



STDF PROJECT PREPARATION GRANT (PPG)

APPLICATION FORM

The Standards and Trade Development Facility (STDF) provides Project Preparation Grants (PPGs), up to a maximum of US\$50,000, for the following purposes (or a combination thereof):

- application of SPS-related capacity evaluation and prioritization tools;
- preparation of feasibility studies that may precede project development to assess the potential impact and economic viability of proposals in terms of their expected costs and benefits; and/or
- preparation of projects proposals that promote compliance with international SPS requirements, for funding by the STDF or other donors.

Applications that meet the STDF's eligibility criteria are considered by the STDF Working Group, which makes the final decision on funding requests. Complete details on eligibility criteria and other requirements are available in the *Guidance Note for Applicants*. The completed application should be submitted through the [STDF online application system](#).

PPG Title	Use of a Systems Approach for Sustainable Management of Aflatoxins on Maize grain to promote safe trade and deepen regional integration through trade
Budget requested from STDF	USD: 50,000
Full name and contact details of the requesting organization(s)	Ministry of Agriculture Animal Industry and Fisheries, Department of Crop Inspection and Certification
Full name and contact details of contact person for follow-up	<p>¹Paul Mwambu Commissioner Crop Inspection and Certification, Ministry of Agriculture Animal Industry and Fisheries Plot 14-18. Lugard Avenue P.O. Box, 102, Entebbe, UGANDA. Tel. No: +256774013363</p> <p>²Caroline Mary Nankinga Kukiriza Assistant Commissioner, Phytosanitary and Quarantine Inspection Services Ministry of Agriculture Animal Industry and Fisheries Plot 14-18. Lugard Avenue P.O. Box, 102, Entebbe, UGANDA. Tel. No: +256774013363</p> <p>³Joyce Brenda Kisingiri Senior Agricultural Inspector- Phytosanitary Ministry of Agriculture Animal Industry and Fisheries Plot 14-18. Lugard Avenue P.O. Box, 102, Entebbe, UGANDA. Tel. No: +256772403364</p>

I. BACKGROUND AND RATIONALE

1. What is the purpose of this PPG? Explain whether it is requested to: (i) apply an SPS-related capacity evaluation or prioritisation tool; (ii) prepare a feasibility study (prior to project development) to assess the potential impact and economic viability of proposals in terms of their expected costs and benefits; and/or (iii) prepare a project proposal for consideration by the STDF or other donors?

The purpose of this PPG is to prepare a project proposal for consideration by the STDF together with other donors in support of establishment of a Systems Approach as a driver for food safety of traded maize grain in Uganda. The systems approach integrates Good Agricultural Practices at production, harvest, post-harvest, storage, transportation, field monitoring, inspection, testing and official oversight. Currently, there is no value chain food safety inspection and certification control for the maize value chain. This situation has caused great economic loss to Uganda. Therefore, the overall objective is to move away from border entry/exit management of food safety risks to a more comprehensive, sustained and harmonized practical approach that facilitates better management of aflatoxins” along the maize grain value chain. This will promote sanitary and phytosanitary compliance, increase market confidence that Ugandan maize grain is safe for human consumption based on national, regional and international grain standards.

The specific objective of the PPG is to suggest the potential components of a systems approach for monitoring, testing, inspection and certification and thereby leading to development of a project based upon these components.

The PPG Grant will support the following:

- Recruitment and identification of an International and a Local consultant to support and relevant stakeholders to develop the project.
- Undertaking of a literature review to estimate the critical control points and identify the potential components of a systems approach and estimate the proposed feasibility of the interventions being applied in a consistent and traceable manner by the public and private sectors
- Facilitate stakeholder workshops to:
 1. consult on the current regulatory system and value chain practices, validate and fully map the business processes for maize trade identifying the critical control points for managing aflatoxin and pests
 2. evaluate the feasibility of the proposed systems approach to be applied by the public and private sector,
 3. review and draw process maps relating to the future state which guides implementation of the systems approach by the public and private sector,
- Develop a draft project proposal in STDF format addressing all components of the STDF requirements, disseminate and review the draft proposal with key stakeholders.
- Support the finalization of a project proposal which may be submitted to the STDF depending on the feasibility of the proposal
- Support general local and operating expenses.

2. Explain the key SPS problems and/or opportunities to be addressed. Clarify why these issues are important, with attention to market access and poverty reduction. Describe, if relevant, how these issues relate to SPS priorities in the Enhanced Integrated Framework’s Diagnostic Trade Integration Studies (DTIS), the findings of SPS-related capacity evaluations, national poverty reduction strategies, sector development strategies or policies, etc. See Qn. 7. (b) – (d) of the Guidance Note.

Background

Maize is an important and income security crop that supports the livelihood of millions of small-scale farmers in Uganda (MAAIF 2019). World Bank (2020) reports trade in staples within the EAC as critically important. It largely constitutes the bulk of business operations of millions of producers and consumers in Uganda, and hence chronic exposure to aflatoxins in maize grain produced in Uganda is a legitimate food safety concern. Food safety standard of maize grain produced is generally low, which is due to aflatoxins and the average yield has remained as low as 2.2MT to 2.5MT per hectare, due to pests and diseases compared to the potential of 8MT per hectare (MAAIF 2019). Poor awareness of aflatoxicosis/management of aflatoxins in the field production chain coupled with inadequate regulatory controls of maize grain in Uganda is a significant barrier to trade (World Bank, 2020).

Aflatoxins are a group of naturally occurring toxins produced as secondary metabolites by the fungal species *Aspergillus flavus*, *A. parasiticus* and *A. nomius*. They are categorised under mycotoxins which also include ochratoxins, citrinin, ergot alkaloids, patulin and Fusarium toxins (fumonisins). These are universally found in soil and are responsible for decomposing materials. They have been reported in Maize (*Zea mays*), Sorghum (*Sorghum bicolor* L), Simsim (*Sesame indicum*), Beans (*Phaseolus vulgaris*), Sunflower (*Helianthus annuus*), Millet (*Eleusine coracana*), Pea nuts (*Arachis hypogea* L.) and Cassava (*Manihot esculenta*) among others. Aflatoxins have turned out to be the most important of the mycotoxins because of their negative effects on agriculture productivity, trade, nutrition, health & overall social economic development (Aflatoxin Management in Uganda, MAAIF 2019).

The problem

Impact of Aflatoxin contamination on maize grain food safety and export trade

Despite various interventions to control aflatoxins, Ugandan foods including maize grains are contaminated with aflatoxins, and this has serious economic and health implications. DCIC-MAAIF (2022) studies on maize export trends from Uganda to Kenya for the period, January 2019 to March 2022, indicate increased volumes for the FY 2019/2020 followed by a sharp decline for the period FY 2020/2021. These low export volumes are still observed for the period 2021/2022 as indicated in the table below. The reduction in maize export from Uganda to Kenya is consistent with the 2020 maize grain export ban by Kenya due to aflatoxins contamination. Uganda National Bureau of Standards fact-finding mission in 2020 during the ban found 100% aflatoxin contamination in sampled maize consignments held at the Uganda Kenya Border.

Maize grain export trends from Uganda to Kenya for the period January 2019 to March 2022.

YEAR	VOLUME (KGS)	EXPORT VALUE (UGX)
2019	111,995,110	42,271,388,091
2020	197,038,182	58,926,522,860
2021	74,823,152	24,054,465,604
2022 (JAN TO MARCH)	21,656,850	7,211,270,047
GRAND TOTAL	405,513,294	132,463,646,602

Source; Uganda Customs Report 2022

Uganda exports maize grain majorly to Kenya and Southern Sudan. Uganda also exports significant maize flour to Europe and Canada as well as maize bran to Rwanda (MAAIF DCIC, 2022 Export Reports). The more recent rejection of maize grain exports from Uganda by Kenya affirms the negative impacts of aflatoxins on the country’s economy. The increased rejections and destruction of Ugandan products calls for an urgent need to upgrade the inspection and certification system of compliance with the specified sanitary and phytosanitary norms. There is a need for developing a National Quality Infrastructure (NQI) to enable consistency in food safety quality systems for the maize value chain. Government plays a crucial role in designing, developing, and implementing an effective NQI Uganda.

There is limited border control infrastructure for aflatoxin analysis, which is exacerbated by absent Inspection at maize production level, aggregation centres and limited at the border inspection points. Increased border infrastructure and inspector numbers is costly for inspection and certification and not adequate for national aflatoxin monitoring and surveillance.

Proposed PPG interventions:

Against this background, the DCIC is seeking for a Project Preparation Grant (PPG) from the Standards and Trade Development Facility (STDF) to develop a project that will strengthen and sustain consistent production of aflatoxin-free maize and increase the regulatory scope of MAAIF and relevant entities in overseeing production across the maize value chain to ensure food safety and competitive maize products free of aflatoxin and pests.

The project will focus on developing capacities of the maize value chain actors to use a Systems Approach (SA) and develop good regulatory practices (GRPs) to ensure compliance with sanitary and phytosanitary standards and aflatoxin free maize grains. This will facilitate increased trade and deepen East African Community (EAC) regional integration.

The DCIC). MAAIF realises that a more comprehensive robust approach will have to be implemented to address the systemic root causes and circumvent the challenges caused by persistent high levels of aflatoxins and economic pests in the grains consumed and traded domestically, regionally and internationally. The traditional recommended practices which include Good Agricultural Practices (GAP), use of recommended seed resistant varieties, good post-harvest, transport handling, fumigation practices need to be enhanced with a strict regime

of traceability mechanisms, inspection, sampling, monitoring, testing and certification along the commodity value chain and not focus on exit border inspections. Currently, mandates and capacities to test for compliance are mainly in the hands of the regulatory competent authorities, which have mainly and traditionally focused at border control stage. Furthermore, the current inspection and testing by the Competent Authorities (CAs) is irregular, thin on ground and expensive.

Interventions have targeted building support for enforcement by CAs, and capacity building for the laboratories at the centre among others. Stemming from the lessons learnt by MAAIF DCIC on use of a systems approach to manage SPS constraints in fruits and vegetable crop commodities, NPPO Uganda recognizes that no intervention has so far been made to apply the same to the maize value chain. NPPO Uganda therefore, seeks to build capacities of both private sector and public sector along the maize grain value chain (producers, transporters, aggregators, and regulatory institutions) to use various approaches that are intended to reduce the incidence and prevalence of aflatoxins in maize grain.

MAAIF DCIC has been weak in establishing SPS procedures, harmonisation of standards, measures and negotiating with trading partners the existing operative protocols used for active field inspection, certification and enforcement of production and aggregation of maize grain as regards to compliance with Maximum Limits of Aflatoxins. This is a component that is not being targeted but wished to be included moving forward.

The design and implementation of the SA for management of aflatoxins in the Maize grain production and distribution value chain, will be guided by the current practices of commodity value chain players, the recommended principles for integrated pest management and pest risk management procedures laid down in ISPM 14 and ISPM 35 respectively.

The Decision Support for a Systems Approach (DSSA) tool will be subjected to ensure implementation of effective and appropriate aflatoxin management measures on maize grain. The Beyond Compliance Tool will further be subjected to assess the effectiveness of risk management procedures employed in the SA to mitigate the occurrence of aflatoxins on maize grain produced and traded.

Therefore, established and proven effective SA aflatoxin management and risk management procedures right from production level by the DSSA, will be packaged as good agricultural practices (GAPs). Corresponding standard operating procedures (SOPs) will be developed to guide private and official regulatory enforcement of maize grain quality to compliment UNBS inspection and laboratory testing protocols.

The outcome will be a procedure that will be presented to Uganda's trading partners beginning with the EAC as an equivalent measure guided by ISPM 24, developed through extensive stakeholder participatory mechanisms as suitable and effective to provide the level of protection against aflatoxin contamination in maize grain. The DCIC together with the UNBS will work with the different EAC NPPOs and Bureau of standards under the leadership of the EAC Secretariat, to develop harmonized official SA inspection manuals and a self-regulatory code of practice amongst private sector for management of aflatoxins on maize grain.

DCIC believes that the use of a systems approach for management of aflatoxins on maize grain, involving private practitioner responsibility combined with risk based value chain official inspection and certification will be cost effective, sustainable and successful in increasing food safety of maize grains traded on domestic level, increase regional food trade, promote regional integration, reduce maize grain interceptions, enhance household incomes and reduce regional food insecurity. Furthermore, this methodology will be extrapolated to other grains and pulses inspection and certification system.

Opportunities

International, regional, and statutory efforts have been put on Aflatoxin control in Uganda through awareness creation (MAAIF 2019). MAAIF is the lead institution in the prevention and control of aflatoxins and management of maize and grain pests in the country. A heterogeneous National Technical Working Group on Aflatoxin was established in 2014 comprising line ministries of Agriculture, Health and Trade, Research institutions, Academia, Processors, Traders and Consumers to guide the strategic direction in the aflatoxin's mitigation processes in the country. Existence of private sector led institutions and several development partners in development of interventions in the maize value chain can be upscaled to increase production and deal with non-technical barriers (NTB).

The ongoing implementation of the Eastern Africa community common market protocol and EAC/COMESA, SADC, tripartite agreement and the Africa Free Continental Trade Area (AfCTA) that provides for free movement of goods and special commodities such as maize.

The East African Community harmonised the Pest Risk Analysis (PRA) for Maize (*Zea Mays* L.) that involved harmonising pest lists associated with maize grain in the member state countries. This led to development of a harmonised EAC quarantine pest list for maize; Member States are obliged to incorporate the PRA for maize in their clearance and inspection and certification. EAC PRA for maize grain and Phytosanitary import conditions developed their under. The validated EAC inspection Standard Operating Procedures for inspection for exit inspection for maize pests. However, the EAC has not yet guided the process on development of the harmonised procedures for official value chain inspection certification for compliance with MRIs for aflatoxins in maize grain, beginning at production. Therefore, there are no developed private codes of practice to manage aflatoxins.

MAAIF developed a maize handbook for extension workers to guide them on training farmers on aflatoxin dangers and standards. This aimed to transform maize production from a predominantly subsistence, low input and low productivity activity, to a fully commercialised farming business consequently improving household incomes of rural farmers through compliance with set quality standards.

Kenya is the major importer of Ugandan maize. Kenya alone demands on average 600,000MT annually with a potential of up to 1,000,000MT.

The Uganda National Bureau of Standards (UNBS) has developed an aflatoxin standard benchmarked and harmonised with the East African Community (EAC) grain standard. The

Eastern Africa Grain Council (EAGC) in collaboration with Uganda National Bureau of Standards (UNBS) through the Eastern Africa Grain Institute has led various awareness campaigns. However, these efforts have not yielded positive trends for compliance to the standards. Since its launch in 2006, EAGC has been leading the fight against Aflatoxins, working on a range of interventions to reduce the incidence, including assisting with the harmonisation of Aflatoxins control measures, running AF control training programs, working with East African Community to increase AF testing and surveillance in maize, participating in the development of the Partnership for Aflatoxin Control in Africa (PACA) strategy 2013–2022 as well as advising on the EC AF communication strategy (MAAIF 2019). The Ministry of Agriculture Animal Industries and Fisheries, Uganda National Agricultural Research Organisation (NARO) in collaboration with Makerere University have developed several communication materials and manuals for the management of aflatoxins (MAAIF 2019).

National poverty reduction strategies, sector development strategies or policies.

National Development Plan (NDPIII),

The National Development Plan (NDPIII) aims at Increased household incomes and improved quality of life Sustainable Industrialization for inclusive growth. This is in line with Uganda Vision 2040, EAC Vision 2050, Africa Agenda 2063 and the Sustainable Development Goals (SDGs). MAAIF is the leading agency for implementation, coordination of agro industrialisation. Agro industrialisation is among the programme aimed to increase commercialization and competitiveness of agricultural production and agro processing. The key results include increasing export value of selected agricultural commodities, increasing the agricultural sector growth rate, increasing labour productivity in the agro-industrial value chain, creating jobs in agro-industry, and increasing the proportion of households that are food secure.

The Uganda Diagnostic Trade Integrated Study (DTIS) 2021

The DTIS defines Quality Infrastructure as “the system comprising organisations (public and private) together with the policies, relevant legal and regulatory framework, and practices needed to support and enhance the quality, safety and environmental soundness of goods, services and processes”. It includes a national quality policy and institutions to implement it, a regulatory framework, quality service providers, conformity assessment, enterprises, customers and consumers. A Quality Infrastructure system defines, develops and verifies quality requirements for products and services. It verifies and demonstrates that products and services meet the specified requirements. It ensures that products and services, and the processes through which they are generated, meet internationally accepted quality requirements and best practice essential for participating in international trade.

Existing Bills and Ordinances

Existence of the Maize Grain Quality Bill, 2016, for Mubende District.

Uganda National Bureau of Standards (UNBS) Act (1983); The Act mandates the UNBS to formulate and enforce national standard specifications for commodities and codes of practice;

promote standardisation in commerce, industry, health, safety and social welfare and provide testing and calibration services to facilitate both regulatory and promotional roles. Furthermore, the UNBS uses regulations on Imports Inspection and Certification together with the existing food standards to regulate the quality of foods manufactured locally as well as those imported into the country.

National Standards and Quality Policy: In 2012, the Government of Uganda adopted the National Standards and Quality Policy (NSQP). This policy focuses on developing and sustaining a national Standardisation, Metrology, Conformity Assessment and Accreditation (SMCA) system, which is robust and able to achieve the requirements for high quality goods and services. The policy also aims at strengthening the national technical regulation regime to protect consumers and the environment from unsafe products without unnecessarily restricting trade.

East African Community Food and Nutrition Security Strategy 2018 –2022. Strategy is to attain food and nutrition security for all the people of the East African Community throughout their life cycle, for their health as well as their social and economic well-being”. With the adoption of the FNSP, EAC Partner States are expected to integrate the policy in their respective national policies and agriculture investment plans to achieve food and nutrition security.

The National Food Safety Strategic Plan (NFSSP) 2007-2016. The National Food Safety Strategic Plan aims at guiding the implementation of food safety laws, programmes, activities, and other food safety control systems. The plan also translates the food laws into a tool for an effective food-safety control system and spell out the roles and responsibilities of key stakeholders, through addressing institutional linkages, collaboration, and harmonisation of activities aimed at promoting and improving the status of food safety and reduce the burden of food-borne illnesses in the country.

3. Which government agencies, private sector, academic or other organisations support this PPG request? Letters of support from each of these organisations would be advantageous (Appendix 1). See Qn. 7. (e) of the Guidance Note.

The following are the public and private sector organisations that support this PPG request.

- Ministry of Agriculture Animal Industry and Fisheries, Department of Crop Inspection and Certification
- Uganda National Bureau of Standards
- National Agricultural Research Organisation
- Uganda Grain Council
- Uganda National Cross Border Traders Association
- Kenya Plant Health Inspectorate Services

Others to be brought on board later

- Uganda Small Grain Millers Association
- Kenya Bureau of Standards.

4. How does this PPG complement and/or build on past, ongoing and/or planned national programmes and/or donor-supported projects? See Qn. 7. (f) of the Guidance Note.

Current strategies adopted to mitigate the harmful effects of aflatoxins

Effective 2013, African countries adopted a continental coordination and leadership approach towards the protection of crops, livestock, and people from the harmful effects of aflatoxins mitigation. This was under the AUC-Partnership for Aflatoxins Control in Africa (AUC-PACA), working closely with the Regional Economic Communities (RECs) and countries in the mitigation approach. Uganda along with Tanzania, Malawi, Nigeria, Senegal and the Gambia was among the six (6) African countries that piloted the PACA initiative to control aflatoxin and several achievements have been registered.

Working closely with PACA, the country made the following achievements: it established a PACA- Uganda Chapter in 2013 primarily to create awareness and promote advocacy for Aflatoxins mitigation in the country.

National Technical Working Group on Aflatoxin was established in 2014 (membership includes line ministries of Agriculture, Health and Trade, Academia and Consumer Education Trust with further opportunities for expansion.

The Africa Aflatoxin Information Management System (AfricaAIMS) was established where all relevant data in the agriculture, trade and health sectors were collected, compiled and submitted to PACA Secretariat for analysis and could be synthesized into useful information to inform policy and decision making

Uganda Mycotoxins Mitigation Steering Committee (UMMSC) was institutionalised in July 2017 to provide strategic direction in the mitigation processes in the country.

Under support of USAID Feed the Future (FtF) enabling environment project the following were achieved:

- Information, Education and Communication (I.E.C) materials for awareness and advocacy campaigns on aflatoxin prevention and control were developed specifically for all key stakeholders along the value chain including farmers, processors, traders and consumers. These I.E.C. materials were launched along with the national action plan on 31st October 2018.
- A detailed Aflatoxin Prevention and Control Handbook for Extension Workers was developed and launched during the annual Joint Agriculture Sector Review in September 2019 which can act as a key template for the development of GAP procedures in the systems approach.

National Agriculture Research Organisation (NARO) working closely with International Institute of Tropical Agriculture (IITA) is registering the following key achievements:

- Establishing Atoxigenic (not toxin forming) strains of *Aspergillus flavus*(L) that will be applied in biological control of aflatoxin. Biocontrol is one of the most cost-effective proven methods that can reduce the levels of aflatoxin in foods along the whole value chain by up 90%.
- Advanced stages of establishing a commercial facility for production of Aflasafe products that will be used in the biological control of aflatoxin from farm level in Uganda.
- In addition, the country has been very active in aflatoxin initiatives under the East African Community (EAC).

However, all these initiatives have not yet yielded the desired reduction levels in aflatoxins in Uganda's maize grain.

- The proposed PPG interventions will draw lessons learnt from ongoing initiatives and documented best practices such as those listed below, to compliment or inform the SA interventions for management of Aflatoxins on produced and traded maize grain.
- The Project interventions will draw on lessons learnt during the implementation of the Common Markets for East and Southern Africa (COMESA) and Texas USA A and M Agrilife Research Project, to manage aflatoxins and mycotoxins on grain.
- The project will utilise relevant outcomes and recommendations of the UN FAO- Strengthening Food Control and Phytosanitary capabilities and Governance Project, GCP/GLO/949/EC. Particularly project interventions will refer to the findings of the Phytosanitary Capacity Evaluation (PCE) Tool to Uganda's national food control system and phytosanitary systems by the GCP/GLO/949/EC amongst other relevant recommendations.
- The PPG will consider utilisation of trained staff at national and in regional (EAC) institutions, on laboratory best practices, under the Trade Efficiently and Safely (TRASE) Project, to scale up training of trainer (TOT) amongst stakeholders, enhance institutional collaboration and aflatoxin testing capacity.

5. Discussed the PPG request – or funding for the project proposal which would result from it – with any potential donors (bilateral, multilateral, Enhanced Integrated Framework, etc.)? If so, provide details below and indicate potential sources of funding for the resulting project. See Qn. 7. (g) of the Guidance Note.

The DCIC has held discussions with the International Finance Corporation (IFC) to request them to partner and co-fund the initiatives wished to be implemented by the DCIC. Specifically, to develop the Grain Regulations that will support the framework for standardisation, testing, measurement, inspection, certification and monitoring of grain quality.

6. Briefly explain how gender and environmental issues are relevant for this PPG and, if appropriate, how they will be addressed.

Women youth are often responsible for production, harvest postharvest, sorting, drying, and storage. However, most women and youth that are involved have limited knowledge addressing

pests and aflatoxins management. Through the systems approach these actors will be trained on management and self-regulation on SPS issues in the maize value chain.

Improving the productivity and gaining market for good quality and reducing poverty. increasing the purchasing power of grassroot famer (50%) which comprises women and youth.

Most of the maize produced in Uganda is for sale. WFP, which is one of the buyers, taking and feeding the most vulnerable of which are women and the youth. Currently, sale of the maize to the region has gone down due to reduced quality due to aflatoxin and weevils.

Therefore, the PPG is aimed at addressing aflatoxin levels and pest management measures to mitigate losses, improve quality in the maize grain value chain for better market access.

Uganda has a tropical climate that favours growth of the aflatoxin and pests and diseases infestation during production and storage. A System approach will promote good agricultural practices, integrate pest and disease management practices that will mitigate the environmental factors such as temperature, relative humidity that predisposes maize grain to aflatoxin and pest incursion.

II. IMPLEMENTATION & BUDGET

1. Who will take the lead in implementing this PPG? If particular national experts and/or international consultants are proposed, attach a copy of their Curriculum Vitae and record of achievements (Appendix 2). If no names are provided, the STDF will provide a shortlist of consultants if the PPG request is approved.

The MAAIF DCIC together with various stakeholders from the supporting institutions will form a Project Management Implementation Committee with the DCIC as a secretariat.

2. In the table below, briefly describe the main activities to be carried out under this PPG and specify who would be responsible. Provide an estimate of the budget required (e.g. for national/international expertise, travel and DSA of consultants, stakeholder meetings or workshops, general operating expenses, etc.)



Table: Estimated Activity Budget

Activity	Responsibility	Estimated Budget (US\$)			
		Unit	Number	Cost	Total
Consultant costs for drafting proposal, travels consultations					
International Consultant		days	30	650	20,000
National Consultant Fees		days	20	350	7,000
International Consultant DSA Fees (in Uganda)		days	10	250	2,500
Air travel return tickets for International Consultant		Airfare		2,000	2,000
Activities related to information gathering, stakeholder consultations and inland travels					
Workshop Venue (rental)					
Catering services for break teas, coffee, meals and refreshments		Meals	(40x45) x5	1,800	9,000
National travels for information gathering from maize production places, aggregators and off takers for situation analysis	Road transport related expenses	Road transport expenses			6,000
Facilitate stakeholder workshops to consult on the current regulatory system and value chain practices, Map risks along the value chain in order to define the critical control points for aflatoxin and pest management in the maize value chain and validate Systems App.		Venue (rental) Fee	5	700	3,500
Total					50,000

Appendices

Appendix 1: Letters of support from each of the organisations supporting this proposal.

- Ministry of Agriculture Animal Industry and Fisheries
- Uganda National Bureau of Standards
- East African Grain Council
- Kenya Plant Health Inspection Services
- National Cross Border Traders Association

Appendix 2: References

COMESA secretariat. (2013). *Establishing Priorities for SPS Capacity-Building in Uganda Using Multi Criteria Decision Analysis*.

C-SAAP. (2015). *Country led Situation Analysis for Mitigation of Aflatoxins in Uganda*.

C-SAAP. (2015). Country led Situation Analysis for Mitigation of Aflatoxins in Uganda.

http://www.npa.go.ug/wp-content/uploads/2020/08/NDPIII-Finale_Compressed.pdf

https://www.standardsfacility.org/sites/default/files/STDF_PG_335_Application_Sep-12.pdf

https://www.standardsfacility.org/sites/default/files/STDF_PG_543_Application_Form_Oct18.pdf

MAAIF. (2019). *Aflatoxin Management in Uganda*. Kampala.

MAAIF. (2019). *Maize Training Manual for Extension workers in Uganda*. Kampala.

MoFPED. (2021). The National Budget Framework Paper (NBFP) for FY 2022/23.

MTIC. (2012). *National Standards and Quality Policy. For quality, safety and competitiveness of goods and services*.

Partnership for Aflatoxin Control in Africa. (2017). Country-led Aflatoxin and Food Safety Situation Analysis and Action Planning for Uganda. Kampala.

Partnership for Aflatoxin Control in Africa. (2017). *Country-led Aflatoxin and Food Safety Situation Analysis and Action Planning for Uganda*. Kampala.

Report No. 77079-UG. Uganda Diagnostic Trade Integration Study (DTIS) update Prepared for the Enhanced Integrated Framework. April 2013. WB Financial and Private Sector Development Africa Region. 197 p.

Uganda Bureau of Statistics. (2020). *Uganda Annual Agricultural Survey 2018*. Kampala: UBOS.

Appendix 3:P Abbreviations and acronyms.

SPS	Sanitary and phytosanitary standards
SA	Systems Approach
DSSA	Decision Support for Systems Approach
UBOS	Uganda Bureau of Statistics
DCIC	Department of crop Inspection and Certification
MAAIF	Ministry of Agriculture, Animal industry and Fisheries
PPG	Project Preapration Grant
STDF	Standards and Trade Development Facility
AAS	Annual Agricultural Survey
IFC	International Finance Corporation
MRL	Maximum Residue Levels
EAC	East African Community
NARO	National Agriculture Research Organisation
NPPO	National Plant Protection Organisation
PCE	Phytosanitary Capacity Evaluation
NGI	National Quality Infrastructure
IITA	International Institute of Tropical Agriculture
AF	Aflatoxin
UMMSC	Uganda Mycotoxins Mitigation Steering Committee
NTBs	Non-Tariff barriers (NTBs)