STDF | STANDARDS and TRADE DEVELOPMENT FACILITY

STDF PROJECT PREPARATION GRANT (PPG)

Application form

SUMMARY

PPG Title	**Assessing Laboratory Testing Needs and Business Case Tanzania**
Applicant	**GREENCERT LIMITED (A Subsidiary of the Tanzania Horticultural Association)** Plot 2, Uzunguni Area, Ben Bella Road, P.O. Box 2592 Arusha-Tanzania **Cell: +255 754 881 336** **Fax/Tel: +255 27 254 4570** www.greencert.co.tz
Country/region	United Republic of Tanzania
Contact	Eric Mwesigwa **General Manager,** **GREENCERT LIMITED** Plot 2, Uzunguni Area, Ben Bella Road, P.O. Box 2592 Arusha-Tanzania **Cell: +255 754 881 336** **eric.mwesigwa@greencert.co.tz** **www.greencert.co.tz**

1. What specific SPS problem(s) is affecting your country/region?

Enterprises dealing in export of agrifood products in Tanzania face challenges in accessing testing services to certify compliance with international standards. The challenges limit market access of these products and consequently impact on agriculture, trade and economy of the country in general. In Tanzania, agriculture is a critical economic sector, representing 23% of Tanzania's Gross Domestic Product (GDP), (URT, 2016)[1]. Additionally, it is the primary source of food, industrial raw materials, and foreign exchange earnings. Further, the agriculture sector is the main employer with about 66.5 percent of the country's workforce, which supports livelihoods of the majority of Tanzanians.

With an annual food production capacity exceeding 15 million metric tons, Tanzania has significant potential to enhance food security and reduce reliance on imports. However, food safety remains a critical challenge due to inadequate implementation of Sanitary and

[1] 1URT, National Five-Year Development Plan 2016/17 – 2020/21: Nurturing Industrialization for Economic Transformation and Human Development. (2016). Ministry of Finance and Planning. Dodoma, Tanzania.

Phytosanitary (SPS) measures and weak traceability systems. The magnitude of the problem is not well known because there is limited access to credible laboratory services in the country. As a result, most agricultural exports are either not tested or tested by non-accredited laboratories. Only a few exporters afford testing services from foreign countries. These challenges lead to frequent rejections of Tanzanian agri-food exports in markets like the EU and the US, limiting the country's competitiveness and access to premium markets. For instance, in the January to December 2019, more than 17 consignments from Tanzania destined to EU and Switzerland were intercepted by the European Union as per the extract from the EUROPHYT system[2]. According to the EU Rapid Alert System for Food and Feed (RASFF),[3] it is observed that a considerable number of consignments from Tanzania has been intercepted due to contaminants ranging from Salmonella spp., unauthorized pesticides as well maximum residues of chemicals. Almost 10 consignments in 2024 have been notified in the RASFF. Hence strengthening testing and certification services in Tanzania is crucial for boosting exports and ensuring domestic food safety.

The SPS Agreement also provides for adoption of SPS measures by member countries to ensure that traded food products do not contain harmful substances or pathogens that could pose a risk to human health.

For Tanzania, the country has in place, the basic necessary framework for SPS management but the overall level of SPS and quality management remains weak. The current preparedness in complying with the international requirements for market access and share is clearly inadequate as viewed from regulator's technical capacity, competence and resource allocation. Other various factors include: lack of an umbrella policy, coherent legal institutional framework, focused organizational oversight, coordination, harmonization and rationalization of activities and allocation of adequate resources, making Tanzania lag behind competitors.

The problem of non-compliance with SPS requirements, as well as the limited access to testing and certification services in Tanzania, is huge and was recently evidenced by findings of the assessment conducted by CAB International (CABI) and KO Associates LLP (KOA) as part of the United States Department of Agriculture (USDA) funded Trade of Agriculture Safely and Efficiently in East Africa (TRASE) project[4]. The findings include but not limited to the following:

a) High Levels of Pesticide Residues and Contaminants in food and food products, primarily horticultural products. The assessment documented rejection in global markets due to excessiveness in residues, mycotoxins (e.g., aflatoxins in maize and groundnuts), and heavy metals.

b) Non-Compliance with Microbiological Safety Standards for fresh produce, meat, fish, and dairy often fail microbial safety tests for *E. coli*, *Salmonella*, and *Listeria*, limiting their acceptance in the EU, Middle East, and other key markets.

[2] European Union Notification System for Plant Health Interceptions – EUROPHYT https://food.ec.europa.eu/plants/plant-health-and-biosecurity/europhyt_en

[3] Rapid Alert System for Food and Feed (RASFF)- https://food.ec.europa.eu/food-safety/rasff_en

[4] Assessment of SPS systems in EAC Partner States August 2020 as part of the Trade of Agriculture Safely and Efficiently in East Africa (TRASE) project

c) Antimicrobial Residues in Animal Products: Poultry, dairy, and beef products frequently contain antibiotic residues above permissible limits due to inadequate enforcement of veterinary drug withdrawal periods.

d) Mycotoxin & Aflatoxin contamination in maize and groundnuts remains a critical SPS issue affecting food safety and trade.

e) Limited accredited testing facilities forcing exporters to rely on costly and time-consuming foreign laboratories. For instance, insufficient mycotoxin testing capacity always delays regulatory approvals and restricts access to premium markets.
f) Public laboratories give low priority to testing for certification of compliance with voluntary standards.

A report of an assessment of laboratories with potential for ISO/IEC 17025 accreditation to support commercial agriculture in Tanzania[5] depicts that food safety laboratories rely on national government for funding which is not adequate. There is also no inventory or a formal network of laboratories in the country as well as the necessary accreditations of food safety laboratories for trade facilitation in Tanzania. There are two laboratories accredited for tests covering heavy metals, mycotoxins, and microbiological contaminants but no laboratory is accredited for pesticide residue testing. The Tanzania Plant Health and Pesticides Authority (TPHPA) is mandated to research and regulate on pesticides but has no modern equipment for residues testing as well as the required necessary competence for operationalizing modern laboratory facilities. The National Fish Quality Control Laboratory (NFQCL) has implemented a pesticide residue monitoring plan for fish, as a requirement for exporting to the EU market but has no modern equipment for heavy metal analysis.

Also, the animal health diagnostic laboratories, Tanzania Veterinary Laboratory Agency (TVLA) and Sokoine University of Agriculture (SUA) are not accredited, and testing is not regularly available due to funding issues and/or lack of resources. Currently, private sector sends samples for diagnostic testing to laboratories outside of the country which is expensive and time-consuming. Funds and critical resources are lacking in the central and zonal laboratories and there is no residue monitoring for animal products. Kilimanjaro Clinical Research Institute (KCRI) has the capacity to undertake zoonotic disease diagnosis, but KCRI and SUA are not authorised for import and export testing.

Addressing Tanzania's SPS challenges requires a collaborative multi-stakeholder approach that strategically integrates private-sector laboratories with existing government systems to enhance testing efficiency and capacity. With international accreditation and advanced technologies, private-sector facilities can augment public laboratory infrastructure, providing supplementary services for contaminants, pesticide residues, and pathogens while adhering to SPS requirements. Such synergy would help reduce export rejections, improve market access, and bolster investor confidence in Tanzania's agricultural sector, while optimizing the utilization of public resources. Importantly, private-sector engagement is envisioned not as a parallel structure but as a complementary initiative, fostering innovation and operational efficiency within the broader national food safety framework. This collaboration aligns with government priorities to strengthen laboratory networks, as outlined in Tanzania's Agricultural Sector Development Strategy II (2020–2030), ensuring that public and private

[5] ASSESSMENT OF LABORATORIES WITH POTENTIAL FOR ISO/IEC ACCREDITATION TO SUPPORT COMMERCIAL AGRICULTURE IN TANZANIA. URT, MOA – Towards Accreditation of Laboratories for Support of Agri-Business May 2020

efforts collectively address testing gaps. Through reinforcing existing systems, this approach supports exporters in meeting international standards and enhances domestic food safety outcomes, contributing to public health and food security without duplicating governmental mandates.

The STDF's work on PPPs (2012)[6] has highlighted opportunities for private sector labs to complement and strengthen government laboratory testing capacity (e.g. in Uganda). In Tanzania, the public and private sector in Tanzania have a track record of working together to strengthen the planning and delivery of extension, training and certification services for horticulture exports.

2. What is the purpose of this PPG?

1. Application of an SPS-related capacity evaluation or prioritization tool	☐
2. Preparation of a feasibility study that precedes project development	☒
3. Preparation of a project proposal for consideration by the STDF or other donors	☒

This PPG is requested to conduct a feasibility study to assess the potential impact and economic viability of establishing and operationalizing a Private Sector led, ISO 17025 accredited SPS testing laboratory facility in Tanzania, with diagnostic capacities for analytical chemistry, microbiology and plant health along the food safety value chains, with an initial focus on horticulture, grains, and traditional agricultural commodities such as coffee, tea, cashew etc.
The Tanzania Horticultural Association (TAHA) Strategic Plan 2021-2027 envisions its subsidiary conformity assessment body, GreenCert Limited, as a one stop centre for services pertaining to inspections, certifications, auditing, capacity building as well as laboratory testing and analysis.
The global food safety testing market is estimated to be valued at USD 10.5 billion in 2020 and is projected to reach USD 12.3 billion by 2021, recording a compounded annual growth rate (CAGR) of 16.6%. Growing concerns among consumers for processed food due to the outbreak of COVID19 across the globe will increase the security and safety of food products, thus driving the food safety testing industry growth. However, this may not be the case in EAC, SADC countries including Tanzania where the priority is access to food, regardless of whether it's safe or not, particularly through informal markets and rural economies.

In Tanzania, like many other African countries, food safety lab testing services are limited and/or not easily accessible. Challenges associated with access to food safety laboratory testing are mainly exacerbated by constraints in resources and infrastructure, a lack of adequate regulatory and control systems for monitoring contaminations. Due to inadequate facilities for monitoring microbiological and chemical contaminants in food the institutionalization of food safety regulations in Africa has been difficult. As a way to address some of the challenges associated with food safety testing at ports of entry, and in remote areas, the Tanzania Horticultural Association, through the subsidiary conformity assessment

[6] See: https://standardsfacility.org/sites/default/files/STDF_PublicPrivatePartnerships_EN_0.pdf

entity GreenCert Ltd. proposes an ISO 17025 accredited laboratory for food safety testing for the agro-food sectors S

Furthermore, TAHA-GreenCert is collaborating with the UK-Tanzania Green Growth Facility (GGF) funded by FCDO and implemented by Palladium Group. Among other objectives, this project aims to bolster the competitiveness of Tanzania's agri-food exports by reinforcing the integrity of certification and testing process.

GreenCert has demonstrated testing capabilities through its technical expertise and some analytical equipment as well as a desire to set a global standard for rapid turnaround times. These strengths ensure that its testing services shall meet international standards, i.e. ISO 17025 thereby bolstering confidence among clients and facilitating market access.

However, several gaps remain that need to be fully addressed. This PPG will be used to carry out a detailed assessment of GreenCert's existing lab testing facilities and services, including a feasibility study. Subject to the findings of the feasibility study, the PPG may also develop a targeted project that addresses key gaps to strengthen GreenCert's position as a leading testing service provider that meets the needs of private and public stakeholders in Tanzania.

In this regard, the feasibility study would assess needs and opportunities, including the expected costs (upfront investment and operating cost) and benefits of:

- Enhancing both equipment and personnel resources to scale up testing capacity and maintain efficiency amid rising demand for laboratory testing in key agricultural value chains
- Evaluating and incorporating emerging testing technologies and digital solutions to improve accuracy and reduce processing times.
- Streamlining processes to rapidly align with evolving international standards and market requirements by broadening the scope of testing services to cover additional commodities and niche sectors, thereby increasing competitiveness.

This feasibility study would therefore ascertain a business case/viability and development of a business plan for strengthened lab testing capability.

3. How was this PPG developed?

The PPG was developed by TAHA in close consultation with GreenCert Ltd. and relevant government authorities in Tanzania including the Ministry of Agriculture through the Tanzania Plant Health and Pesticides Authority, as well as the Tanzania Bureau of Standards.

The PPG was shared with the Ministry of Agriculture through the Tanzania Plant Health and Pesticides Authority (TPHPA) and Tanzania Bureau of Standards (TBS for review and comment prior to finalization. ensuring alignment with Tanzania's Agricultural Sector Development Strategy II (2020–2030) The proposed laboratory initiative directly supports Tanzania's goal of strengthening SPS compliance and export competitiveness, as outlined in the TAHA Strategic Plan (2021–2027) and the IPPC Strategic Framework (2020–2030).

The PPG request was also discussed with theUK Foreign and Commonwealth Office (FCDO) Green Growth Facility through the Palladium Group, whose comments have been incorporated and used to refine it further.

Support letters from (TPHPA, TBS, Palladium,) endorsing the proposed PPG are submitted together with this application.

As part of its collaboration with the UK-Tanzanian Green Growth Facility (GGF), Fera Science UK, a leading laboratory testing provider in the UK, would work alongside GreenCert in implementation of this PPG. The PPG has therefore been developed under the auspices of the Tanzania-GGF partnership and shall endeavour to leverage GGF's strategic support and resources to advance GreenCert's testing capabilities.

This PPG identifies key areas for STDF support to attain TAHA's vision identified in the Strategic Plan, of which a particular area is conducting a feasibility for establishing a laboratory testing services to service the ever-growing agrifood sector.

The draft PPG has been presented to the TAHA management for feedback. Feedback received has been used to further refine and align the PPG with the Tanzania Agricultural Sector Development Strategy II (ASDS-2) 2020-2030, the AU Plant Health Strategy 2022-2036, the Food Safety Strategy for Africa: 2022 – 2036, IPPC Strategic Framework 2020-2030,

4. Have you discussed this PPG request – or funding for the project proposal which would result from it – with potential donors?

The Tanzania Horticultural Association through various partnership frameworks, is envisioning a fund mobilization for funding the project following the completing of this PPG (Feasibility study).

In collaboration with the Palladium Group, implementing the FCDO GGF, contributions from private investors on infrastructure are being proactively discussed.

The Fera Science UK is positioned to become a strategic laboratory partner for GreenCert beyond the feasibility study. Fera Sciences has the scientific and regulatory expertise to provide consultancy services to help with every step of the regulatory framework process.

5. How does this PPG fit into the national/regional SPS context?

The African Union Commission has developed an African SPS Policy Framework and a Food Safety Strategy for Africa. Among the strategic actions of the strategy is to improve public and private laboratory infrastructure, analytical capacity and performance, laboratory networking, twinning, and designating reference laboratories.

The AUC Food Safety Strategy is an important tool in the implementation of the IPPC framework as well as the continental SPS policy framework for Africa endorsed by AU in 2020. The TAHA Strategic Plan (2021-2027) aims to support these initiatives by developing and offering laboratory testing programs for compliance with SPS requirements in

international trade of agriproducts, facilitating the sharing of information, and enhancing collaboration with partners and stakeholders.

Further TAHA-GreenCert supports the AU Plant Health Strategy for Africa 2022-2036 through strengthening its institutional capacity and coordination for plant health systems through its subsidiary conformity assessment entity. TAHA-GreenCert compliments the AUC strategy by improving and building capacities for research, pest monitoring, and management strategies. TAHA has been building the SPS capacity of various stakeholders in East Africa including NPPOs from member states. Since establishment, GreenCert has trained over 10,000 small holder farmers in Tanzania on topics such as food safety and standards compliance.

Further this PPG by a large measure has sought to align with the IPPC strategic framework 2020-2030 aiming to elevate laboratory testing capacity to respond to plant health challenges by harnessing science and technology to safeguard plant health.

To achieve the vision of pioneering TAHA-GreenCert as a premier testing and analysis centre, that is private sector driven and inclusive, a comprehensive assessment (and feasibility study) that is participatory and inclusive needs to be conducted.

6. Who will implement the PPG and how?

In partnership with Fera Sciences UK, TAHA shall designated two experts to be hired by STDF to support GreenCert's team in implementing the PPG. TAHA- will have the overall coordination of the activities.

The Palladium Group also has a consultancy team of experts in Business case assessment that will provide support as needed. Essentially there shall be a need for a team to comprise of experts that have in-depth knowledge in conducting of feasibility studies, opportunity analyses, economic studies, strategy formulations business plans for various sectors as needed for the broader organisation.

The proposed initiative faces risks including insufficient government collaboration, accreditation delays, low demand for private testing, financial sustainability challenges, supply chain disruptions, resistance from public laboratories, and technological obsolescence. To mitigate these, the project will prioritize proactive engagement with government entities (TPHPA, TBS) through formal agreements and integration into national SPS frameworks to ensure alignment with public lab priorities and avoid duplication.

7. Budget

Activity	Description of Sub Activities	Cost Items	Unit	Quantity	Unit Cost ($)	Total Cost ($)
Inception Workshop	Stakeholders Consultative Workshop comprising of difference Public and Private Sector Value Chain Actors approximately 30 participants (including	Conference Package (30 pax)	Days	2	$ 1,800	$ 3,600
		Stationeries	Pax	30	$ 25	$ 750
		DSA for Participants	Pax	30	$ 100	$ 3,000

	women and youth organizations)					
Technical Assessment & Feasibility Study	Conducting Comprehensive Literature Review and Desk Assessment	Consultancy Fees & DSA for 3 Experts @USD 600 for 3 days	Days	3	$ 1,800	$ 5,400
	Stakeholder Engagement Sessions with Farmers, Food Processors, Key Exporters and Laboratory Service Providers in Tanzania	Consultancy Fees & DSA for 3 Experts @USD 600 for 3 days	Days	3	$ 1,800	$ 5,400
	Consultations with Regulatory Agencies i.e., TBS, TPHPA and Academia	Consultancy Fees & DSA for 3 Experts @USD 600 for 5 days	Days	5	$ 1,800	$ 9,000
	Consultations with Support Agencies and Development Partners	Consultancy Fees & DSA for 3 Experts @USD 600 for 3 days	Days	3	$ 1,800	$ 5,400
	Gap Assessment of the current Laboratory Infrastructure in Tanzania	Consultancy Fees & DSA for 3 Experts @USD 600 for 3 days	Days	2	$ 1,800	$ 3,600
	Technical Workshop for Data Analysis and Interpretation for different consultations and engagements	Consultancy Fees & DSA for 3 Experts @USD 600 for 3 days	Days	2	$ 1,800	$ 3,600
Proposal and Business Case Development	Technical/Expert Consultation on Proposal Development	Consultancy Fees & DSA for 3 Experts @USD 600 for 3 days	Days	2	$ 1,800	$ 3,600
	Proposal Validation Workshop to Stakeholders	Conference Package (30 pax)	Days	1	$ 1,800	$ 1,800
		Stationeries	Pax	10	$ 25	$ 250
		DSA for Participants	Pax	10	$ 100	$ 1,000
Grand Total						**$ 46,400**

NOTE: ***DSA means Daily Subsistence Allowance covering Meals, Accommodation and Incidental Expenses during travel or working away from the duty station***

ATTACHEMENTS

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

a) *Letter form the Tanzania Horticultural Association*
b) *Letter from the Tanzania Plant Health and Pesticides Authority*
c) *Letter from the Tanzania Bureau of Standards*
d) *Letter from the Green Growth Facility (Palladium Group)*