STDF PROJECT GRANT APPLICATION FORM

STDF/PG/481

Project Title	**Strengthening the Phytosanitary Capacity of Zambia's Plant-based Export Sectors**
Objective	Improve Zambia's phytosanitary capacity and increase the confidence of trading partners, especially SADC Member States, through compliance with their phytosanitary requirements
Budget requested from STDF	US$454,675
Total project budget	US$629,697
Full name and contact details of the requesting organization(s)	Ministry of Agriculture Zambia Agriculture Research Institute P/B 07, CHILANGA **ZAMBIA** Telefax: +260 211 278130
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Abbreviations and Acronyms

AAPBP	Australia-Africa Plant Biosecurity Partnership
ADSP	Agricultural Development Support Project
ASTF	Africa Solidarity Trust Fund
ASYCUDA	Automated System for Customs Data
CABI	Centre for Agriculture and Biosciences International
CBTA	Cross Border Traders Association
COMESA	Common Market for Eastern and Southern Africa
DRC	Democratic Republic of Congo
DTIS	Diagnostic Trade Integration Study
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
IPPC	International Plant Protection Convention
ISPM	International Standard for Phytosanitary Measures
IT	Information technology
LDCs	Least-Developed Countries
MAL	Ministry of Agriculture and Livestock
MCTI	Ministry of Commerce, Trade and Industry
MOA	Ministry of Agriculture [Zambia], formerly MAL
Mt	metric tonne
NPPO	National Plant Protection Organization
OSBP	One Stop Border Post
PCE	Phytosanitary Capacity Evaluation
PHI	Plant Health Inspector
PIP	Plant Import Permit
PQPS	Plant Quarantine and Phytosanitary Service
REC	Regional Economic Community
RPPO	Regional Plant Protection Organization
SADC	Southern African Development Community
SNDP	Sixth National Development Plan
SOP	Standard Operating Procedure
SPS	sanitary and phytosanitary
SPS Agreement	WTO Agreement on the Application of Sanitary and Phytosanitary Measures
STDF	Standards and Trade Development Facility
TFA	WTO Trade Facilitation Agreement
TID	Trade Information Desk
ToR	Terms of Reference
USAID	United States Agency for International Development
WBG	World Bank Group
WTO	World Trade Organization
ZARI	Zambia Agriculture Research Institute
ZDA	Zambia Development Agency
ZEGA	Zambia Export Growers Association
ZRA	Zambia Revenue Authority

BACKGROUND & RATIONALE

1. Relevance for the STDF

This project is an ideal fit with the work of the Standards and Trade Development Facility (STDF) as a global partnership that supports developing countries such as Zambia in building their capacity to implement international sanitary and phytosanitary (SPS) standards, guidelines and recommendations as a way to manage their human, animal and plant health status and improve their ability to gain or maintain access to markets. The project, entitled "Strengthening the Phytosanitary Capacity of Zambia's Plant-based Export Sectors," relates to three relevant areas for the STDF.

(a) The identification, development and dissemination of good practice in SPS-related technical cooperation, including the development and application of innovative and replicable approaches

Across the various project outputs, this project seeks to bring together relevant public sector agencies and private sector representatives to improve their technical understanding of risk-based approaches to managing SPS-related issues in the trade of agricultural products, particularly plant products. Furthermore, the project seeks to develop a shared vision across both the public and private sectors of how Zambia's current SPS management systems can and should be changed to facilitate safe trade and enhance access to markets. While some of the methodologies proposed for project implementation have been utilised in other regions of the world, this project – focused on Zambia and intra-regional trade in plant products – essentially trials these capacity building approaches for the Southern African Development Community (SADC) in a manner that is similar to activities under the STDF-funded project, *Breaking barriers, facilitating trade* (STDF/PG/346) which pilots tools and approaches in some Member States of the Common Market for Eastern and Southern Africa (COMESA). The project will therefore identify good practice and innovative approaches that could be utilised by other Member States in SADC and COMESA.

However, the truly innovative approach proposed in this project relates to the development of a regional plant quarantine pest surveillance programme for SADC. The approach goes beyond harmonisation of SPS standards and measures/policies of Member States. In adopting such an approach, the SADC region in its entirety is the area endangered by a pest of potential economic importance that is not yet present there, or present but not widely distributed and being officially controlled. Official control could constitute active surveillance undertaken by some Member States as part of a programme benefitting all SADC Member States.

(b) The use of regional approaches to address SPS constraints

While the goal of this project is a national one focused on Zambia, the approach adopted has a regional context – one that could be emulated in other SADC Member States. More importantly, one of the project outputs enables the development of (i) a regional plant quarantine pest surveillance programme for SADC and, (ii) a draft policy paper on cost-sharing/resourcing arrangements for regional SPS-related operational activities (such as pest surveillance). Although a Zambian-led initiative, it directly involves representative experts/officials from other SADC Member States, and the results constitute strategic interventions identified in the SADC Regional Strategy on Plant Health (Theyse 2014). With the number of pests[1] and quarantine pests[2] that Zambia shares with its neighbouring SADC Member States, a regional (rather national) surveillance programme is a more efficient way to ensure compliance with various International Standards for Phytosanitary Measures (ISPMs) relating to pest free areas or places of production and enable appropriate phytosanitary certification for exported plant products. The benefits of such an approach will be shared amongst SADC Member States.

[1] Any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products (ISPM 5. 2016. Glossary of phytosanitary terms. Rome, IPPC, FAO.)

[2] A pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled (ISPM 5. 2016. Glossary of phytosanitary terms. Rome, IPPC, FAO.)

(c) STDF work on cross-cutting topics of common interest

This project directly links with STDF research work on the implementation of SPS measures to facilitate safe trade in Malawi, South Africa and Zambia (Rathebe 2015). Action required to follow through on Rathebe's report (2015) recommendations applying specifically to Zambia will likely be facilitated by this project. Similarly, the STDF Report (Walker 2013) on promoting the effective participation of SADC Member States in the WTO SPS Committee is of relevance. Walker (2013) considers limited institutional capacity to be a major constraint to overall implementation and effectiveness of the SPS Agreement. This project will contribute to improvements in the institutional capacity of Zambia's National Plant Protection Organization (NPPO), as well as the country's ability to gain and maintain market access for its plants and plant products.

An earlier STDF study (Magalhaes 2010) concluded that at the centre of the many challenges to address SPS issues is the absence of national strategies to deal with food safety, animal and plant health matters. This project directly addresses the need to develop a plant health strategy guiding future operations of Zambia's NPPO. In the shorter term, the development of such a strategy is unlikely to affect the ability of individual NPPO staff members to function effectively day-to-day. It will however, help in the allocation of limited resources to effect necessary changes in Zambia's phytosanitary regulatory system alongside other trade facilitating initiatives in the public and private sectors.

2. SPS context and specific issue/problem to be addressed

Put simply, the problem this project will contribute to addressing is the need for agriculture-based export growth in Zambia. The SPS context for the project is set out below under several headings covering: the region, the institutional framework, the economy and the place of agriculture, trade in agricultural products and SPS issues, and Diagnostic Trade Integration Studies (DTIS) and capacity evaluations.

The recent STDF-supported report (Rathebe 2015) entitled *The implementation of SPS Measures to facilitate safe trade: Selected Practices and Experiences in Malawi, South Africa and Zambia*, also provides useful contextual information on Zambia and an overview of the SPS situation in Zambia, especially the institutional framework for the management of SPS matters. Similarly, COMESA's *Breaking barriers, facilitating trade* STDF Project Grant Application (STDF/PG/346) provides a comprehensive description of the SPS context and SPS-related issues in the East and southern African region. These two STDF-supported project documents highlight a number of SPS issues that are also to be addressed in this project, which focuses specifically on enhancing Zambia's phytosanitary capacity in practical ways that improve the credibility and functionality of Zambia's NPPO, and Zambia's regional trade opportunities.

Zambia and the southern African region

Zambia is a landlocked country bordered by eight countries – Tanzania in the north, Malawi in the east, Mozambique in the south-east, Zimbabwe in the south, Botswana and Namibia in the south-west, Angola in the west and the Democratic Republic of Congo (DRC) in the north-west. Regarding formal regional relationships, Zambia's eight neighbours are also SADC Member States and like Zambia, DRC, Malawi and Zimbabwe are part of COMESA, the 19-member and largest African regional economic organization. Both SADC and COMESA are recognised 'free trade areas' and have established formal SPS-related arrangements; the SADC SPS Annex to the SADC Trade Protocol which was signed in 2008, and the COMESA Regulations on the Application of Sanitary and Phytosanitary Measures (2009). Neither of these regional SPS-related initiatives have been implemented to the extent that they have had any significant effect on Member States' ability to comply with the World Trade Organization Agreement (WTO) on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) (Theyse 2014). Having said that, COMESA's SPS Regulations potentially bring those Member States that are not members of the WTO in line with the SPS Agreement and formally establishes the COMESA Green Pass, a commodity specific SPS certification scheme aimed at enabling the movement of food and agricultural products within COMESA (Ravelomanantosa 2012). On the other hand, with Seychelles accession to the WTO in 2015, all SADC Member States have WTO membership and thus, one of the foremost stated objectives of the SADC SPS Annex is to enhance the Member States' implementation of the WTO SPS Agreement.

Zambia's institutional framework for SPS management

As outlined in Rathebe (2015), and as a WTO member, Zambia has established a National Notification Authority, residing in the Ministry of Commerce, Trade and Industry (MCTI), as well as separate SPS Enquiry Points – food safety in the Ministry of Health; animal health and plant health originally in different parts of the former Ministry of Agriculture and Livestock (MAL), now in the Ministry of Livestock and Fisheries and Ministry of Agriculture (MOA), respectively. One of the primary beneficiaries of this project is the Plant Quarantine and Phytosanitary Service (PQPS), Zambia's plant health SPS Enquiry Point and National Plant Protection Organization (NPPO), which resides in the Zambia Agriculture Research Institute within MOA. As Zambia's NPPO, the PQPS has the responsibilities set out in Article IV of the International Plant Protection Convention (IPPC). Accordingly, key activities to be undertaken by the PQPS include: the issuance of phytosanitary certificates; the surveillance of growing plants; the inspection of consignments of plants and plant products moving in international trade; and, the conduct of pest risk analyses. The PQPS operates under provisions of the Plant Pests and Diseases Act CAP 233 (of 1994), the Noxious Weeds Act CAP 231 (of 1994) and associated regulations, yet this legislation does not formally recognise the roles and responsibilities of Zambia's NPPO or the country's SPS obligations as a member of WTO, SADC and COMESA, and a signatory to the IPPC.

Zambia's NPPO, the PQPS comprises 30 plant health inspectors (PHIs) with up to four involved in furthering their education or on secondment to other organizations at any one time. PQPS has 15 offices, including its headquarters at Mount Makulu Research Station at Chilanga (near Lusaka). PQPS offices servicing Zambia's main entry points at Chirundu, Kazungula, Livingstone (Victoria Falls), Sesheke (Katima Mulilo), Chipata (servicing Lunsunta, Mwami, Zozwe and Chanida), Ndola, Chililabombwe (servicing Kitwe, Kalulushi, Chingola and Mufulira), Nakonde and Kenneth Kaunda International Airport are supplemented by inland offices at Kafue, Kapiri Mposhi, Kabwe, Kasama and Mpika (http://www.pqpszambia.gov.zm/). More than half the PQPS staff are Lusaka-based at Mt Makulu, Chilanga or Kenneth Kaunda International Airport and service the commercial growers of floriculture and horticulture products predominant in the area. The thinly spread and limited staff resources in PQPS severely constrain Zambia's NPPO's ability to carry out effectively the functions of a NPPO, as set in Article IV of the IPPC, all the while meeting Zambia's SPS obligations, international and regional.

PHIs, appointed in terms of section 22 of the Plant Pests and Diseases Act, spend much of their time issuing plant import permits (PIP) and inspecting imports of plants and plant products at the border, and conducting pre-export field inspections, inspecting plants and plant products for export and issuing phytosanitary certificates. PQPS's only standard operating procedures (SOPs) cover these activities: Standard Operating Procedures for Export; SOP for Issuance of Phytosanitary Certificates; and Standard Operating Procedures for Import of Plants, Plant Parts and Plant Products and Issuance of Plant Import Permits. For importers and exporters, border processing of consignments of plants or plant products can be time consuming, and not conducive to viable trade of perishable commodities such as fresh fruit and vegetables. PHIs and traders alike have difficulties accessing up-to-date information on both Zambia's phytosanitary requirements for plants and plant product imports, and the phytosanitary requirements of importing countries. Thus, unjustified phytosanitary measures are applied to some imports and exports, while for others, measures may be inadequate for safe trade. The distinction between mandatory SPS requirements used to protect (human, animal, and) plant health and voluntary quality standards (and any associated certification) used to determine private value are not always clear.

Zambia's economy and the place of agriculture

Zambia's economy has historically been dependent on copper and vulnerable to fluctuating copper prices (Felgenhauer 2008). To diversify the economy and reduce the country's reliance on copper, the Government's intent has been to exploit other aspects of Zambia's rich resource base including agriculture. Yet although Zambia has experienced positive Gross Domestic Product (GDP) growth over the last decade or so, the growth of the agricultural sector has been stagnant to moderate (Tembo and Sitko 2013). In 2012, agriculture's contribution to GDP was only about 13%, a decline from 16% in 2001. In 2015 it has been estimated to be just 8.9% (CIA 2016). Despite this, agriculture in Zambia supports the livelihoods of over 70% of the population (WT/TPR/S/340), making it the most important source of livelihood and employment in Zambia. Furthermore, of the employed population in Zambia, more than 50% is in the agriculture sector (WT/TPR/G/340). Tembo and Sitko (2013) therefore emphasised the importance of improving the growth conditions for agriculture in Zambia to improve both overall GDP growth and the livelihoods conditions of many Zambians. As stated in WT/TPR/G/340, it is well recognised by the

Government that growth in the sector is critical for achieving inclusive growth and poverty reduction.

Zambia's trade in agricultural products and SPS issues

Crop production in Zambia is focused on maize, soya beans, wheat, sweet potatoes, groundnuts, mixed beans, rice and sunflower. Small-scale farming systems are dominated by maize, the most widely grown crop and most important staple food crop. Commercial farmers account for about 20% of the annual total maize production, totalling 3,350,671 Mt in 2014 (http://zambia.opendataforafrica.org/ accessed 25 December 2016). The purchase of maize from farmers is regulated by the Government, as is the export and import. Exports occur in years where production is surplus to domestic needs. Not surprisingly then, exports of plant products to the COMESA and SADC regions are dominated by crops other than maize – tobacco; wheat; other cereals such as sorghum and millet; cotton; root and tuber crops; and, coffee, tea, mate and spices (ZDA 2011). However, maize seed is exported in significant quantities. The European Union (EU) has been an important market for cut flowers, live trees, roots, bulbs and plants; and, vegetables, root and tuber crops; and, coffee, tea, mate and spices. Exported fresh vegetables include asparagus, mange tout, sugar snap peas, fine and bobby beans, baby corn, tender stem broccoli, okra, spring onions, patty pan squash, eggplant, cucumbers, baby carrots, leeks and various types of chillies. Exports of these reached a peak in 2003 with export earnings amounting to US$45,969,290 (Hichaambwa 2010). Both floriculture and horticulture sectors have shown promising increases in export volumes and earnings in the past. However, recent years have seen a decline in exports despite efforts to promote non-traditional exports from the Zambia Development Agency (ZDA) and assistance from the Zambia Export Growers Association (ZEGA) to provide an air freight service to EU markets. ZDA (2011) reported that export revenue from the floriculture sector decreased from US$26,900,000 in 2008 to US$22,600,000 in 2009 and, in the same period revenue from horticultural exports decreased from US$36,350,000 to US$16,623,000.

While the increasing cost of air freight to Europe has become a major impediment to financially viable export of vegetables and cut flowers, a range of factors have apparently contributed to the decline in exports of floriculture and horticulture products from Zambia. Over recent years, there has been an increase in the number of consignments of produce from Zambia that do not comply with the phytosanitary requirements of the EU – non-complying consignments are denied entry and destroyed by the authority concerned. For example, all cut flowers exported to the EU should comply with EU Directive 2000/29/EC2 and be free of harmful organisms for the EU. Most importantly, consignments of cut flowers exported to Europe must be accompanied by an official phytosanitary certificate stating the absence of specified quarantine pests in the consignments. PQPS records of EU notifications from the Netherlands show an overall increase in the number of non-complying cut flower consignments over the five-year period, 2010-2014. Non-complying consignments were found to have either, inadequate certification/false additional declaration (35% of non-complying consignments) or harmful organisms for the EU (65%). This cut flower example highlights the problems arising with the export phytosanitary certification and inspection system operated by Zambia's NPPO. If such problems are not addressed, Zambian produce may be subject to increased phytosanitary inspections and/or losses of market access. Worse still, the credibility of Zambia's NPPO will come under scrutiny and potentially impact on its ability to negotiate access for Zambian-produced plants or plant products to new markets or 'new' horticultural commodities to existing markets. As recently as 1 June 2017, Zambia was included in the latest update of the European Commission's *Non-EU Trade Alert List*, indicating that the number of consignments of export/commodity combinations into the EU that were intercepted with organisms harmful to plants during the preceding 12 months was considered to be an increased and pronounced phytosanitary risk.

Diagnostic Trade Integration Studies (DTIS) and phytosanitary capacity evaluations

Zambia undertook a Diagnostic Trade Integration Study (DTIS), which was validated in July 2005. In this DTIS, it was highlighted that most of Zambia's poor live in rural areas and earn their living through agriculture, and therefore agricultural growth and, specifically, agriculture-based export growth was a key to redressing Zambia's poverty problem. Furthermore, priority agricultural products which promised both rapid income and employment generation and longer term market sustainability were identified in the DTIS. Priority products included floriculture and fresh vegetables within the horticultural sector but any SPS-related concerns did not feature. Subsequent investment was directed to enhancing Zambia's capacity to formulate, coordinate and implement trade policy, and negotiate trade agreements. The PQPS is but one of several government agencies involved. Sixteen have been identified in the research for WBG's *Zambia–*

WTO TFA Validation and Reform Map, Zambia Investment Climate Project (January 2015 Draft for Discussion), prepared in response to a request from the Zambia Revenue Authority (ZRA) and MCTI as they and other Zambian agencies implement the WTO Trade Facilitation Agreement (TFA).

At the request of Zambia's Government, the World Bank Group (WBG) took the lead role in the preparation of a DTIS Update (World Bank 2014b). From this updated DTIS, six key messages about Zambia's trade performance emerged but not one related directly to SPS matters. However, the key message stating that "Zambia's informal trade is substantial and is of great importance to poor households" must not be overlooked since official trade statistics underestimate actual volumes of trade with neighbouring countries. Official statistics do not capture informal trade flows and there is evidence of considerable informal cross-border trade. What data are available for Zambia show that informal exports and imports are considerable compared to official trade, with informal exports of beans, maize and rice to neighbouring countries amounting to tens of thousands of tonnes every year (World Bank 2014b). The DTIS Update refers explicitly to the mounting "anecdotal evidence that informal trade supports the livelihood of hundreds and thousands of households in Africa, reaches markets and clients that are underserved by formal channels and contributes to regional food security."

While informal cross border trade goes beyond agricultural commodities, it is commodities such as beans, maize and rice that are of potential interest from a plant health perspective. A monthly *Statistics Report for Tradeable Goods* provided by the Cross Border Traders Association (CBTA) for August 2015 at the Kasumbalesa border post records quantities of various plant products being traded across the Zambia-DRC border, including potatoes, onions, oranges, tomatoes, bananas, impwa (wild eggplant), lemons, green peppers, rice, ground nut (shelled and unshelled), apples and beans. These were not exclusively produced in Zambia with a good portion of the potatoes, onions, beans and rice originating in Tanzania. Similarly, most of the bananas were of South African origin while the oranges came from South Africa, Botswana or Zimbabwe, and apples from South Africa. Informal cross border trade of this nature within the SADC region may not always constitute high risk for Zambia but to date the PQPS has not had the capacity to adequately assess the risks. Undoubtedly, informal cross border trade in Africa has contributed to the spread of certain pests including Oriental fruit fly[3], *Bactrocera dorsalis* (formerly *B. invadens*) and perhaps tomato leafminer[3], *Tuta absoluta*. As recently as September 2016, Zambia's NPPO officially reported to the IPPC Secretariat the detection of tomato leafminer in the country (http://www.ippc.int). Of particular concern too, was the discovery of fall armyworm, *Spodoptera frugiperda*, on maize in Zambia in December 2016, not six months after it was first reported on the African continent.

As noted in Day *et al.* (2006), PQPS applied the Phytosanitary Capacity Evaluation (PCE) tool to establish the level of organisation of Zambia's plant health service. The results of that early PCE indicated a number of weaknesses in the operations of Zambia's PQPS. The World Bank (WB) also reviewed the SPS situation in Zambia with similar results (World Bank 2006). The overall findings revealed that the PQPS was less-than-adequate in performing its core functions as a NPPO. Of the 12 core NPPO functions scored, the best score was a '3' (adequate) while half the scores were '1s' (poor) or '2s' (not adequate). Since then no major changes have occurred in the level of funding support from the Government and donor projects have only partly contributed to addressing the weaknesses identified in Zambia's NPPO. Thus, PQPS remains less-than-adequate in fulfilling its responsibilities set out in Article IV of the IPPC. Without assistance provided through this project, PQPS will continue to operate in crisis management mode addressing emergent risks and problems as they arise and in an ad-hoc manner.

Based on observations and discussions during the World Bank review in 2006, funds were made available under the *Agricultural Development Support Project[4] for Smallholder Commercialization (ADSP-SC)*. The ADSP-SC had two main components as set out in a revised results framework (World Bank 2014a), namely: (i) Support to Farmers and Agribusiness Enterprises; and (ii) Institutional development, as well as a third relating to project management and coordination. The NPPO of Zambia received some support under Component 2. However, the component largely provided support to the Seed Control and Certification Institute, the Agricultural Marketing Information Centre and Cotton Development Trust. While the NPPO of Zambia has received

[3] Oriental fruit fly and tomato leafminer are significant horticultural production pests.

[4] ADSP was linked to Zambia's Sixth National Development Plan (SNDP) which provided a comprehensive medium-term strategy for an all-inclusive development agenda emphasising commerce and trade as one of the key growth sectors. Zambia's SNDP draws inputs from the DTIS.

support from the ADSP-SC and other projects such as those funded by the Danish International Development Agency (DANIDA) and the Netherlands Government, these projects ultimately contributed to the provision of specific facilities and equipment rather than strengthening the development of its phytosanitary regulatory system *per se*. The need for a competent phytosanitary certification system as part of Zambia's phytosanitary regulatory systems cannot be over emphasised.

More recently, a detailed evaluation of Zambia's phytosanitary regulatory system was undertaken that focused particularly, but not exclusively, on the NPPO's capacity to undertake import risk analyses. The findings of parts of this evaluation are summarised in Msiska *et al.* (2013) and highlight a need for a significant injection of funds in the long term for capacity building activities relevant to both importing and exporting plants and plant products. It is recognised PQPS cannot continue to deal with phytosanitary matters in an ad-hoc way. Accurate and up-to-date data on the distribution and hosts of pests in Zambia must be accessible to PQPS – such information being fundamental for undertaking import risk analyses and compiling pest lists for the purpose of market access negotiations for the floriculture and other horticulture products Zambian growers wish to export. More and more, however, traders/exporters and PQPS PHIs at border posts need ready access to current import requirements of potential export markets. To date, limited resources have also constrained planned enhancement of the PQPS website, http://www.pqpszambia.gov.zm/ to link with a database that holds available data and from which information can be retrieved. Regardless, the current low levels of reliability of internet provision nationally is problematic for PQPS (and other border agencies) and traders/exporters. Identifying alternative 'backup' data storage and retrieval systems is necessary for the short to medium term.

Since the time of Zambia's original PCE, the PCE tool available under IPPC's framework has been revised. Three PQPS staff have subsequently participated in a regional training workshop on PCE and the use of the revised PCE tool. In late August-early September 2016, the first Phytosanitary Capacity Evaluation Workshop was facilitated by the PQPS staff who had attended the regional workshop and completed the training. The purpose of the Zambian workshop was to obtain a current PCE of PQPS focusing on three modules of the PCE tool with the intention of building capacity in the selected areas where necessary. The workshop covered: Module 2 – National phytosanitary legislation; Module 5 – NPPO structure and processes; and, Module 8 – NPPO pest surveillance and pest reporting capacity. Capacity building in each of these areas is supported in this proposed project[5].

In summary, this phytosanitary capacity building project complements earlier investments in PQPS facilities and equipment, and aligns with REC efforts aimed at enhancing Member States' implementation of the WTO's SPS Agreement and the TFA. It builds on recent discrete training initiatives facilitated by the likes of the IPPC Secretariat and more intensive technical training like that conducted by the Food and Agriculture Organization of the United Nations (FAO) in areas such as pest diagnostics and surveillance of specific pests. This project looks to improve Zambia's phytosanitary capacity and in so doing: better target Zambia's limited phytosanitary resources to high plant health risks; lead regional efforts to address pest surveillance needs; increase the confidence of trading partners, especially SADC Member States through compliance with their phytosanitary requirements; and improve market access opportunities for Zambia's horticulture, arable and floriculture products through proactive negotiations.

3. Links with national/regional development plans, policies, strategies, etc.

There are several national and regional development plans to which this project could be linked. However, putting aside formal arrangements such as treaties, agreements and regulations which

[5] Under Output 2 of the ASTF-supported Project, Zambia has been offered funding to begin to address weaknesses identified in Zambia's phytosanitary legislation under Module 2 of the revised PCE. Although Terms of Reference were drawn up for both an International Legal Consultant and a National Legal Consultant little, if any, progress has been made in engaging suitably qualified and experienced legal consultants to date. Unfortunately, all ASTF Project work is to be completed by 22 September 2017 leaving little time for a consultant to undertake the planned ASTF-funded legislation review. Potentially this ASTF-work duplicated some of the activities to be undertaken in this proposed STDF/PG/481 project, as originally set out when submitted in December 2016 and retained in this re-submission. In time, therefore, some adjustments to this proposed STDF/PG/481 project may be prudent.

are binding and/or mandatory, there are two notable strategy documents to which this project should and does link – Zambia's *National Agriculture Policy* and the draft *SADC Regional Strategy on Plant Health*.

National Agricultural Policy
Zambia has substantial untapped agricultural potential. Of the country's total land area of some 752,000 square kilometres, 58% has potential for agricultural production but only 14% is currently utilised. The country's National Agricultural Policy (2004–2015) seeks to capitalise on this potential with specific policies and strategies aimed at increasing production and productivity of the agriculture sector thereby increasing food security, employment and incomes, and reducing poverty. One of five priority objectives in the Policy – "to increase agricultural exports thereby enhancing the sector's contribution to the National Balance of Payments" – acknowledges that the contribution of Zambia's agricultural sector towards the national balance of payments has been low despite its high potential. However, it also recognises that Zambia is located close to good regional markets for many products.

Accordingly, sectoral strategies identified in the Policy to assist in realising the stated Policy Objective included "Strengthening the capacity of agencies handling agricultural products for export in ensuring that the products meet the standards and sanitary and phytosanitary requirements for export markets" and "Promoting and securing access of agricultural products to both local and international markets." With its focus on improving Zambia's phytosanitary capacity, this project will contribute directly to the ongoing implementation of the sectoral strategy on strengthening the capacity of agencies handling agricultural products for export. Similarly, project activities, focused on clarifying market access requirements for Zambia's plant products on and/or negotiating market access to other SADC Member States, will contribute to meeting the sectoral strategy to secure access of agricultural products to international markets.

SADC Regional Strategy on Plant Health
In its Annual Report for the period October 2014–September 2015, the United States Agency for International Development's (USAID) Southern Africa Trade Hub noted the handover to the SADC Secretariat of the completed drafts Regional Sanitary and Phytosanitary Strategies for Food Safety, Plant and Animal Health. Although the status of the relevant plant health draft (Theyse 2014) is not clear, the SADC Regional Strategy on Plant Health will, in time, provide SADC Member States with a practical plant health management strategy to strengthen their ability to satisfy national obligations in terms of the SPS Agreement, IPPC and the SADC SPS Annex.

The Regional Strategy identifies key issues and strategic interventions under several headings, including: Legislative frameworks; Institutional frameworks; and Participation in SADC Regional Coordinating Mechanisms and Strengthening intra-regional trade. At least some of the activities comprising this project align directly with strategic interventions proposed in the Regional Strategy. This project thus brings life to SADC's Regional Strategy, especially in terms of the following strategic interventions:

- Review national legislative frameworks that will align executive mandates with WTO SPS Agreement and IPPC;
- Support active participation in regional SPS coordination mechanisms or institutions;
- Strengthen phytosanitary capacity in the region to support market access for exports; and
- Promote initiatives to enhance intra-regional trade.

4. Past, ongoing or planned programmes and projects

The most recent international agreement negotiated by the WTO is the TFA. The WTO's definition of trade facilitation (https://www.wto.org/english/thewto_e/glossary_e/trade_facilitation_e.htm) is "Removing obstacles to the movement of goods across borders (e.g. simplification of customs procedures)". As highlighted by the example used in the definition, many trade facilitation improvement efforts are focussed on customs procedures, but activities and practices related to the appropriate application of sanitary and phytosanitary measures should not be overlooked as part of trade facilitation, and safe trade in agricultural products. Like other least developed countries (LDCs), Zambia has been the beneficiary, either directly or indirectly, of numerous technical assistance initiatives related to trade facilitation. Technical assistance for trade facilitation is provided by the WTO, WTO members and other intergovernmental organizations,

including the World Bank Group. Some of these initiatives have included SPS components and some have been directed at Zambia alone. Others have supported projects involving regional economic communities (REC), such as COMESA and SADC, in their policy setting related to SPS matters. Clearly Zambia is involved in these projects as a Member State but there are yet other projects where Zambia has been one of the countries that the work has focussed on (e.g. STDF-supported report (Rathebe 2015) *The implementation of SPS Measures to facilitate safe trade: Selected Practices and Experiences in Malawi, South Africa and Zambia*, and COMESA's *Breaking barriers, facilitating trade* STDF Project). Very few, however, have directly provided Zambia's NPPO, the PQPS with support. Current or recently completed programmes/projects relevant to this project are mentioned below.

Australia-Africa Plant Biosecurity Partnership (AAPBP)

The two-year Australia-Africa Plant Biosecurity Partnership (AAPBP) was a AUS$1.6 million programme that drew on the experiences of Australian experts to strengthen plant biosecurity skills in Africa (Burundi, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Uganda, Tanzania, Zambia and Zimbabwe). The initiative aimed to facilitate trade, including intra-regional trade in Africa, by addressing plant pest and disease problems that hinder agricultural exports and threaten food security. Through matched training, mentoring and placements in relevant Australian agencies, the programme has established a team of biosecurity 'change champions' trained to improve plant biosecurity. The champions have formed an informal network, and are being encouraged to meet and work collaboratively on issues to improve regional biosecurity. During the fourth workshop held early in 2017, COMESA committed to supporting the 'network' into the future and ensuring it continues to grow.

The AAPBP commenced with a regional workshop in Nairobi, Kenya, in October 2014, which identified key areas of plant biosecurity capacity development. The areas identified included diagnostic skills, risk analyses, emergency response and eradication, surveillance and management of key pests and diseases, and early warning. In 2015, the programme focused on selecting 15 senior fellows who subsequently completed internships in Australia with host organizations, becoming the 'change champions'. Two of the 15 senior fellows are from Zambia with a further three Zambians involved as associate fellows and thus it has been well represented in AAPBP. In 2016, the aim was to run several workshops in Africa, where the senior fellows take the lead to connect with and train other fellows. The initial two-year programme concluded early in 2017 but in the short term, the Australian Government continues its funding support for the programme in backing a Network Coordinator position for one year.

This project complements AAPBP (implemented by the Centre for Agriculture and Biosciences International (CABI) in Africa) – AAPBP has focused on 'domestic' aspects of a nation's phytosanitary regulatory system (e.g., diagnostic skills, risk analyses, emergency response and eradication, surveillance, and pest management). In contrast, this project targets the import-export or trade-related aspects. Two of PQPS' most senior staff, Doreen Chomba (Principal Agricultural Research Officer) and Mable Mudenda (Senior Agricultural Research Officer) were selected as senior fellows and completed internships in Australia under AAPBP. This project enables key PQPS staff the opportunity for practical training related to plant product market access processes. At some time in the future, and if a funding source can be identified, it is hoped PQPS staff (other than those interns under AAPBP) will be able to undertake work/study placements in another country where agricultural production is predominantly export focused so as to experience first-hand horticulture/arable/floriculture sectors' export production and packhouse systems, as well as the country's NPPO export inspection and certification arrangements.

Breaking barriers, facilitating trade

STDF/PG/346 describes the project entitled *Breaking barriers, facilitating trade* currently being implemented by the COMESA Secretariat. The project involves seven COMESA Member States, including Zambia and two of its neighbours, Malawi and Zimbabwe. The *Breaking barriers, facilitating trade* project is based on wide recognition that intra-regional trade in Africa is key to promoting economic development and improving food security. Trade within the COMESA region is well below its potential due to the high costs of cross-border trade. This has been largely attributed to the way in which SPS measures are administered and implemented. The aim of the COMESA-led project then is to increase intra-COMESA trade in agri-food products by reducing trading costs associated with SPS measures for selected commodities on selected trade routes.

The project is focused on the implementation of SPS measures for selected commodities, namely maize, beef, fish, milk, groundnuts and oranges on given trade routes to reduce overall trading costs. Overall, the project will pilot a number of SPS practices and approaches that help build capacity, foster good practices in SPS and trade facilitation under the new WTO Trade Facilitation Agreement that is currently under ratification. The project's three-year implementation began in November 2014 and is scheduled for completion by the end of October 2017 with improved efficiency of implementation of technical measures, improved technical measures and increased understanding of the costs and benefits of technical measures.

The COMESA-led project and this project essentially share the same goal relating to increasing intra-regional trade leading to promoting economic development. This project, however, is solely focused on horticulture, arable and floriculture products and, Zambia and the SADC region. The scheduled completion date of the *Breaking barriers, facilitating trade* project will ensure results from that project's work on plant product trade pathways (maize, groundnuts and oranges) can inform this project, especially the updated lists of pests (Activity 2.2), and any risk management options deemed necessary (Activity 2.1).

ASTF-supported Project, Strengthening controls of food safety threats, plant and animal pests and disease for agricultural productivity and trade in Southern Africa
The FAO is implementing a US$4 million project supported by the Africa Solidarity Trust Fund (ASTF). There are eight SADC Member States involved, including Zambia, with SADC being the recipient REC. Implementation began in 2014 and the project is scheduled for completion in September 2017. This FAO-led project covers five sectors (animal health, plant health, food safety, forestry and fisheries) and has four outputs, as follow:

- Output 1: SADC SPS coordination mechanism and sub-regional mechanisms for collecting, compiling and exchanging data strengthened;
- Output 2: National SPS capacities in targeted countries strengthened;
- Output 3: Strengthened institutional and technical capacities for the implementation of SPS measures in accordance with international standards and in accordance with country and regional needs; and
- Output 4: Capacities of selected value chain operators to comply with the required SPS measures strengthened.

As such, it would appear there is potential overlap of some plant health aspects of the ASTF project with the activities in this project. However, like the *Breaking barriers, facilitating trade* project, the scheduled time for completion means that the results feed into this project[5]. Notably, a functional SADC Plant Health Information Management System, a target result of Output 1 would be an ideal source of information for activities proposed in this project. Furthermore, this project will benefit from having PQPS staff and plant product export sector representatives already familiar with SPS management having received technical training under Outputs 2, 3 or 4. ASTF project Minutes of the Fourth Regional Technical Committee Meeting held in late November-early December 2016 confirmed that project implementation was 67% complete.

Research Projects
There are three discrete research-type projects that have influenced the design of this project. In parts, the narrative associated with the findings from the research/analysis, but also the recommendations, whether directly or indirectly, have highlighted needs for the capacity building (operational and institutional) activities incorporated in this project. Furthermore, some of the findings/recommendations contained in the three project reports reinforced needs or gaps in Zambia's phytosanitary systems that were confirmed through observation and feedback received from stakeholders (including PQPS staff) during a field mission undertaken in November 2015. The three projects are:

(a) Zambia–WTO TFA Validation and Reform Map, Zambia Investment Climate Project (2015)
As noted above, *The Zambia–WTO TFA Validation and Reform Map* (Draft for Discussion dated January 2015) was prepared in response to a request from ZRA and MCTI as they, and other Zambian agencies, sought to implement the TFA, which Zambia ratified in December 2015. Even though the project was related to trade facilitation, the *Zambia–WTO TFA Validation and Reform Map* highlights matters that are pertinent to the functioning of Zambia's NPPO and therefore need to be considered during implementation of activities comprising this project. One such matter is the need for PQPS to reduce the burdensome documentation requirements of its PIP system.

Another is the lack of border agency cooperation. PQPS is just one of the large number of Zambia's border control agencies. Most operate with a significant degree of independence which contributes to long delays and high costs of border trade. Strategic issues for PQPS that arise from the need to improve cooperation and facilitate trade, include:

- Lack of IT capacity and internet connectivity in PQPS and across other border agencies inhibiting information sharing;
- The need to be connected to ZRA's ASYCUDA World[6] to operate with a Single Window functionality;
- The need for SPS management perspectives in any MCTI-led development of a proposed new law, the Border Management Draft Bill to streamline border management from a process, service, and infrastructure point of view; and
- Continued creation of one-stop border posts (OSBPs) in East and southern Africa.

There are also recommended actions for all border agencies regarding the publication and availability of information relating to all aspects of the international trade process. In this respect, the *Zambia–WTO TFA Validation and Reform Map* forms a key resource/input into some of this project's activities.

(b) The implementation of SPS Measures to facilitate safe trade: Selected Practices and Experiences in Malawi, South Africa and Zambia (2015)

Rathebe's (2015) STDF-funded research report, in highlighting shortcomings in Zambia's SPS management systems, provides a sound basis for pursuing this proposed project. Focusing on strengthening phytosanitary capacity in Zambia, as this project does, constitutes logical follow-on work from Rathebe's recommendations set out in sections 5 and 6 of that report. More recent than the Magalhaes (2010) study (refer below), Recommendation 2 in section 5, "Disseminate information on SPS requirements of trading partners to interested private sector stakeholders" confirmed the need for inclusion of an output in this project regarding access to available information on the phytosanitary requirements of (potential) SADC trading partners. Problematic internet access continues to hamper both PQPS offices and potential exporters' efforts to access details of trading partners import conditions for plants and plant products. Consequently, Zambian traders using formal trade channels cannot easily capitalise on short term windows of opportunity and/or identify new market opportunities in neighbouring countries for their plant products.

(c) Regional SPS Frameworks and Strategies in Africa (2010)

Two of the conclusions from this STDF-supported study on regional SPS frameworks and strategies (Magalhaes 2010) have particular relevance to this project in that they provided a specific direction to the design outputs. They are:

> "The challenges to address SPS issues in Africa are immense. The absence of national strategies to deal with food safety, animal and plant health issues and poor national coordination are common to most African countries. Although some studies point to an emerging governmental awareness about the importance of SPS matters, the need for increased attention and intervention at the highest decision levels remains of utmost importance. …"
>
> "Inadequate or highly fragmented SPS measures[7], often not based on legislation, lead to a reduction of export capacity and affect countries' ability to control the safety of imports. The expansion of regional consciousness and the establishment of RECs carry the potential for an improved approach on SPS matters. RECs have the mandate to develop legal and technical instruments to help member states address weaknesses in managing SPS issues."

Regarding these two conclusions, Zambia's NPPO has no strategy for plant health. Currently NPPO staff are already overloaded carrying out their day-to-day duties. In effect, as each PHI upskills because of specific training undertaken, and becomes more aware of the requirements for a functional phytosanitary regulatory system through regional meetings/workshops attended, more tasks are added to their workload. There are very limited opportunities and resources available for

[6] One of three software versions of the Automated System for Customs Data (ASYCUDA), a computerised customs management system which covers most foreign trade procedures.

[7] In Magalhaes (2010), the term "SPS measure" is used in the sense of the WTO SPS Agreement definition, including *all* relevant laws, decrees, regulations, requirements and procedures.

PQPS to review current operations for improvements/efficiencies, let alone develop a national strategy as a reference for prioritising available resources, or seeking additional funds to support implementing necessary changes. This project provides the opportunity for the PQPS team to be actively involved in important strategy/policy work, national and regional, with an output dedicated to this. Another output is focused on ensuring there is a sound legal basis for Zambia's NPPO to operate, without which the NPPO has little credibility to implement SPS controls in a way that facilitates safe trade.

IPPC-related Workshops

IPPC-related regional workshops take place from time to time. A recent example was the IPPC Regional Workshop for Africa which was held in September 2016 in Ethiopia. Participants from 16 IPPC Contracting Parties, including Zambia, attended the workshop. The purpose of this particular workshop was (1) to build phytosanitary capacity and raise awareness on all activities related to the IPPC; and (2) to exchange experiences at the regional level on surveillance, continental emerging issues in plant health and major pests of economic importance. A draft workshop report includes conclusions presumably shared by participant countries.

Conclusions appearing in the draft that are particularly pertinent to Zambia are as follows:

- Internet access remains a major challenge with access being inconsistent and often slow;
- Resources (human, infrastructure, laboratory and financial) remain a major challenge;
- NPPO structural organization, outdated legislative framework and lack of political support continue to be major challenges for appropriate IPPC implementation;
- Appropriate training of personnel remains a limitation;
- Appropriate technical justification, including pest risk analysis, for national phytosanitary measures; and
- Land border controls a major weakness in the country's national phytosanitary system.

The Zambia NPPO's expressed need for phytosanitary capacity building goes well beyond what the IPPC Secretariat can offer by way of assistance to countries' facing such challenges. As highlighted in the IPPC Regional Workshop for Africa, additional resources are required. This project provides an opportunity for Zambia, and other SADC Member States. The design includes Outputs and Activities that will assist to improve Zambia's institutional and operational phytosanitary capacity, and in so doing, facilitate trade in plants and plant products. SADC Member States' market access requirements for various plant products will be compiled and made available to exporters in the region, and in a learning-by-doing approach for Zambia's NPPO, at least one new market access submission will be prepared for a commodity identified by potential exporters to have an established supply chain (e.g. avocados).

5. Public-public or public-private cooperation

Trade has a vital role in Zambia achieving its development goals and realising the country's Vision 2030 of becoming a "prosperous middle-income country by 2030". Trade across national borders involves private and public sectors, and with increasing focus on trade facilitation, efforts to foster cooperation between the private sector and public sector, and between Zambia's numerous border agencies (public-public) are needed. Accordingly, PQPS staff are involved to a greater or lesser extent in all the project activities, other Zambian public-sector agencies (e.g., Ministry of Health, MCTI, ZDA, ZRA, other MOA sections) are involved in some, private sector representatives are included in some, and the SADC Secretariat and nominated SADC Member State plant protection experts and officials in others. This Zambian-focused project is designed to be inclusive of interested parties directly involved in either the trade of plants or plant products, promoting that trade or Zambia's phytosanitary regulatory system. Bringing people together from different sectors during this project's implementation will provide an opportunity to appreciate others' roles and responsibilities, and open new lines of communication.

The project is to be implemented by a private sector consultancy firm, PhytoSolutions Consultancy, that has been providing services to address sanitary and phytosanitary challenges in the African region since 2010.

6. Ownership and stakeholder commitment

The project's main stakeholder, also the requesting organization, is the Plant Quarantine and Phytosanitary Service (PQPS), which sits within the Zambia Agriculture Research Institute (ZARI), a department in the Ministry of Agriculture (MOA). The Ministry of Commerce, Trade and Industry (MCTI) is the other key public-sector stakeholder in the project, while SADC Member States and the SDAC Secretariat are regional stakeholders. Private sector stakeholders include two industry associations, the Zambia Export Growers Association (ZEGA) and the Zambia Seed Trade Association (ZASTA), as well as exporters of horticulture, arable and floriculture products.

Appendix 4a contains letters of support for the project from:

- Republic of Zambia Ministry of Agriculture;
- Republic of Zambia Ministry of Commerce, Trade and Industry;
- Southern African Development Community Secretariat[8];
- Zambia Export Growers Association;
- Zambia Seed Trade Association; and
- York Farm Limited.

Appendix 4b contains recent SADC Member State letters of support for the project from:

- Agriculture, Forestry and Fisheries (Republic of South Africa)
- Ministry of Agricultural Development and Food Security (Botswana);
- Department of Agricultural Research (Lesotho);
- Department of Agricultural Research Services (Malawi);
- Ministerio da Agricultura e Seguranca Alimentar (Mozambique); and
- Ministry of Agriculture, Mechanisation and Irrigation Development (Zimbabwe).

[8] Since the submission of this proposed project STDF/PG/481 in December 2016, there have been some staff changes in the SDAC Secretariat. The Secretariat was approached regarding its re-submission but no response was received by the time this application was submitted.

II. PROJECT GOAL, OBJECTIVE, OUTPUTS & ACTIVITIES (LOGICAL FRAMEWORK)

7. Project Goal / Impact

As specified in the Logical Framework (**Appendix 1**), the Goal of this project is "to realise economic opportunities for Zambia through improved cooperation with SADC Member States to access markets for Zambia's horticulture, arable and floriculture products."

This aligns with Zambia's *National Agricultural Policy* priority objective: "to increase agricultural exports thereby enhancing the sector's contribution to the National Balance of Payments".

8. Target Beneficiaries

Regarding the project goal above, accessing export markets and increasing trade of Zambia's horticulture, arable and floriculture products ultimately brings benefits through better returns to small farmers and commercial producers of exported fresh fruits and vegetables, seeds and flowers. In turn, farm workers will benefit from increased employment/wage-earning opportunities through commercial producers/exporters investing to expand their operations, and small farmers can switch from subsistence farming to cash crop farming thereby increasing household incomes for their families. Target beneficiaries of the project therefore include rural householders, farm workers, small farmers and commercial producers.

While never quite as simple as it seems, the following example from York Farm Ltd (J. Henderson, pers. comm.) highlights the potential benefits of accessing new markets and reversing the decline in the volumes of vegetables exported. In late 2015, York Farm employed about 1200 farm workers. In the past, the enterprise had a peak labour force of 10,500. The decline in the number of employees coincides with the decrease in the volumes of vegetables exported to Europe (especially the United Kingdom).

Another important target beneficiary of this project is the PQPS, Zambia's NPPO. As indicated in section 3, this project is, in the main, a phytosanitary capacity building project, one that will, *inter alia*, assist PQPS staff to perform their export/import-related duties more effectively. In the longer term, the horticulture, arable and floriculture sectors that PQPS services, will benefit from more strategic targeting of Zambia's limited phytosanitary resources to maintaining the country's plant health status and crop production base, and contributing to the country's food security.

(a) Gender-related issues

This project is a technically focused one and accordingly, stakeholders participating in the project will be included because of the role/position they hold rather than any attempt to address gender-related issues directly. However, records of participants in the various project activities will be gender disaggregated.

From the four project-related stakeholder consultation meetings convened in November 2015, it appears that high proportions of commercial producers/exporters of export fresh fruits and vegetables, and flowers, and industry group executives are male. Very likely then, male private sector stakeholders participating in project activities will outnumber female.

In regard to project benefits favouring one group or another, in the longer term, any increase in employment opportunities arising from increasing export trade will likely favour females. There is a high proportion of female workers engaged during picking/harvesting, grading and packing of fresh fruits and vegetables, and flowers for export.

9. Project objective, outputs and activities (including logical framework and work plan)

The Logical Framework for the project is set out in **Appendix 1** and the Work Plan for the three-year implementation period in **Appendix 2**. The Immediate Objective (Purpose) of the project is to "improve Zambia's phytosanitary capacity and increase the confidence of trading partners, especially SADC Member States, through compliance with their phytosanitary requirements."

Just as the goal of this project aligns with one of the priority objectives of Zambia's *National Agricultural Policy* (see section 7), the Immediate Objective aligns with one of the sectoral strategies identified in the Policy, that is, "Strengthening the capacity of agencies handling agricultural products for export in ensuring that the products meet the standards and sanitary and phytosanitary requirements for export markets".

Outputs contributing to meeting the project's objective were derived from problems or gaps identified in the course of stakeholder consultation during a field mission in November 2015. The problems or issues raised during discussions with stakeholders are not new, and are not unique to Zambia's SPS regulatory systems. They reflected some of the recommendations appearing in research studies/reports such as those discussed in section 4 above, and strategic interventions contained in the draft SADC Regional Strategy on Plant Health (see section 3 above). Most of the problems do not have quick fixes, and this project focuses on problematic areas where work is not already being undertaken, or where further work is required to build on or reinforce previous efforts.

There are four **Outputs (Results)**:

Output 1 – Improved access to trading partners' phytosanitary requirements and understanding of risk-based approaches to managing trade in plant products

The basis for this output lies in operational problems experienced by PHIs, producers, exporters and informal traders, notably the lack of information and/or difficulty in accessing details about trading partners' import requirements and the associated export inspection and certification procedures to be followed. There are two aspects to this output. The first involves collecting, compiling and disseminating information on SADC Members States' import requirements for plants and plant products. The second involves a critical examination of international practices for risk-based SPS systems and strategies with a view to identifying specific policy and operational changes to improve trade-related components of Zambia's phytosanitary system.

Output 2 – Formal recognition of the roles and responsibilities of Zambia's National Plant Protection Organization (NPPO)

The credibility of an NPPO in the international trading environment rests not only in its day-to-day operations but documentation of its phytosanitary measures, meaning *all* relevant laws, decrees, regulations, requirements and procedures, as per the SPS Agreement definition. In this regard, Zambia's phytosanitary system is wanting, starting at the highest level down, and lacking transparency. This output seeks to address shortcomings in its primary legislation[5], the Plant Pests and Diseases Act CAP 233 (of 1994) which does not formally recognise the roles and responsibilities of Zambia's NPPO or the country's SPS obligations as a member of WTO and RECs, and a signatory to the IPPC.

Output 3 – Strategies developed for future operations of Zambia's NPPO and a Zambia-led regional plant quarantine pest surveillance programme

This output focuses on strategy and policy developments for Zambia and the SADC region that will contribute to ongoing improvements in their capacity to meet international standards, guidelines and recommendations. In addition, the resulting strategies will improve Zambia's, and SADC's ability to garner additional funding support to implement necessary changes in their phytosanitary regulatory systems as the way to better manage high risks to the region's plant health status and ensure safe trade in plants and plant products.

Output 4 – NPPO staff trained in export phytosanitary regulatory systems

Awareness and understanding of export-related technical measures/procedures, their purpose and application is limited amongst Zambian stakeholders. The single activity under the output targets one of two key stakeholder groups, Zambia's NPPO PHIs. It focuses on NPPO roles and responsibilities within Zambia's export-oriented plant product sector(s), ensuring compliance with country import requirements, be they mandatory SPS requirements to protect human, animal and

plant health or voluntary quality standards used to determine private value, and meet specific market demand.

Activities

Appendix 2 contains the Work Plan for the three-year implementation of the project.

Output 1 – Improved access to trading partners' phytosanitary requirements and understanding of risk-based approaches to managing trade in plant products

Activity 1.1 Review of current requirements for trade in plants and plant products in the SADC region: To identify opportunities for trade in plants and plant products in the SADC region for Zambia, detailed information on Member States' current import requirements applying to plants and plant products is first required. Thus, the first step in this desktop review is to compile and document, in a report for reference in Activity 1.2, detailed information on the SPS rules applying in the SADC region, current phytosanitary import procedures and practices applied by SADC Member States to imports of plants and plant products from other countries in the SADC region, and SADC Member States current import requirements for types of plants and plant products of interest to the horticulture, arable and floriculture sectors in Zambia. Identification of the information sources and how the information can be accessed presently for updates is a key component of the review. The compiled information, hard and soft copy, shall be made available to interested parties.

To complete the review: the information will be assessed to determine whether Zambian exports would comply with the stated phytosanitary import requirements, and if not, what additional measures would need to be implemented by producers and/or Zambia's NPPO, and whether under the SPS Agreement and SADC SPS Annex, current import requirements could be challenged and/or new market access requirements negotiated bilaterally, and; based on SPS requirements, recommendations developed on potential opportunities for improving export trade of Zambian-produced plants and plant products in the SADC region. The completed review is a key input to Activity 1.3.

Activity 1.2 Risk-based approaches to managing trade in plant products: Specific policy and operational changes to Zambia's phytosanitary regulatory system are likely to be necessary to better manage risks to plant health in the international trading environment. Zambia's NPPO, the PQPS operates under The Plant Pests and Diseases Act which provides for the eradication and prevention of the spread of plant pests and disease in Zambia, for the prevention of the introduction into Zambia of plant pests and disease, and for matters incidental thereto. However, its *modus operandi* must also conform with the 'rules' set out in the SPS Agreement, SADC SPS Annex, COMESA Regulations on the Application of Sanitary and Phytosanitary Measures, and IPPC. In effect, this means that pests representing high risks must be prioritised for attention within PQPS operations and all risk management options examined to ensure practicality and cost-effective measures are adopted. Simply determining that a pest is "quarantine" is only a starting point and risk-based approaches are essential to prioritising the use of limited resources.

This capacity-building activity for Zambia takes the form of three facilitated workshop sessions, each providing for 16 persons drawn from a mix of private and public-sector representatives. At least four PQPS staff will participate in each workshop, with a further six (not necessarily in equal proportions) public sector representatives from either, MCTI, ZDA, MOH, Ministry of Livestock and Fisheries – Department of Veterinary Services, Zambia Revenue Authority (ZRA) – Customs and Excise Division or ZARI – Seed Control and Certification Institute, and the balance comprising industry representatives (commercial and small-scale producers, industry group executives from the likes of ZEGA and ZASTA). The workshops offer participants the opportunity to step back from their day-to-day work routine and critically examine international practices for risk-based SPS systems and strategies with a view to identifying specific policy and operational changes to improve Zambia's phytosanitary regulatory system in association with other border agencies. Intensive workshop sessions, facilitated by an experienced trainer that encourages contributions from all participants and at the same time challenges these, are appropriate forums for individual participants to question current approaches or practices and examine alternative ways of doing things. Collective development and documentation of recommendations for changes (together with the risk of not adopting each) will more likely be supported for adoption by relevant resource managers subsequently.

The key steps in this activity include: Three workshops in Lusaka for representatives from PQPS and other public-sector trade-associated agencies together with private sector representatives to (i) examine international practices for risk-based SPS systems and strategies; (ii) review and compare Zambia's phytosanitary practices and approaches with international practices; and (iii) develop documented recommendations for prioritised improvements to feed into Activity 1.3.

Activity 1.3 Development of an action plan for implementation: Recommendations developed on potential opportunities for improving export trade of Zambian-produced plants and plant products in the SADC region through Activity 1.1, together with three sets of workshop recommendations identifying specific policy and operational changes to improve Zambia's phytosanitary regulatory system in association with other border agencies developed through Activity 1.2, are to be collated into an Action Plan identifying priorities for making changes to Zambia's phytosanitary system that reflect a more risk-based approach. The Action Plan is a document that PQPS can utilise in the development of its Five-year Strategic Plan under Activity 3.1.

Activity 1.4 Provision of technical support to implement Action Plan: Under this activity, additional financial support is made available to provide three sets of one-off technical assistance to ensure that changes recommended through Activity 1.3 and identified to be high priority are implemented. Firstly, however, criteria for approving release of one-off technical assistance are to be established.

Output 2 – Formal recognition of the roles and responsibilities of Zambia's National Plant Protection Organization (NPPO)

Activity 2.1 Undertake a review of The Plant Pests and Diseases Act: Zambia's NPPO, the PQPS operates under The Plant Pests and Diseases Act which provides for the eradication and prevention of the spread of plant pests and disease in Zambia, for the prevention of the introduction into Zambia of plant pests and disease, and for matters incidental thereto. The Plant Pests and Diseases Act CAP 233 (of 1994) does not formally recognise the roles and responsibilities of Zambia's NPPO or the country's SPS obligations as a member of WTO and RECs, and a signatory to the IPPC. This activity enables a review of the Act[5] and associated Regulations to address these shortcomings in its primary legislation, with recommended amendments drafted. It is also an opportunity to bring clarity to the NPPO's role in SPS coordination in Zambia. Kleih (2012) in the STDF paper on *National SPS Coordination Mechanisms: An African perspective* suggests that although informal SPS coordination mechanisms can operate effectively in some cases, formalization appears to be helpful for the creation and operation of such structures, at least in Africa.

Reference has been made in the past to the preparation of a Plant Protection Bill (e.g. WT/TPR/S/340 Trade Policy Review – Zambia). It appears that while the development of a Bill is intended, little has been done to progress this.

Activity 2.2 Action Plan for legislative change: Reviewing legislation is usually a very lengthy process, taking years rather than months, to complete. This activity is aimed at expediting passage of the Bill, resulting from Activity 2.1, through the necessary government processes. With support from other MOA officials, it involves the formulation of an Action Plan that sets out all the steps required for the Bill to be adopted. Such a Plan will assist in ensuring continuity to oversight of the process if a key staff member involved in the process leaves or is transferred.

Output 3 – Strategies developed for future operations of Zambia's NPPO and a Zambia-led regional plant quarantine pest surveillance programme

Activity 3.1 Workshop to develop a Five-year Strategic Plan for PQPS, Zambia's NPPO: The problem that this activity seeks to address for PQPS is its inability to plan. Fully aware of the need for considerable investment in capacity building of the PQPS, including equipment and facilities, the lack of planning hinders efforts to target funding opportunities through national programmes/allocations and other donors or beneficiaries. This activity supports a strategic planning workshop for PQPS, that draws on key inputs derived from Activity 1.3, in which other stakeholders with an interest in improving the performance of PQPS, Zambia's NPPO have also contributed.

This capacity-building activity for PQPS, takes the form of a five-day facilitated workshop session for ten senior PQPS staff from PQPS's head office at Mt Makulu, Chilanga or Lusaka's Kenneth Kuanda International Airport. The workshop, facilitated by an external consultant, provides participating staff the chance to put aside their day-to-day work, and participate in a systematic process of envisioning the Service five years out, translating that vision into broadly defined goals/objectives, and lastly, using the Action Plan from Activity 1.3, and defining the steps required to achieve those objectives.

The resulting draft Five-year Strategic Plan for PQPS, Zambia's NPPO will be distributed to all other staff for their feedback, before finalising it for ZARI Director's approval.

Activity 3.2 Meeting of PQPS staff to develop an Annual Operational Plan: This activity is a direct follow-on from the development of a Five-year Strategic Plan for PQPS in Activity 3.1. The Annual Operational Plan will assist PQPS in implementing its Strategic Plan, and form the basis for, and justification of the annual operating budget request – aligning with MOA operating timeframes and budget processes.

This activity then, involves a two-day facilitated meeting of 10 PQPS staff (preferably including PQPS Subunit budget/funds managers) to define what portion of the Strategic Plan will be put into operation for the year, and establish the activities PQPS will deliver and the resources required to deliver them. The Operational Plan thus provides a plan for resource allocation for the year.

More importantly, the Annual Operational Plan in conjunction with the Five-year Strategic Plan form important references to help justify additional funding applications and take better advantage of donor support opportunities.

Activity 3.3 (i) Workshop to confirm quarantine pests for SADC for regional surveillance, and (ii) Workshop to draft a SADC policy on cost sharing/resourcing arrangements for regional SPS operational activities: The two distinct components of this activity are both workshops involving participants nominated by SADC Member States. The results of both workshops are foundation steps for a regional surveillance programme, the subject of Activity 3.4.

Workshop 1 involves an expert-facilitated five-day workshop, of up to 12 plant protection specialists from the SADC region, to confirm quarantine pests for SADC for which regional surveillance efforts are technically feasible and justified. The workshop will be convened in Lusaka. A key reference is the *SADC Harmonized Phytosanitary Regulations for Plants and Fresh Fruits.docx – Draft Appendix 1 Regional List of Quarantine Pests and Management Options [Plants/Seeds], and Appendix 2 Regional List of Quarantine Pests for Fresh Horticultural Fruits and Management Options.* The sole objective of the workshop is to prepare a list of pests that are not yet present in the region or have a limited distribution within the region, and for which surveillance activities are relevant to and support regional trade opportunities in plant and plant products. The justification for any pest's inclusion on the list is to be documented in terms of the trade benefits to individual Member States. The list resulting from the workshop dictates whether Activity 3.4 proceeds.

Workshop 2 is also an expert-facilitated five-day workshop to be convened in Lusaka, and involves up to 12 SPS policy specialists from the SADC region, to draft a SADC policy on cost sharing/resourcing arrangements for regional SPS operational activities such as surveillance. Unlike Workshop 1 results, the draft policy resulting from this workshop does not influence directly whether Activity 3.4 proceeds. However, it will facilitate implementation of the Regional Plant Quarantine Pest Surveillance Programme if adopted by SADC Member States. Costs and benefits of regional surveillance operations are unlikely to be evenly distributed across both the operations associated with target pests and Member States, and so cost sharing arrangements need to be carefully considered in advance.

Activity 3.4 Expert Workshop for development of a Regional Plant 'Quarantine Pest' Surveillance Programme: This activity proceeds on the basis that Activity 3.3 has confirmed one or more quarantine pests for SADC for which regional surveillance efforts are technically feasible and justified. It involves an expert-facilitated five-day workshop, of up to 12 plant protection specialists from the SADC region, to design and draft a SADC Regional Plant Quarantine Pest Surveillance Programme for the candidate quarantine pest species identified in Activity 3.3. The workshop will be convened in Lusaka.

The regional approach proposed here goes beyond harmonisation of SPS standards and measures/policies of Member States. In taking this approach to pest surveillance, the SADC region in its entirety, is the area endangered by a pest of potential economic importance that is not yet present there, or present but not widely distributed and being officially controlled. Official control could constitute active surveillance undertaken by just some Member States as part of a programme benefitting all SADC Member States.

With very limited resources available for national surveillance programmes in Zambia, this project activity is an important opportunity to 'test' an alternative, and potentially more cost effective, regional approach to pest surveillance. If this approach is found to be a practical option for SADC, the need for inspections of traded host products may reduce, thereby facilitating trade.

In a REC, like SADC, where Member States are contiguous, it is probable that there are greater similarities than differences in the distribution of pests in Member States, and it would be remiss not to 'test' the approach. It must be noted, however, that it contrasts with the national (country-based) approach that comes through in ISPMs.

Output 4 – NPPO staff trained in export phytosanitary regulatory systems

Activity 4.1 Capacity building workshop in technical bilateral market access negotiations: Among other activities, the Phytosanitary Policies and Standards/PRA Subunit of PQPS prepares pest information packages in support of market access for Zambian plant products. In the last couple of years, South Africa has been proactive in requesting pest information packages for products that Zambia is potentially interested in exporting. These have included: a package for *Litchi* sp., *Vaccinium* sp., *Fragaria* sp. *Physalis* sp., *Passiflora* sp. and *Rubus* sp.; a package for seed crops, groundnuts, beans, cotton, sunflower, rice, pearl millet, maize, cassava and soya beans; and avocado. Market access has not yet been gained for avocados.

This capacity building activity involves a six-day workshop for 10 PQPS staff in technical bilateral market access negotiations using relevant commodity examples to be exported to South Africa and/or another SADC Member State. It includes the development of high quality market access submissions (comprising – Formal request, Pest list, Information on production practices in the production areas, and Proposed phytosanitary measures for any quarantine pests for the importing country) for two commodities, yet to be confirmed, but avocado and squash are likely candidates.

At the conclusion of the workshop, participants will:

- have a sound understanding of the processes involved, and their respective roles in establishing export pathways;
- be competent in the preparation of fresh produce market access submissions and the associated data packages;
- be competent in the preparation of potential risk management packages; and
- be competent in the preparation of bilateral communications associated with market access requests.

The 'expert' consultant will bring inside-knowledge of the market access processes and import risk analysis procedures followed by South Africa's NPPO and provide one-on-one guidance or mentoring to participants during the learning-by-doing workshop.

10. Environmental-related issues

There are no direct environmental impacts resulting from activities undertaken in this project. It is possible, however, that project activities have indirect impacts resulting from changes in the phytosanitary measures required for certain plant products. Phytosanitary measures can include:

- field controls, such as pesticide applications;
- insecticide or fungicide dips; and
- fumigation treatments.

It is difficult to predict whether any impacts of such changes in phytosanitary measures will be positive or negative. One could expect that adverse effects of chemicals are taken into consideration in the approval of their use, and the development of directions for use.

11. Risks

Risks are detailed in the Logical Framework (**Appendix 1**).

At the Activity level, one of the main risks is a logistical one that is common to many of the project's activities. Simply put, it is that the right people are available at the right time to be involved in the project. For intended participants of training workshops, etc., the risk that key people are not available to participate can be managed through appropriate scheduling. Activities such as training workshops will, as far as possible, be planned not to conflict with other already-scheduled events. They will be arranged to coincide with periods of time when day-to-day workloads are less pressured and the 'right' people can be released to attend. Similarly, careful scheduling of events will be necessary to ensure that the most appropriately qualified and experienced consultants are available to contribute to the project's implementation. It cannot be overemphasised how important it is to engage consultants for this project with relevant practical experience, consultants who can genuinely empathise with those working in a resource constrained phytosanitary system, yet provide insights into alternative ways of operating. *PhytoSolutions*, the implementing organisation selected for this project specialises in addressing SPS challenges for safe and sustainable agriculture and market access in the African region. As such, it has in-house consultant capacity in this regard, as well as access to various independent consultants to draw on for project implementation.

The three-year project implementation period allows some flexibility in scheduling events, thereby mitigating the risk associated with unavailability of nominated participants, consultant facilitators and/or advisers. Participants' managers will be given as much notice as possible of upcoming project events so that they can plan around their staff's absence and/or arrange back-up.

Another risk common to several activities is whether potential interviewees (as in Activity 1.1) or participants (as in Activities 1.2, 3.1, 3.3, 3.4 and 4.1) are willing to be actively involved in the project. Some may be having difficulty managing their current workloads in an under-resourced system, and others may already be overcommitted to donor supported projects and/or frustrated with taking time out from their regular duties to attend workshops/events that seemingly have little relevance to their main job. Detailed information about a particular workshop, including its purpose and an explanation as to why their contributions are especially valuable, will need to be relayed to nominated participants and their managers to ensure participants' attendance is fully supported and encouraged.

At the Output level, eight risks are identified. Two coincide with Activity level risks and are discussed elsewhere, and of the remaining six, three have a greater impact on project implementation. Regarding Output 2, there is a risk that there is no political will to support legislative changes. Fortunately, if Activities 2.1 and 2.2 could not proceed, it would not affect the three other Output areas of the project. For Output 3, it is important that SADC Member States are willing to support Zambia in taking the lead in exploring a regional approach. In early discussion with the SADC Secretariat, the regional approach was welcomed. However, under Activity 3.3, if no plant quarantine pests are identified for the region for which regional surveillance is technically feasible and justified, then Activity 3.4 should not proceed.

At the Objective (Purpose) level, there are two significant risks. One is that Zambian producers of horticulture, arable or floriculture products are interested in exporting and have product(s) available for export. Trade is a commercial venture and if the costs associated with trading are excessive, then traders/producers lose interest in exporting. Phytosanitary measures may not be the only issue contributing to the costs of trading, so 'dealing' with just phytosanitary matters as this project does, may not significantly alter the trade environment. While this risk cannot be influenced by the NPPO directly, it highlights the fact that there is more than one problem to be addressed to facilitate trade. The second risk to this project meeting its stated Objective is that within Zambia's border control systems, the NPPO is unable to adapt its operations (to perform its duties more effectively). Zambia's systems involve a relatively large number of border agencies so encouraging cooperation between the key agencies through the project's activities will reduce this risk.

Underlying the Goal are several assumptions that lie outside the ambit of this project. There is, however, one that relates directly to PQPS, Zambia's NPPO and this project. It is discussed further in the context of sustainability in section 12 below. The rationale for this project lay in capacity building sought by Zambia's NPPO, to address resource constraints.

12. Sustainability

The immediate objective and goal of the project are not likely to be measurable until after project completion. Three years is not sufficiently long for an effective evaluation of their indicators.

The evaluation of the outputs of the project that is to be included in the final report (refer section 18) will give a clear indication of how the results of the project will be sustained in the longer-term. The results of Activities 1.1, 1.2, 1.3, 1.4, 3.1 and 3.2 will set the direction for PQPS, Zambia's NPPO, for future operations. The Five-year Strategic Plan for PQPS (produced through Activity 3.1) and Annual Operational Plans (produced under Activity 3.2) will give PQPS greater institutional and financial sustainability. While PQPS is still dependent on: (i) the Government to provide ongoing operational funding to support their SPS trade-related activities; and, (ii) other border control agencies cooperating with adjustments to PQPS's operations to adopt a more risk-based approach, it is in a better position to focus available resources in areas presenting the biggest threat. Similarly, it is in a better position to seek funding support from the Government or other donor agencies to sustain its operations. The results of the project put PQPS on course to operate sustainably and better serve plant and plant product export sectors as well as maintaining the country's plant health status and crop production base.

III. BUDGET

13. Estimated budget

The detailed budget is attached in **Appendix 3**. However, a breakdown of the 11 Activity costs is summarised in the table below. With the addition of contingency costs (5% of project budget) and overheads (*PhytoSolutions* implementation) of 10%, the total estimated budget is US$629,697.00 with US$454,675.00 requested from STDF. The in-kind contribution of the applicant and other SADC Member States amounting to at least 20% of the project budget arises from staff time and use of premises.

Output	Activity	Estimated Cost US$
1 Improved access to trading partners' phytosanitary requirements and understanding of risk-based approaches to managing trade in plant products	1.1	46,750
	1.2	89,643
	1.3	10,110
	1.4	30,772
2 Formal recognition of the roles and responsibilities of Zambia's National Plant Protection Organization	2.1	40,345
	2.2	3,897
3 Strategies developed	3.1	24,824

for future operations of Zambia's NPPO and a Zambia-led regional plant quarantine pest surveillance programme		
	3.2	6,158
	3.3	177,000
	3.4	88,500
4 NPPO staff trained in export phytosanitary regulatory systems	4.1	27,194

14. Cost-effectiveness

This project is considered a reasonably cost-effective contribution towards improving Zambia's phytosanitary capacity with some tangible benefits to exporters of horticulture, arable and floriculture products. Zambia's phytosanitary regulatory system, including Zambia's NPPO, is significantly under-resourced. Without projects of this nature, it is fated to continue struggling to undertake currently assigned tasks with no opportunity to review current operations for their cost-effectiveness in the management of high risk pests. Often, it is difficult for PHIs to apply the skills and knowledge gained from training provided. This project offers practical, learning-by-doing training experiences that complement past and ongoing capacity building investments. Some experiences, however, are costlier. The project will not provide the ultimate solution to Zambia's NPPO resourcing problems rather an important contribution.

There are a couple of items in the budget that contribute to the cost-effectiveness of the project. These are:

- The various workshops will be held in Lusaka or out at Chilanga where different public sector representatives can attend at little cost; and
- Where possible, the Lusaka and Chilanga workshops will be held on public sector premises, thereby saving on travel costs and use of premises.

On the other hand, the consultant fee rate may seem high. However, the selection of an appropriately skilled and experienced consultant is identified as an important factor to guarantee successful workshop outcomes. Ensuring there is sufficient funds available to secure the 'right' consultant when required encourages *PhytoSolutions* to do just that, even if the second best, but in-house option is available. Notably, the fee rate applied aligns directly with the rate used in another STDF-funded project (STDF 335).

IV. PROJECT IMPLEMENTATION & MANAGEMENT

15. Implementing organization

PhytoSolutions Consultancy, hereafter referred to as *PhytoSolutions*, is the organization responsible for project implementation. *PhytoSolutions* was established in 2010, by Ms Marianna Theyse (psconsult@telkomsa.net or +27 82 821 5404), as a consultancy firm providing turn-key solutions to sanitary and phytosanitary (SPS) challenges for safe and sustainable agriculture and market access with a special focus on the African region. Evidence of the technical and professional capacity of *PhytoSolutions* to implement the project is provided in **Appendix 5**. **Appendix 5** includes: (i) a Company Profile with a summary of SPS projects undertaken by *PhytoSolutions*, (ii) an Outline of PhytoSolutions Consultancy Human Resources Structure, and (iii) CVs of key *PhytoSolutions* personnel – management, project support administration and expert

consultants. As necessary or appropriate, *PhytoSolutions* subcontracts specialist consultants to assist in project implementation. Key experts available to be subcontracted include Ms Jennifer Rathebe, Dr Jean Randrianangaly and Mr Mike Holtzhausen. In addition, information on *PhytoSolutions* from the [South African] Companies and Intellectual Property Commission is included as a record of the company's financial probity, followed by a Letter of Consent agreeing to implement the project.

Regarding the Letter of Consent, *PhytoSolutions* has agreed to manage and supervise project implementation as well as provide the specialist consultants required for the various activities. *PhytoSolutions* has considerable within-organization specialist capacity but to ensure that a project team with the most appropriate skills and experience is available for project implementation, it draws on subcontracting arrangements with other independent specialists to supplement the pool of internal expert consultants. PQPS will be consulted on *PhytoSolutions* selection of an available expert consultant for each particular activity as it is scheduled to best fit with Zambian or SADC Member State representative participants' availability.

16. Project management

In one way or another, PQPS is involved in all four of the project's outputs, as is *PhytoSolutions* in its management and supervisory role as well as its consultant/facilitator roles. The scale of this project does not necessarily warrant the establishment and associated costs of a Project Steering Committee (PSC). However, advantage will be taken of regular opportunities for *PhytoSolutions* CEO and Manager Phytosanitary Services, Ms Marianna Theyse and PQPS Team Leader, Dr Kenneth Msiska, to meet in Zambia or South Africa, as occasions present. Operating as a quasi PSC, all project reports, work plans and budgets will be shared and reviewed to ensure that all activities are pursued in line with the Work Plan and Budget as well as relevant national policies, strategies and procedures. Such meetings, or by phone (with email confirmation), as necessary will be used to agree the *PhytoSolutions* consultant or subcontracted consultant for upcoming activities.

As necessary, *PhytoSolutions* personnel will liaise and work with PQPS to manage travel/transport and administration arrangements, and provide necessary logistical support for training events. Advice will be sought, from involved public sector agencies and private sector organisations, on suitable nominees to participate in project activities.

PhytoSolutions will be responsible for ensuring the preparation of Activity Reports. Activity Reports will contain details of each individual event making up the activity (e.g. Activity 1.2 is comprised of three workshops), including, as appropriate, the number of participants gender disaggregated, participant names and affiliations, and contact details (including email address). More importantly, workshop assessments by participants will be carried out at the end of each workshop using workshop-specific assessment questionnaires, and the collation of the results from these workshops will be included in the Activity Report.

V. REPORTING, MONITORING & EVALUATION

17. Project reporting

With reference to the intended work plan (**Appendix 2**), a project progress report, including a financial report, will be submitted by *PhytoSolutions* to STDF every six months during the three-year period planned for project implementation. In addition, at the conclusion of each Output, an Output Report will be submitted to STDF describing the activities undertaken and any deviations from the expected results. Within three months of completion of the entire project, a final report will be prepared setting out the project results, their contribution towards achieving the project's immediate objective (purpose) and goal, together with recommendations for any assistance required in the future and lessons learned.

In addition, all documents produced during the course of the project in association with the different activities will be made available to STDF attached to the relevant Output Report.

18. Monitoring and evaluation, including performance indicators

Most, if not all the activities result in discrete documents that are straightforward to monitor project implementation from the sources of verification identified in the Logical Framework (**Appendix 1**).

To evaluate the effectiveness of the project, there will be:

- Systematic collection of Activity Reports and documents to make judgements about their relevance and performance; and
- Analysis of evidence relating to whether activities are contributing to meeting each output.

An evaluation of the outputs of the project will be included in the final report and their contribution towards achieving the project's immediate objective and goal. However, the immediate objective and goal of the project are not likely to be measurable until after completion.

19. Dissemination of the projects results

In association with different activities, various documents will be produced during project implementation – Strategies/Strategic Plan, Implementation/Action Plan, Policy document, Market Access Submission, Workshop Report and the likes. Such documents mostly lend themselves to use of websites for dissemination, including www.pqpszambia.gov.zm and/or www.sadc.int/. While most are only of direct relevance to Zambian stakeholders, the documents produced through Activities 3.3 and 3.4 are regional drafts for consideration by SADC Member States. They will be made available to the SADC Secretariat for further action.

In some instances, the documents from one activity will form the basis for another (e.g. Activities' 1.1 and 1.2 documents forming the foundation of Activity 1.3), in which case hard copies will also be distributed to workshop participants. Regarding the Market Access Submission from Activity 4.1, it should be dealt with as a market access request, a bilateral matter for negotiation between NPPOs.

The Activity 1.1 Report contains detailed information on the SPS rules applying in the SADC region, current phytosanitary import procedures and practices applied by SADC Member States to imports of plants and plant products from other countries in the SADC region, and SADC Member States current import requirements for types of plants and plant products of interest to the horticulture, arable and floriculture sectors in Zambia. It also contains references (including website addresses) to the information sources. This document is likely to be of much wider interest and thus, hard and soft copy, will be made accessible to all interested parties.

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ATTACHMENTS (as files PGApplicationForm_Zambia_FINAL_2017 Appendices 1 2 and 4a Sept.doc, PGApplicationForm_Zambia_FINAL_2017 Appendix 4b Sept.doc, PGApplicationForm_Zambia_FINAL_2017 Appendix 3 Sept.xlsx, PGApplicationForm_Zambia_FINAL_2017 Appendix 5a Sept.doc and PGApplicationForm_Zambia_FINAL_2017 Appendix 5b Sept.doc)

Appendix 1: Logical framework

Appendix 2: Work Plan

Appendix 3: Project Budget

Appendix 4: Letters of support from six organizations and six SADC Member States that support the project request

Appendix 5: Evidence of the technical and professional capacity of *PhytoSolutions*, the organization proposed to implement the project and a Letter of Consent from *PhytoSolutions* agreeing to implement the project.

APPENDIX 1: Logical Framework

	Project description	Measurable indicators / targets	Sources of verification	Assumptions and risks
Goal	**To realise economic opportunities for Zambia through improved cooperation with other SADC member states to access markets for Zambia's horticulture, arable and floriculture products.**	**Trade volumes from the horticulture, arable and floriculture sectors remain at least the same or increase.** **Total revenue from the sectors remains the same or increases.** **Production levels from the sectors remain the same or increase to meet demand.**	**Data on export volumes, export earnings and production volumes from ZEGA, ZDA, MOA (e.g. annual Crop Forecast Survey) and MCTI reports.**	**Producers are interested in exporting and motivated to play their part in meeting importing countries phytosanitary requirements.** **Demand for Zambian-grown plant products from international markets, especially SADC members, can be capitalised on.** **Prices for exported Zambian-grown plant products return a profit to producers.** **New pest incursions or outbreaks of established pests do not limit production for which there is market demand.** **The Government of Zambia provides ongoing operational funding as appropriate for the NPPO and other government bodies to support their SPS trade-related activities.**
Immediate objective (purpose)	Improve Zambia's phytosanitary capacity and increase the confidence of trading partners, especially SADC member states, through compliance with their phytosanitary requirements.	Increase in the number of exported consignments of horticulture, arable and/or floriculture products that comply with Zambian trading partners' phytosanitary requirements.	Zambian NPPO records and trading partners' NPPO records.	Zambian producers of horticulture, arable or floriculture products are interested in exporting and have product(s) available for export. Within Zambia's border control systems, the NPPO is able to adapt its operations.

Output 1	Improved access to trading partners' phytosanitary requirements and understanding of risk-based approaches to managing trade in plant products.	As required, ready access to up-to-date trading partners' phytosanitary requirements by the NPPO and cross border traders at entry/exit points.	NPPO reference documents, computerised databases and on-call communication system(s). NPPO records of bilateral negotiations to address unjustified phytosanitary measures.	A realistic approach to timely updating records of trading partners' phytosanitary requirements and ready access to those records that allows for power outages and unreliable computer networks. NPPO staff are responsive to training, and willing to revise and implement SOPs as necessary. NPPO staff implement revised SOPs.
Activity 1.1	Review regional (World Bank, SADC and COMESA) and individual SADC Member State initiatives and agreements pertaining to current phytosanitary regulatory practices and import requirements, and access to SADC Member State import requirements for plants and plant products, and develop recommendations for improving Zambia's opportunities for trade in plants and plant products.	Review findings and recommendations finalised for Activity 1.2 workshops.	Report with recommendations.	Relevant World Bank, SADC, COMESA and SADC Member State officials are available and willing to provide information for the review. Recognition from donor agencies, regional organisations and other SADC Member States of possible lessons to be learned from Zambia's situation.
Activity 1.2	Three 5-day workshops for different trade, PQPS and ZDA officials and private sector representatives (commercial and small-scale farmers, exporters, importers) to improve understanding risk-based approaches to regulating the export and import of plants and plant	Presence of representatives from relevant government agencies and the private sector at each workshop. Up to 16 persons trained/workshop. Improved communications between agencies. Increased involvement of PQPS staff in other agencies' activities.	Lists of participants. Workshop reports. Activity Report including workshop evaluations. Emails and letters sent between the agencies. Reports on collaborative activities between PQPS and other agencies.	Representatives from relevant government agencies and the private sector come to workshops with an open mind and willing to share their experiences and ideas.

	products, and to collectively identify areas to improve agency coordination.			
Activity 1.3	From Activities 1.1 and 1.2, develop an Action Plan for implementation.	Workshops' findings collated into Action Plan. Distribution of draft Action Plan for consultation with workshop participants. Action Plan finalised and relevant items incorporated in Strategic Plan for PQPS.	Draft Action Plan. Feedback on draft Action Plan. Finalised Action Plan. Five-year Strategic Plan for PQPS.	Workshops' participants willing and available to provide feedback on draft Action Plan.
Activity 1.4	Provision of technical support (within the project implementation period) to implement the Action Plan.	Procedures established for requesting technical support and criteria agreed for approving/prioritising requests. Technical support provided as requested.	Records of technical support requests, support provided and the outcome of the support given within project implementation period. MOA, PQPS and MCTI Operational Plans and quarterly reports.	Appropriate expertise can be identified and accessed to provide requested short-term technical support within the project implementation period.
Output 2	Formal recognition of the roles and responsibilities of Zambia's National Plant Protection Organisation (NPPO).	Changes scheduled to The Plant Pests and Disease Act that give formal recognition to Zambia's NPPO and align the Act with Zambia's international obligations.	Proposed amendment to The Plant Pests and Disease Act. Government of Zambia/MOA legislative programme.	Minister and Permanent Secretary are willing to support changes to The Plant Pests and Disease Act and/or related regulations.
Activity 2.1	Review The Plant Pests and Disease Act (as amended G.N. No. 90 of 1964) and associated Regulations, in consultation with PQPS staff, to recommend amendments that reflect Zambia's international and regional obligations, IPPC terminology and the responsibilities of the NPPO.	Drafted amendments that reflect Zambia's international obligations.	Activity report, including drafted amendments and explanations for each recommended amendment.	A legal consultant familiar with SPS matters is available to lead the review.

Activity 2.2	In cooperation with relevant MOA and other officials develop an action plan to have recommended amendments to the legislation adopted.	Action Plan agreed.	Action Plan.	Support from relevant MAL and other government officials for legislative change.
Output 3	Strategies developed for future operations of Zambia's NPPO and a Zambia–led regional plant quarantine pest surveillance programme.	Zambia NPPO Strategy implemented. SADC Regional Plant Quarantine Pest Surveillance Programme approved for implementation by SADC.	Five-year Strategic Plan for PQPS and associated quarterly reports. Draft policy on cost-sharing/resourcing arrangements for regional SPS operational activities such as surveillance. Regional Plant Quarantine Pest Surveillance Programme and related SADC meeting minutes/reports.	SADC Member States are willing to support Zambia leading role in developing a regional plant quarantine pest surveillance programme. Plant quarantine pests are identified for the region for which regional surveillance is technically feasible and justified.
Activity 3.1	Workshop: Five-year Strategic Plan for PQPS, Zambia's NPPO developed and documented in consultation with PQPS staff.	Draft Strategic Plan prepared by senior PQPS staff at Mt Makulu during five-day facilitated workshop. Draft Strategic Plan distributed to PQPS staff for consultation. Five-year Strategic Plan for PQPS approved by PQPS Team Leader and Director - ZARI.	Draft Strategic Plan for PQPS. Staff feedback on draft Strategic Plan. Five-year Strategic Plan for PQPS. Activity Report.	Consultant with governance and phytosanitary regulatory experience available to facilitate. PQPS staff able to be freed from day-to-day duties to participate.
Activity 3.2	Meeting: Annual operational plans developed to implement priority actions identified in the Strategic Plan and align with MOA operating timeframes and budget processes.	Year 1 Operational Plan prepared by senior PQPS staff at Mt Makulu during two-day workshop. Year 1 Operational Plan approved by PQPS Team Leader.	Costed PQPS Operational Plans.	MOA operating timeframes and budget processes not able to accommodate 'new' initiatives from within the organisations. PQPS staff able to be freed from day-to-day duties to participate.
Activity 3.3	Facilitated workshops of experts/officials from SADC Member States to (i) confirm quarantine pests	Five-day workshop of experts to confirm quarantine pests for SADC for which regional surveillance efforts are technically feasible and justified,	Activity Reports, including lists of participant experts/officials. Annotated list of quarantine pests for	Consultant with experience in developing plant pest surveillance programmes available to facilitate. Appropriate experts/officials from SADC Member States are

	for SADC for which regional surveillance efforts are technically feasible and justified, and (ii) develop for SADC consideration, a draft policy on cost-sharing/resourcing arrangements for regional SPS operational activities such as surveillance.	with technical justification documented. Confirmation of quarantine pests for SADC for which regional surveillance efforts are technically feasible and justified, with technical justification documented. Five-day workshop of officials representing SADC Member States to prepare a draft policy on cost-sharing/resourcing arrangements for ongoing regional SPS operational activities such as surveillance. Draft policy on cost-sharing arrangements by SADC Member States for ongoing regional SPS operational activities prepared for SADC consideration.	SADC for which regional surveillance efforts are technically feasible and justified. Draft SADC policy on cost-sharing/ resourcing arrangements for ongoing regional SPS operational activities such as surveillance.	willing and available to participate.
Activity 3.4	Workshop: Regional Plant 'Quarantine Pest' Surveillance Strategy/ Programme developed in consultation with experts from SADC Member States, and documented for presentation to SADC.	Workshop of experts from SADC Member States to draft Regional Plant 'Quarantine Pest' Surveillance Strategy/ Programme. Regional Plant 'Quarantine Pest' Surveillance Strategy/ Programme drafted.	List of experts. Activity Report. Draft Regional Plant 'Quarantine Pest' Surveillance Strategy/ Programme.	Consultant with experience in developing plant pest surveillance programmes available to facilitate. Appropriate experts/officials from SADC Member States are willing and available to participate.
Output 4	NPPO staff trained in export phytosanitary regulatory systems.	Frontline staff confidence in negotiating, administering and implementing justified phytosanitary measures. NPPO frontline staff contribution to developing and implementing strategic changes for operational improvements.	Zambian NPPO records. Five-year Strategic Plan for PQPS and associated quarterly reports.	PQPS Plant Health Inspectors (PHIs) willing and available to participate. Plant product exporters interested in exporting.
Activity	Six-day capacity	Number of senior	List of participants.	PQPS Plant Health Inspectors

4.1	building workshop(s) for senior PQPS staff in technical bilateral market access negotiations, using relevant commodity examples exported/to be exported to South Africa and/or another SADC Member State. Includes the preparation of at least one 'new' market access submission.	PQPS staff participants. At least 10 staff participating in total (over 2 workshops if staff cannot be absent from frontline duties at one time). At least 1 new market access submission prepared.	Workshop(s) report. Market access submission(s) (to include: Formal request, Pest List, Information on production practices in the production areas, Proposed phytosanitary measures for any known quarantine pests for the importing country).	(PHIs) willing and available to participate. Consultant(s) with practical experience in market access negotiations and preparing market access submissions available to facilitate workshop(s). Plant product exporters' interest in new markets, and willing to provide relevant information on production practices.

APPENDIX 2: Work Plan

Activity		Responsibility	Year 1				Year 2				Year 3			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Output 1	Activity 1.1	Implementing Organisation (IO)												
	Activity 1.2	IO, PQPS, MCTI, ZDA, private sector organisations												
	Activity 1.3	IO, PQPS												
	Activity 1.4	IO, PQPS												
Output 2	Activity 2.1	IO, legal consultant												
	Activity 2.2	IO, PQPS, MAL												
Output 3	Activity 3.1	IO, PQPS, phytosanitary regulatory consultant												
	Activity 3.2	IO, PQPS												
	Activity 3.3	IO, SADC, pest surveillance consultant												
	Activity 3.4	IO, PQPS, SADC Member States, pest surveillance consultant												
Output 4	Activity 4.1	IO, PQPS												

APPENDIX 3: Budget (US$)			Total	STDF	Zambia
1.1	**Review regional and national agreements and develop recommendations**				
		Consultant (at home)	$ 45,000	$ 45,000	
		Tel, wifi, printing, photocopies	$ 1,750	$ 1,750	
1.2	**Workshops (3x) risk based approaches**				
		PQPS, trade officials and private sector reps (16 people)	$ 19,200	$ 19,200	
		Local travel cost (Lusaka)	$ 960	$ 960	
		Salaries Zambians	$ 7,073		$ 7,073
		Secretarial/driver support	$ 750	$ 750	
		Consultant expert	$ 30,000	$ 30,000	
		1x tickets airfare economy	$ 2,500	$ 2,500	
		Consultant DSA	$ 7,200	$ 7,200	
		Meeting room	$ 15,000		$ 15,000
		Tel, wifi, printing, photocopies	$ 960	$ 960	
		Lunches and coffee breaks	$ 6,000	$ 6,000	
1.3	**Action Plan for 1.1 and 1.2**				
		Consultant expert	$ 7,500	$ 7,500	
		1x tickets airfare economy	$ 450	$ 450	
		Consultant DSA	$ 2,160	$ 2,160	
1.4	**Technical support to implement the Action Plan**				
		3per x 5d consultant(s)	$ 22,500	$ 22,500	
		3per x 5d salaries Zambians	$ 442		$ 442
		3x tickets airfare economy	$ 1,350	$ 1,350	
		Consultant DSA	$ 6,480	$ 6,480	
2.1	**Review relevant Acts and write paper recommending amendments based on obligations**				
		Legal consultant	$ 36,000	$ 36,000	
		1x tickets airfare economy	$ 450	$ 450	
		Consultant DSA	$ 3,600	$ 3,600	
		Salaries Zambian (1per)	$ 295		$ 295
2.2	**In cooperation with relevant MOA and other officials develop an action plan to have recommended amendments to the legislation adopted**				
		National consultant	$ 3,750	$ 3,750	
		Salaries Zambians	$ 147		$ 147

APPENDIX 3: Budget (US$)			Total	STDF	Zambia
3.1	**Workshop: Five-year Strategic Plan for PQPS, Zambia's NPPO developed and documented in consultation with PQPS staff**				
		Consultant	$ 9,000	$ 9,000	
		Salaries Zambians	$ 1,644		$ 1,644
		PQPS staff x 10	$ 4,000	$ 4,000	
		Local travel cost	$ 1,000	$ 1,000	
		Secretarial/driver support	$ 250	$ 250	
		1x tickets airfare economy	$ 450	$ 450	
		Consultant DSA	$ 2,160	$ 2,160	
		Meeting room	$ 5,000		$ 5,000
		Tel, wifi, printing, photocopies	$ 320	$ 320	
		Lunches and coffee breaks	$ 1,000	$ 1,000	
3.2	**Meeting: Annual operational plans developed to implement priority actions identified in the Strategic Plan and align with MOA operating timeframes and budget processes**				
		National consultant	$ 1,500	$ 1,500	
		Consultant DSA	$ 720	$ 720	
		Salaries Zambians	$ 658		$ 658
		Local travel cost 4per	$ 560	$ 560	
		Meeting room - Mt Makulu	$ 2,000		$ 2,000
		Catering	$ 400	$ 400	
		PQPS Ndola etc DSA	$ 320	$ 320	
3.3	**Workshops (in Lusaka) of experts/officials from SADC Member States to (i) confirm quarantine pests for SADC for which regional surveillance efforts are technically feasible and justified, and (ii) develop for SADC consideration, a draft policy on cost-sharing/resourcing arrangements for regional SPS operational activities**				
		SADC member expert reps	$ 43,200	$ 43,200	
		10x tickets airfare economy	$ 9,000	$ 9,000	
		Local travel cost	$ 480	$ 480	
		Salaries SADC reps	$ 90,000		$ 90,000
		Secretarial/driver support	$ 500	$ 500	
		Consultants (1 x 2 w'shops)	$ 15,000	$ 15,000	
		2x tickets airfare economy	$ 900	$ 900	
		Consultant DSA	$ 4,320	$ 4,320	
		Meeting room	$ 10,000	$ 10,000	
		Tel, wifi, printing, photocopies	$ 1,000	$ 1,000	
		Lunches and coffee breaks	$ 2,600	$ 2,600	
3.4	**Workshop (in Lusaka): Regional Plant 'Quarantine Pest' Surveillance Strategy/ Programme developed by experts from SADC Member States, and documented**				

APPENDIX 3: Budget (US$)			Total	STDF	Zambia
	for presentation to SADC				
		Consultant	$ 7,500	$ 7,500	
		1x tickets airfare economy	$ 450	$ 450	
		Consultant DSA	$ 2,160	$ 2,160	
		10x tickets airfare economy	$ 4,500	$ 4,500	
		Salaries SADC member reps	$ 45,000		$ 45,000
		SADC reps DSA	$ 21,600	$ 21,600	
		Local travel cost	$ 240	$ 240	
		Secretarial/driver support	$ 250	$ 250	
		Meeting room	$ 5,000	$ 5,000	
		Tel, wifi, printing, photocopies	$ 500	$ 500	
		Lunches and coffee breaks	$ 1,300	$ 1,300	
4.1	**Six-day capacity building workshop(s) for senior PQPS staff in technical bilateral market access negotiations, using relevant commodity examples exported/ to be exported to South Africa and/or another SADC Member State. Includes the preparation of at least one 'new' market access submission.**				
		PQPS staff x 10: Mt Makulu/ Lusaka	$ 4,800	$ 4,800	
		Local travel cost	$ 1,200	$ 1,200	
		Salaries Zambians	$ 1,764		$ 1,764
		Secretarial/driver support	$ 300	$ 300	
		Consultant	$ 9,000	$ 9,000	
		1x tickets airfare economy	$ 450	$ 450	
		Consultant DSA	$ 2,160	$ 2,160	
		Meeting room	$ 6,000		$ 6,000
		Tel, wifi, printing, photocopies	$ 320	$ 320	
		Lunches and coffee breaks	$ 1,200	$ 1,200	
	Subtotal		**$ 545,193**	**$ 370,170**	**$ 175,023**
	Contingency 5%		$ 27,260	$ 27,260	
	Subtotal		**$ 572,452**		
	PhytoSolutions 10%		$ 57,245	$ 57,245	
	Total		**$ 629,697**	**$ 454,675**	**$ 175,023**