year-round supply of vines and less dependence on rains. The weather insurance will enable multipliers hedge against risks of crop failure caused by inadequate rains.

- (ii) **Establishing a digital interlinked gender responsive credit scheme** by strengthening the capacity of SOSPPA's existing Savings and Credit Cooperative Society (SACCO) to better serve farmers, particularly women and youth-led enterprises, who need credit to invest in quality seed, irrigation facilities and/or to hire land. This scheme will be open to vines, silage, root producers, and supporting farmers to establish sweet potato agro-based businesses focused on processing and utilization. At the micro-level, it will support: production of sweet potato-based silage to reduce the costs of livestock feed and fish; encourage investment in pig, fish, and other livestock production enterprises; and use of puree for value-added baked products (for example, rolex, cakes, bread/scones, mandazi, donuts, etc.). SOSPPA has since established a digital (smartphone) monitoring system which tracks loan issuance and repayment, currently operational in three farmer groups. Building on the credit scheme currently operational in four districts (Ngora, Serere, Kumi, and Bukedea), the project will specifically expand the scheme to the remaining project districts (namely Katakwi and Amuria) and use of the established digital system (currently operational in three farmers group) to closely monitor loan disbursement and repayments.

#### **Box 2: Management of Credit Scheme**

The project will further strengthen the existing credit scheme and improve loan disbursement and recovery efficiency by: a) implementing practical/hands-on training of the loan management and field monitoring team to be delivered by Makerere University Business School (MUBS) and a microfinance organization with proven record in working with smallholder farmers such as Microfinance Support Center (MSC); b) improving the marketing of sweet potato fresh roots and processed products to increase farmers' sales revenues; c) deducting loans at source – that is, from crop sales; d) growing the market base by expanding sales of fresh roots and processed products through multiple outlets (for example, schools, colleges, hospitals, supermarkets, street vendors, wholesalers, and bulk-purchasing distant traders); and e) forming strategic alliances and business linkages with other stakeholders in the value chain to expand the market base and utilizing current marketing and distribution channels. These interventions will professionalize management of the credit scheme and enable SOSPPA to provide credit to farmers at a much lower interest rate in comparison to the prevailing market rate and to run an efficient and sustainable loan scheme. The project will hire a professional expert to manage the credit scheme to ensure that the scheme operates efficiently and sustainably.

- (iii) **Redesigning and strengthening the crop insurance scheme.** Similar to the credit scheme, members of SOSPPA will have access to a weather-based insurance scheme to cushion farmers from weather shocks. The insurance will be provided in partnership with a private provider and will be repaid through sales of roots and vines.
- (iv) **Program for provision of advisory/extension services.** SOSPPA, with technical backstopping from CIP and MAAIF/government extension services, will recruit 9 technical field assistants (FTAs) to: 1) provide technical and advisory services on agronomic practices, pest, and disease management to farmers; 2) monitor and document crop outlook, root quality, credit and insurance loans repayment; 3) implement a traceability system and oversee the



grading/sorting of roots at group level; and 4) provide technical support to the silage hub operations and silage quality. To make them effective in their roles, the FTAs will undergo TOT (Training of Trainers) using a manual on “Everything You Ever Wanted to Know About Sweet potato”, and another TOT specifically focusing on silage production, management, utilization (livestock feed supplementation with silage), and marketing. They will then cascade down the training to individual groups and silage hubs to build capacity of the farmers. Linkage with MAAIF extension services will foster ownership of the project, hence ensure sustainability.

- (v) **Promoting crop rotation to sustain soil/plant health and cropping systems.** To reinforce the crop rotation system in the project areas, this project through its FTAs will work very closely with the government extension services to incorporate innovative crop rotation tips/techniques in the agronomic training as part of an integrated soil and crop management program. The project will specifically roll out training and routine extension services/visits to project members focusing on crop rotation, good agricultural practices (GAP), and methods for conserving sweetpotato-planting material during dry season using guidelines developed by the Ministry of Agriculture and other available resources developed by CIP. Jointly with government frontline extension workers, the project will convene regular “plant clinics” to train farmers on the diagnosis of plant pests and diseases and use the training events to reinforce the need for crop rotation.

**Box 3: Environmental Protection by Conservation of Local Trees/Crops**

The project training will include a module on environmental protection to address one of the key drivers of climate change, notably tree cutting usually for charcoal burning. The trees are being cut in the project districts are mostly Tamarind (rich in Vitamins B2 and B3) and Lemon (rich in Vitamin C), which are source of nutritious ingredients to prepare sweetpotato-based composite porridge and a popular local stiff porridge known as “atapa”. The project will therefore sensitize communities and households through training on the nutritional benefits and conservation and replantation needs of these trees. Furthermore, the project will link with the NaSARRI-funded initiative to develop tamarind-sweetpotato recipes and products and test their viability for home use and commercialization through consumer studies. Conservation of these trees, and promotion of local dishes made from them, will have the dual role of protecting the environment and promoting the consumption of local sweetpotato dishes thus strengthening the market for fresh and processed sweetpotato roots.

- (vi) **Promoting high-yielding, drought-tolerant, early maturing, disease-resistant dual purpose processing varieties.** The project will promote best-performing OFSP varieties selected from a wide range of varieties produced by CIP and partners in Uganda that are prolific and specifically bred for high root production. It will supply the needed roots for processing while also producing large amounts of vines for silage making. The early maturity (hence drought-escaping), drought tolerance, and disease/pest resistance traits will reduce losses caused by rainfall shortage, disease and pests, thus increase farmers’ incomes.
- c. **Component 3: Promote diversified utilization and consumption of OFSP amongst SOSPPA members and communities, and in current and new markets.** Commercialization of staple foods can divert food from households to markets when production becomes profitable for the market. This can have a negative impact on the household food security. Nutrition education and awareness creation targeting families and communities linked to commercialization can be effective in addressing such negative outcomes. To that end, in collaboration with local government public health and agriculture departments in the target districts, this project will support following activities to promote diversified utilization and consumption of OFSP:



- (i) **Developing and promoting community-based nutrition initiatives focusing on maternal and young (6-23 months) child feeding practices, hygiene and sanitation, and childcare.** These initiatives will reach project beneficiary households and their communities through SOSPPA-coordinated or commissioned nutrition interventions, and market segments that buy SOSPPA roots through broader education campaigns. It will use a food basket approach that encourages households about dietary diversity by using locally available foods from kitchen gardens cultivating OFSP, vegetables and other nutrient rich crops. It will also strengthen products diversification for existing markets and demand creation for OFSP in unreached market segments. Specifically, the project will: create awareness through training on OFSP handling, food preparation, and child feeding; scale out the use of healthy baby toolkit (HBT) (for example, bowl, slotted spoon) for improving young child feeding of OFSP puree and other nutritious porridge; analyze food safety risks in young child feeding and adapt guidelines for improved food utilization to these consumers; and undertake strategic research to bridge knowledge gaps on young child feeding and adolescent diets in project areas.
- (ii) **Designing and implementing promotional campaign** to create and/or grow and deepen new (and existing) markets for OFSP processed consumer products and silage. The project activities to expand demand and introduce nutritional benefits of OFSP include: a) **nutrition education/messaging** comprises of field demonstrations activities, cooking demonstrations, community radio/local FM talk shows, training for children's caregivers, home-gardening, and establish demonstration gardens in selected schools for community outreach following UMFSNP model; and b) **specific campaign programs** aimed at launching the new OFSP processed products both into informal/low-end retail markets (for fresh roots, boiled roots, *chappati*, and *rolex*) and the formal retail market/supermarkets (for bread, buns, mandazi, cakes, pasta), of which promotional activities contain high-profile launch of the processed OFSP products, TV and local radio advertisement of the products, billboards in high-traffic areas, celebrity endorsements of OFSP products, and display/distribute information on nutritional benefits of OFSP products.
- (iii) **Leveraging opportunities for market linkages with established businesses.** The project will explore potential market opportunities by linking SOSPPA's processing and market investment with other businesses/companies, which already have established market shares in processed products, located closer to major urban markets with better infrastructure, and can use OFSP puree as a raw ingredient for making a variety of products (for example, popular sauces, ketchup, spaghetti, cakes, and baby food). Hence, partnering with such companies, SOSPPA will have a channel to utilize their capacity for greater return for its members/farmers by supplying OFSP puree.
- (iv) **Promoting post-harvest conservation** of fresh roots and dried sweetpotato chips (for example, locally known as *amukeke*) to extend the shelf life of these products.
- d. **Component-4: Strengthen SOSPPA's governance and management capacities to deliver services to its members.** Albeit SOSPPA is well rooted in the rural economy of Serere district and has insight and understanding of the sweetpotato supply chain, its Executive Committee (ExCom) and operational staffs need to strengthen their capacity to handle larger businesses. This proposed project would therefore implement capacity building activities that include: (i) **Governance.** In partnership with Makerere University Kampala and/or business organizations with proven record in building capacity of agribusiness entities and start-ups, the project will conduct hands-on/practical training events in the first year of project implementation on best practices in organizational governance for ExCom and operational staff, and organize refreshers training at the mid-term to reinforce and deepen skills and best practices learned in the first course; (ii) **Managerial competence.** In the first year of project implementation,



Business Management training will be provided on supply chain, inventory (raw material and finished products), finance and audit, and human resources management; and another training on marketing covering market intelligence, negotiation strategies, and product promotion will be conducted. Refreshers training of the same will take place at the midterm; **(iii) Technical capacity.** At the same time as stated above, workshop and refresher training on good agricultural practices and compliance with industry standards (good manufacturing practices, hazard analysis and critical control points, Uganda National Bureau of Standards – UNBS) will be conducted.

23. **Building Back Better approach.** This project’s aforesaid interventions will be aligned with ‘building back better’ approach of the World Bank in multiple ways (as briefly provided in the Box 4 below) and will directly address GAFSP’s priority crosscutting themes including gender and empowerment of women and girls, climate resilience, and improved nutritional outcomes that are very relevant to this project. The project will measure and report on impacts/outcomes of the same in the project results monitoring framework, and the detail on how the project will focus on the identified thematic areas described in Annex-6.

#### Box 4: Building Back Better

To address COVID-19 impact and contribute to recovery of agriculture and food sectors in a changing climate, the project will put emphasis on: i) **Resilience** – As a climate smart and early maturing crop, sweet potato production will foster household and community adaptation to climate change effects manifesting as frequent droughts, erratic rainfall, and unpredictable rainfall patterns. Supporting the youth and project members to invest in business opportunities linked to sweetpotato processing and utilization and linking them to markets for fresh and nutritious processed products will strengthen household and community resilience to the frequent and recurring shocks. ii) **Recovery from COVID-19** –This project will rebuild productive capacity of its beneficiary households, farmers, youth (especially girls), and community by increasing incomes from sales of fresh roots/vines and processed chips; and access to nutritious (vitamin A-rich) foods, which will allow them to build back better from the disruptive effects of the pandemic and repeated droughts on their livelihoods, the markets, agro food systems, and household/community welfare. iii) **Empowerment** – sweet potato is often referred to as a “woman’s crop” owing to the disproportionately large participation of women in its production. The project interventions benefitting women and young girls with empowerment includes training on Good Agricultural Practices (GAPs); access to credit and quality seed for improving business literacy; Gender trainings; and Nutrition education and counseling and cooking demonstrations to improve nutritional status. These strategies will not only increase household purchasing power but will also result in economic empowerment of women farmers.

## B. Project Cost and Financing

24. **Component-wise resource allocation.** A Global Agriculture and Food Security Program (GAFSP) grant of US\$2.33 million will finance all project interventions. Project implementation period is four years, from 2025 to 2028. The budget will assume a base cost for contingencies of 10 percent to reflect variations in base cost estimates for goods and services in terms of quantities and/or methods of implementation.

25. Building on the detailed costing, the project appraisal agreed to the content of each component and amounts allocated to each. Estimated project costs by component including GAFSP financing have been provided in Table 1 below, to reflect the expenditures for the planned activities to be funded with the proposed project. Detail resource allocation





## The World Bank

Strengthening Productive Capacity and Resilience of Smallholder Sweet Potato Producer Organizations in Uganda (P179537)

plan/budget by component-wise major activities is provided in Annex-1.

Project Components	Project cost	Trust Funds	Counterpart Funding
<i>Component 1: Improve market access and farm incomes for SOSSPA farmers through OFSP marketing, processing, and value addition supported by effectively managed</i>	923,394	892,419	30,975
<i>Component 2: Increase productivity and production of sweet potato roots and vines, and other nutritious crops, amongst SOSPPA farmers with yield-enhancing inputs, improved and climate smart agricultural practices.</i>	550,656	519,681	30,975
<i>Component 3: Promote diversified utilization and consumption of OFSP products amongst SOSPPA members and in current and new markets.</i>	645,094	645,094	-
<i>Component 4: Strengthen SOSPPA's governance and management capacities to deliver services to its members.</i>	303,781	272,806	30,975
<b>Total Project Costs</b>	<b>2,422,925</b>	<b>2,330,000</b>	<b>92,925</b>
<b>Total Financing Required</b>		2,330,000	

26. SOSPPA with implementation of the agreed actions will provide effective financial management and accounting systems, which will facilitate the use of report-based disbursement where cash flow forecasts based on work plans are submitted for a period of six months every quarterly period along with Interim Financial Reports (IFRs). The IFRs will be submitted for disbursement on a quarterly basis. In compliance with the report-based guidelines, the project will be expected to, (a) sustain satisfactory financial management rating during project supervision; (b) submit IFRs consistent with the agreed form and content within 45 days of the end of each reporting period, and (c) submit a Project Audit Report by the due date. Upon contract signed (effectiveness), SOSPPA will be required to submit an IFR with the six-month cash flow forecast to the World Bank/ IDA in order to make a deposit to the Designated Account. Replenishment of funds from the



World Bank to the Designated Account will be made upon receipt of the quarterly IFRs, which will contain the 6 monthly cash flow forecast for the subsequent period. If ineligible expenditures are found to have been made from the Designated Account, the Recipient will be obligated to refund the same. If the Designated Account remains inactive for more than six months, the Recipient may be requested to refund to the World Bank/IDA amounts advanced to the Designated Account. With reference to the engagement of CIP in this project, a Management Contract as stated in the Grant Agreement (GA) will be entered into between SOSPPA and the CIP, which shall, among other matters, set out CIP's roles and responsibilities under the Project. The World Bank will have the right, as reflected in the contract/GA, to suspend disbursement of the Funds if reporting requirements are not in compliance.

27. **Disbursement Estimates:** The disbursement estimates will be done based on the updated implementation schedule.

**a. Project Implementation Phases**

28. **Project implementation phases.** Project objectives will remain the same throughout the proposed four-year implementation period. Phasing is planned to allow sufficient time period considering significance of different activities including initial diagnosis and operational establishment (Phase 1 and 2 for the first 1 project year), implementation of SOSPPA capacity development and marketing growth (Phase 3 and 4 for project year 1-3.5), and ensuring sustainability (Phase 5 for project year 1-4). Initial two phases will move forward with strategy update and all aspects of diagnosis and operational start-up including gender-focused feasibility, SOSPPA's capacity needs, market segment analysis, child nutrition gap analysis, and procurement and installation of equipment. The initial phases will provide basic guidance or strategic direction on what implementation aspects need to be reviewed/modified. With respect to service delivery and implementation, six Districts will engage in the entire project package, providing insight into the implementation structure and sequencing of activities in the following phases 3-5. As the project goes with implementation, capacity strengthening of SOSPPA/farmers in executing key project interventions, launching and promotion of OFSP products in the market, and evaluating outcomes of project operations to sustain gains, will be undertaken. All the phase activities (see Annex- 4) will follow the plans described above, and agreed by the World Bank.

**b. Relevance to Development Partners and Role of Partners/Private Sector Actors**

29. **Development partners.** The project is designed building on interventions SOSPPA has co-implemented with several development partners, namely: i) Farm Africa – promotion of OFSP for nutrition intervention, field extension, business plan development training; ii) HarvestPlus - linkage to source of basic seed (for example, Senai Laboratories Ltd and the Kenya Plant Health Inspectorate Service), OFSP vine multiplication, and vines/roots marketing; iii) CIP – introduction of nutritious climate smart OFSP varieties, sweet potato processing, value addition to fried OFSP products; and iv) Farm Concern International – sale of fresh roots to schools and colleges, training on good agricultural practices, investment in screen nets for vine multiple, cottage-based OFSP processing into baked products. The World Bank as the supervising entity (SE) will provide technical assistance to overall project implementation and supervise the grant management.

30. **Role of Partners/Private Sector Actors.** Building on previous training by Eastern Agriculture Development Company Ltd (EADC) on vines/roots quality and diversity selection and using lessons from Wind Wood Millers (WWM) in the design of credit schemes, the project will begin implementation. **International Potato Center (CIP)** will provide capacity building support to SOSPPA (lead implementing PO) in project design and implementation, especially in training and administrative/operational backstopping, and will conduct impact assessment. **Makerere University's** Department of





Food Technology and Nutrition (MUK-DFTN) together with CIP will support SOSPPA in procurement, installation and testing of processing equipment, OFSP product formulation, and training on food processing, good manufacturing practices, industry food safety standards, and HACCP. CIP's support to procurement transactions under this Project means assistance with technical specifications, selection criteria, identification of potential suppliers, etc. while SOSPPA remains fully responsible for legally engaging selected suppliers, approving products/deliverables, making payments, etc. **MUK Business School** will build SOSPPA's management and technical capacity particularly on market intelligence gathering, product marketing, promotion strategies, and good practices in project accounts management. **Bavubuka Twekembe Youth Group** will implement silage-processing hubs in each of the six project districts and build the capacity of SOSPPA through training to run the hubs efficiently and sustainably. The project will provide credit and crop insurance to farmers through **Microfinance Support Center** and/or **Post Bank** and **Akellobanker**<sup>16</sup> (a leading fintech company based in Uganda committed to financial inclusion in Africa). Moreover, the project will work in close collaboration with the **Department of Agriculture Production** at Local Government level through the support from Crop Sector staff in selecting new farmers and mobilizing them into producer groups. Fisheries and Livestock Sector Heads and Commercialization Sector Head will provide support in promoting sweet potato silage as feed, thus generating a sustainable market for this product.

### c. Lessons Learned and Reflected in the Project Design

31. **Lessons learned and reflected in the project design.** The proposed project design incorporates lessons learned from international best practice from agriculture development science and nutrition; from various global and national assessments; and from Government and DP experiences in Uganda.

- a) **International and Uganda-specific experience.** Selected nutrition-sensitive-agriculture interventions in addition to nutrition specific initiatives in the critical first 1000 days of life (and before for females of reproductive age) have significant impact on the human development of new generations. With technical guidance and social mobilization, communities have been shown to be capable of recognizing the benefits of these interventions<sup>17</sup> and producing and consuming micronutrient foods. However, progress in nutrition has been constrained by a focus on interventions within a single sector, usually health. As underscored in the UNICEF conceptual framework, which shows the relationship between food, health, and care, and a multisectoral approach alias "*think multisectorally, act sectorally*" is essential for effective improvement in nutrition, farmers livelihood, and quality of life. Uganda has had similar experiences to what is proposed for this project through agriculture<sup>18</sup> and schools, and some key learnings including that focusing on year-round production and consumption of fruits and vegetables in backyard/kitchen gardens has been found to be an effective approach to improving dietary diversity.
- b) **Uganda World Bank project experience.** This project was designed with significant and consistent guidance from World Bank as well as DPs, and Government of Uganda who shared their implementation experience, and identified what methods were used in their sector, with advantages and disadvantages (a list of World Bank projects which provided insight are contained in the footnote<sup>19</sup>). These considerations were taken into account and are reflected in the selected implementation arrangements. Some important experiences considered in the project design:

<sup>16</sup> <https://akellobanker.com/>

<sup>17</sup> E.g., in Uganda: BASICS (USAID), ECD (World Bank)

<sup>18</sup> In Uganda: Enhancing School Gardens (SNV), Community Connector (USAID), Harvest Plus

<sup>19</sup> Northern Uganda Social Action Fund (NUSAF), Global Partnership for Education (GPE), ATAAS, An Innovative & Integrate Approach to ESN, UMFSNP, ACDP, and CSA project.



- (i) **Project design consultations are necessary both before and after project approval.** The project development process has been a collaborative effort engaging amongst others SOSPPA, Makerere University Kampala Department of Food Technology and Nutrition, and sectoral ministries (MAAIF, MoH and MoLG) which worked step-by-step with the Bank and as a joint collaborative team. DPs have been consulted throughout. The intention going forward is to continue this practice through annual joint reviews.
- (ii) **A critical factor in implementation success, drawn from many sectoral and community development projects in Uganda as well as elsewhere, is the support of local government.** This will be a decentralized operation, which requires to be aligned with existing practices/structure of local government (for example, PDM, district level COVID-19 response taskforce) and orienting the leadership and having them cooperate across sectors.
- (iii) **Primary school is potentially an important vehicle for delivery of community transformative nutrition and public health interventions.** The proposed project will then build on UMFSNP's approach to using school gardens and community demonstration plots as avenues for improving household and community nutrition status, and demand creation of OFSP products among the market segments of students.
- (iv) **Income Generation from MNR crops, in addition to production and consumption can be a key sustainability factor for the project.** Therefore, value addition can minimize loss of livelihood opportunities for smallholder farmers/farm workers - by linking farmers to commercial value chain with guaranteed prices provides market for produce, stable income, and farm employment for project participating and non-participating households; and by providing farmers with access to quality planting material, credit, and crop insurance hence enabling them to invest in farming, increase productivity, and earn higher incomes. Thus, it will align SOSPPA's implementation strategies to complement government policy and strategy on value chain development.
- (v) **Free agricultural inputs alone to smallholder farmers do not lead to sustainable production; structural issues need to be addressed, too** (lessons learned from ESFN project in Uganda). In order to sustain the production and adoption of targeted crops, it is important to invest more in infrastructure, such as irrigation, marketing and business skills, and income-generating activities. Creating entrepreneurship opportunities for smallholder farmers and supporting post-harvest handling and processing (including equipment through for example sharing schemes) is critical for sustainability of agriculture-related activities.
- (vi) **Food systems are fragile and can be greatly disrupted by systemic shocks** (COVID-19 and poor weather) leading to adverse effects on household diets. Loss of local and institutional food markets caused by pandemic lockdown will be resolved through sale of sweetpotato to the processing facility, thus adding value to reducing food losses.
- (vii) **Consumption patterns can be influenced with availability of targeted food and nutrition education.** Increased food production and concerted effort thru social and behavior change communication (SBCC) and relevant training under this project will lead to diversification of MNR crops and food consumption. This project also incorporates nutrition education and awareness messages to improve household dietary consumption effects and potential for consumer demand of diversified nutritious foods.
- (viii) **Community mobilization and training, and participation of community stakeholders in school gardens' demonstration activities improve learning** and strengthen the transfer of knowledge and information between schools and communities, as well as transfer of project benefits to direct beneficiaries. The project will use this approach for community engagement and positive social change.



- (ix) Community based project activities including **monthly nutrition education forum, and cookery demonstration**, child-feeding practices amongst others have proved to be successful avenues to deliver nutrition-sensitive agricultural interventions, and this project incorporates them in its design.

## IV. IMPLEMENTATION

### A. Institutional and Implementation Arrangements

32. **The proposed project will be implemented over four years by the implementing agency, SOSPPA as recipient of this grant funds.** SOSPPA will be the Project Lead with technical capacity building support from CIP, and responsible for the overall implementation of the project including components/activities, coordination among partners, and day-to-day operations of the project in consultation with the ExCom, and providing the premises (land) for construction of the OFSP processing factories, and the principal liaison to the World Bank. SOSPPA Project Coordination team will be comprised of a Project Coordinator, OFSP Puree Processing officer, Silage Processing officer, Marketing officer Agronomist, Accountant, and M&E Specialist/research officer. It will also hire around 9 trained and experienced technical assistants at field level.

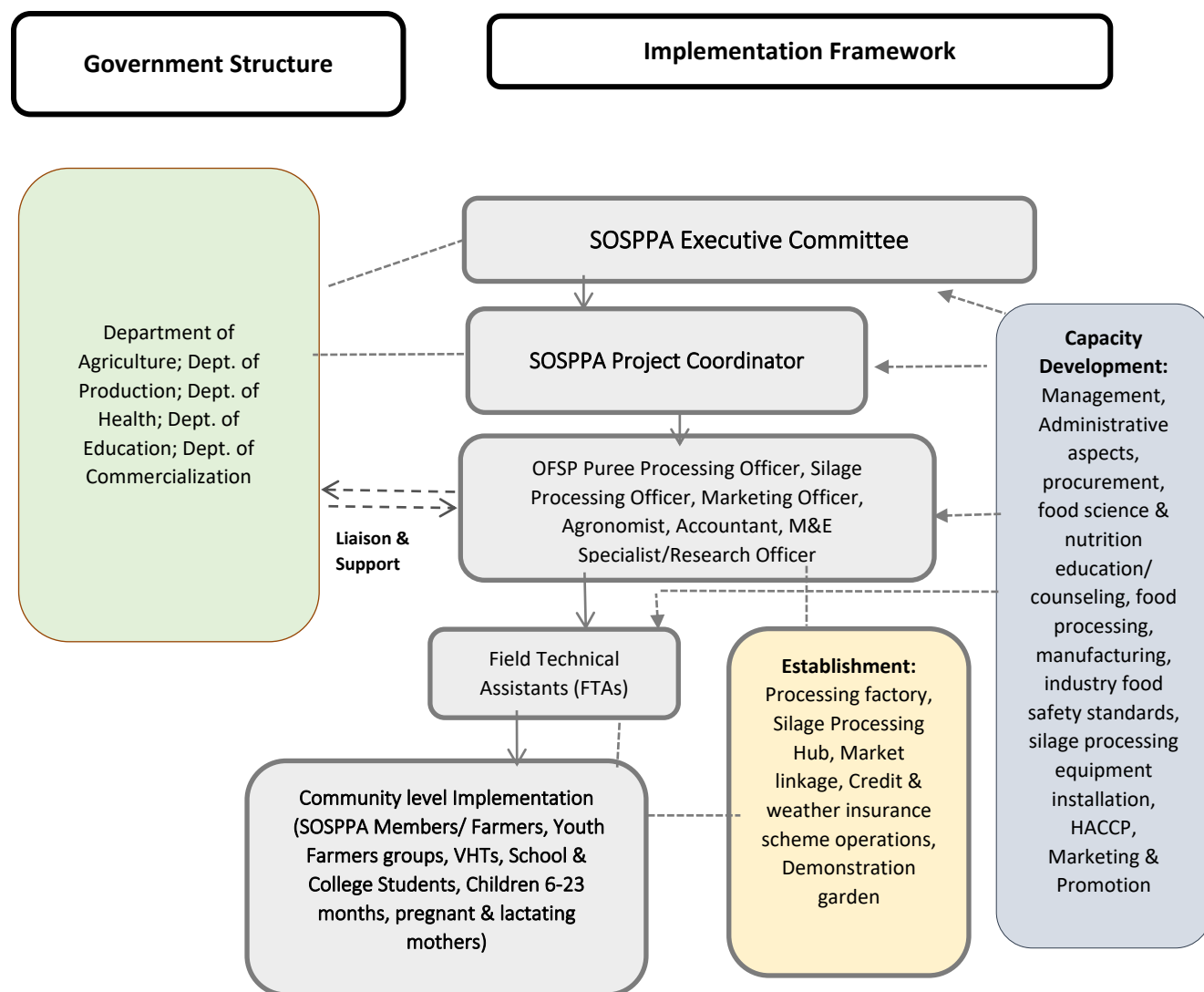
33. A simplified Project Operational Manual (POM) will be developed and describe institutional relationships at different levels (including District, school/college and community); their roles and responsibilities including that of the project coordination team and CIP; development and approval of Action Plans, and annual workplan and budgets (AWP/B); fiduciary management by SOSPPA (including procurement, financial flows, credit schemes management, and auditing); and project supervision and coordination, monitoring and reporting. The organizational chart (Figure-1 below) provides the basic implementation framework for the Project. Annex-5 provides detailed information on the institutional and implementation arrangements.

34. SOSPPA will ensure that the Project's core implementation will take place at district and community levels. At District level, the project implementation will cover six districts. Within each district the project will foster close collaboration with MAAIF's Department of Crop Production in the implementation of the agricultural components (namely Component 1 and 2) and work with the staff to deliver training on production and marketing as well as value addition. It will develop linkage with Education and Health Departments to build on UMNFSF's school demonstration gardens and nutrition outreach.

35. At the community level, the project will work with local/community/regional FM radio stations to conduct nutrition sensitization and broadcast nudge-based messages to improve awareness/knowledge on nutrition-sensitive agricultural products, and influence income-generating behaviors at community and household levels. The existing community groups of SOSPPA will be made aware of to carry out nutrition forum demonstrating nutrition-sensitive agricultural, health, and improved nutrition behavioral practices which will be further promoted by the project via field days and cooking demonstrations.

36. To promote OFSP value-addition industry, the project will develop close links and collaboration with private sector, including bakeries and retail supermarkets and markets for its intermediate products (puree) and finished value-added products including bread, donuts, chapati, and spaghetti. SOSPPA will also ensure that the community level structures, and implementation of the project are well aligned with the government directives about Parish Development Model.

**Figure-1: Project Implementation Framework**



- B. Results Monitoring and Evaluation**
37. The **PO (SOSPPA)** will be responsible for the entire M&E system of the project, which will be coordinated by CIP. An M&E specialist to be hired by the project in a full-time position will do routine monitoring that includes monitoring and tracking progress and effectiveness in implementing the project (inputs, activities, processes, outputs, intermediate outcomes, and PDO indicators). Intermediate results indicators were identified to monitor progress in the chain of results expected to contribute to the PDO, including outcomes from all the project components. **A detailed baseline study will be conducted** within six months of starting the project and findings will be used to set the baseline values for the PDO indicators, strengthen the results chain, and revise implementation plans if needed. The results framework provided in the section VII below, and the impact pathways provided in Annex-3.
38. The M&E Specialist/ Research Officer will work closely with the project’s would-be hired agronomist (for component-2) and food scientist (for component-1 and 4) and CIP nutritionist to monitor activities under component 2 and will be backstopped by the senior management of CIP. Monitoring of project results will be based on the project



activities and fiduciary data under all the components reported and consolidated in quarterly reports produced by the project coordination team including accountant and M&E specialist. The project will be preparing monthly and quarterly reports to maintain due diligence and prepare bi-annual progress report to submit to the World Bank.

39. **A rigorous impact evaluation will be conducted** to evaluate the extent to which the project influences OFSP production and consumption, productivity and revenues earned from crop/silage sales, market access and incomes from value-added products, and dietary behaviours and nutritional status of the target beneficiaries in the project areas, and capacity/resilience of the producer organization, SOSPPA. Endline survey will be conducted, and the results of the project will be assessed using the impact evaluation techniques that can allow outcomes and intermediate results to be attributed to the project. The findings from the evaluation will inform and contribute to the evidence base on the nutrition-sensitive-agricultural production, improved nutritional outcome, and value-added industrialization within rural economy. The Bank will complete periodic implementation Status and Results Reports (ISRs) as well as an implementation Completion and Results Report (ICRR) within six months following the end of the project. SOSPPA, as the grant recipient will also prepare Implementation Completion Report at project closure, which will contribute to the Bank's report.

### **C. Sustainability**

40. **The** project concept was developed based on a series of in-country consultations and is completely aligned with NDPIII and UNAP2. The NDPIII industrialization strategy that aimed to pursue a two-pronged approach to expand markets for increased demand of locally produced goods. First, Government will pursue an export-oriented strategy by increasing the value and share of manufactured goods in total exports to address the balance of payment deficit. Second, government will promote an expansion and diversification of local manufacturing activity, through both strategic public and private sector investment in industry. This will also ensure that some of the currently imported goods are produced locally. In compliance with the Government plans, the project interventions designed are low-tech, affordable, and feasible because of local availability of materials and inputs. A sample of 180 farmers in three districts indicated all families currently eat sweet potato at least once a week, 30% eat them daily, and more than 80% of sweet potato consumed are grown in the household. Therefore, with support from SOSPPA's FTAs, CIP, and other local actors/partners, there is high probability that OFSP and other nutrient-rich crops promoted through interventions will enter target beneficiary diets as well as being sold for profit.

41. The project will support a transition to a social entrepreneurial method of delivering the agricultural services to the target population. CIP and the DFTN of Makerere University will support SOSPPA in the sourcing of sweetpotato puree processing equipment, their installation, and maintenance; and provide training on recipe development, good manufacturing, and processing practices in accordance with the UNBS regulations and ensure stringent HACCP in food processing by the PO and other project partners. They will build the capacity of puree users such as bakeries and chapati vendors on postharvest handling of OFSP roots, food safety and hygiene practices. The OFSP puree can be used as a partial substitute for wheat flour (20% - 40% of wheat flour), enhancing the vitamin A content of baked and fried products. The project envisages supplying 1.5 million pieces (over 3 years) of OFSP chapati dough and chapati to the urban and peri-urban informal settlements of the project districts targeting youth and single mothers who are the main vendors of these products. That amounts to reaching approximately 700,000 consumers (assuming a consumer eats 2 chapati each). But, ultimate sustainability will be contingent on strong community participation in all project interventions and community ownership to increase demand for OFSP and its processed products.

### **V. KEY RISKS**



## A. Overall Risk Rating and Explanation of Key Risks

### a. Risk Rating Summary Table

Risk Category	Rating
Stakeholder Risk	Substantial
Institutional Capacity for Implementation and Sustainability	Moderate
Political and Governance Risk	Substantial
<b>Project Risk</b>	
-Design	Low
-Social and Environmental	Substantial
-Program and Donor	Low
-Climate Change	Moderate
-Delivery Quality Monitoring	Moderate to Low
Other	
<b>Overall Implementation Risk</b>	<b>Substantial</b>

### b. Risk Rating Explanation

42. **The overall project risk rating is Substantial. This is in view of the uncertainties and unknowns posed by the COVID -19 pandemic.** The social and environmental risk is also considered substantial because of the potential risk of discrimination and exclusion of vulnerable or marginalized individuals or groups in the provision or receipt of project benefits. The other risk categories and assessments for the project are provided below.

43. **Political and Governance risks are Substantial.** Political instability can arise during and after elections and may affect: i) distribution of processed products and build up of inventory, and ii) access to raw materials for processing and sourcing of production inputs (fertilizer, pesticides). To mitigate politically unstable situation, the project will maintain an inventory of raw materials and a storage facility to hold products for a specified duration. To mitigate the governance risks, including fraud and corruption during project implementation, the project will: i) provide technical assistance to support better accountability, accuracy and timeliness of financial reporting, ii) improve procurement and financial management processes, as needed, and iii) deepen the planned digital M&E technology and continued involvement of district local government and Parish/sub-counties.

44. **The Institutional Capacity<sup>20</sup> for implementation and sustainability risk is Moderate.** There might be conflict and disagreement between local actors over the implementation strategy of the project. SOSPPA will ensure active involvement of the steering committee and its capacity will be strengthened by the involvement of the agriculture and local government ministry by regular consultation during project implementation. Besides, hiring trained professional (FTAs) to manage key operations, and continued capacity building training will be needed in a case-by-case basis to enhance capacity of SOSPPA and its members. Despite adequate plan for institutional capacity development, the project may face challenges in achieving the timely outcomes due to the risk of new waves of COVID-19 arising from the new

<sup>20</sup> The risk rating for institutional capacity and sustainability as per the current SORT guidance includes COVID-19 disruptions.





variants coupled with the slow uptake of vaccines. Waves of increased burden of the pandemic will continue to necessitate public health measures that may disrupt socio-economic activities, project activities and work programs and further weaken the ability of the country to sustain promising initiatives like this project.

**45. The Stakeholders' risk is substantial.** There is commitment from the multiple stakeholders at sectoral, district and community levels. Coordination at national level by SOSPPA and CIP with development partners including government's relevant ministries/departments remains critical, and continued support and encouragement from PO leadership remains important, especially for multiple stakeholder participation. Furthermore, Farmers are not able to purchase quality/certified sweet potato vines/seed due to lack of money (for example, equity/ capital constraints) and the tradition of getting vines free from neighboring households and community. This is likely to result in poor yields, production, and income; hence reducing anticipated nutrition and monetary impact. The project will sensitize and educate farmers about the yield advantage arising from use of quality/certified seed; and implement provision of credit to farmers under closely monitored interlinked credit scheme. Enhanced implementation support and monitoring (EISM) shall be supported under the Project. The World Bank and IFC have hired a Third-Party monitoring entity, which will lead EISM including training and sensitizing of key stakeholders namely the PCU, technical teams in the area of operation, contractors, sub-contractors, supervising consultants as well as communities. The entity will also enhance project-level GRMs which will act as alternative avenues of reporting complaints arising from exclusion and discrimination of the project affected persons.

**46. Inclusion and non-discrimination.** Environmental and Social documents include specific measures to mitigate the risk of discrimination against or exclusion of any affected individuals or groups in providing or receiving benefits under the Project. These measures are described in detail in the ESCP, ESMF, and Stakeholder Engagement Plan (SEP).

Furthermore, the ESMF and SEP also reference to GoU's Circular on Uganda's Social Safeguard Policies, issued on September 21, 2023, by MoFPED. The circular states the following: a) all World Bank-financed projects in Uganda must be implemented in a manner consistent with the principles of non-discrimination as provided under Article 21 of the Constitution of the Republic of Uganda. These projects should also be implemented in accordance with World Bank policies and applicable Legal Agreements. Under these projects, no person will be discriminated against or stigmatized, and the principles of non-discrimination and inclusion will be adhered to. Support should be provided to all project beneficiaries; (b) All implementing entities of World Bank-financed projects should agree and implement specific mitigation measures to address non-discrimination, (c) These mitigation measures will require enhancing project GRMs as well as strengthening existing project monitoring by implementing entities including third-party monitoring where applicable; (d) Each project implementing entity shall develop comprehensive guidelines to address non-discrimination

**47. The World Bank will support enhanced monitoring** of the potential risk of the exclusion or discrimination of vulnerable or marginalized individuals or groups, as well as the efficacy of the agreed mitigation measures. An Enhanced Implementation Support and Monitoring (EISM) mechanism will primarily focus on supporting project teams to address grievances and concerns from farmers, beneficiaries, communities, and workers relating to exclusion and discrimination from project benefits. This includes the implementation of a hotline for individuals, beneficiaries, communities, and workers to lodge complaints of discrimination and exclusion under the project or voice their concerns without fear of reprisal.

**48. Delivery Quality monitoring risk is Moderate.** There is a risk of poor quality of service delivery. Strict monitoring and regular feedback to SOSPPA conducted as a part of the service delivery process and included in M&E during project implementation. Independent monitoring and evaluation will also provide real-time feedback using planned digital M&E technology for making project improvement throughout the life of the project and addressing observed deficiencies in service delivery. Continuous dialogue, transparency and accountability, prioritized as crosscutting deliverables for all project components.

49.
**Climate Change risk is Moderate.**
Drought (a systemic risk)- dry conditions destroy the crop and leading to i) loss of income to farmers; and ii) inadequate supply of fresh roots and vines for the processing facilities - hence operation at less-than-optimal capacity. To mitigate, the project will: Roll out a crop insurance scheme provided by a named private provider, under an interlinked scheme (i.e., premium deducted directly from farmers’ sales); and Diversify production base to different locations -hence unaffected areas act as buffers, smoothing supply.
50.
**Price fluctuation risk is Moderate.**
Price of roots in the local market (or offered by traders) increase making SOSPPA’s agreed purchase price unattractive and resulting in side-selling. This risk can seriously foment/provoke default in repayment loans (i.e., credit and crop insurance). Mitigating measures include close monitoring of crop outlook by the FTAs; design purchase pricing (for root and vines) that is flexible and can be adjusted based on supply conditions; and establish an incentive mechanism for discouraging side-selling and rewarding loyalty.
51.
**Strategic default on loan risk is Moderate.**
This risk occurs when farmers borrow knowing that they don't intend to pay back. This can occur when a farmer stops growing sweet potato after taking a loan. The project will: initiate an incentive mechanism that fosters group members’ monitoring on one another and requiring member guarantors and group endorsement of loan application to mitigate the risk.

VI. APPRAISAL SUMMARY

A. Legal Operational Policies

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Area OP 7.60	No

a. Economic and Financial Analysis

52.
**The benefits to households from this project arise from expected developments in human capital associated with value-added economic status and improved nutrition in project areas.**
Nutritional improvements are anticipated to result from increased production and consumption of nutrient rich OFSP and other nutritious foods and building resilience of the rural economy and livelihoods in project areas (Teso sub-region of Eastern Uganda) is expected as outcome of increased farm productivity and economic value addition to harvested crops and biofortified OFSP products. It is estimated that 15 percent of child mortality in Uganda is caused by malnutrition<sup>21</sup>, and loss of income among smallholders/farmers caused by COVID-19 disruptions has been exacerbated by the 2021 poor weather conditions. Therefore, implementation of this project will contribute to saving lives, and its gender-sensitive interventions will increase agricultural productivity in project areas where women contribute nearly 70% of the labour<sup>22</sup>.
53.
**The project will generate productivity, income, and nutrition benefits to households in several ways.**
An

<sup>21</sup> OPM and FANTA, 2014  
<sup>22</sup> Akampumuza et al, 2020





investment of US\$ 2.33 million is expected to increase OFSP productivity of 2,700 smallholder farmers by at least 50% from the current low average yield of 3.6 tons/acre. Linkage to the processing facility is expected to increase incomes from the sales of OFSP roots of affiliated farmers by at least 20%. In addition, 20 vine multipliers (50% female) will increase sales through linkage with more stable and sustainable vine market for vines namely the project's OFSP roots producers/processors. The youth (young girls and boys including school dropouts and graduates and college graduates) will earn income from the sale of sweet potato-based silage. Value chain actors and small business entrepreneurs (for example, sweet potato-based *rolex*, bread, donut, and *chapatti* as well as silage producers) involved in the sale of products will earn income from these linked-activities with the project. Multiplier effects from these on-farm and value chain activities will crowd-in private sector providers of agro-inputs such as farm equipment (spray pumps and generators), fertilizer, pesticides, and advisory/marketing services thus providing economic benefits to the local communities and local/regional economy.

54. **Studies on the implications of COVID-19 on household food security show that there has been significant reduction in household dietary diversity<sup>23</sup>, which is a key contributor to micronutrient deficiencies.** Moreover, in the project region, three consecutive years of drought led to downshifted food production, hence agricultural incomes. However, reopening of the markets following ease of lockdown due to COVID provided farming households with the opportunity for a rebound. This project will therefore support and promote crop diversification into more valuable and nutritious food items (including popular traditional foods made from sweet potato) and the use of weather-related risk management schemes, which are expected to generate economic benefits for these households.

55. **Malnutrition's economic costs for Uganda are substantial** that manifest at micro and macro-level. Ugandan economy lost nearly 1.8 trillion Uganda Shillings (UGX), which is equivalent to 5.5 percent of the GDP in 2009. Health cost of under-nutrition is estimated at 525 billion UGX with 87 percent of costs borne by families majority of whom live in farming communities. Other estimates<sup>24</sup> show that investing in nutrition would lead to economic gains through increased productivity exceeding 4.3 trillion Ugandan Shillings (US\$1.7 billion) by 2025. At the individual level, the productivity losses<sup>25</sup> are estimated at more than 66 percent of lifetime earnings, based on direct estimates of the impact of stunting in early life on later life outcomes. It is further estimated that more than 40% of the nutrition-related health costs occur during the first 12 months of a child's life.

56. **This project will contribute to tackling malnutrition through increased production of MNR crops and nutrition education at household and community levels.** A total of 21,000 (105,000 indirect) will benefit from systematic nutrition behaviour change communication training that emphasize diversified diets and incorporation of orange-fleshed sweet potato into child complementary feeding to tackle rampant vitamin A deficiency. Further, 17,500 caregivers (male/female) will be reached with healthy baby toolkits and training on improved child and maternal feeding incorporating OFSP. Research<sup>26</sup> report shows that nutrition interventions involving OFSP are cost-effective with only US\$ 15-20 worth of investment generating one Disability-Adjusted Life Years (DALY), compared to global estimates of US\$ 53 to USD 153/DALY. A DALY is equivalent to a year of healthy life lost due to a health condition.

57. **The Benefit-Cost Analysis shows that the proposed project will be a sound contributory investment for**

<sup>23</sup> Kansime, M. K., Tambo, J. A., Mugambi, I., Bundi, M., Kara, A. and Owuor, C. (2021), "COVID-19 implications on household income and food security in Kenya and Uganda: Findings from a rapid assessment", World Development, vol. 137: 1-10.

<sup>24</sup> Investing in nutrition, OPM, 2017

<sup>25</sup> Productivity losses, Hoddinott et al, 2011

<sup>26</sup> Jan W. Low, Robert O.M. Mwanga, Maria Andrade, Edward Carey, Anna-Marie Ball (2017). Tackling vitamin A deficiency with biofortified sweetpotato in sub-Saharan Africa. Global Food Security, 14: 23-30



**project areas in Uganda.** Studies<sup>27</sup> on livelihoods of small-scale sweet potato farmers report that every 1 UGX invested in sweet potato root production yields a return of 1.5 to 2.1 UGX. Also, 1 UGX invested in commercial sweet potato vine production and sweet potato processing into flour generated 2.2 UGX and 2.3 UGX, respectively. Meanwhile another study<sup>28</sup> revealed that processing of sweet potato roots into shelf-stable puree for bakery applications is a highly profitable venture in Kenya. It shows that 1US\$ invested in production of shelf-stable puree generates revenue of 1.5 US\$, and a farm family can earn up to US\$ 655 from puree processing business under OFSP production per hectare. Feed costs a major constraint to livestock production under commercial system due to high prices and hence a significant component of this project. Research<sup>29</sup> report says that using sweet potato-based silage reduces the costs of feeding livestock by 32% per kilogram of carcass weight compared to conventional feeding practices. The Benefit-Cost Analysis also revealed a high internal rate of return of 24 percent and an annual contribution to GDP of US\$85 million. The annual increase in GDP attributable to scaling up high impact interventions was calculated based on the estimates of future benefits.

58. **This project has strong gender and youth dimensions.** It will contribute to addressing gender issues, as the proposed activities are focused on increasing and diversifying crop (especially OFSP) production of smallholder farms which are traditionally controlled by women, through increasing access to agricultural inputs, credit schemes, and extension services and promoting value-addition technologies. Thus, this project will directly benefit women/female youth ensuring that at least 50% of the newly recruited vine multipliers and 50% participants in the training on silage production are women. The World Bank's engagement provides global technical knowledge and assists the PO-led organizations with complementary financing.

## **b. Technical**

59. The project's technical design is informed by multiple data sources, including globally recognized nutrition-sensitive-agriculture<sup>30</sup> (UNSCN and SUN) findings and recommendations and best practices, existing initiatives by the GoU and DPs, a considerable body of research and data available in Uganda, and analysis done as part of the project diagnostics and formative design. It also aligns with National development Plan III strategy on agro-industrialization.

60. The selection of implementation areas/districts was done based on the most acceptable information available with respect to poverty level, OFSP production, and diet diversity (available only at regional level). Districts chosen which have solid track records, and primary schools and colleges that demonstrate necessary pre-conditions to be considered for project participation, as well as complementarity with relevant program-based initiatives supported by the GoU, World Bank, and DPs. Key evidence and lessons incorporated in the project design derived from some relevant projects including ACDP, UMFSNP, and CIP together with WFP under the Development and Delivery of Biofortified Crops at Scale project, who are promoting OFSP production and consumption in Eastern and Northern Uganda to strengthen the resilience of livelihoods and nutritious food supply chains affected by COVID-19. Furthermore, the project aligns with the Government's "Operation Wealth Creation (formerly NAADS) Program" of promoting the use of yield-enhancing agricultural technologies (including climate-smart technologies, hence OFSP varieties), value addition and processing.

<sup>27</sup> Lemaga, B., Nsumba, C., Niringiye, B., Odongo, S., Tumwegamire, R., Kapinga, A., ... & Mwanga, R. (2005). Improving the livelihoods of small-scale sweetpotato farmers in Central Uganda through a Crop Post-Harvest innovation system.

<sup>28</sup> Bocher, T.; Low, J.W.; Muoki, P.; Magnaghi, A.; Muzhingi, T. 2017. From lab to life: Making storable orange-fleshed sweetpotato purée a commercial reality. Open Agriculture. (Poland). ISSN 2391-9531. 2(1):148-154.

<sup>29</sup> Asiundu et al (2016)

<sup>30</sup> [https://www.unscn.org/files/Publications/Country\\_Case\\_Studies/UNSCN\\_Synthesis\\_Report\\_March\\_16\\_final.pdf](https://www.unscn.org/files/Publications/Country_Case_Studies/UNSCN_Synthesis_Report_March_16_final.pdf)



61. **The project supports various interventions aimed at increasing production and consumption of sweet potato and build the resilience of the smallholder producers and processors for economic value addition in project areas** The following project components are being implemented in 6 project districts of Teso sub-region of Eastern Uganda with the highest levels of poverty and OFSP production and lowest dietary diversity: (i) improving market access and farm incomes for SOSPPA farmers through OFSP marketing, processing, and value addition supported by effectively managed facilities and trainings; (ii) increasing productivity and production of sweet potato roots and vines, and other nutritious crops, amongst SOSPPA farmers with yield-enhancing inputs, improved and climate smart agricultural practices; (iii) promoting diversified utilization and consumption of OFSP products amongst SOSPPA members and in current and new markets; and (iv) Strengthen SOSPPA's governance and management capacities to deliver services to its members.

62. **Over a four-year period, the project will implement a specific set of major interventions includes** increasing productivity and production of OFSP and other micronutrient rich crops; ensuring market access, processing, and value addition to harvested crops; promoting diversified utilization and consumption of OFSP products; strengthening governance, management, and technical capacity building of the producer organization and its members/farmers group. With the overall project implementation support from the World Bank, technical assistance from CIP, this project will strengthen SOSPPA's capacity to upgrade and scale up its current cottage-based value addition activities towards high value processed products in the project districts by improving its members access to reliable input and output markets, increase their productivity and income, and hence strengthen resilience to COVID-19 and other shocks. These interventions are not only relevant but also critical in achieving the project development objectives while ensuring COVID-19 safety in the participating community groups and beneficiaries.

63. **A four-year indicative work plan (Gantt chart) has been developed by the producer organization, SOSPPA.** This work plan is tentative and will be revised and validated by the producer organization's Board/ Executive Committee, and a final workplan and budget will have to be submitted by the PO to the WB for review and approval before the grants are transferred. The PO will prepare a detailed annual work plan and budget for the project, which shall include the analysis of the project needs, for each subsequent fiscal year of project implementation. Such a work plan and budget will be submitted to the WB for review and approval as soon as available following a deadline to be set by the WB.

### **c. Financial Management (FM) Arrangements**

64. Borrowers, Grantees, and project implementing entities are supposed to have and maintain adequate financial management systems which include budgeting, accounting, internal controls, funds flow, financial reporting, and auditing arrangements to ensure that they can readily provide accurate and timely information regarding the project resources and expenditures. SOSPPA FM practices and procedures are currently not documented. However, the Project will support the preparation of Project Operations Manual (POM), which will include an accounting/finance section within 6 months from inception. The requirement for external Audit facilitation will be incorporated to ensure annual audits.

65. The overall existing financial management arrangements and suggested mitigations are adequate and satisfy the Bank's minimum requirements and are adequate to provide, with reasonable assurance, accurate and timely information on the status of the project resources required by IDA. SOSPPA will ensure that appropriate staffing arrangements are maintained throughout the life of the project to ensure that the project is effectively implemented.



## **The World Bank**

Strengthening Productive Capacity and Resilience of Smallholder Sweet Potato Producer Organizations in Uganda (P179537)

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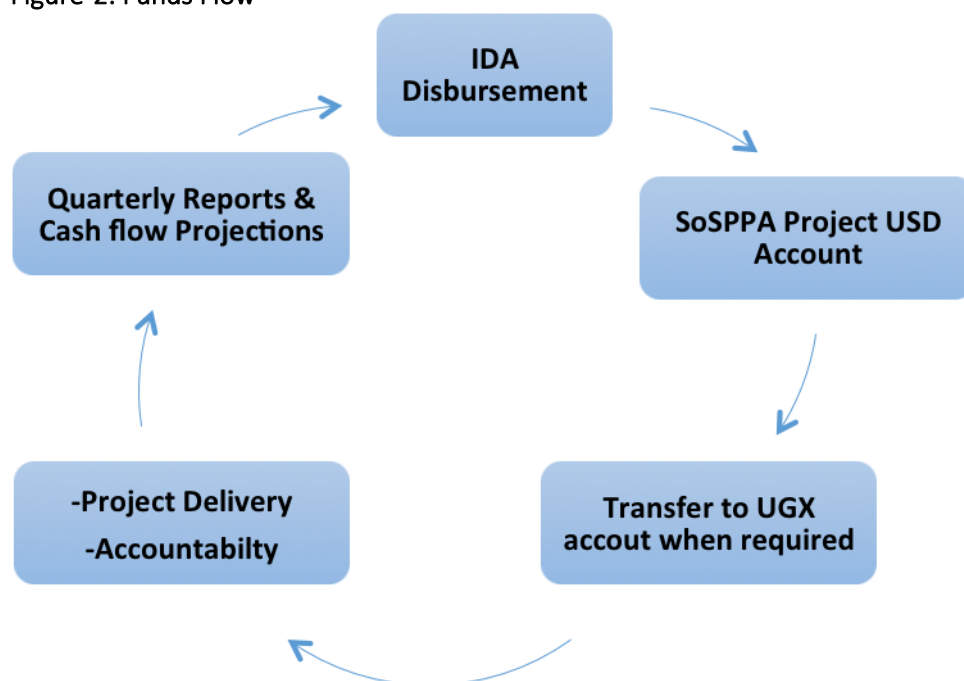
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67. **Funds Disbursement and Accounting:** The funds would be disbursed through a recipient executed grant number, RETF-TF081451, into the United States Dollar designated account (DA). SOSPPA would open and maintain separate bank accounts for the GAFSP funded project expenditures. The Banking signatories will principally be the Treasurer assisted by the Co-ordinator and any Alternate as approved by SOSPPA. All grant funding will be channelled through the designated Account and payments made as per agreed processes. A designated account will be opened with a local bank to handle the grant proceeds in USD. This shall be supplemented with a UGX account for day-to-day operations. SOSPPA presently has accounts in Stanbic Bank and may open Project accounts in the same bank or any other Bank acceptable to the World Bank. The withdrawals from the designated and UGX accounts may need to use Internet banking. The support role by CIP to the existing SOSPPA signatories may be exercised if deemed appropriate to ensure accountability to the Assembly. The typical funds flow will be as follows:

Figure-2: Funds Flow



68. **Financial Reporting:** The Statement of Expenditure (SOE) based system of reporting would be ideal for SOSPPA. The specific formats for this type of reporting shall be agreed upon before signing of the Grant Agreement.



69. Internal Audit Arrangements: The internal audit function is non-existent and may not be justified by the available resources. SOSPPA will be required to source for and meet the cost of Internal audit will be conducted, in all the project districts, by local Government audit team in Serere district where SOSPPA head offices are based. internal audit/review services to review financial operations every 6 months and advise ExCom and Management on required improvements.

70. External Audit arrangements: The Constitution requires an audit every year which has not been complied with in the past due to funding constraints for SOSPPA. The annual Accounts will be completed and audited within 6 months after closure of the financial year. An audit firm will be a qualified and acceptable to the World bank. The external auditing process will be confirmed following consultation with the Ministry of Finance (for prequalified firms) and clarification on whether its services are available at the regional level. The Auditing arrangements will include a budget provision for annual audits under terms of reference acceptable to the World bank.

71. The preliminary assessment of the overall financial management risk rating is Substantial. Detailed assessment is annexed to this PAD.

#### **d. Procurement**

72. **Procurement arrangements under the project will be carried out following the World Bank Procurement Regulations for IPF Borrowers (Procurement Regulations), dated November 2020, Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants' of July 1, 2016; and the provisions stipulated in the Legal Agreements.** SOSPPA will prepare a simplified procurement strategy in lieu of a Project Procurement Strategy for Development (PPSD) and the twelve months/annual Procurement Plan (PP), which will be agreed upon with the World Bank prior to appraisal or funds disbursement.

73. The procurement assessment conducted showed Soroti Sweet potato Producers and Processors Association (SOSPPA) is a community farmer-based organization. SOSPPA has a procurement team that handles activities and is complimented by District and Technical staff with relevant competences as need arises. The procurement team has no role in decision making for award of contracts. A Procurement Manual developed under the ACDP guides the procurement processes and is based on GoU procedures. Procurement Planning is guided by the budget. Records are maintained according to Departments. The type of procurements envisaged under the Project includes low value goods. Given the nature of organization and planned procurements use will be made of commonly used procurement methods like RFQ; local competitive bidding to involve prospective Bidders for goods and services located in and around the local community and direct contracting where justifiable. The proposed arrangements and the project activities to be carried out by community participation will be outlined in the Legal Agreement and further elaborated in the project operational manual approved by the Bank. The planned procurements are not complicated, are of low value, and pose no major challenges, but there is a need to ensure role independence. The procurement risk rating is Moderate.

#### **B. Environmental and Social**

74. **The E&S risk rating for the project is Substantial.** The project will support activities that are generally expected to generate positive E&S impacts in the project areas. Expected positive impacts include those related to increased incomes and improved quality of life and nutrition accruing from i) increased productivity and production of sweet potato roots and vines, and other nutritious crops, amongst SOSPPA farmers with yield-enhancing inputs, improved and climate



smart agricultural practices; ii) promotion of diversified utilization and consumption of OFSP products amongst SOSPPA members and in the current and new markets; iii) improved market access and farm incomes for SOSPPA farmers through OFSP marketing, processing, and value addition supported by effectively managed facilities and trainings; iv) increased access to finance for project beneficiaries; and v) job opportunities that will be created because of implementing the above project activities.

75.

**76. The above notwithstanding, the project could to some extent also inadvertently contribute to negative impacts.**

These impacts are associated mainly with the construction of a new processing facility focused on OFSP-based commercial consumer products to serve the six project districts; establishment of silage processing hubs in each of the six districts to provide market for vines and waste roots generated by SOSPPA groups in the districts, by converting by-products of sweet potato processing into animal feed; and provision of vine multipliers with access to a credit line which will encourage investment in foundation seed, irrigation, and other complementary inputs (fertilizer and pesticides). Associated adverse Environmental Health and Safety (EHS) impacts include noise, dust and Green House Gas (GHG) emission, solid waste accumulation, occupational health and safety risks (OHS), community health, and safety risks (CHS) and the risks of communicable diseases including COVID-19 and HIV/AIDS during implementation of civil works. Other risks from the agricultural activities include (i) increase in the rate of extraction of soil nutrients due to increase in vine and root production, hence impoverishing the soils and undermining sustainability of sweet potato production in the project areas, (ii) repeated cultivation of sweet potato could increase the build-up of pests and diseases in the project areas hence increase in use of pesticides (e.g., insecticides and fungicides), and (iii) processing roots into puree will generate processing wastes such as unmarketable roots. During the operation phase, use of pesticides and inorganic fertilizers could increase and lead to the release of chemicals into water sources and aquatic life and modify soil quality. The operation and maintenance of the constructed facilities may lead to risks and impacts related to OHS during operation of equipment such as physical and chemical hazards to direct and indirect workers and CHS aspects associated with generation and disposal of solid waste as well as minimal impacts on public nuisance due to noise and vibration and disposal of solid waste from the facilities operations.

77. Potential Social risks identified at project concept include: Labor influx risks (including GBV, SEA/SH and increase in the spread of HIV/AIDS) usually associated with civil works with the use of construction workers; Violence Against Children (VAC) risks particularly the use of child labor during the civil works and there will be zero tolerance to child labor; GBV risks associated with increased incomes and economic empowerment of women; and inadequate engagement of the multiple stakeholders. Additionally, the project poses a likely risk of exclusion of and discrimination against vulnerable or marginalized individuals or groups from accessing benefits and opportunities accruing from the project implementation. Based on this assessment, the social risk is considered substantial because of the potential risk of discrimination against or exclusion of any affected individuals or groups in providing or receiving benefits under the Project.

**78. The project is guided by the World Bank Environmental and Social Framework (ESF) and relevant Environmental and Social Standards (ESS)** that include: ESS1 on the Assessment and Management of Environmental and Social Risks and Impacts, ESS2 on Labor and Working Conditions, ESS3 on Resource Efficiency and Pollution Prevention and Management, ESS4 on Community Health and Safety, ESS5 on Land Acquisition, Restrictions on Land Use and Involuntary Resettlement, ESS6 on Biodiversity Conservation and Sustainable Management of Living Natural Resources, ESS8 on Cultural Heritage and ESS10 on Stakeholder Engagement and Information Disclosure. To comply with these standards, three ESF instruments<sup>31</sup> have been prepared, namely: i) Environmental and Social Management Framework (ESMF) including Labor Management Procedures (LMP), Pest Management Plan (PMP), and Resettlement Policy Framework (RPF) as part of this ESF umbrella instrument, ii) Stakeholder Engagement Plan (SEP); and iii) Environmental and Social Commitment Plan

<sup>31</sup> ESMF, SEP and ESCP to be prepared prior to appraisal



(ESCP). The ESMF will guide on the screening and management of identified E&S risks associated with the project activities and subsequent preparation of site-specific Environmental and Social Management Plans (ESMPs) during implementation and prior to start of any physical works. The ESMF will incorporate relevant guidance from the World Bank's Environmental, Health and Safety Guidelines (EHS), i.e., general and industry sector specific guidelines for Agribusiness and Food Production as well as the EISM. The RPF prepared under the ESMF will provide procedures and guidance to address potential risks related to economic loss, restrictions to land access. The ESCP will underpin different measures and actions that will be required for the project to meet ESSs requirements.

79. **SOSPPA as the lead implementing agency is responsible for the application and compliance with the ESF and ESS.** SOSPPA has had some experience working on the World Bank-funded projects, as was evidenced by its implementation of cassava value chain development with funding from the World Bank through MAAIF as part of the completed Agriculture Cluster Development Project (ACDP). However, ACDP was subject to WB safeguard policies which were replaced by the ESF, and SOSPPA has no prior experience with the World Bank ESF. The project will also involve a number of partners including; International Potato Center (CIP) – which will provide overall technical support to the project and coordinate the capacity building activities, oversee procurement, installation, and maintenance of the processing equipment, provide food science and training support, provide grant financial management support in terms of technical capacity building and administrative/operational guidance; Makerere University (Department of Food Technology and Nutrition (DFTN) and MUK Business School) – these will provide technical capacity building and training; Bavubuka Tweekembe Youth Group (BTYG) – that will provide technical training and foster linkages to unmet market potential; MAAIF – that will offer capacity building and certification of seed multipliers; and Akellobanker, in collaboration with Agro-insurance consortium will spearhead crop insurance. SOSPPA will establish and maintain a Project Coordination Unit (PCU) with qualified staff and resources to support management of environmental, social, health and safety (E&S) risks and impacts of the Project including an Agronomist who will oversee E&S aspects of the project. Within one month following the Project Effective Date, an E&S capacity needs-assessment will be conducted, and a capacity building plan developed and implemented to strengthen teams' capacity from the SOSPPA and the implementing partners in effective and efficient management of any project related E&S risks. The World Bank through a hired Third-Party entity will strengthen the capacity of SOSPPA and its partners in enhanced implementation and monitoring of the risks of exclusion and discrimination of the beneficiaries. Planned training and sensitization will be undertaken over the project period.

## VII. WORLD BANK GRIEVANCE REDRESS

80. **Grievance Redress.** Communities and individuals who believe that they are adversely affected by a project supported by the World Bank may submit complaints to existing project-level grievance mechanisms or the Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the Bank's independent Accountability Mechanism (AM). The AM houses the Inspection Panel, which determines whether harm occurred, or could occur, as a result of Bank non-compliance with its policies and procedures, and the Dispute Resolution Service, which provides communities and borrowers with the opportunity to address complaints through dispute resolution. Complaints may be submitted to the AM at any time after concerns have been brought directly to the attention of Bank Management and after Management has been given an opportunity to respond. For information on how to submit complaints to the Bank's Grievance Redress Service (GRS), visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the Bank's Accountability Mechanism, visit <https://accountability.worldbank.org>.



## VIII. RESULTS FRAMEWORK AND MONITORING

### Project Development Objective Indicators

#### Project Development Objective(s)

The Project Development Objective is to increase production and consumption of sweet potato and build the resilience of the smallholder producers and processors for economic value addition in project areas.

Baseline	Closing Period
<b>Percentage increase in crop yield among SOSPPA farmers in project areas (Percentage)</b>	
Nov/2024	Dec/2028
3.00	50.00
<b>Percentage of SOSPPA members participating in OFSP value-added activities in project areas (Percentage)</b>	
Nov/2024	Dec/2028
0.00	25.00
<b>percentage decrease in households reporting to have experienced moderate and severe food insecurity (Percentage)</b>	
Nov/2024	Dec/2028
30	15
<b>➤ Percentage increase in vulnerable households (or, children 6-23 months) with minimum dietary diversity (Disaggregated by PLW and age) (Percentage)</b>	
0	15

#### Intermediate Indicators

Baseline	Closing Period
<b>IR 1: Quantity of OFSP puree production processed by postharvest facility established (Metric ton) (Metric ton)</b>	
Nov/2024	Dec/2028
0.00	1.00



<b>IR2: Farmers that are supported in accessing improved marketing opportunities. (Disaggregation: Of which, female farmers) (Number)</b>	
Nov/2024	Dec/2028
0.00	2,700.00
<b>IR3: Vitamin A rich OFSP products introduced in the markets in project areas (Number)</b>	
Nov/2024	Dec/2028
2.00	8.00
<b>IR4: Number of processing, storage, and market facilities constructed and/or rehabilitated (facility) (GAFSP Indicator) (Number)</b>	
Nov/2024	Dec/2028
0.00	6.00
<b>IR5: Number of additional markets reached with increased OFSP roots in project areas (Number)</b>	
Nov/2024	Dec/2028
2.00	6.00
<b>IR 6: Number of new Vine Multipliers trained and established in project areas (Number)</b>	
Nov/2024	Dec/2028
3.00	8.00
<b>IR 7: Number of smallholders producers/processors receiving productivity enhancement support (farmer) Disaggregation: Of which, female producers/ processors (GAFSP Indicator) (Number)</b>	
Nov/2024	Dec/2028
0.00	2,700.00
<b>IR8: Percentage increase in the number of SOSPPA farmers adopting agronomic practices including crops rotation/ diversification, (Disaggregated by gender) (Percentage)</b>	
Nov/2024	Dec/2028
3.00	20.00
<b>IR13: : Persons receiving capacity development support (Disaggregated by gender) (Number)</b>	
Nov/2024	Dec/2028
0.00	37.00
<b>IR11: Pregnant/ lactating women, adolescent girls and children U5 reached by basic nutrition training and practices (Person) (Number)</b>	
Nov/2024	Dec/2028
0.00	3,500.00
<b>IR12: People receiving improved nutrition services and products (person) Disaggregation: Of which, number of females (GAFSP Indicator) (Number)</b>	



Nov/2024	Dec/2028
0.00	5,000.00
<b>IR10: Number of farmers receiving inputs or service on climate resilient or sustainable agricultural practices (Number)</b>	
Nov/2024	Dec/2028
0.00	2,700.00
<b>IR14: Number of project implementation progress review meetings (Number)</b>	
Nov/2024	Dec/2028
0.00	9.00
<b>IR-15: Number of people receiving direct benefits (person) Disaggregation: Of which, number of females (GAFSP Indicator) (Number)</b>	
Nov/2024	Dec/2028
0.00	20,029.00
<b>IR-16: Number of producer-based organizations supported (organization) (GAFSP Indicator) (Amount(USD))</b>	
Nov/2024	Dec/2028
3.00	8.00
<b>IR-9: Persons supported by project in rural areas accessing financial services (Disaggregated by gender) (Number)</b>	
Nov/2024	Dec/2028
0.00	2,700



## Monitoring & Evaluation Plan: PDO Indicators

Percentage increase in crop yield among SOSPPA farmers in project areas (Percentage)	
Description	Crop yield, particularly sweetpotato yield, among SOSPPA farmers in project areas will be calculated as a measure of crop production weight (in kg or ton) per area of land under cultivation (in hectares). Corresponding IRs: 2, 3, 5, 6, 7, 8, 9, 10, 13, 15
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	
Percentage of SOSPPA members participating in OFSP value-added activities in project areas (Percentage)	
Description	OFSP value-addition to be defined to focus on economic value-added activities starting from post-harvest handling (e.g., root processing into bread, silage production, sales of roots and vines, etc.) to reaching the market. Corresponding IRs: 1,2,3,4,6,9,13,16
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	
percentage decrease in households reporting to have experienced moderate and severe food insecurity (Percentage)	
Description	This indicator tracks the number of households that report improved food security status measured using Food Insecurity Experience Scale (FIES) indicator Corresponding IRs: 2, 3, 5, 6, 7, 8, 9, 10, 12, 13, 15
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	
Percentage increase in vulnerable households (or, children 6-23 months) with minimum dietary diversity (Disaggregated by PLW and age) (Percentage)	
Description	
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	

## Monitoring & Evaluation Plan: Intermediate Results Indicators

IR 1: Quantity of OFSP puree production processed by postharvest facility established (Metric ton) (Metric ton)	
Description	This indicator will keep record on quantity of OFSP puree production (Kgs) per day processed by postharvest facility





	established
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	
<b>IR2: Farmers that are supported in accessing improved marketing opportunities. (Disaggregation: Of which, female farmers) (Number)</b>	
Description	This indicator measures the total number of SOSPPA farmers that are supported in accessing improved marketing opportunities. This includes an array of services and training provided on marketing, business management, post-harvest handling, value-addition and processing, and facilitation of linkages with off-takers/buyers.
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	
<b>IR3: Vitamin A rich OFSP products introduced in the markets in project areas (Number)</b>	
Description	OFSP products, for example: OFSP bread, puree, chapati, donuts.
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	
<b>IR4: Number of processing, storage, and market facilities constructed and/or rehabilitated (facility) (GAFSP Indicator) (Number)</b>	
Description	This indicator will capture number of processing or new silage hubs established to provide silage-making services in project areas
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	
<b>IR5: Number of additional markets reached with increased OFSP roots in project areas (Number)</b>	
Description	Additional markets to be defined as new institutions (e.g., schools, prisons, supermarket), and street vendors as market.
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	
<b>IR 6: Number of new Vine Multipliers trained and established in project areas (Number)</b>	
Description	
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data	



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Collection	
<b>IR 7: Number of smallholders producers/processors receiving productivity enhancement support (farmer) Disaggregation: Of which, female producers/ processors (GAFSP Indicator) (Number)</b>	
Description	This indicator measures the number of people who have directly participated in project activities (production) and is expected to be a subset of people receiving direct benefits, including technology/technique, new financing services, etc. This indicator tracks “receipt” of support, not “adoption” of technologies or practice. Adoption means participating farmers cultivating OFSP in project areas
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	
<b>IR8: Percentage increase in the number of SOSPPA farmers adopting agronomic practices including crops rotation/ diversification, (Disaggregated by gender) (Percentage)</b>	
Description	Crop rotation and diversification refers to micronutrient rich crops (e.g. tree crop/fruits/vegetables, etc.)
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	
<b>IR13: : Persons receiving capacity development support (Disaggregated by gender) (Number)</b>	
Description	Capacity development support for persons (SOSPPA ExCom members/ staff) includes: technical support on project delivery and project related institutional capacity building including TOT, formal training, on-job training, mentoring, coaching, exposure visits, exchanges of good practices and peer-to-peer learning etc. It will not include trainings provided to people receiving direct benefits
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	
<b>IR11: Pregnant/ lactating women, adolescent girls and children U5 reached by basic nutrition training and practices (Person) (Number)</b>	
Description	Basic Nutrition training and practices through “community nutrition forum” include training on OFSP handling, and MNR food preparation, and improved child-feeding practices (e.g. OFSP puree-based food, porridge, and other nutritious diets)
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	
<b>IR12: People receiving improved nutrition services and products (person) Disaggregation: Of which, number of females (GAFSP Indicator) (Number)</b>	
Description	It measures the number of caregivers of children under five provided with healthy baby toolkits (HBT) and trained on its use in project areas to improve child nutrition.
Frequency	
Data source	



Methodology for Data Collection	
Responsibility for Data Collection	
<b>IR10: Number of farmers receiving inputs or service on climate resilient or sustainable agricultural practices (Number)</b>	
Description	Sustainable or climate resilient practices refer to Good Agricultural Practices (GAPs) used/followed in producing OFSP in project areas, which is climate smart. 'Farmers' indicate SOSPPA farmers here.
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	
<b>IR14: Number of project implementation progress review meetings (Number)</b>	
Description	Meeting refers to ensuring accountability and responsibility of project management team at different levels including SOSPPA ExCom, staff, etc.
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	
<b>IR-15: Number of people receiving direct benefits (person) Disaggregation: Of which, number of females (GAFSP Indicator) (Number)</b>	
Description	This indicator measures the number of people who directly receive benefits from the activities supported by the project through various asset and service provisions or technical assistance. It will not double count people who have been provided with more than one type of benefit under the project.
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	
<b>IR-16: Number of producer-based organizations supported (organization) (GAFSP Indicator) (Amount(USD))</b>	
Description	Producer-based organizations refer to smallholder farmers' groups/ associations, whether or not formally registered, that are either established through or strengthened by the project to achieve or enhance the project development outcomes, and to enhance agricultural production, processing or marketing, and provide services to their members.
Frequency	
Data source	
Methodology for Data Collection	
Responsibility for Data Collection	
<b>IR-9: Persons supported by project in rural areas accessing financial services (Disaggregated by gender) (Number)</b>	
Description	Financial services refer to gender equitable credit or weather-based crop insurance scheme in this project. 'Persons' indicating the number of SOSPPA farmers supported by project in rural areas accessing financial services.
Frequency	
Data source	
Methodology for Data Collection	



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Responsibility for Data Collection	
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**ANNEX 1- MATRIX OF PROPOSED RESOURCE ALLOCATION TO PROJECT COMPONENTS AND ACTIVITIES**

Components	Activities	Budget Allocation plan (US\$)				
		(Four Year)				
		Year 1	Year 2	Year 3	Year 4	Total Budget
<b>Component 1.</b> Improve market access and farm incomes for SOSPPA farmers through OFSP marketing, processing, and value addition supported by effectively managed facilities and trainings	Activity 1: Establish a processing/manufacturing facility focusing on OFSP-based commercial consumer products.	85,842	68,351	65,432	17,589	237,214
	Activity 2: Convert by-products of sweetpotato processing into livestock and/or fish feed through silage processing.	45,835	38,351	35,432	17,589	137,207
	Activity 3: Establish sweetpotato silage hubs in project implementation districts to provide silage making services and information on supplementation regimens for improved livestock rearing.	45,835	38,351	35,432	17,589	137,207
	Activity 4: Strengthen and expand markets for OFSP vines, fresh roots, and value-added products.	45,835	38,351	35,432	17,589	137,207
	Activity 5: Equipment Requirements	207,000	-	-	-	207,000
	Activity 6: Field & Operational Support	16,733	8,916	8,339	2,596	36,584
Sub-Total Component -1		<b>447,080</b>	<b>192,321</b>	<b>180,066</b>	<b>72,952</b>	<b>892,419</b>
<b>Component 2.</b> Increase productivity and production of sweet potato roots and vines, and other nutritious crops, amongst SOSPPA farmers with yield-enhancing inputs, improved and climate smart agricultural practices	Activity 1: Strengthen the existing 10 vine multipliers in Serere district and enroll (and train) two multipliers (1 male, 1 female) in each of the 6 new districts and link them to producers of basic seed/foundation material and certification services.	42,704	27,812	20,129	35,076	125,720
	Activity 2: Provide technical and advisory services on the recommended agronomic practices for sustainable production of OFSP roots to SOSPPA-affiliated root and vine producers. Fifteen (9) technical	42,704	27,812	20,129	35,076	125,720



Components	Activities	Budget Allocation plan (US\$)				
		(Four Year)				
	field assistants (FTAs) will be employed to provide these services to farmers.					
	Activity 3: Revamp and implement an interlinked gender responsive credit scheme by strengthening the capacity of the existing SACCO to better serve farmers, particularly women and youth, who need credit to invest in quality seed, irrigation facilities, and/or hire land.	42,704	27,812	20,129	35,076	125,720
	Activity 4: Redesign and strengthen the crop insurance scheme in partnership with a private sector provider and link the weather insurance scheme and the SACCO credit scheme to the sale of roots and vines to the processing facility and managed by SOSPPA.	42,704	27,812	20,129	35,076	125,720
	Activity 5: Equipment Requirements	16,800	-	-	-	16,800
Sub-Total Component- 2		<b>187,615</b>	<b>111,246</b>	<b>80,516</b>	<b>140,304</b>	<b>519,681</b>
<b>Component 3.</b> Promote diversified utilization and consumption of OFSP products amongst SOSPPA members and in current and new markets	Activity 1: Awareness creation and training in OFSP handling, food preparation and child feeding for vulnerable households.	49,565	36,239	34,093	16,639	136,536
	Activity 2: Scaling out the use of improved utensils (measuring bowl and slotted spoon) - healthy baby toolkit - to support effective feeding of OFSP puree and other nutritious porridge.	49,565	36,239	34,093	16,639	136,536
	Activity 3: Analysis of food safety risks from increased use of OFSP in young child feeding in high-vulnerability contexts (project target districts); and adapt guidelines for improved food utilization to these consumers.	49,565	36,239	34,093	16,639	136,536



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Components	Activities	Budget Allocation plan (US\$)				
		(Four Year)				
	Activity 4: SOSPPA technical administration and Equipment requirements	165,600	-	-	-	165,600
	Activity 5: Field & Operational support	20,033	8,916	8,339	32,596	69,884
Sub-Total Component 3		<b>334,329</b>	<b>117,634</b>	<b>110,617</b>	<b>82,514</b>	<b>645,094</b>
<b>Component 4.</b> Strengthen SOSPPA's governance and management capacities to deliver services to its members	Activity 1: Build technical capacity of SOSPPA on production (agronomic practices) and manufacturing (good manufacturing practices)	15,791	13,311	14,961	9,309	53,372
	Activity 2: Strengthen technical capacity of SOSPPA on governance – focusing on the added commercial business venture	15,791	13,311	14,961	9,309	53,372
	Activity 3: Build technical capacity of SOSPPA on management – providing new, modern professional skills needed to manage and/or oversee healthy, efficient, vibrant and profitable commercial processing of roots and vines into consumer products and animal feed.	15,791	13,311	14,961	9,309	53,372
	Activity 4: Build the financial capacity of SOSPPA to handle credit and crop insurance and business grants efficiently.	15,791	13,311	14,961	9,309	53,372
	Activity 5: Equipment Requirements	6,000	-	-	-	6,000
	Activity 6: Field & Operational Support, Impact Studies and Monitoring & Evaluation	26,860	12,568	11,295	2,596	53,320
Sub-Total Component - 4		<b>96,024</b>	<b>65,812</b>	<b>71,138</b>	<b>39,833</b>	<b>272,806</b>
Indirect Cost		<b>45,401</b>	<b>28,907</b>	<b>25,698</b>	-	<b>100,007</b>
<b>TOTAL BUDGET</b>		<b>1,070,442</b>	<b>485,920</b>	<b>438,034</b>	<b>335,604</b>	<b>2,330,000</b>



## ANNEX 2: DESCRIPTION OF THE PROPOSED PROJECT

**COVID-19 has created unprecedented challenges to smallholder farm households and communities across the rural and urban food systems in Uganda.** The inter- and intra-community movement restrictions through lockdowns and curfews imposed by governments have caused significant disruptions to the economic connectedness that drive and sustain local, regional, and national supply and demand in output and input markets. Access to inputs (foundation/ certified seed, credit, crop insurance) has been affected by transport restrictions and market closures. Immediate and midterm negative effects on commodity prices earned by farmers, household income, food security, and diet quality have been observed. These outcomes further compound pre-COVID challenges for smallholder-based agricultural value chains in Uganda stemming from high input and transaction costs in addition to limited investments in infrastructure and services. There is, therefore, urgent need to target technical and business development support to strengthen the capacity of key stakeholders to pursue new and promising market opportunities in these value chains.

**In this regard, producer organizations (POs) play a pivotal role.** POs provide farmers with reliable input and output markets and mitigate market failures, which constrain their associated ability to do business. They can use collective bargaining to get discounted input prices and higher output prices for members. They can also facilitate farmers' access to distant markets through joint marketing. POs therefore play a critical role in building the resilience of rural communities in the presence of systemic shocks such as pandemics and droughts. **However, in countries like Uganda, weak technical competence** and management capacity and poor governance often severely limit the performance of POs and prevent them from harnessing collective action amongst their members to thrive and grow. These limitations must and can be overcome through targeted capacity strengthening of POs such as SOSPPA. In this case, there are strong market opportunities for expanding and diversifying production and value addition of sweet potato and other crops grown by its members. In particular, for sweet potato, SOSPPA can utilize technologies and management practices developed by its partners, including the International Potato Center (CIP), to accelerate product development and marketing on the basis of a solid understanding of market demand.

**Sweet potato is a versatile and resilient crop with proven performance in diverse agro-ecologies including in low-input smallholder production systems and in rebuilding livelihoods of farm households and communities after droughts, floods, or displacement.** It is climate-smart, matures in just three months, and has long underground storability of up to 6 months. The crop provides reliable yields of at least 8 t/ha under varying climatic and soil conditions, making it one of the fastest expanding food crops in Africa over the past 20 years. Biofortified orange-fleshed sweet potato (OFSP) varieties, rich in beta-carotene, are highly effective in combating vitamin A deficiency among children under 5 years of age and pregnant and lactating women. More than 6.5 million farmers in Africa and South Asia have adopted OFSP since 2010, including more than 300,000 farmers in Uganda. Thus, sweet potato as a crop is best suited for building back and better the livelihoods of communities affected by multiple disasters such as the ongoing COVID-19 pandemic and repeated droughts facing farmers and households most notably in Uganda.

**Increasingly, OFSP is also used as an ingredient in the local food-processing sector in Uganda, though volume and scope are still limited as compared to other OFSP producing countries like Kenya, Malawi, or South Africa.** SOSPPA and its partners, specifically CIP, have been piloting a range of OFSP processing options including flour, buns, confectionaries, juices, and the manufacturing of animal feed (silage) from by-products. While all these options are technically feasible, the comparative advantage of OFSP as an ingredient lies in its novelty, low cost, and nutritional value, which can fetch a premium in some market segments. In this regard, the production of fresh OFSP puree provides a high-value and versatile intermediary product that can be further processed (and combined with other local ingredients) into a range of foods from bakery items to porridges, juices, and spaghetti/pasta. Unlike flour, puree retains almost all of the nutritional value of OFSP throughout the processing cycle and these products are therefore also suitable for institutional markets that prioritize healthy diets, such as schools and hospitals. This project will identify the most promising market segments for specific OFSP based products, and on this basis update and expand SOSPPA's current investments in processing and value addition. The Uganda Multi-Sectoral Food Security and Nutrition Project and International Potato Center, together with the World Food Programme, under the Development and Delivery of Biofortified Crops at Scale project, are promoting OFSP production and consumption in Eastern and Northern Uganda to strengthen the resilience of livelihoods and nutritious food supply chains affected by COVID-19.





**The overarching goal of this project is to build the capacity and resilience of SOSPPA in Uganda to respond to the COVID-19 pandemic and other shocks by improving food, nutrition, and income security of its members.** This will be achieved through processing and value addition and the promotion of profitable and sustainable sweet potato-based innovations and linkage to markets, financing, and weather insurance in Katakwi, Serere, Soroti, Bukedea, Ngora, and Amuria districts. The project will harness the experiences of UMFSNP and CIP/WFP's DDBIO projects, and build on the ongoing Agriculture Cluster Development Project's (ACDP) value chain development initiative, in pursuing the specific objectives of the proposed project including: (a) Improve market access and farm incomes for SOSPPA farmers through OFSP marketing, processing, and value addition supported by effectively managed facilities and trainings; (b) Increase productivity and production of sweet potato roots and vines, and other nutritious crops, amongst SOSPPA farmers with yield-enhancing inputs improved, and climate smart agricultural practices; (c) Promote diversified utilization and consumption of OFSP products amongst SOSPPA members and in current and new markets; and (d) Strengthen SOSPPA's governance and management capacities to deliver services to its members.

#### **Project Activities:**

Over a four-year period, the project will implement a specific set of activities under each project component and the major activities are described below.

#### **Activities under Component 1: Improve market access and farm incomes for SOSPPA farmers through OFSP marketing, processing, and value addition supported by effectively managed facilities and trainings**

Teso sub-region is the leading producer of sweet potato. Farmers normally harvest their crop at the same time (June-August and November-January). During these peak harvest seasons, high supply, and other endemic market failures, result in very low prices for fresh roots. Storing sweet potato roots underground for long is limited by weevil infestation that makes roots lose market and consumption value. Farmers therefore typically resort to preserving their surplus roots as *amuokeke* (the chipped and dried roots). However, *amuokeke* has little market beyond the region. It is also easily attacked and destroyed by weevil in the store turning it into flour and further reducing its value. SOSPPA was established in 2004 to help its members overcome such constraints, and increase their farm incomes, by developing commercial value chains for sweet potato (especially OFSP) and cassava.

Building on past experience and the on-going ACDP project under Ministry of Agriculture Animal Industry and Fisheries (MAAIF) and the National Semi Arid Resources Research Institute (NaSaRRI)'s cassava, sweet potato, and millet value chain development projects, SOSPPA has pursued a three-pronged approach to OFSP value chain development namely, the production and sale of quality vines, production and sale of fresh roots, and cottage-based processing of fresh roots into dry chips and assortment of fried products. Vines and fresh roots are sold to institutional markets (schools, colleges, and NGOs), dry chips to private flour processors, while fried OFSP products (including mandazi, donuts, and small shortcakes) are sold mainly locally to community members due to lack of Uganda National Bureau of Standards (UNBS) certification. Under this Component, the project will implement three broad sets of activities: i) upgrading OFSP value addition and processing into nutritious products for low, middle, and high-end markets; ii) expanding the market for fresh roots and quality vines; and iii) converting by-products of OFSP processing to nutrition animal feed (namely, silage).

**1.1. Upgrading OFSP value addition and processing into nutritious products for low, middle, and high-end markets:** To upgrade SOSPPA's current processing activities into profitable commercial businesses, this project will: i) Prepare a market assessment to identify most promising and profitable market segments for specific OFSP products; ii) Develop and test commercial value added OFSP products, including laboratory analysis to assess the nutritional composition of processed products; iii) Construct a processing facility focused on OFSP-based commercial consumer products and managed by SOSPPA. That is, procure, install, and test equipment for production. SOSPPA has been unable to reach local, middle, and high-end formal markets/retails stores (*duukas* and supermarkets) with its products mainly due to lack of certification by the Uganda National Bureau of Standards (UNBS). Past attempts failed because of detection of higher bacterial load in the processed products than the recommended threshold. The project will therefore: iv) Train SOSPPA on equipment use and good food manufacturing practices, including hazard analysis and critical control points (HACCP); v) Support SOSPPA to obtain UNBS certification implementing and complying with the requisite food industry standards including HACCP and UNBS.

**1.2. Expanding market for fresh roots and quality vines:** To deepen markets access, SOSPPA will continue strengthening institutional markets (currently only focusing on primary schools and colleges in Serere district) while exploring new market opportunities by: i)



expanding to other districts (Katakwi, Ngora, Soroti, Amuria, and Bukedea); ii) extending the list of institutional markets to include secondary and high schools, prisons, and hospitals; iii) targeting the expanded institutional markets with a wider portfolio of OFSP products; and iv) promoting the use of nutritious OFSP puree in the low-end informal markets, especially the *rolex* street vendors.

**1.3. Converting by-products of sweet potato processing into animal feed:** OFSP production and processing can generate large amounts of by-products, namely vines and non-marketable roots. At the farm, sweet potato vines and damaged, small-size, weevil-infected or other non-marketable roots are left behind during harvesting. Processing sweet potato by-products into silage is a proven win-win investment that produces nutritious low-cost animal feed and reduces the environmental footprint of sweet potato. Sweet potato vines contain 19-22% crude protein making it a high-quality animal feed. This project will process these by-products into nutritious animal feed through silage processing thus creating a market for the wastes and income for farmers. Specifically, the project will: i) Establish sweet potato “silage hubs” based on the model developed by CIP, and currently in successful use in central and eastern Uganda by a youth group (the Bavubuka Tweekembe Youth Group) providing employment and income to the youth. One silage-processing hub will be set up in each of the six project districts to provide market for vines and waste roots generated by SOSPPA groups in the district; ii) Train youth, women, and men farmers on silage production, management, and utilization. This will include theory and hands-on practical sessions covering topics such as animal feeds and feed management, supplementing, how to diversify animal feeding, other low-quality feeds such as forages and cereal crop residues for improved and cost effective livestock productivity; iii) Provide training to the hubs on business plan development and silage marketing to make them sustainable businesses; iv) Train farmers on advocacy to empower them to lobby for a better business environment.

#### **Training and hub development plan**

Bavubuka Tweekembe will initially train all 15 FTAs in a training of trainers’ (ToT) course. The FTAs will work with district agricultural/production office staff to identify one youth farmer group (25 members, at least 50% female) in each project district that will be responsible for hosting and managing the silage-processing hub. These groups will initially be trained by Bavubuka Tweekembe Youth Group with support from the trained FTA on silage making, handling, utilization, and marketing. The groups will also be equipped with skills to provide mobile silage making services to other farmers and linked to other project services (i.e., credit and insurance schemes and the marketing program). Around each silage-processing hub, 4 other farmer groups (each with 25 members, at least 50% women) will be trained on the benefits of silage in livestock feeding and feed supplementation, its utilization and marketing.

#### **Activities under Component 2: Increase productivity and production of sweet potato roots and vines, and other nutritious crops, amongst SOSPPA farmers with yield-enhancing inputs, improved and climate smart agricultural practices.**

Year-round supply of fresh roots and vines will be critical to ensure that the processing facility can receive a steady supply of roots and operate at full capacity. SOSPPA currently has 1,200 members organized in groups of 25-30 members that produce sweetpotato roots and planting material. To integrate the root production activities with the processing and value addition initiatives, manage weather risks and encourage investment, the project will implement the following activities:

**2.1. Strengthen the capacity of vine multipliers to provide quality seeds/vines to farmers:** The project will increase farmers’ access to quality seed by strengthening the existing 10 vine multipliers in Serere district, and recruiting and training two multipliers (1 male, 1 female) in each of the 5 new districts (i.e., Katakwi, Soroti, Amuria, Ngora, and Bukedea). The project will link the vine multipliers to: i) source of foundation seed; and ii) certification services. These will be provided as a loan and deducted from vine sales (i.e., an interlinked credit scheme). To reduce certification costs, the project will seek certification of all SOSPPA-affiliated vine multipliers collectively under SOSPPA (not as separate entities) thus reducing per multiplier/unit costs. Vine multipliers will also have access to a credit line and weather insurance scheme also paid through vine sales. The former will encourage investment in foundation seed, irrigation, and other complementary inputs (fertilizer and pesticides), increased yields and thus ensure year-round supply of vines and less dependence on rains. The weather insurance will enable multipliers hedge against risks of crop failure caused by inadequate rains.

**2.2. Establish a digital interlinked gender responsive credit scheme by strengthening the capacity of SOSPPA’s existing SACCO to better serve farmers, particularly women and youth, who need credit to invest in quality seed, irrigation facilities and/or to hire land.** This scheme will be open to vine, silage and root producers and credit accessed will be repaid from crop sales. In addition, the scheme will support farmers to establish sweet potato agro-based businesses focused on processing and utilization. At the micro-level, the credit



scheme will support: i) production of sweet potato-based silage to reduce the costs of livestock feed and fish and spur investment in pig, fish, and other livestock production enterprises and ii) using puree for value-added baked products (e.g., rolex, cakes, bread/scones, mandazi, donuts, etc). The credit scheme will specifically tailor credit packages to strengthen youth-led enterprises (e.g., in the silage and baked/processed products value chains). SOSPPA, under the SeFaMaCo project, implemented a village-level savings scheme namely Village Savings and Loans Association (VSLA) in Ngora, Serere, Kumi, and Bukedea districts comprising 30-35 members. The COVID 19 pandemic led to market shutdowns, which greatly stifled the operations of these VSLAs resulting in high default of the loan portfolio. This was further exacerbated by lack of monitoring. SOSPPA has since established a digital (smartphone) monitoring system which tracks loan issuance and repayment, currently operational in three farmer groups. The project will specifically expand the loan scheme to the remaining project districts (namely Katakwi and Amuria) and the use of this digital system to monitor loan closely and disbursement and repayments.

**The project will further strengthen the existing credit scheme and improve loan disbursement and recovery efficiency** by: i) implementing practical/hands-on training of the loan management and field monitoring team to be delivered by Makerere University Business School (MUBS) and a microfinance organization with proven record in working with smallholder farmers such as Microfinance Support Center (MSC); ii) improving the marketing of sweet potato fresh roots and processed products to increase farmers' sales revenues; iii) deducting loans at source – that is, from crop sales; iv) growing the market base through expansion by selling fresh roots and processed products through multiple outlets (schools, colleges, hospitals, supermarkets, street vendors, wholesalers, and bulk-purchasing distant traders); and v) forming strategic alliances and business linkages with other stakeholders in the value chain to expand the market base and exploiting existing marketing and distribution channels. These interventions will professionalize management of the credit scheme and enable SOSPPA to provide credit to farmers at a much lower interest rate in comparison to the prevailing market rate and to run an efficient and sustainable loan scheme. The project will hire a professional expert to manage the credit scheme to ensure that the scheme operates efficiently and sustainably.

**2.3. Redesign and strengthen the crop insurance scheme:** Similar to the credit scheme, members of SOSPPA will have access to a weather-based insurance scheme linked to sales of roots and vines. The insurance will be provided in partnership with a private provider. It will cushion farmers from weather shocks.

**2.4. Program for provision of advisory/extension services:** SOSPPA, with technical backstopping from CIP and MAAIF/government extension services, will recruit 9 technical field assistants (FTAs) to: i) provide technical and advisory services on agronomic practices, pest, and disease management to farmers; ii) monitor and document crop outlook, root quality, credit and insurance loans repayment; iii) implement a traceability system; iv) oversee the grading/sorting of roots at group level to ensure that rejects/wastes are left at group level for silage making; and v) provide technical support to the silage hub operations and silage quality. To make them effective in their roles, the FTAs will undergo a 5-day training using the “Everything You Ever Wanted to Know About Sweet potato” manual developed by CIP for training trainers. They will also undergo a 3-day Training of Trainers course that will be provided by Bavubuka Twekembe specifically focusing on silage making, management, utilization (livestock feed supplementation with silage), and marketing. They will then step down the training to individual groups and silage hubs to build capacity of the farmers on agronomic practices, silage production and management and in commodity marketing. Linkage with MAAIF extension services will foster ownership of the project, hence ensure sustainability.

**2.5. Promote crop rotation to sustain soil/plant health and cropping systems:** The traditional farming system in the Teso region revolved around rotating groundnut, sorghum, and millet, two climate-smart crops that have been shown to perform well under low and variable rainfall conditions. To reinforce this crop rotation system, the project will work very closely with the government extension service to incorporate innovative crop rotation tips in the agronomic training as part of an integrated soil and crop management program. This project will specifically roll out training and routine extension services on crop rotation and other good agricultural practices (GAP) as well as methods for conserving sweet potato planting material using guidelines developed by the Ministry of Agriculture and other available resources notably “Everything you ever wanted to know about sweet potato”. The training will, among others, include field demos to illustrate the advantage crop rotation has over continuous planting, importance of incorporating crop rotation in the overall soil health and crop management strategy and the use of *Triple S* technology to conserve sweet potato planting material during dry



season. The latter, a shortened form for *Sand, Storage and Sprouting*, is a technology developed by CIP to conserve sweet potato planting material over a dry period by storing good healthy sweet potato roots (weighing between 100g – 150g) in sand over the dry period and then sprouting them just before the onset of the rains thus producing vines that are then ready early in the season for planting. The FTAs, working closely with government extension service in the project districts, will reinforce the training on crop rotation, conservation of planting material and pest and disease management through routine and regular extension visits to project members before land preparation period. Jointly with government frontline extension workers, the project will convene regular “plant clinics” to train farmers on the diagnosis of plant pests and diseases and use the training events to reinforce the need for crop rotation.

**To address one of the key drivers of climate change**, notably tree cutting usually for charcoal burning, the training will include a module on integrated crop and soil health management and environmental protection. Lemon (*Citrus limonand*) and tamarind (*Tamarindus indica*), locally known as *enimu* and *epeduru*, respectively, are important trees in the Teso community. They provide lemon juice (rich in Vitamin C) and tamarind pulp solvent (rich in Vitamins B2 and B3) which are popular nutritious ingredients in local food preparation. They are widely used in the project districts to prepare sweet potato-based composite porridge and a popular local stiff porridge known as “*atapa*”. Demand for lemon and tamarind fruits increased significantly at the height of the COVID-19 pandemic as people were encouraged to drink their juices to reduce COVID-19 symptoms such as cough and sneezing. Unfortunately, the felling of these indigenous trees to make charcoal and for use as firewood has greatly reduced their population in the project districts. The project will sensitize communities and households about the benefits of these trees and the need to conserve them and promote their re-planting by setting up seedling nurseries where farmers can easily obtain seedlings. In addition, the project will integrate the utilization and benefits of tamarind, *enimu*, and *atapa* in the nutrition training modules. To further expand its use, hence conservation of these indigenous trees, the project will link with the NaSaRRI-funded initiative to develop tamarind-sweet potato recipes and products and test their viability for home use and commercialization through consumer studies. Preservation of these trees, and promotion of local dishes made from them, will have the dual role of protecting the environment and promoting the consumption of local sweetpotato dishes thus strengthening the market for fresh and processed sweetpotato roots.

**2.6. Promotion of high-yielding, drought-tolerant, early maturing, disease-resistant dual purpose processing varieties:** CIP and partners have produced a wide range of OFSP varieties in Uganda. The project will promote selected best-performing varieties that are specifically bred for high root production and are also prolific vine producers. This will supply the needed roots for processing while also producing large amounts of vines for silage making. The early maturity (hence drought-escaping), drought tolerance and disease/pest resistance traits will reduce losses from rainfall shortage and disease and pests thus increase farmers’ incomes.

These interventions are estimated to increase OFSP productivity of SOSPPA-affiliated smallholder farmers by at least 50% from the current 3.6 tons/acre. Linkage to the processing facility is expected to increase incomes from the sales of OFSP roots of affiliated farmers by at least 20%.

**Activities under Component 3: Promote diversified utilization and consumption of OFSP amongst SOSPPA members and communities, and in current and new markets.**

Commercialization of staples can divert food from the household to the market when production for market becomes lucrative. This can have a negative effect on household food security. Nutrition education and awareness creation targeting households and communities that are linked to the commercial value can be effective in addressing such negative outcomes. In collaboration with local government public health and agriculture departments in the target districts, this project will: i) develop and promote community-based nutrition initiatives focusing on maternal and young child feeding practices, hygiene and sanitation, and childcare; ii) design and implement a promotional campaign to create and/or grow and deepen new (and existing) markets for OFSP processed consumer products and silage; iii) leverage opportunities for market linkages with established businesses; and iv) promote post-harvest conservation of fresh roots and dried sweetpotato chips (i.e., *amukeke*) to extend the shelf life of these products.

**3.1. Develop and promote community-based nutrition initiatives focusing on maternal and young (6-23 months) child feeding practices, hygiene and sanitation, and childcare:** These initiatives will focus on: (i) SOSPPA member households and their communities through SOSPPA-coordinated or commissioned nutrition initiatives, and (ii) market segments that buy SOSPPA roots through broader education campaigns linked to SOSPPA’s brand. It will use a food basket approach that encourages and supports households to diversify their diets



using locally available foods through establishment of kitchen gardens that cultivate OFSP, vegetables and other nutrient rich crops. It will also broaden the range of products promoted in these markets and create demand for OFSP in hitherto unreached market segments. Specifically, the project will: a) Create awareness through training in OFSP handling, food preparation, and child feeding for vulnerable individuals in SOSPPA member households and communities; b) Scale out, among SOSPPA members and their communities, the use of improved nutrition sensitive feeding utensils (measuring bowl and slotted spoon) – healthy baby toolkit– among SOSPPA member households and communities to support effective feeding of OFSP puree and other nutritious porridge; c) Analyze food safety risks from increased use of locally available nutrient rich foods in young child (6-23 month) feeding in high-vulnerability contexts (within project target districts); and adapt guidelines for improved food utilization to these consumers; and d) Undertake strategic research to bridge knowledge gaps on young child (6-23 month) feeding and adolescent diets in SOSPPA members communities, working with social science and nutrition research partners.

**3.2. Design and implement promotional campaign to create and/or grow and deepen new (and existing) markets for OFSP processed consumer products and silage:** This project will strengthen and expand demand for fresh OFSP roots in SOSPPA members' households and their communities through several demand creation activities. These activities will especially be important for introducing the nutritional benefits of OFSP to SOSPPA members in the new districts the project will work in, and in reinforcing existing knowledge. The household and community activities will include: i) Nutrition education/messaging by project staff in close partnership with community health officials. These will be implemented in the form of farmer field days or as part of field demonstrations activities; ii) Cooking demonstrations that provide recipes on how to prepare OFSP foods and incorporate it into popular local foods (*chappati*, *rolex*, porridge, etc.); iii) Community radio/local FM talk shows; iv) Training caregivers how to incorporate OFSP into children's complementary feeding; and v) Home-gardening and, following UMNFSPP model, establish demos in selected schools for community outreach.

The project will also design and implement specific campaign programs aimed at launching the new OFSP processed products into informal/low-end retail markets (e.g., streets and wet markets – for fresh roots, boiled roots, *chappati*, and *rolex*) and the formal retail market (e.g., *duukas* and supermarkets – for bread, buns, mandazi, cakes, pasta). Specific promotional activities will include: i) High-profile launch of the new/processed OFSP products into the markets; ii) Using TV and community/local FM stations to advertise the products/explain benefits; iii) Billboards in high-traffic areas (e.g., markets); iv) Celebrity endorsements of OFSP products – recent studies have shown that such endorsements increase consumption of OFSP foods; v) Displaying information on nutritional benefits of OFSP products in supermarket shelves where products are stocked; and vi) Distributing informational handling handouts to accompany the products.

**3.3. Leverage linkages with other markets:** The project will explore opportunities to link SOSPPA's processing and market investment with other businesses that can be a market for its products. For instance, OFSP puree is an ingredient that other businesses can use as raw material for making a variety of products (e.g., popular sauces, ketchup, and baby food). Hence, the project will seek opportunities for SOSPPA to partner with other companies which already have established market shares in processed products and exploit such markets by supplying them with sweetpotato puree, thus utilizing their capacity for greater returns for its members. It will also explore and develop linkages with companies in locations with better infrastructure and closer to major urban markets (e.g., Kampala) where demand for upper-end products (such as spaghetti and cakes) is higher.

#### **Activities under Component 4: Strengthen SOSPPA's governance and management capacities to deliver services to its members**

SOSPPA is well rooted in the rural economy of Serere district and has insight and understanding of the sweetpotato supply chain. However, the Executive Committee (ExCom) is accustomed to managing cottage-based processing activities run by a small group of staff that do not yet have the capacity to handle larger businesses. This project will therefore build the capacity of SOSPPA ExCom and operation staff by implementing capacity building activities in three areas:

**4.1. Strengthening Governance:** In partnership with MUK and/or business organizations with proven record in building capacity of agribusiness entities and start-ups, the project will: i) conduct a 5-day hands-on/practical training event on best practices in organizational governance in the first year; and ii) convene a 5-day refresher course for ExCom and operational staff at the mid-term to reinforce and deepen skills and best practices learned in the first course.





**4.2. Managerial competence:** The project will: i) implement a 5-day business management training for ExCom and operational staff that will cover supply chain, inventory (raw material and finished products), finance and audit, and human resources management; and ii) a 5-day practical training event on marketing covering marketing, market intelligence, negotiation strategies, and product promotion. The course will be repeated at the midterm.

**4.3. Technical capacity:** The project will conduct a 5-day training workshop on good agricultural practices (GAP) and compliance with industry standards (good manufacturing practices, hazard analysis and critical control points, Uganda National Bureau of Standards – UNBS). The training events will be repeated at the mid-term.

### **Building Back Better Approach:**

To address COVID-19 impact and contribute to recovery of agriculture and food sectors in a changing climate, the project will implement planned activities by putting emphasis on:

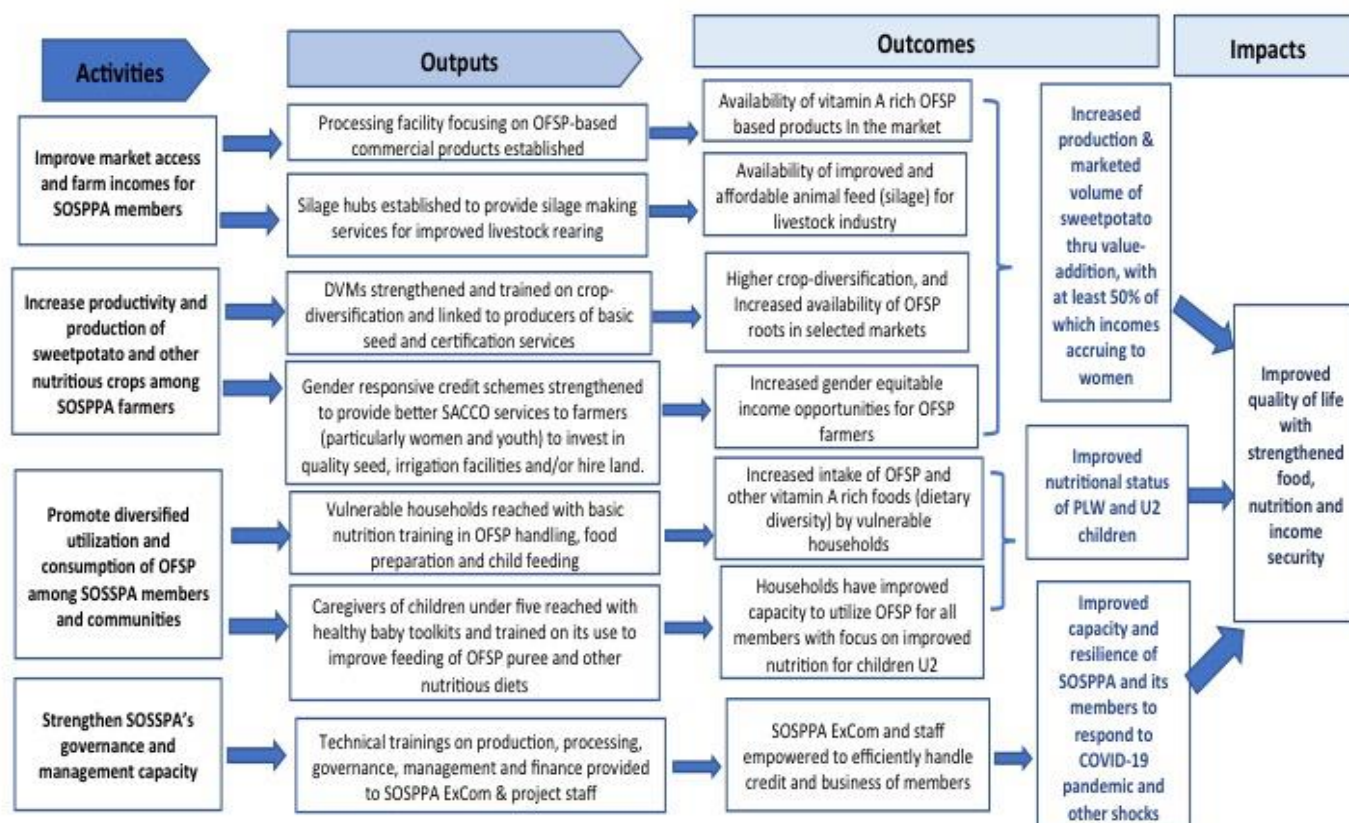
i) **Resilience** – As a climate smart and early maturing crop, sweet potato production will foster household and community adaptation to climate change effects manifesting as frequent droughts, erratic rainfall, and unpredictable rainfall patterns. Supporting the youth and project members to invest in business opportunities linked to sweet potato processing and utilization and linking them to markets for fresh and nutritious processed products will strengthen household and community resilience to the frequent and recurring shocks. Inclusion of a module on conservation of indigenous trees that form part of the food system (namely tamarind and lemon) will create the needed ‘demand-pull’ for sweet potato production, and foster environmental sustainability. Farmers’ training on vine conservation using Triple S (*Sand, Storage and Sprouting*) will strengthen current and future adaptation to rainfall and climate change.

ii) **Recovery from COVID-19** – As mentioned above, the pandemic has resulted in loss of income and deterioration of nutritional status of households and communities. This project will rebuild productive capacity of its beneficiary households, farmers, youth (especially girls), and community by increasing incomes from sales of fresh roots/vines and processed chips; and access to nutritious (vitamin A-rich) foods; and by supporting them to invest in small business opportunities that utilize the OFSP puree from the processing factory and in silage making. This will allow them to build back better from the disruptive effects of the pandemic and repeated droughts on their livelihoods, the markets, agro food systems, and household/community welfare.

iii) **Empowerment** – sweet potato is often referred to as a “woman’s crop” owing to the disproportionately large participation of women in its production. The project interventions benefitting women with empowerment includes: a) training on GAPs, credit and insurance access, access to quality seed for women including young female school graduates and dropouts to accessing/control of increased incomes and improving business literacy; b) Gender trainings to improve women’s agency in intra-household decision-making and access to benefits as well as the sharing of resources; c) Nutrition education and counseling to improve nutritional status of young mothers (pregnant and breastfeeding); and d) school-focused interventions e.g. OFSP school gardens, demo plots, and cooking demonstrations to empowering school girls to start small cottage-based OFSP processed products for sale during school holidays or upon school completion/dropout. These strategies will not only increase household purchasing power but will also result in economic empowerment of women farmers.



**Problem statement:** Adversely affected food, nutrition and income security of SOSPPA members caused by the threat of the COVID-19 pandemic to the production, processing and value addition of harvested crops (including OFSP) in project districts of Uganda





### ANNEX 3: THEORY OF CHANGE: IMPACT PATHWAYS

The theory of change illustrates the impact pathways of the project from activities to outcomes.

1. **Problem statement.** Adversely affected food, nutrition and income security of SOSPPA members caused by the threat of the COVID-19 pandemic to the production, processing and value addition of harvested crops (including OFSP) in project districts of Uganda.
2. The Project Development Objective is to increase production and consumption of sweet potato and build the resilience of the smallholder producers and processors for economic value addition in project areas.
3. **Assumptions.** No major disruption to project implementation activities in the project areas will be occasioned by a deadly surge of COVID-19. Additional assumptions that are critical to the success of the project are: project related institutions including SOSPPA and its members and the community will have the capacity and resources to implement the project activities; SOSPPA and stakeholders at all levels will work together and support to maintain the facilities established for project delivery and demonstration; targeted individuals will have interest and time to allocate to the activities introduced by the project; women's workload resulting from participating in the credit/crop-insurance schemes or other economic value-added interventions will not compromise their role as mothers; improved capacity of SOSPPA staff and members can increase marketed volume of sweet potato; there is adequate enthusiasm among target beneficiaries to utilize the project's introduced agricultural technology to produce and consume OFSP (including other MNR foods) and use processing facilities to enhance their incomes to fight against the impacts of COVID-19; and SOSPPA members/farmers and community people participate in community nutrition forum organized in project areas.
4. The proposed activities to be supported by the project funds are expected to have strong linkages with the impact pathways of the project. The theory of changes will follow the pathways from activities to outcomes. The arrows note causal links. For example, training/knowledge about production of MNR foods (including OFSP) and agricultural value-added activities must lead to the replication of production in homestead farms of SOSPPA members, increased marketed volume of sweet potato, farmers' participation in value-added activities, and the sharing of knowledge with other community members. Under each project Component, the project will deliver specific technology, training, and information sharing outputs. These outputs will result, as direct outcomes, in processing and value addition, increased productivity, and production of OFSP products by SOSPPA. These changes will lead to increased production of OFSP roots and vines, and other nutritious OFSP value-added products, and increased availability, consumption, and sale of these products. The expected impacts of these changes are improved capacity and resilience of the Soroti sweet potato Producers and Processors Association (SOSPPA) and its members to respond to the COVID-19 pandemic and other shocks, higher incomes for farmers, improved dietary quality, specifically higher intake of vitamin A, among women and young children (6-23 months) and pregnant and lactating mothers.





## **ANNEX-4: PROJECT PHASES OF IMPLEMENTATION ACTIVITIES**

**Phase 1: Diagnosis and refresh of SOSPPA's strategy (6 months):** In collaboration with CIP and MUK, the project will conduct a gender-focused feasibility study. This will focus on:

- i) Participatory diagnosis of SOSPPA's capacity and performance development needs.
- ii) Productivity increase and production strategy for SOSPPA farmers.
- iii) Market segment analysis for SOSPPA products.
- iv) Child nutrition gaps among SOSPPA members and customers and development of a SOSPPA nutrition strategy.

**Phase 2: Operational start-up (6 months):** In this start-up phase, the project will: i) procure, install, and test the OFSP root processing equipment which will include: OFSP boiling units, steam pressurized cooking vats, puree processors (High fiber puree machine, Ribbon paste mixer), and bakery chambers; ii) procure, install, and test silage processing equipment; and iii) train factory workers on the use of the equipment.

**Phase 3: Implementation of SOSPPA capacity development in key areas (42 months):** The project will draw upon resources at MUK and CIP to support implementation of SOSPPA's strategic plans in the following areas:

- i) Market access, processing, and value addition.
- ii) Increase productivity and production of OFSP and other nutritious crops.
- iii) Diversified utilization and consumption of OFSP products.
- iv) Governance, management, and technical capacity building.

**Phase 4: Launch OFSP consumer products (36 months):** The project will launch OFSP baked and fried products and silage. An active program of promoting these products in current will follow the launch and new markets, targeting identified segments with specific products for rapid uptake. The project will work with CIP to enhance their operational efficiencies and develop clear, forward-looking growth and competitiveness strategies.

**Phase 5: Ensuring sustainability and growth (48 months):** In this phase, focus will be on analysis of the operations of the different product components to ensure smooth running and steady growth of the business. CIP will therefore work with SOSPPA to: i) track and document key progress (output, outcome, and process) indicators in vine/root production, nutrition education, processing, and management; ii) conduct operational and strategic research that will generate data for evidence-based management decisions; and iii) develop plans/strategies for ensuring sustainable and vibrant growth of the business. To build sustainability the project will build capacity of SOSPPA in running the essential elements of the business (machinery operation, loan, and crop insurance scheme management), diagnosis of problems and link them to reputable maintenance service companies. It will also ensure close collaboration with MAAIF extension service for continued support to SOSPPA after the project ends.



## **ANNEX-5: PROPOSED PROJECT IMPLEMENTATION ARRANGEMENTS**

**Project lead:** SOSPPA, started as sweetpotato production, processing, and marketing farmer association. It pioneered commercial production of quality seed of OFSP and processing of OFSP root into quality dry chips for sale processors and composite flour sold locally. In 2003, SOSPPA and NARO published a sweetpotato recipe booklet. Moreover, its nutritious composite flour won FAO and University of Pretoria awards in 2010 and 2013, respectively. SOSPPA also produces valued-added OFSP fried products including mandazi, cakes, and donuts for sale locally.

SOSPPA will be the Project Lead responsible for overall implementation of the components/activities and will provide the premises (land) for construction of the processing factories. SOSPPA operations management, led by SOSPPA Coordinator (Mr. Joseph Okalebo, B.Sc. in Social Work and Administration), will provide oversight to the project operations in consultation with the ExCom. SOSPPA will be accountable for the implementation of the project, coordination of partners, and day-to-day operations of the project. The Coordinator will, with technical support from CIP PMU, be responsible for overall implementation, financial and administrative management of the project, and will serve as principal liaison to World Bank as the SE. The Coordinator will represent the project and be responsible for managing all project staff, monitoring, and reporting of the project progress. The Coordinator will also be responsible for the monitoring of credit and weather insurance loan schemes. In addition, the project will hire trained and experienced professionals to manage key operations. They will include OFSP puree processing officer (1), silage processing officer (1), marketing officer (1), accountant (1), agronomist (1), M&E specialist/ research officer, and field technical assistants (20). These professionals will be competitively recruited. SOSPPA's ExCom, including Mr. Gabriel Adipu (Chairman), Mr. Paul Ekuma (Secretary General) and Ms. Florence Agujo (Treasurer), will provide general oversight to overall SOSPPA operations.

### **Project partners:**

**International Potato Center (CIP):** CIP will provide overall technical support to SOSPPA in implementing the project and will coordinate the capacity building activities aimed at developing the technical, governance, and management skills of the ExCom, dedicated management team, field technical assistants (FTAs) and farmer members. CIP will also be responsible for providing technical advice to SOSPPA and overseeing the procurement, installation, and maintenance of the processing equipment for root and silage processing. CIP's Food and Nutrition Evaluation Lab (FANEL) at BecA lab, Nairobi, will provide food science, new product development and training support working with established and new commercial partners in the project target districts. CIP's Project Management Unit (PMU) will provide technical and managerial support, as well oversight, to SOSPPA in grant financial management and build SOSPPA capacity to efficiently handle these roles on its own. This support will include overseeing project accounting, including budgeting, annual work planning, monitoring budget spending, ensuring compliance with WB/GAFSP financial regulations, and all relevant CIP financial policies and procedures. Specifically, CIP finance will provide close financial assistance to the accountant to be hired by SOSPPA in terms of training-on-the job and oversight to enable her/him execute financial responsibilities efficiently. CIP will also support SOSPPA in the execution of annual financial audits for the first 2 years. CIP will also provide training and support to SOSPPA's treasurer to support some of the financial management functions and takeover oversight role when CIP exits after three years of project lifespan.

Key actors from CIP will include: Dr Julius Okello is an Agricultural Economist & Impact Assessment Specialist with expertise in managing and evaluating impact of agricultural development interventions. He will serve as the CIP-Lead Scientist and will oversee the overall implementation of the project, design, and technical aspects of the project, SOSPPA ExCom's capacity building activities and design of systematic assessment of project impact. Dr Fred Grant, CIP Regional Nutrition Scientist & CIP-Uganda Country Manager, will oversee the design and implementation of a nutrition education program aimed at improving nutrition status of SOSPPA members' households, with reducing participation in the last 2 years of the project. Ms. Sarah Mayanja, CIP Gender and Value Chain Senior Associate, will contribute expertise in gender dimensions of the project interventions. Dr Sam Namanda, Agronomist & Associate Scientist, will build technical capacity of FTA, member farmers, and vine multipliers in agronomic practices and compliance with root quality parameters. His responsibility will also decline (in project year 3) as SOSPPA learns and takes over the roles and responsibilities



of providing agronomic support to its own members. The district agricultural and nutrition departments will continue providing the technical support needed in these areas to SOSPPA.

**Makerere University:** The Department of Food Technology and Nutrition (DFTN) and MUK Business School will be resource partners and consultants supporting SOSPPA under a sub-grant arrangement. DFTN, through Dr Gatson Tumuhimbise, will provide technical capacity building to the SOSPPA ExCom and key staff on food processing, good manufacturing practices, industry food safety standards, hazard analysis and critical control points, and Uganda National Bureau of Standards. DFTN will, jointly with CIP, provide technical advice and support to SOSPPA procure, install, and test the processing equipment, and will train SOSPPA ExCom and processing staff on equipment use and maintenance. The MUK Business School will provide capacity building to SOSPPA ExCom, FTAs, and processing staff on market intelligence gathering, product marketing, promotion strategies, and good practices in project accounts management. The school will also train ExCom and SOSPPA on governance of the Association as a group and a business.

**Bavubuka Tweekembe Youth Group (BTYG):** This group is an innovative youth-led business-oriented silage making group based in Luwero district. The group produces silage from sweet potato vines and sells to dairy and pig farmers. They are linked to industry associations including Dairy Farmer Network and the Livestock Development Forum. Ms. Zainah Nampijja (Animal Scientist and BTYG Secretary General) and Dr Jolly Kabarizi (Livestock and Forage Specialist, and BTYG Patron) will provide technical training to silage hubs and FTAs on silage formulation, raw material production and processing, and marketing. BTYG will also foster linkages to unmet market potential.

**Ministry of Agriculture Animal Industry and Fisheries (MAAIF):** The project will work in close collaboration with the Local Government's Department of Agriculture. CIP will build the capacity of the Crop Sector staff who, together with the CIP agronomist, provide backstopping to the FTAs. SOSPPA will also collaborate with the Department in recruiting new farmers and mobilizing them into producer groups. It will also work closely with the Fisheries and Livestock Sector Heads and staff in promoting sweet potato silage as feed, thus generating a sustainable market for this product. SOSPPA will closely engage with the Commercialization Sector Head and staff in the silage market demand creation within the project districts and in linkage to other markets. MAAIF will also do the certification of seed multipliers.

**Akellobanker,** in collaboration with Agro-insurance consortium, will spearhead crop insurance and provide weekly updates on weather patterns through text messages to farmers in the different project zones. They will also be responsible to settle those farmers affected by either droughts or heavy rains. An MoU has been signed between SOSPPA and Akellobanker Ltd.

**World Bank (Uganda):** The World Bank will supervise SOSPPA and partners, and the grant, and provide overall implementation support in regard to this proposed project.

**SENAI Bioscience Laboratories,** will supply foundation material/seed to the certified seed multipliers. SENAI undertakes research on plant, soil, and water management.

**Atop Local FM Radio:** Atop will be used for dissemination, advertising, promotions, and mass mobilization of the farmers and consumer education on benefits of OFSP consumer products and silage.



## **ANNEX 6: CROSSCUTTING THEMES**

### **Priority crosscutting themes**

The project will directly address three GAFSP crosscutting themes and will measure and report on impacts/outcomes in the project-monitoring framework such as the log frame or Results Framework. These themes are: gender and empowerment of women and girls; climate resilience; and improved nutritional outcomes. Ways

### **The ways this project will address the identified thematic focus areas are described below:**

*Improved nutritional outcomes:* The orange-fleshed sweet potato (OFSP) grows well on marginal land, provides plenty of calories per hectare, and is an excellent source of vitamin A. The prevalence of vitamin A deficiency in children under 5 years in the proposed project intervention area (Teso sub-region) is about 30%. Vitamin A deficiency increases young children's risk of infection and blindness. Yet just one small orange-fleshed sweet potato, or 125 grams, can provide the vitamin A needs of a pre-schooling aged child. Under this theme, the project will specifically: i) Improve young child feeding in vulnerable households and communities utilizing OFSP and other nutritious foods, supported by the Healthy Baby Toolkit (HBT) for children under 2 years of age; and (ii) Improve sustainability of community and institutional nutrition support programs, including school feeding, through utilization of fresh boiled roots and locally manufactured shelf-stable OFSP puree (and purees combining OFSP with other nutritious local ingredients). We will work along three main pathways, corresponding to our specific objectives above: i) targeting schools and colleagues as markets for fresh roots and nutritious processed products, ii) nutrition support for improved young child feeding using the Healthy Baby Toolkit developed by CIP and partners; and iii) linking the growing capacity for nutritious food processing in target communities to institutional markets such as school feeding, starting with shelf-stable OFSP puree as well as fresh nutritious produce.

*Gender and empowerment of women and girls:* Women of reproductive age are inherently at risk of undernutrition due to biological, socio-economic, and cultural factors (Serwanja et al 2020). Yet, this age bracket coincides with their highest economically productive stage where they are primarily responsible for the wellbeing of their families. This greatly affects agricultural productivity at the regional level given that women in Teso contribute close to 70% of the labour (Akampumuza et al, 2020). Increased OFSP production and processing into nutritious consumer products and livestock feed will contribute to addressing this problem by contributing to better diets (through consumption of roots and leaves), increasing productivity, providing access to markets and income generation opportunities.

*Climate resilience:* This project will promote cultivation of OFSP varieties. These varieties are drought-tolerant and are also pest-and-disease-tolerant and therefore will be more resilient to climate shocks compared to cassava and other root and tuber crops. It is also short maturing and hence drought escaping varieties. In addition, the project will redesign and roll out a robust crop/weather insurance scheme that is aimed at reducing losses farmers incur from climate change-related droughts. Further, the project will provide loans and encourage farmers, especially the seed multipliers, to utilize the facility to invest in irrigation equipment boosting their ability to cope with seasonal rainfall fluctuations

**Increased participation and role of women smallholder producers in POs and smallholder producer groups as a result of the proposed project will be ensured.** Gender and cultural issues pervade smallholder farming in the Teso sub-region. In Kumi district, for example, women provide more than 70% of agricultural labour, yet only 30% have control over means of production, and only 7% own land (KUMI District Hazard, Risk and Vulnerability Profile Report 2014). Twenty-one percent of women in Uganda are not paid for the work they do. Women engaged in agricultural work are less likely (33%) to be paid for their work compared to women working in other sectors (9%). Given their limited access to agricultural resources and low decision-making power, women are more vulnerable to the numerous systemic (e.g., weather pandemic) shocks. In Uganda, the proportion of women who have completed secondary school or higher increases with increasing wealth. Only 8% of women in the age bracket 18-49 years have attained secondary education in the Teso sub-region. Other limiting factors are access to information and market intelligence. Rural women are less likely than their



urban counterparts to obtain regular exposure to any form of mass media. In Teso, up to 38% of women did not have access to media in 2016. Given the importance of information in VCD, targeting women will require protracted gender responsive strategies. In an intervention aimed at promoting sweet potato seed technology in Sub-Sahara Africa, women were found to prefer face-to-face communication channels such as demonstrations, but also appreciated video shows (Mayanja et al, 2020).

All the above call for an in-depth understanding of the gender dynamics may impede the project and hence may create challenges. The project will, therefore carefully design a Gender Action Plan to guide development of a project gender strategy. Elements of this plan will include:

- i) Gender landscape studies – these will be mainstreamed within the proposed feasibility study to assess gender-based constraints and opportunities related to participation in the selected sweet potato value chain and formulate adaptable solutions to address the constraints so as to harness the opportunities.
- ii) Gender strategy highlighting the gender-based indicators of change and corresponding actions required to attain the desired change. In particular, the strategy will elucidate a gendered access and will be mainstreamed into project services. Monitoring learning and evaluation (MLE) plan to guide activity implementation.
- iii) A comprehensive training and communication strategy cognizant of women's lower literacy levels, seasonal calendars, and mobility limitations, among others to improve recruitment and retention of women actors as producers, processors, and consumers.
- iv) Gendered business to business learning, mentoring, coaching, and networking plan to support budding women entrepreneurs peer learning but also to strengthen through attachment to mentors and or incubation programs.



## **ANNEX 7: FINANCIAL MANAGEMENT ARRANGEMENTS**

### **SOSPPA FINANCIAL MANAGEMENT ASSESSMENT:**

#### **1. Executive Summary:**

**Background.** COVID-19 has created unprecedented challenges to smallholder farm households and communities across the rural and urban food systems in Uganda. The inter- and intra-community movement restrictions through lockdowns and curfews imposed by governments have caused significant disruptions to the economic connectedness that drive and sustain local, regional, and national supply and demand in output and input markets. Access to inputs (foundation/certified seed, credit, crop insurance) have been affected by transport restrictions and market closures. Immediate and midterm negative effects on commodity prices earned by farmers, household income, food security, and diet quality have been observed. These outcomes further compound pre-COVID challenges for smallholder-based agricultural value chains in Uganda stemming from high input and transaction costs in addition to limited investments in infrastructure and services. There is, therefore, urgent need to target technical and business development support to strengthen the capacity of key stakeholders to pursue new and promising market opportunities in these value chains.

**Project Proposal.** The objective is to promote a community-oriented civil society association in Teso Region promoting sustainable livelihood enterprises

**Amount Requested:** US\$ 2,330,000

#### **Fiduciary Assessment**

An assessment of the proposed FM arrangements for SOSPPA to handle funds from IDA (International Development Agency), was carried out to determine:

- a) Whether SOSPPA has adequate financial management arrangements to ensure project funds will be used for purposes intended in an efficient and economical way;
- b) Project financial reports will be prepared in an accurate, reliable and timely manner; and
- c) The project/ entities' assets will be safeguarded.

Borrowers, Grantees and project implementing entities are supposed to have and maintain adequate financial management systems which include budgeting, accounting, internal controls, funds flow, financial reporting and auditing arrangements to ensure that they can readily provide accurate and timely information regarding the project resources and expenditures.

SOSPPA FM practices and procedures are currently not documented. The Project will support the preparation of Project Operations Manual (POM) which will include an accounting/finance section within 6 months from inception. The requirement for external Audit facilitation will be incorporated to ensure annual audits.

The overall existing financial management arrangements and suggested mitigation are adequate and satisfy the Bank's minimum requirements and are adequate to provide, with reasonable assurance, accurate and timely information on the status of the project resources required by IDA. The preliminary assessment of the overall financial management risk rating is Substantial.

#### **2. Structure of SOSPPA:**

SOSPPA is a membership organisation structured as follows:

- a) **General Assembly;** consisting of registered members that shall comprise of Individual members and groups
- b) **The Board of trustees**



- c) **Executive committee: is the governing authority of the association and shall conduct** the affairs of the association in accordance with the constitution of SOSPPA. The executive committee shall be composed of 9 members as below;
- The chair person
  - Vice chair person
  - Secretary
  - Treasurer
  - Other (five) members
- d) **Coordinator:** The assessment observed that the Technical proposal did not give due significance to the role of the Treasurer in Project Financial Management. The roles and functions of the Treasurer include:
- To be the principal finance officer in charge of receipts, records and banking minutes or statements for SOSPPA
  - To be the principal signatory to the bank account of SOSPPA
  - To keep proper books of accounts that shall adequately and correctly reflect the financial position of the association
  - To give financial position of the association to the Executive and AGM
  - To coordinate the preparation of budgets and work plan and table the same before the Executive and AGM for Approval.
  - To prepare or cause to be prepared financial reports and statements of financial position which she/he will read or cause to be read at the AGM

***The FM assessment is of the opinion that the Treasurer function should be supported by the Project to carry out its stipulated functions and mandate. The project accountant will provide support to this position.***

#### **Fixed Assets**

Assets owned include: 3 plots of land, 1 motorcycle-Yamaha DT, 2 root chippers (@ 1MT per hour capacity), solar drier (100kg of chips/day, warehouse (150MT capacity), 2 chips graters, 2 wheelbarrows, 5 tarpaulins, printer, 1 laptop, 2 phones, and office furniture – all valued at about UGX 300 million.

SOSPPA has two other aggregation and processing sites operated by farmer groups but need to be rejuvenated to handle larger volumes. The sites are Abuket center in Kyere Sub-County and Odapaeta center Kateta Sub-County.

***With proposed additions under the project, all SOSPPA procured assets should be registered in its names and properly engraved.***

#### **3. Budgeting & Budgetary Control arrangements:**

- a) The budget process is driven by the Treasurer as indicated above.
- b) The preparation of the Budget and workplan may benefit from technical support provided by CIP if deemed appropriate by the EXCOM. It is recommended that SOSPPA continues to liaise with CIP in this respect.

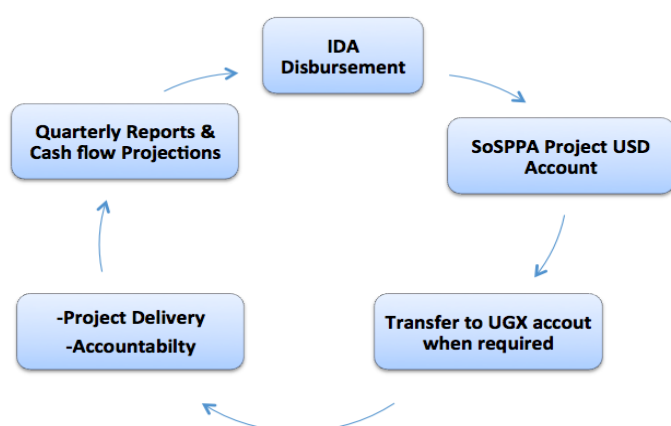




***The proposed grant budget should be drawn in a format that can be implemented by a community-based organisation and a workplan can easily be teased out. The budget should reflect real capacity enhancement of SOSPPA and its sustainability.***

#### 4. Funds & Banking flow arrangements:

- a) The Statement of Expenditure (SOE) based system of disbursement would be ideal for SOSPPA.
- b) A designated account will be opened with a local bank to handle the grant proceeds in USD. This should be supplemented with a UGX account for day-to-day operations.
- c) SoSPPA presently has accounts in Stanbic Bank and may open Project accounts in the same bank or any other Bank acceptable to the World Bank.
- d) The withdrawals from the designated and UGX accounts may use internet banking. The support role by CIP to the existing SOSPPA signatories may be exercised if deemed appropriate to ensure accountability to the Assembly.
- e) The typical funds flow will be as follows:



f) The Banking signatories will principally be the Treasurer assisted by the Co-ordinator and any Alternate as approved by SOSPPA.

g) All grant funding will be channelled through the designated Account and payments made as per agreed processes.

#### 5. Implementation arrangements & Previous

##### Experience:

SOSPPA will be the Project Lead responsible for overall implementation of the components/activities and will provide the premises (land) for construction of the processing factories. SOSPPA operations management, led by SOSPPA Coordinator, will provide oversight to the project operations in consultation with the ExCom. SOSPPA will be accountable for the implementation of the project, coordination of partners, and day to day operations of the project. The coordinator will, with technical support from CIP, be responsible for overall implementation, financial and administrative oversight of the project, and will serve as principal liaison to World Bank as the SE. The coordinator will represent the project and be responsible for managing all project staff, monitoring, and reporting of the project progress. SOSPPA's ExCom, including Chairman, Secretary and Treasurer, will provide general oversight to overall SOSPPA operations.

***It's recommended to beef-up or adopt Ex-officials on the ExCom with reasonable experience in project management, financial and audit management for improving SOSPPA capacity in fiduciary aspects.***

**5.1 Revolving Fund:** This is one major activity planned to ensure sustainability of SOSPPA as a community-based organisation and to empower members to run activities as enterprises.





***The assessment recommends a proper set-up with in the first year with requisite regulations and fund budget. This can be set up within SOSPPA as a SACCO to minimise tax obligations.***

**Main activities carried out by the SOSPPA in the past 5 years and external funders for those activities; include**

- 2020-2021: Agriculture Cluster Development Programme (ACDP) (UGX 450,0000,000) by MAAIF and World Bank; for cassava value chain development in Serere district.
- 2014-2019: Cassava Add value for Africa (CaVa) (UGX 74,000,000); by Africa Innovation Institute (AFRI); for increasing the capacity of farmers, farmer groups, and cassava processors in Serere district.
- 2017-2018: Sweetpotato for Prosperity Project (UGX 200,000,000); by Farm Africa for training of 2,000 farmers Kumi, Nora, and Serere on effective crop production, processing, and marketing.
- 2016-2017: Cassava Community Action Research Project (in-kind); by RUFORUM for developing a community-based cassava seed system for increased productivity and market linkages.
- 2015-17: SeFaMaCo Project (UGX 200,000,000) by Farm Concern International for value chain development and smallholder farmer commercialization of sweet potato in Serere, Ngora, Kumi, and Bukedea.

The above activities demonstrate a reasonable level of capacity building that needs to be enhanced with more responsibility.

**6. Staffing:**

- a) The project will be mainstreamed under the overall supervision of SOSPPA assisted by CIP Country Office
- b) The accountant will be designated as a Liaison staff with the Bank FM Team for day-to-day financial operations
- c) The available/proposed staffing appears reasonable to cover the project FM needs with support indicated in the technical proposal.

**7. Accounting Arrangements:**

- a) Manual records & Microsoft excel will be used to assist with the preparation of Project reports.
- b) Basic Computerisation will be considered at mid-term review based on volume of transactions.
- c) SOSPPA lacks an accounting manual which should be developed within 6 months from grant effectiveness which will be part of the POM. The cost of this service which is minimal should be incorporated in the project budget and workplan, if needed.

**8. Reporting:**

- a) The Institution will provide quarterly financial reports to the EXCO. These include budget vs. actual with explanations for variances.
- b) The Institution is capable of providing quarterly reports to the World Bank Country Office within 45 days after each quarter end.
- c) The reports will have the following contents:
  - A statement of sources and uses of funds for the reported quarterly period and cumulatively since project inception, reconciled with bank, cash and other fund balances at the end of the quarterly period;



- The Bank Account Activity Statement, reconciling the receipts into and payments out of the project account;
  - Supporting bank statements and reconciliations for the bank, cash and other fund balances at the end of the quarter.
  - Cash flow Projections for the next 6 months
- d) SOSPPA may make arrangements with CIP Country Office for periodic review of all reports and budgets prior to submission.

**9. Internal Audit Arrangements:**

- a) The internal audit function is non-existent and may not be justified by the available resources
- b) ***The assessment recommends that SOSPPA sources for internal audit/review services to review financial operations every 6 months and advise ExCom and Management on required improvements.***

**10. External Audit arrangements:**

- a) The Constitution requires an audit every year which has not been complied with in the past due to funding constraints.
- b) The annual Accounts will be completed and audited within 6 months after closure of the financial year.
- c) An audit firm will be qualified and acceptable to the World bank.
- d) The Auditing arrangements will include a budget provision for annual audits under terms of reference acceptable to the World bank.

**11. 11 Risk Assessments and Mitigation:**

The table below identifies the key risks that the project management may face in achieving these objectives and provides a basis for determining how management should address these risks:

H – High              S – Substantial              M – Moderate              L – Low

The overall residual risk is assessed as **Substantial** upon meeting the conditions in the risk assessment and mitigation table above.



Risk	Rating	Mitigation measures incorporated into Design	Mitigated risk	Condition of Negotiation
Delays in funds utilisation	M	Workplans and budgets prepared and reviewed in consultation with CIP	L	No
Comingling of Funds	H	Designated account at Commercial Bank based in Soroti	S	No
Non- Project activities may be attributed to Project resources	M	Detailed work plans, budgets to be prepared & approved Guidelines on eligible costs; Periodic Bank review/ FM monitoring reviews	M	No
Inadequate staff for Project coordination & reporting	S	Mainstreamed into <i>SOSPPA</i> ;	S	No
Unclear financial management procedures	H	Prepare a finance manual within 6 months of project effectiveness	S	Yes
Potential misuse of funds	H	Release of funds in instalments based on approved workplan and quarterly performance reports (SOE). Use of direct payments for equipment and prior approvals for major procurement transactions	S	
Manual accounting will delay reporting	M	Mid-term review will assess whether basic automation is justified based on the volume of activity	L	Yes
Lack of external audit arrangements	S	Qualified audit firm will be selected, and budget provision made. Terms of reference for audit acceptable to the bank	M	No
Overall Risk Rating	H		<b>Substantial</b>	

H – High      S – Substantial      M – Moderate      L – Low

The overall residual risk is assessed as Substantial upon meeting the conditions in the risk assessment and mitigation table above.