

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	Prioritisation of aflatoxin management activities based on the National Policy for Aflatoxin Control in Food using P-IMA tool
Budget requested from STDF	US\$ 43,000
Full name and contact details of the requesting organization(s)	Science and Technology Policy Research Institute, Council for Scientific and Industrial Research (CSIR-STEPRI), P.O. Box CT 519, Cantonment, Accra, Ghana.
Full name and contact details of contact person for follow-up	Rose Omari, CSIR-STEPRI Email: romari@csir-stepri.org / romari@csir.org.gh Phone: +233244158896

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 prioritization 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 Project Preparation Grant is to apply the P-IMA tool to prioritise actions in the newly developed National Policy for Aflatoxin Control in Food and develop one project proposal from the prioritised actions.

This project will apply collaborative, multisectoral and interdisciplinary approaches and will focus on aflatoxin control in maize and groundnuts and their derived products. As a result, both public and private institutions in the agriculture, health and trade sectors will be engaged in this project.

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.

Aflatoxin as a food safety concern

Food safety has become an important public health and trade concern and many governments have put in place measures to manage the risks. A major food safety concern in Ghana and many African countries is aflatoxin contamination in food and feed. Aflatoxins are harmful toxins produced by certain species of fungi or moulds that grow naturally on foods. These fungi infect food products either on the farm or during storage under certain favourable conditions such as high temperature, high moisture, long periods of droughts and presence of pests. Aflatoxin contamination is highly prevalent in Ghana and mostly affect staple crops such as maize, groundnuts, sorghum, millet as well as animal products including meat, fish, eggs and many processed foods. In terms of domestic and international trade, maize and groundnuts and their processed products are most important. Humans and animals are exposed to aflatoxin through consumption and handling of contaminated food and feed. As of 2010, roughly 5 billion people worldwide were estimated to be exposed to high levels of aflatoxins.

Food and nutrition security and health effects of aflatoxins

Exposure to high levels of aflatoxin results in acute health effects such as aflatoxicosis, which can cause death in severe cases. In 2004, 125 people died from aflatoxicosis in Kenya and as a result, the contaminated maize stocks were destroyed leading to food losses and food insecurity. Aflatoxin is a class 1 carcinogen that is known to cause about 30% of all liver cancers in humans. People with hepatitis B and HIV infections are 30 times more likely to develop liver cancer due to exposure to aflatoxins. In 2012, aflatoxin was estimated to have caused 745,000 deaths globally, mostly due to a cancer that starts in the liver. In Africa, aflatoxins can cause roughly one death per 100,000 people annually. Though there is no data causally linking aflatoxin to liver cancer in Ghana, in 2018 about 2,753 people suffered from liver cancer, which is one of the commonest cancers among men representing 21.1% of all cancers.

Chronic exposure to aflatoxin is also associated with malnutrition, decreased protein synthesis, delayed recovery from kwashiorkor, immune suppression, impaired liver function, increased susceptibility to infections, growth retardation and stunting in children. A recent total diet study conducted in Benin, Cameroun, Mali and Nigeria showed that morbidity factors caused by co-exposure to aflatoxin B1 and hepatitis B virus suggest several thousands of additional liver cancer cases per year, and a substantial contribution to the burden of chronic malnutrition in childhood (Ingenbleek et al., 2020). Another study conducted in Ghana showed that the chances of liver cancer development would increase to 0.6 per year if infants were fed on maize-groundnut complementary food prepared in rural households with minimum AF level of 7.9 µg/kg (Omari and Anyebuno 2020).

The relationship between aflatoxin, malnutrition and stunting is critical because Ghana has made significant efforts by reducing prevalence of stunting from 30% in 2003 to 19% in 2014. However, greater efforts are still required to further reduce stunting prevalence to the Africa Union's Malabo target of 10% by 2025. The Cost of Hunger in Africa (COHA) study demonstrates that for Ghanaian children, especially those from poor households, undernutrition has adverse implications for school performance, and for workers, it reduces productivity and

ultimately earnings and household welfare. The combined effect of these consequences is a cycle of poverty that undermines national and continental development efforts. The COHA study report also shows that Ghana loses about GHS 4.6 billion (US\$783 million) annually because of child undernutrition. This amount represents 6.4% of Ghana’s Gross Domestic Product (GDP). In livestock, poultry and cultured fish, aflatoxin can cause low productivity, weight loss, various diseases and death. For example, egg production can be reduced by as much as 70% when chickens are fed with aflatoxin contaminated feed.

Trade and economic effects of aflatoxin

Aflatoxins also pose a barrier to trade and market development due to the rejection of contaminated products by the food processing industry and importing countries especially the European Union Member States. It is estimated that aflatoxin level in about 40% of food commodities in domestic African markets exceed allowable levels while the continent loses up to \$670 million annually due to aflatoxin contamination. In Ghana, about 319,000 tonnes or 18% of maize is lost annually due to aflatoxin contamination. In the early 2000s, Ghana exported both maize and groundnuts and their processed products mainly to the EU and some ECOWAS Member States. For example, in 2001, Ghana exported 95kg of peanut butter valued at US\$60,799 and 140,709kg of raw groundnuts valued at US\$ 82,964. By 2004, the quantity of peanut butter had increased to 2,184,999kg at a value of US\$1,982,768 while raw groundnuts increased to 13,412,007kg valued at US\$6,525,810. In the same year (2004), Ghana was ranked among the top ten countries with the highest number of alert notifications about high level of aflatoxins by the European Union’s Rapid Alert System of Food and Feed (RASFF). As a result, the European Commission (EC) carried out a mission in Ghana in 2006 to investigate the control measures Ghana has in place for aflatoxin control in maize and groundnut products. Although the EC made some of recommendations for the management of aflatoxin in food, not much has been achieved over the years and the problem persists as shown in figure 1 where about 35% of groundnut paste (peanut butter) intended for export in 2019 had total aflatoxins level above the EU limit of 4ppb.

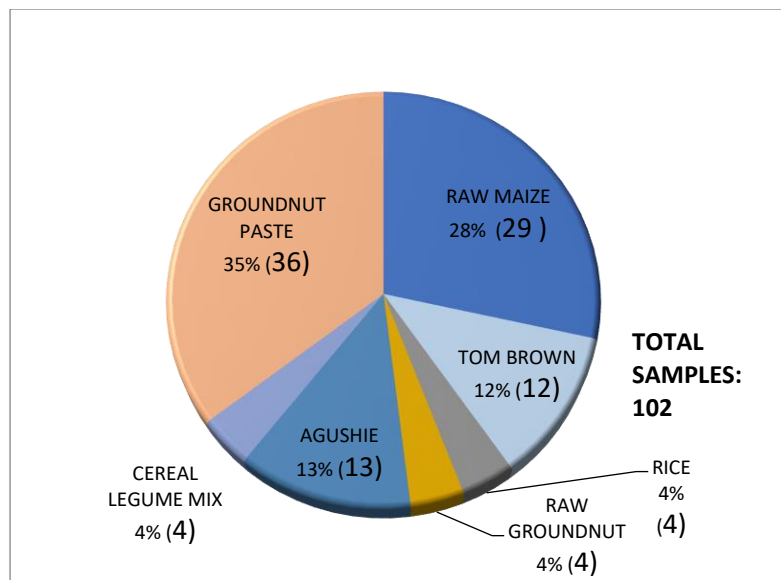


Figure 1 Proportion of products meant for exports that had aflatoxin levels exceeding EU maximum levels in 2019. Source: Ghana Standards Authority Mycotoxin Testing Laboratory.

Although the number of EU’s alert notifications due to aflatoxin contamination has reduced over the years (Fig. 2), exports to the EU have also reduced. The non-compliance with the EU standards for aflatoxins might have resulted in the reduction of export of maize and groundnut products, especially to the EU. For instance, peanut butter exports have been fluctuating between 2006 and 2019 with the largest quantity of exports within the period being 290,482kg in 2006 compared to 2,184,999kg in 2004. In 2019, only 61,397kg of peanut butter was exported and of this, only 10.3% (6,310 kg) was exported to the EU (Table 1).

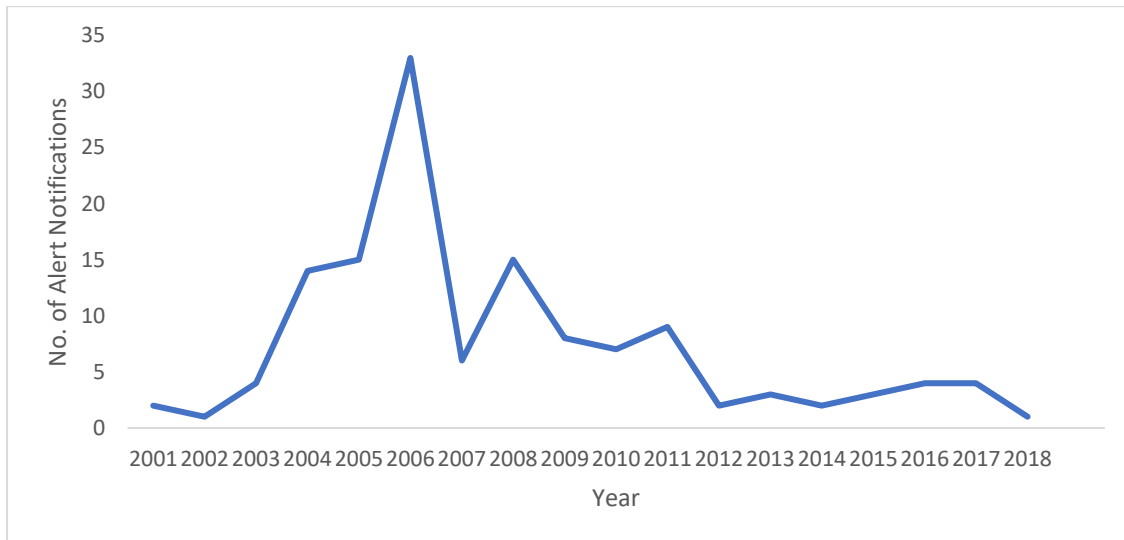


Fig. 2 Number of alert notifications on aflatoxins issued per year by the RASFF

In practice, products that are non-compliant with the EU standards for aflatoxins are usually diverted by the Ghanaian exporters to other markets including the domestic markets where restrictions and enforcements are much more relaxed. Table 1 shows that between 2014 and 2019, large quantities of Ghana’s peanut butter have been exported to the USA and other markets notably, Canada, Japan, Australia and South Africa. ECOWAS countries including Nigeria, Togo, and Cote d’Ivoire have also imported both raw groundnuts and peanut butter over the period.

Table 1 Quantity of peanut butter exported (kg) per destination from 2014-2019

Year	Quantity (kg)				
	EU	ECOWAS	USA	Others	Total
2014	0	182	8,431	1,126	9,739
2015	494	10,507	11,755	4,137	26,893
2016	158	0	3,060	2,111	5,329
2017	7,923	43,200	53,154	960	105,237
2018	473	0	12,555	21,661	34,689
2019	6,310	0	34,023	21,064	61,397

With the coming into force of the African Continental Free Trade Agreement that prioritises SPS issues, it is likely that compliance with SPS requirements will be strictly enforced and

hence may affect trading in products with high levels of aflatoxins within the African continent. Similarly, with the enactment of the Food Safety Modernization Act (FSMA) in the USA, enforcement of foreign products may become more stringent because the Act, among others, directs FDA of the USA to do more inspections in foreign countries to verify compliance with US standards as well as hold imported foods to the same standards as domestic foods. Furthermore, the EU recently issued a notice to Ghana about the inclusion of groundnut flour and groundnut meal in the reviewed list of food and feed products for which official control will be increased at the points of entry. All these mean that Ghana's food producers and exporters need to step up their efforts to comply with the aflatoxins standards for all food products.

At the domestic level, about 25% of total maize production is processed into various products for both export and local markets. However, food industries and organisations such as the World Food Programme that buy maize and groundnuts in bulk sometimes have difficulties accessing aflatoxin-safe products from farmers, produce aggregators and traders because of high prevalence of aflatoxin contamination. For example, Nestle Ghana has committed to locally sourcing at least 62% of maize destined for various foods including complementary foods produced at its Factory in Ghana as part of its Shared Value programme. At the manufacturing level, Nestlé applies internationally recognized Good Manufacturing Practices (GMP) to ensure quality and food safety. This has put significant pressure on quality assurance and control of raw material in Nestle's supply chain to overcome high variations in grain quality brokered by national aggregators, especially related to aflatoxin contamination where Nestle's current limits of 4ppb and its targets of 0.5ppb are rarely met. As a result, Nestle Ghana has made significant investments in testing for aflatoxin along its supply chain with the introduction of targeted farmer and supplier training initiatives to improve the quality of grains.

Another example can be seen with the World Food Programme (WFP) that has bought over 4,085 metric tons of maize worth US\$1.8 million from participating smallholder maize farmers under WFP's Purchase for Progress" (P4P) initiative. The maize is supplied by WFP to schools under the School Feeding Programme and other relief services. According to WFP, aflatoxin has been an issue in Ghana hence they introduced a field-testing kit called 'Blue Box' (which can detect aflatoxin and grain moisture content), to promote quality and food safety among smallholder farmers. Similarly, Premium Foods, a major maize trading and processing company in Ghana buys approximately 30,000 tonnes of maize per year but could buy more if safer and quality grains were available.

Efforts at managing aflatoxin and its effects: Continental and ECOWAS levels

At the continental level, the African Union Commission recognized the detrimental effects of aflatoxins and the uncoordinated way it is being managed and has therefore established the Partnership for Aflatoxin Control in Africa (PACA) in 2011 to help develop efficient systems for addressing the problem. PACA has elaborated a 10-year Strategy (2013-2022) to guide its actions and has supported six pilot countries (Nigeria, Gambia, Senegal, Tanzania, Uganda, Malawi) to develop systems for the control of aflatoxins. PACA also supported the ECOWAS to develop the ECOWAS Aflatoxin Control Action Plan (ECOACAP) that was adopted in 2015 by the ECOWAS Agricultural Ministers. ECOWAS Members States including Ghana are thus required to adapt the ECOACAP to their country-specific contexts. As a result, the Ghana's aflatoxin policy implementation plan has been aligned with both the PACA Strategy and the

ECOACAP. This PPG will thus help prioritise specific actions within the policy that will contribute to the realisation of the PACA strategy and the ECOACAP.

Ghana's Policy for Aflatoxin Control in Food and Feed

In line with the ECOACAP and PACA strategy, the Science and Technology Policy Research Institute (CSIR-STEPRI) and partners sought funding from the Alliance for a Green Revolution in Africa (AGRA) to develop a national policy with an implementation plan and a technical regulation for aflatoxin control in food and feed. The Technical Regulation was enacted by Ghana's Parliament in December 2020. The draft policy has been endorsed and will be owned by four Ministries namely, Ministry of Food and Agriculture (MOFA), Ministry of Environment, Science, Technology and Innovation (MESTI), Ministry of Trade and Industry (MOTI) and Ministry of Health (MOH). Each of these Ministries and their Agencies will play a lead role in the implementation of specific aspects of the policy in line with their mandates. Currently, a team with representatives from each of these four ministries has prepared a joint Cabinet Memo for the policy to be submitted to Cabinet for approval.

A situational analysis conducted as part of the aflatoxin policy development process revealed that:

- Awareness about aflatoxin, its effects and management is low among policy makers, value chain actors (in the food, livestock and cultured fish sectors) and even researchers and professionals in the food, livestock, fisheries, health and trade sectors.
- Capacities (financial, human, equipment, infrastructural, logistical) are inadequate for implementing aflatoxin research and management activities.
- Several institutions in Ghana have past and ongoing projects that aim to address aflatoxin problem, but these projects are skewed towards detection of aflatoxins in food crops but not livestock, cultured fish and their feed. Furthermore, only a few of the projects focus on mitigation of aflatoxins and assessment of its health, economic, trade and social impacts. Thus, applying P-IMA will help provide evidence to justify the need for government, private sector and donors' investments in aflatoxin management and related issues that have received little attention.
- Strategies exist for the management of aflatoxin in food. Some of the strategies have proven to be highly effective and need to be widely disseminated and scaled up. However, some strategies are still at experimental stages and need further research and fine-tuning to make them usable.
- National maximum limits for aflatoxins have been set for only a few staple foods that are susceptible to aflatoxin contamination. For feed, maximum limits have been set for only poultry feed while none exists for other livestock and fish feed as well as livestock and fish products.

Based on these and other issues, the draft national policy for aflatoxin control in food and feed, among others, seeks to:

- Increase public awareness, advocacy, communication and demand for aflatoxin-safe food and feed.
- Strengthen teaching, research, technology development and transfer on aflatoxins.
- Strengthen surveillance systems for the detection of aflatoxin-related diseases in humans, livestock and fish.
- Create the enabling environment for increasing the production and marketing of aflatoxin-safe products in domestic and international markets.

- Mobilise resources for aflatoxin control activities.

A five-year implementation plan (2021-2025) has also been developed to ensure the implementation of the policy. The implementation plan details the estimated budget for each activity, the possible sources of funding and the roles of stakeholders. The funding sources identified include government of Ghana's budgetary support, development partners and donors' project support, public-private partnership arrangements, special fundraising, CSO/NGO support, and voluntary support from individuals and organisations. Currently, no financial commitments have been made by government or any other organisation for the implementation of the policy. This is because the approval of the policy by Ghana's Cabinet has been put on hold due to the dissolution of the previous cabinet on January 6, 2021 following the election of the new government in December 2020. Notwithstanding, the Ministers of all the four focal ministries have endorsed the policy during the high-level consultations held with them in 2020 and recommended the mobilisation of resources by stakeholders for the policy implementation. Furthermore, the government's transition team has listed the pending approval of the aflatoxin policy as a priority item that the incoming Cabinet should consider in the early stages of its work.

To ensure the effective implementation of the policy, this PPG is being sought to

1. Prioritise the strategies and activities in the implementation plan of the national aflatoxin policy using the STDF's P-IMA framework
2. Develop at least one convincing project proposal, based on prioritised actions in the implementation plan of the national aflatoxin policy, for funding by STDF and/or other donors.

This PPG application has been discussed with all the four focal ministries, i.e., MESTI, MOTI, MOFA, MOH, as well as the National Steering Committee for Aflatoxin Control (NSCAC) and some of its members, the Partnership for Aflatoxin Control in Africa (PACA) and AGRA (see the support letters attached).

The expected outcome of this project will be

- increased networking, collaboration and coordination of aflatoxin management activities among stakeholders to ensure effective use of resources for better outcomes.
- increased production and trade in aflatoxin-safe food products at the domestic, regional, continental, and international levels.

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

This request is supported by the Ministry of Environment, Science, Technology and Innovation (MESTI), Ministry of Food and Agriculture (MOFA), Ministry of Trade and Industry (MOTI), and Ministry of Health (MOH) which will jointly own and implement the aflatoxin policy in collaboration with other agencies. As shown in Table 2 below, support letters have also been obtained from AGRA, which funded the aflatoxin policy and technical regulation development project, and the National Steering Committee for Aflatoxin Control (NSCAC), which has membership from 17 national institutions as well as PACA.

Table 2 List of organisations supporting this PPG application.

Type of organisation	Name	Role in the PPG
Public	<ul style="list-style-type: none"> • Ministry of Food and Agriculture (MOFA) • Ministry of Environment, Science, Technology and Innovation (MESTI) • Ministry of Trade and Industry (MOTI) • Ministry of Health (MOH) • Food and Drugs Authority (FDA) Ghana • Ghana Standards Authority (GSA) • Ghana Health Service 	The responsible officers in these public ministries and agencies will participate in the prioritisation activity and in proposal development while ensuring that their mandates are well addressed and integrated.
Private	<ul style="list-style-type: none"> • Farmers Organisations Network in Ghana (FONG) • Ghana Grains Council (GGC) 	<p>FONG will participate in the project to ensure that farmers issues are well addressed.</p> <p>GGC, among others, advocates for grains standards development, supports its members to identify markets, develop tailor-made training programs, provide information and business advisory services. Hence, their participation in the PPG is critical.</p>
NGO	<ul style="list-style-type: none"> • EatSafe Ghana (an NGO based in Ghana) 	EatSafe Ghana conducts food safety education and advocates for improved food safety infrastructure hence they will contribute immensely in this PPG
Academic & Research	<ul style="list-style-type: none"> • Ghana College of Physicians and Surgeons (Faculty of Public Health) • CSIR-STEPRI • CSIR-FRI 	These academic and research institutions will be relevant in prioritising research activities, which is critical in the midst scarce resources. CSIR-STEPRI will also coordinate the project.
Independent	<ul style="list-style-type: none"> • National Steering Committee for Aflatoxin Control (NSCAC) 	NSCAC was established in December 2018 to assist in the development of the national aflatoxin policy, spearhead awareness creation on aflatoxins; facilitate coordination of aflatoxin activities among various ministries, facilitate domestic and international resources mobilisation; and seek partnerships with local and international organisations. Its participation in the PPG is relevant.
Continental (Public)	Partnership for Aflatoxin Control in Africa (PACA)	PACA will provide guidance because of their rich experience in aflatoxin management activities.
Continental (Funder)	Alliance for a Green Revolution in Africa (AGRA)	AGRA funded the aflatoxin development projects hence their participation in the PPG will be strategic as it will enable to identify gaps that should be prioritised for their funding.

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.

One of the expected outputs of the AGRA-funded national aflatoxin policy and technical regulation project is development of at least two proposals submitted to AGRA and other donors for funding. Accordingly, some proposals have been prepared and submitted but none has been accepted for funding. This could be due to the limited capacities for competitive proposal development, poor prioritisation of issues, among others. Thus, this PPG will help us bring together interested and relevant stakeholders and experts to prioritise the actions in the aflatoxin policy and develop a project proposal. This project also builds on the just ended National Aflatoxin Sensitisation and Management project (2018-2020) implemented by the Ghana Standards Authority and partners with funding support from AGRA. The aim of the project was to improve food safety and food security through increased knowledge about aflatoxin, its impacts and management with a focus on farmers and value chain actors.

The project is also in line with Ghana's efforts towards achieving the Sustainable Development Goals; (SDG) one (no poverty), SDG two (zero hunger), SDG three (Good health), SDG eight (economic growth), SDG nine (industry and infrastructure), SDG ten (no inequality) and SDG seventeen (partnerships) by 2030. The project will be developed within the context of Ghana's commitment to achieving the AU's Agenda 2063 and the 2014 Malabo Commitment of ending hunger and promoting and boosting inter and intraregional trade in agricultural commodities by 2025. The project will also be critical for the realisation of the African Continental Free Trade Area (AfCFTA) Agreement in which food safety issues have been integrated and will be implemented in accordance with the provisions of Annex 7 on SPS Measures. Furthermore, the project aligns with the Strategy (2013-2022) of the AU's Partnership for Aflatoxin Control in Africa (PACA) and the ECOWAS Aflatoxin Control Action Plan (ECOACAP) that was adopted by ECOWAS Ministers of Agriculture in 2015.

This PPG will complement the efforts already made by STDF in Malawi that enabled their public and private sector stakeholders to work together to develop the Malawi Programme for Aflatoxin Control (MAPAC), which has demonstrated its success in strengthening collaboration, leveraging resources and facilitating a coordinated response to aflatoxin control. This PPG also links with the STDF Project Grant awarded to Burkina Faso, Ghana's trading neighbour, for the reduction of aflatoxin contamination in maize. This PPG will draw lessons from these two projects.

The project is situated within the National Medium-Term Development Policy Framework (2018-2021) and the Coordinated Programme of Economic and Social Development Policies (2017-2024) that acknowledge the problems of the agriculture, nutrition and health sectors and make provisions for addressing them. By this, the project will contribute to national programmes such as the 'Planting for Food and Jobs', 'Planting for Export and Rural Development', and 'Rearing for Food and Jobs'. It also contributes to the national trade objectives of ensuring that technical as well as SPS requirements do not constrain the export potential of Ghana, improving competitiveness of products, increasing export potential, and enhancing industrialisation through the 'One District One Factory' programme as some of the participating industries produce products that can be contaminated with aflatoxins. The project also aligns with Ghana's health sector objective of promoting safe and healthy eating and good

nutrition and enhancing access and timely use of accurate reliable data and strengthening research to inform policy and management decision-making.

5. Have you discussed this 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.

This proposal has been discussed with Dr. Dorothy Effah, the AGRA Officer responsible for the Aflatoxin Policy project. AGRA may fund some aspects of the proposal that fall within their programme objectives. A proposal to develop and maintain an innovation platform for aflatoxin control in food was accepted by the Forum for Agricultural Research in Africa (FARA) for funding under their Transformation of African Agricultural Technologies (TAAT) programme but due to some challenges on their part the funds have not yet been disbursed. It is therefore likely they will also support the project if they have funds available. Development partners such as USAID, USDA, and Mexican Embassy in Ghana participated in the policy development process at various stages and have pledged their support for its implementation.

The potential funding sources identified to support the implementation of the national aflatoxin policy include government of Ghana's budgetary support to Ministries, Departments and Agencies (MDAs), development partners and donors' project support, public-private partnership arrangements, special fundraising, CSO/NGO Support, and voluntary support from individuals and organisations. Development partners and donors that have either funded or shown interest in food safety and aflatoxin projects in Ghana include FAO, WFP, USAID, USDA, AfDB, WHO, AGRA, Canadian Government through the Modernising Agriculture in Ghana (MAG) Programme, UNIDO, WTO, ECOWAS, European Commission, Netherlands Embassy and Mexican Embassy in Ghana.

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

In line with the guiding principles of the National Policy for Aflatoxin Control in Food and Feed, the project will be gender sensitive and will draw attention to the vulnerability and impact of aflatoxins on women and children especially and respond to the gender dimensions of food safety, health and trade. The stakeholders and experts participating in this project will be selected such that there is fair representation of women, men and youth as well as rural and urban value chain actors. The project proposal to be developed will also be guided by the principle of gender sensitivity and inclusivity. Environmental sustainability is also a guiding principle in the aflatoxin policy hence the proposals to be developed will promote strategies that are environmentally sustainable in line with international and national climate change adaptation and biodiversity protocols.

II. IMPLEMENTATION & BUDGET

7. 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.

This PPG will be implemented by a consultant to be provided by STDF. The Science and Technological Policy Research Institute represented by Dr. Rose Omari will coordinate the

project activities at the national level. Dr. Omari is the most suitable person because she is the coordinator for the National Aflatoxin Control and Technical Regulation project being funded by AGRA.

Key activities to be implemented are:

- Prioritisation of aflatoxin-related control activities based on the implementation plan of the national aflatoxin policy using the STDF's P-IMA framework
- Development of a convincing project proposal that can be accepted for funding by STDF and/ or other donors.

8. 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.).

Activity	Responsible	Estimated Budget (US\$)	Alternative budget if COVID restrictions does not allow the Consultant to travel
Purchase of online P-IMA tool (D-Sight Software)	Consultant	7,000	7000
Workshop for the identification and prioritisation of aflatoxin research and intervention activities using STDF's P-IMA framework	Consultant	10,000 (costs of workshop facilities, DSA for participants) 7,500 (travel, DSA, and fee for consultant)	10,000 (costs of workshop facilities, DSA for participants) 3,000 for internet and virtual meeting platform
Development of one project proposal through workshops facilitated by a consultant	Consultant	10,500 (Meeting venue, food, Transport costs for local participants) 8,000 (Consultant's fee and travel costs, DSA)	10,500 (Meeting venue, food, Transport costs for local participants) 3,000 for internet and virtual meeting platform
Total		43,000	33,500

Appendices

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

Appendix 2: Curriculum Vitae and record of achievements for any consultants proposed to implement this PPG.