

STDF PROJECT GRANT APPLICATION FORM (STDF/PG/543)

Project Title	Enhancing the capacity of the Fruit and Vegetable Sector to comply with Phytosanitary requirements for export to EU, other high-end markets and regional markets.
Objective	Improved compliance with international phytosanitary standards for production and export of Fresh Fruits and Vegetables (FFVs) for export to Europe and other high-end markets and in support of regional trade.
Budget requested from STDF	US\$ 484,788
Total project budget	US\$ 882,726
Full name and contact details of the requesting organization(s)	<p>Directorate of Crop Resources, Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), P.O. Box 102, Entebbe, Uganda E-mail: psmaaif@infocom.co.ug Tel.: +256 414 320987/9, 3200004, 320327/8 Fax: +256-041-321047,256-041-321010, 256-041-321255</p>
Full name and contact details of contact person for follow-up	<p>Mr. Paul Mwambu, Commissioner, Department of Crop Inspection and Certification Ministry of Agriculture Animal Industry and Fisheries (MAAIF) P.O. Box 102, Entebbe, Uganda E-mail: pmwambu2@yahoo.com and pmwambu3@gmail.com Tel. +256 774013363 +256 414 320801 +256 414 322458 Fax: +256 414 320642</p> <p>Alternate Contacts:</p> <p>Brenda Kisingiri Department of Crop Inspection and Certification Ministry of Agriculture Animal Industry and Fisheries (MAAIF) P.O. Box 102, Entebbe, Uganda Email: bkisingiri@agriculture.go.ug Tel. +256 772403364</p> <p>Anno Galema 1st Secretary Food Security & PSD Embassy of the Kingdom of the Netherlands Rwenzori Courts, 4th Floor, Plot 2, Nakasero Rd, Kampala, Uganda Email: anno.galema@minbuza.nl Tel. +256 789906778</p>

I. BACKGROUND & RATIONALE

1. Relevance for the STDF

This project proposal is the outcome of a Project Preparation Grant (PPG) by the Head Phytosanitary and Quarantine, Department of Crop Protection, MAAIF at the time of the drafting, July / August 2016. The PPG was supported by a support letter of the Horticulture Exporters Association of Uganda (HORTEXA). The direct purpose of the PPG application was to develop a project proposal that will address the 'high non-compliance levels in the European market especially due to the detection of quarantine pests. Notable Capsicum with false codling moths and fruit flies, curry leaves due to *Trioza* sp. among others'. Simultaneously the purpose was to improve the SPS system to serve also wider marketing ambitions in other western markets and in the region. The application STDF/PPG/543 was approved by the STDF Working Group in a meeting in Geneva, 20-21 October 2017.¹The approved PPG did not mention food safety issues and these are not included in this proposed project as that would result in a different type of project with a different approach and budget.

The proposed project is in line with STDF mandate that supports the implementation of projects promoting capacity building to comply with official phytosanitary requirements to improve market access and foster economic and social development. This project will contribute to improving the Ugandan plant health status and to facilitate trade and international and regional market access, particularly in the horticultural subsector of fresh fruits and vegetables (FFVs), thus underpinning economic development and employment of that sector in Uganda.

Uganda's National Trade Policy²also prioritises enhancing the competitiveness of Uganda's products and services in the domestic, regional and international markets while ensuring that trade conforms to national and international requirements, including Sanitary and Phytosanitary Standards (SPS). The Uganda Vision 2040³states "*In order to enhance market access and value addition, Government will: improve capacity for regulation and enforcement especially in safety standards and quality assurance.*" etc. (see also Section 3.1).

The Project will support the objectives of the National Trade Policy that prioritise conformity to SPS as a way of ensuring competitiveness. It may support the further the implementation of the existing draft of the SPS policy⁴(see further Section 3.3) and the activities of the Uganda Export Promotion Board (UEPB) related to the horticulture sector and its compliance with phytosanitary requirements (see Section 4.5). For the latter the development of a strategic plan to support the export of Ugandan FFVs is likely to be very important (Output 2.).

In this context the International Plant Protection Convention (IPPC) facilitates the safe trade of plants and plant products, assuring compliance for Ugandan producers to access international markets, including the European Union (EU), as well as to regional markets. However, as described under 2.1, the capacity to regulate plant health issues in the FFV value chain is variable for the different stakeholders, resulting in phytosanitary export constraints.

This Project is further relevant to STDF funding since it will demonstrate an approach to the development of sharing phytosanitary responsibilities by different stakeholders in the FFV value chain using public private partnerships (PPP). For that matter a private sector-led SPS Multi-Stakeholder Platform will be established, that will complement and support the existing (and more permanent) national coordination mechanisms. The complementarity is manifest in the following ways: (1) involving a broader range of key private sector actors through the meetings and activities of the proposed Platform, including for example representatives of public and private extension who are, in turn, key in increasing awareness of SPS standards and compliance among growers but who are not yet involved in the national coordination mechanisms; (2) Involving a broader range of processors and exporters in

¹ Summary report of the STDF Working Group Meeting 20-21 October 2016, WTO, Geneva. www.standardsfacility.org/sites/default/files/STDF_WG_Summary_Report_Oct-16.pdf

²Source:GoU, Uganda's National Trade Policy. Trading Out of Poverty, Into Wealth and Prosperity. Ministry of Tourism, Trade and Industry. August 2007. 22 p. See: www.mtti.go.ug

³GoU. Uganda Vision 2040 (year?). 136 p.

⁴Draft National Sanitary and Phytosanitary (SPS) Policy. *Promotion of human, animal and plant life or health for sustainable trade and competitiveness*. MAAIF. Draft 24th May 2016.

the Platform, to obtain their input, to raise awareness and promotion of SPS standards, compliance, and participation in notification by processors and exporters; (3) Using the expanded influence and increased resources brought by these private sector actors to enable the above activities and the functioning of the national coordination mechanisms to a greater extent than is currently possible due to the present capacity constraints of these national mechanisms. Such an approach could be replicated in neighbouring countries like Rwanda and Burundi, thus strengthening the project's positive spill over effects in the region. Donors emphasize the importance of private sector involvement in both the design and operation of an effective SPS system. It is believed that the financial sustainability of a SPS system can only be guaranteed through a PPP approach. They welcome the MSP as an effective vehicle to achieve this.

The Project would contribute to the achievement of Sustainable Development Goals (SDGs)⁵ to which STDF is committed: mainly SDG 1 to reduce poverty, SDG2 to end hunger and achieve food security and improved nutrition and promote sustainable agriculture and to some extent SDG 12 to ensure sustainable consumption and production patterns and SDG 10 to reduce inequalities within and among countries. The project would also address the management of invasive pests, such as the false codling moth that is a threat to economic growth of Uganda (and the continent), thus contributing to SDG 15 which supports life on land. Finally, the project would support the goals of SDG 17 on partnerships, particularly because of the proposed collaboration between public and private stakeholders.

In view of the above, the Directorate Crop Resources (DCR) of MAAIF strongly believes that the proposal is relevant to the STDF.

The proposal addresses a key constraint for agricultural development that is clearly acknowledged by the Agriculture Donor Working group in Uganda. EU, USAID and the Netherlands have been directly involved. The Netherlands Embassy will provide co-financing.

The proposed project purpose is an improved compliance with international phytosanitary standards for production and export of FFVs for the EU market, other western and regional markets. Regional trade in fresh fruits and vegetables is mostly informal, so little data is available. However, as Uganda Investment Authority, in their *Fruits and Vegetables Sector Profile*, notes under the section on potential export markets: "The easiest and largest market to target (for fresh fruits and vegetables) will be the domestic, border and regional markets. The current production levels of fruits are yet to satisfy this area demand. It is strategic to strengthen the existing trade which is not satisfied and yet expanding. The major exporters of fruits to this market are Egypt, Zimbabwe, Swaziland but their potential has been on the decline and this is a gap that can be filled with supplies from Uganda."

The project proposes the following six Outputs:

Output 1. A diagnostic mapping of public and private partners and SPS services along the horticulture value chain is completed in order to identify priority areas for capacity building (which is developed for phytosanitary compliance of public and private partners) and to provide input to the streamlining of the inspection and certification system. It is planned that among other information-gathering and analysis activities, the mapping will adapt questions from the PCE to administer to value chain actors in fruit and vegetable value chains and key government officials. During implementation we will consider whether conducting a full PCE will add value to the project in the context of what has been discovered. A private sector-led SPS Multi-stakeholder platform is developed to complement and assist national coordinating mechanisms in increasing ownership of the responsibility for improvement in SPS compliance by private sector actors.

Output 2. A capacity development plan is implemented, upon validation by the results of diagnostic mapping in Output 1, which confirms and prioritizes the capacity gaps identified in the planned activities for this Output and links them to the appropriate actors. The capacity of public and private partners (PPP), including growers, along the horticultural value chain is further developed in order to apply appropriate pest management practices and to bring the implementation of phytosanitary inspections and certification of FFVs export consignments in line with international standards of export certification systems and the requirements of EU, regional and other markets.

⁵ Source: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Output 3.A streamlined inspection and export certification system through the value chain for horticultural products based on public-private partnership (PPP) is designed and adopted in accordance with the results of the diagnostic mapping, ISPM 7, ISPM 14, ISPM 23, and reference made to the IPPC Import Verification Guide and Export Certification guide.

Output 4. Specific phytosanitary survey and monitoring systems in the FFV value chain based on public private partnership (PPP) are effectively operational.

Output 5. Based on a market study to assess opportunity to increase fruit and vegetable exports to both new and current markets with improved SPS compliance, a realistic Uganda Export Marketing Strategy for FFVs is developed and agreed upon by the key stakeholders of the FFV export value chain.

Output 6. Improved awareness at national levels of inspection and certification systems in the horticulture sector as a whole and based on the experiences, recommendations on improvements to be made for the FFV Export Value Chain and expansion of the results to other horticulture sub-sectors are made.

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

2.1. Food and agricultural trade flows and relevant SPS issues

2.1.1 Production and trade statistics

Uganda is a country driven predominantly by its rural agriculture sector, demonstrated by the fact that about 84% of Uganda's working population are employed in agriculture⁶ and thus depend on agriculture as a source of livelihood. As such, people in rural areas of Uganda depend on farming as the main source of income and 90% of all rural women work in the agricultural sector⁷.

The country is one of the fastest growing economies in Africa with high growth averaging 7.8 per cent since 2000, though facing a setback during the more recent years, coupled with a modest average 2.2 per cent growth in agriculture between 2010-2014.⁸The agricultural sector mainly consists of small-scale farming and most production is by households with small land holdings who contribute largely to the trade of agricultural products. The sector also contributes 42 per cent of the national gross domestic product and 80 per cent of the export earnings.⁹These export trade flows give support to rural employment and economic development and are also linked to horticultural products such as FFVs.

The major FFV restrictions in export to the EU, the most import non-African export market at moment, are curry leaves, hot peppers (= *Capsicum*), jack fruit, bitter melon, sour sop, mango, basil, okra, and some other minor products that are affected by fruit flies, African army worm, white flies, psyllids (*Trioza*) and citrus greening bacteria. This proposed project will focus on these commodities as priorities to meet the international phytosanitary requirements, most prominently those of the EU, without discounting due focus on regional trade. In addition to the fruits and vegetables already specified above, it is likely that one result of the study of potential markets to be conducted by UAA will be a limited number of additional fruits or vegetables, which have been identified by the market study as having strong potential for, export.

Although exports of eggplants have been intercepted in the EU in the past resulting in a mandatory 50% residue testing for pesticides, the proposed project will not focus on issues related to food safety as it would need a different project approach and a considerable additional STDF budget.

To provide an idea of the magnitude of some of the FFVs, the figures in the following table indicate production areas for chillies and herbs for the period 2011 – 2017. Both products are relevant for this

⁶ Source : <https://www.cia.gov/library/publications/the-world-factbook/geos/ug.html>

⁷ Source : <http://www.ifad.org/pub/gender/genpfe.pdf>

⁸Source: World Bank 2018, Closing the Potential-Performance Gap in Ugandan Agriculture

⁹Source: <http://ea-agribusiness.co.ug/prospects-of-uganda-agricultural-trends-in-2015/>

proposal as these are relatively often subject to interceptions due the presence of harmful organisms (HOs) when imported into the EU, as shown in the following tables. An observed reduction in the chilli (*Capsicum*) production was caused by a problem that farmers had to manage pests, including HOs.

Table 1. Production areas and volumes for chillies and herbs (source MAAIF¹⁰ and ¹¹).

Commodity	Herbs		Chillies	
	Area (ha)	Volume (MT)	Area (ha)	Volume (MT)
2011	42		750	3,000
2012	56,5		624	2,469
2013	62,9		522	2,088
2014	75		678	2,712
2015	78		1,080	4,320
2016		158	1,084	2,601
2017		15	1,063	2,551

Over the years, Uganda's exports of edible vegetables, fruits, nuts, certain roots and tubers have strongly increased (albeit with some fluctuations) as given in the following Table 2. According to PQIS (Phytosanitary and Quarantine Inspection Services) inspector reports, exports to the EU represent approximately 60% of all FFV exports, with the other 40% going mainly to the Middle East and very little going to neighbouring countries. In particular, roughly 27 % of the Ugandan Chillies (*Capsicum*) production was exported to the EU in 2015. Therefore, the export of FFVs, particularly chillies, is very important for the stakeholders in the FFV value chain.

The earlier mentioned products (curry leaves, hot peppers (= *Capsicum*), jack fruit, bitter gourd, soursop, mango, basil, okra, and some minor FFV commodities) have been severely affected by SPS measures and the reduction is a result of incompetence in the production and management of the HOs (harmful organisms) that are regulated by the EU. As a result, most of the products cannot comply with EU Phytosanitary requirements (see further 2.1.2 and Table 3), nor with the relevant international standards (see further 2.1.5.)

Table 2. Values (in thousand €) and quantities (in MTs) of FFV from Uganda to the EU and selected countries within the EU (Source: EU Market Access Database¹²)¹³

Importer	Exported values in thousand €		Exported Quantity in MT	
	2015	2016	2015	2016
Product group 07: Edible vegetables and certain roots and tubers (including chillies)				
EU (total)	10,137	10,944	3,787	4,787
UK	5,750	5,736	2,222	2,883
Netherlands	2,173	2,078	545	610
Product 07096099: Fresh or chilled fruits of the genus <i>Capsicum</i> or pimento				
EU (total)	3,899	4,947	1,165	1,748
UK	2,506	2,990	788	1,114
Netherlands	873	820	201	255
Product group 08: Edible fruit and nuts; peel of citrus fruits or melons				
EU (total)	5,404	4,794	2,410	2,765

¹⁰Source: MAAIF, as reflected in Final Report of an Audit carried out in Uganda from 06 September 2016 to 15 September 2016 in Order to Evaluate the System of Official Controls for the Export of Plants and Plant Products to the European Union.

¹¹ For years 2016 and 2017 only: E-mail Ms. Ephrance Tumuboine, MAAIF on 5 December 2017.

¹²Source : http://madb.europa.eu/madb/statistical_form.htm

¹³On 01.12.2017 no data were yet available for 2017.

UK	3,524	2,458	1,299	1,166
Netherlands	269	440	144	216

2.1.2. EU interceptions

The EU is an important market for the exported products. These exported products are directly affected by phytosanitary requirements as compliance with EU Directive 2000/29/EC listed in annexes I and II (Part A, Section I and II). Some specific trade-linked plant health compliance challenges include the implementation of an effective pest¹⁴ management regime for the control of pests that affect Uganda's exports of FFVs. Significant numbers of export consignments to the EU are detected with the presence of HOs (harmful organisms). For example, in the period of 1 January 2015 – 31 October 2017 in total 203 interceptions of exported chillies with false codling moth were reported. For the full overview of interceptions of HOs (harmful organisms) in FFVs for 2015, 2016 and the first ten months of 2017, see Table 3. During the year 2015 about 86% of the FFV consignments were intercepted with HOs (harmful organisms) in the EU and 81% were intercepted in the year 2014.¹⁵

Table 3. Phytosanitary alert list for FFV plant products entering the EU from Uganda for the years 2015, 2016 and first ten months of 2017(source: EUROPHYT data¹⁶).

Commodities intercepted	Total Interceptions			Harmful organisms identified	Other reasons for interception ¹⁷		
	2015	2016	2017 ¹⁸		2015	2016	2017
Peppers (<i>Capsicum</i> spp.)	1			<i>Leucinodes orbonalis</i> (eggplant fruit and shoot borer)	3	10	4
	9	5	8	<i>Tephritidae</i> (non-European fruit flies)			
	79	69	55	<i>Thaumatotibia leucotreta</i> (False Codling Moth)			
	4	1	1	<i>Ceratitidis capitata</i> (Mediterranean fruit fly)			
	3			<i>Helicoverpa armigera</i> (cotton boll worm)			
			1	Lepidoptera			
Mango (<i>Mangifera</i> sp.)	3	1	1	<i>Sternochetus mangiferae</i> (mango seed weevil)	1		1
	1	2	2	<i>Tephritidae</i> (non-European fruit flies)			
Lemon balm (<i>Melissa officinalis</i>)	1			<i>Bemisia tabaci</i> (tobacco white fly)			
Bitter gourd (<i>Momordica</i> spp.)	1			<i>Ceratothripoides brunneus</i> (tomato thrips)	4	2	4
	2		2	<i>Daucus</i> sp (fruit flies)			

¹⁴The word pest is used in the IPPC/FAO-sense, being "any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products", while a quarantine pest is "a pest of potential economic importance to the area endangered thereby and not yet present there, or present but not yet widely distributed and being officially controlled" (ISPM No.5, IPPC/FAO, 2010).

¹⁵Source: STDF Project Application Grant, Application Form, Enhancing the capacity of the fruits and vegetable sector to comply with EU Phytosanitary requirements.

¹⁶https://ec.europa.eu/food/plant/plant_health_bioresecurity/europhyt/interceptions_en

¹⁷ These other reasons can be: (1) phytosanitary certificate: absent, invalid, false (2) additional declaration: missing, invalid, inadequate (3) prohibited plants or plant products.

¹⁸ As per 1 December 2017: Accumulation of the first ten months of 2017.

Commodities intercepted	Total Interceptions			Harmful organisms identified	Other reasons for interception ¹⁷		
	2015	2016	2017 ¹⁸		2015	2016	2017
	1			<i>Helicoverpa armigera</i> (cotton boll worm)			
	13	6	3	Tephritidae (non-European fruit flies)			
	1			Diptera			
Passion fruits (<i>Passiflora</i> spp.)	1			Tephritidae (non-European fruit flies)		1	
	1			Diptera			
Citrus spp.					1	1	
Curry leaves (<i>Murraya koenigii</i>)		6	2	<i>Trioza erythrae</i> (African citrus psyllid)	3	14	1
Aubergine or egg plant (<i>Solanum melongena</i>)					4	2	3
Ethiopian egg plant (<i>Solanum aethiopicum</i>)		1		<i>Thrips parvispinus</i>			
Ladies' fingers (<i>Abelmoschus esculentus</i>)		1		Lepidoptera			
		1		<i>Leucinodes</i> sp. (eggplant fruit and shoot borer)			
<i>Annona</i> spp.		3	3	Tephritidae (non-European fruit flies)		1	
		1		<i>Thaumatotibia leucotreta</i> (False Codling Moth)			
<i>Cordia grandis</i>		1		Leaf rollers (Tortricidae)			
Cassava (<i>Manihot esculenta</i>)		1		<i>Bemisia tabaci</i> (tobacco white fly)			
Sweet basil (<i>Ocimum basilicum</i>)		1		<i>Liriomyza sativae</i> (tomato leaf miner)		1	
Total presence of HOs (harmful organisms)	121	96	77		16	32	13

In the period 2014 – 2016, the European Commission sent several warning letters to Uganda's National Plant Protection Organisation (DCIC), due to the high number of interceptions of chillies with false codling moth and fresh curry leaves with *Trioza* spp. Uganda submitted an action plan to deal with the issues, including temporary ban on chilli exports¹⁹.

The average monetary amount of the rejections of FFVs in the EU from 2015- 2016 is approximately US\$ 100,000. The details are given below in table 4.

Table 4. Values (in US\$) and quantities (in Kgs) of FFVs rejected in the EU over the years 2015 and 2016²⁰, for all FFVs (including *Capsicum*) and solely *Capsicum*.

¹⁹ Source: Final Report of an Audit carried out in Uganda from 06 September 2016 to 15 September 2016 in Order to Evaluate the System of Official Controls for the Export of Plants and Plant Products to the European Union.

²⁰ Source: e-mail by Ms Ephrance Tumuboine, Assistant Commissioner Phytosanitary Inspection and Quarantine, Department of Crop Inspection and Certification (DCR, MAAIF) on 08.07.2017.

	2015		2016		2017	
	All FFVs	Capsicum	All FFVs	Capsicum	All FFVs	Capsicum
Kgs	30,090	27,504	18,303	17,579	18,786	15,365
Value US\$	126,639	123,768	80,531	79,727	75,144	61,460

The decrease between 2015 and 2016 is due to the temporary ban on chilli (*Capsicum*) exports in 2016.

2.1.3 General FFV export constraints affecting international and regional trade

In addition to the above mentioned specific issues, the horticultural value chain in Uganda is facing a number of general challenges that may have a – direct or indirect – impact on the above described phytosanitary problems, while it may also affect food safety through, for example problems with exceeding Maximum Residue Limits (MRLs) of pesticides. The main challenges are:

Poor Agronomic Practices. Farmers appear to implement Good Agricultural Practices (GAP) to a (very) limited extent, despite unsuccessful efforts around ten years ago to establish a UgandaGAP. For example, presently two companies are GlobalGAP certified for chillies (*Capsicum* spp.)²¹ in Uganda²². The present poor agronomic practices situation is worsened by the low use of improved inputs like seeds, fertilizers, reliable pesticides and spray pumps. This affects negatively both the quantity and quality of the produce. The agro-input supply chain appears not to be able to supply growers with affordable good quality vegetable seeds and pesticides with a consistent high-quality standard.

Poor extension services. The National Agricultural Advisory Services (NAADS) focuses mainly on farmers with major (export) crops, like coffee or maize. Growers of horticultural produce do not receive much advice from NAADS extensionists, as they are not so familiar with the various horticultural crops. In accordance with the recent decentralization policy, all districts are providing extension services to farmers through existing Local Government (LG) administrative and technical arrangements. The focus of the extension services has not changed yet. As in the past, horticultural producers may receive training from the LG extension workers once a year. Growers of FFV export crops receive more frequent training from the agronomists of the export companies or from Non-Governmental Organisation (NGO) advisors. However, the training content of the different training providers may not be in line with each other.

Poor markets and marketing infrastructure. Perishable products for the local market present marketing challenges, aggravated by the prevalent poor transport infrastructure. Access to export markets is best organised through producers linked to exporters, but the exporters are not organised under one umbrella organisation. The FFV export landscape is composed of three different associations being the Uganda Fruits & Vegetables Exporters and Producers Association (UFVEPA), the Horticulture Exporters Association of Uganda (HORTEXA) and the Uganda Horticulture Exporters and Processors Association (UHEPA). Exports focus mainly on neighbouring countries, the Middle East and the low-end export market in the EU. Generally, Ugandan horticultural crops have difficulties to meet the stringent quality requirements of high-end international markets, such as the big supermarket chains in the EU, which are willing to pay a premium for the FFVs, provided the produce is certified under one of the private certification systems like GlobalGAP, the Sustainable Agriculture Initiative (SAI), Tesco's Nature's Choice, Kenya GAP (benchmarked against GlobalGAP), or a similar system, depending on the supermarket chain. As mentioned in the above for chilli growers, there are a limited number in Uganda certified for GlobalGAP.

Weak producer groups. The fragility of producer and farmer groups has a negative impacted on input supplies, group bulking and marketing. The registered (out-) growers of different export companies and those in the associations (UFVEPA, HORTEXA or UHEPA) are in a better position, but that may depend on the export company.

²¹Source:

<https://database.globalgap.org/globalgap/search/SearchMain.faces;jsessionid=31A1898AFA421144842F9B0696943CE0>

²² Some projects are or are planning to (re-) start GlobalGAP and UgandaGAP certification schemes with small holders. See further 4.6 and 4.7.

Poor coordination among various stakeholders. There has been weak coordination among key horticulture stakeholders in the value chain. A lack of common views prevails among stakeholders (private, political, civil, donors etc.) on export horticulture, which may support the request for key policy interventions. Further, the market information is poorly developed.

2.1.4 Observations on production and pack houses related to FFV export

Farmer organisations. The Uganda farmers are organised into farmer associations: The Eastern and Southern Africa Small Scale Farmers Forum (ESAFF- Uganda chapter), an organization of small-scale farmer groups and organizations working together to empower and to improve the livelihoods of small-scale farmers in Uganda. The Uganda National Farmers Federation (UNFFE) is the largest Non-Governmental farmer organisation in Uganda, founded in January 1992 as Uganda National Farmers' Association (UNFA) and turned into a Federation in 2002. At the local level, all kinds of farmer and/or producer groups exist, which are often linked to exporters in case of production of export FFVs.

Local traders. The local FFV value chain marketing is driven by brokers (or middlemen) in the production zones/districts and by traders in the main FFV markets in Uganda, including the supermarkets. Traders rely on brokers for produce aggregation at village level and delivery to Kampala such as Owino and Nakasero. The brokers are essential for the traders, for the latter to be assured of a consistent supply of produce. During 2015-2016, Solidaridad organised the traders and established FFV traders association, the Uganda Vegetable and Fruits Marketing Agents Association (UVGMA) in Kampala, with 23 members, to streamline their operations. These traders were linked directly to smallholder farmers in Mpigi, Wakiso and Luwero districts, with the main target of direct sourcing from farmers, therefore, reducing the cost of production and marketing. In relation to the export FFV value chain, sometimes middlemen play an unofficial role to fill a supply gap of produce to the export companies.

Organisation of FFV exports production. The main FFV exports to the EU are various *Capsicum* spp. (chillies), eggplants, bitter gourds and *Basilicum* spp. Many small-scale growers and a few large-scale growers produce these vegetables. In pack houses of the export companies the FFVs are packed and prepared for export. The produce for export is collected from a number of contracted farms and transported to the company's pack houses, but occasionally produce from non-contracted farms – sometimes originating from local markets - is included as well, with or without the involvement of middle men. In principle, products can be traced back to the growers and the growers receive feedback when during sorting HOs (harmful organisms) are detected in their produce. Sometimes the producers have to do their own sorting in the pack house.

Control of false codling moth. As shown in table 4, the false codling moth is the biggest challenge for the export of chillies causing the largest number of interceptions. The insect is widespread in the country. However, the infestation is not clearly visible on the fruits as the larvae live inside the *Capsicum* fruit without a clear external symptom on the fruit. This applies to detection in the field during harvest and while packing in the pack house. As the chillies are harvested continuously the options for chemical control are limited, as the MRLs have to be observed. In fact, conflicting information was given on the chemical control in the crop, being (a) no applications at all during the continuous harvest period, or (b) harvest once a week and application of a pesticide also once a week, straight after the harvest. Whether that would provide a conflict with the pre-harvest interval is not clear as it depends on the pesticide applied.

Recommendations for control of the False Codling moth were developed for Kenya and Ghana by COLEACP.^{23,24} During 2015 and early 2016, the National Agricultural Research Organisation (NARO) carried out some initial research to verify various control options. Unfortunately, the outcome of these trials was rather inconclusive (see further: 4.9).

²³Inspection manual for *Thaumatotibia leucotreta* (Meyrick) (Lepidoptera: Tortricidae), False Codling Moth on capsicums for pack house, field and border inspection points. Technical assistant provided by Samuel. K. Muchemi with financial support from EDES 26th-29th October 2015. KEPHIS, EDES, COLEACP. 20 p

²⁴Technical notes for the coaching sessions for pepper growers in Ghana on False Codling Moth, *Thaumatotibia leucotreta*. COLEACP. 8 p.

Farmers receive training on HOs (harmful organisms), mainly on false codling moth and fruit flies, from agronomists of the export companies and/or from DCIC staff and to a limited extent from Local Government extensionists and some NGO advisors. The pack houses and export companies receive information on EU's HOs (harmful organisms) from the DCIC.

Pack houses have posters of relevant HOs (harmful organisms) fixed on the walls and information is available for the sorters. The pack house managers and the agronomists of the export companies receive information and training from the DCIC about the EU import requirements and how to fulfil these.

In most pack houses the sorting and packing of the produce is done at tables, but sorting and packing on the pack house floor is practiced as well, which will have a negative impact on the application of good hygienic practices. Some participants of the Validation Workshop mentioned that the hygienic conditions of the transport of the FFVs, particularly before packing, are often very poor.

2.1.5 Plant health control and its organisational aspects

International

The International Plant Protection Convention (IPPC) is an international treaty that aims at preventing the introduction and spread of pests of plants and plant products and to promote appropriate measures for their control. The IPPC was established in 1951, and updated in 1997 primarily to introduce a mechanism for developing and adopting International Standards for Phytosanitary Measures (ISPMs). This revision aligns the Convention with the Agreement on the Application of Sanitary and Phytosanitary measures ('the SPS Agreement') of the World Trade Organisation (WTO). Since 2007 Uganda is a signatory to the IPPC and therefore Uganda is obliged to comply with the requirements, especially while engaging in international trade. Thus, compliance with the IPPC standards harmonises the phytosanitary systems and facilitates the international trade of plants and plant products from Uganda. The Plant Protection and Health Act²⁵ of 2016 designates the DCIC within MAAIF in the Directorate of Crop Resources (DCR), as being the Competent Authority (CA). An Assistant Commissioner is the head of the DCIC and inspectors working for the Phytosanitary and Quarantine Services within the Department of Crop Inspection and Certification of MAAIF carry out inspections of agricultural produce for export, which Department is part of DCR.

Related to the organisational aspects for export of FFVs to the EU the following applies:

- (i) the Uganda Plant Protection and Health Act (Act No 6, of 2016) (see further 3.4),
- (ii) the IPPC's Article IV²⁶ and the International Standards for Phytosanitary Measures (ISPMs)²⁷, specifically ISPM 7,
- (iii) Article 2(1)(i) of Directive 2000/29/EC²⁸, as last amended by Implementing Directive (EU) 2017/1279,
- (iv) On the 15th of July 2017, the European Commission published Implementing Directive 2017/1279²⁹, which sets out important new plant health rules for third countries exporting to the EU. These rules require additional measures for the control of four new quarantine pests, including false codling moth (*Thaumatotibia leucotreta*) on *Capsicum* sp. (including hot pepper).

Until the new European Plant Health Regulation comes into force in December 2019, the application of existing EU rules is being reinforced. This has implications for Uganda exporting FFVs to the EU. In summary, it is urgent for the DCIC to:

- Collect pest data to evidence the effectiveness of control methods being used by growers,
- Compile a dossier on the methods used, and data on its effectiveness

²⁵RoU. The Plant Protection and Health Act, 2015 (signed 11/2/2015):
<http://www.parliament.go.ug/images/stories/acts/2015/Plant%20Protection%20and%20Health%20Act,%202015.pdf>

²⁶Source: https://www.ippc.int/static/media/files/publications/en/2013/06/06/1329129099_ippc_2011-12-01_reformatted.pdf

²⁷Source: <http://www.fao.org/docrep/009/a0450e/a0450e00.htm>

²⁸Source: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02000L0029-20140630&from=EN>

²⁹ Source : <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017L1279&from=EN>

- Inform Capsicum growers and exporters about the regulatory changes. It is critically important that they are aware of the new Directive so that they can take appropriate action and decisions on their future production plans, investments, and markets.

These new European Plant Health Regulations and the reinforcement of the existing EU rules are an essential part of this proposed STDF Project. Particularly activities like 1.2, 1.3, 1.4 and 1.5 and most activities under outputs 3 and 4 (see Table 7. and/or Appendix 1.). However, laying this emphasis on the European market does not prevent the project from having positive effects on regional/other international markets, given that strengthening the country's phytosanitary capacities would improve market access across the board.

The above-mentioned example of false codling moth illustrates that it is critically important for Uganda to have a national capacity to respond not only to the challenges of the new European plant health regulation, but also to the more stringent application of the rules currently in force. The Directive specifies Capsicum exported to the EU from Africa (including Cape Verde, Madagascar, La Reunion, and Mauritius), as these countries are known to have established populations of False Codling Moth, and there have been historically high numbers of interceptions on hot pepper. From 1st January 2018, producers in these countries will only be able to export Capsicum to the EU:

- Either from an area of the country or a place of production that is designated to be free of false codling moth. This designation must be issued by the DCIC and according to international standards (IPPC Guidelines: ISPM 8, ISPM 9). In addition, the production sites must receive official inspections during the growing season to confirm the false codling moth free status, or,
- If the produce is given an effective cold treatment (or other effective treatment) that ensures it is false codling moth free. The method used must be indicated on the plant health certificate, and be communicated in advance to the EC.

National

The Uganda Plant Protection and Health Act provides the legal basis for phytosanitary controls in which the DCIC inspectors are authorised and empowered to implement and enforce the Act. Thus, the inspectors are authorised to inspect crops for export at the site of production and follow these crops at premises (e.g. pack houses) to the border and to enforce measures in case HOs (harmful organisms) are identified that will result in non-compliances.

Presently there are about 25 DCIC phytosanitary inspectors. As these well qualified inspectors have other tasks, their number is considered too limited to perform all their phytosanitary tasks, not only strict phytosanitary inspections at border posts, but also their plant health tasks at export growers, pack houses and exporters. The inspectors are well trained and experienced, having knowledge of the most important HOs (harmful organisms) and are able to apply the available Standard Operational Procedures (SOPs). The current structure and wage bill can only support the 25 DCIC inspectors. It is anticipated that well trained private sector specialists will support the available DCIC staff who are performing official controls.

The on-going training of DCIC inspectors involves topics like pest management, pest identification, inspection and certification procedures, pest risk assessment, national and international policies, etc. Although company agronomists receive training by the DCIC staff, further training of companies' agronomists and other extensionists/advisors on HOs (harmful organisms) and the consequent training of farmers and farmer groups growing export FFVs need a training plan and its strict implementation.

For the inspectors, manuals and work instructions are available to support them in the implementation of SOPs. Several these SOPs were developed under the previous STDF Project STDF/PG/335 "Strengthening the Phytosanitary Capacity of the Floriculture Sector in Uganda" (in short: STDF Flower Project).³⁰ The SOPs, work instructions and manuals are relevant to EU export controls and are in line with the relevant ISPMs, for example the rates of inspection sampling consignments for export as reflected in ISPM 31. Further updating and development of SOPs, manuals and work instructions is needed.

³⁰ See <http://www.standardsfacility.org/PG-335> and the Results Story:

The MAAIF Plant Health Laboratory in Namalere provides (or is supposed to provide) a series of services for the DCIC, including identification of HOs (harmful organisms) using various techniques (morphological identification, serological and molecular tests). In fact, the staff is able, with the available equipment and consumable supplies, to identify pests morphologically. Thus, insect pests can be identified to a certain extent depending on the taxonomic expertise available. The other methods of identification are more problematic for various reasons. Another constraint is the 'rather' inconvenient location of the laboratory³¹.

During the above-mentioned STDF Flower Project, the DCIC established good working relations with the Uganda Flower Export Association (UFEA) and their members. As the flower sector is rather small with about 15 export growers, the development of close relations with the association and its member growers was relatively easy. Moreover, these flower growers are all advanced large-scale green/screen house growers. On the contrary, the FFV export sector is rather complex with a few large-scale growers and a large number of small-scale growers, partly organised in farmer groups. Normally the growers of export FFVs are registered with one of the exporters. The exporters employ one or more agronomy advisors and the exporters have one or more pack houses for sorting and packing their produce. There are three associations dealing with FFVs, being UFVEPA, HORTEXA and UHEPA, in addition to the National Organic Agricultural Movement of Uganda (NOGAMU), which deals with all organically grown crops. The DCIC supported the different associations to improve their pest management and inspection methods. This support included issues like pest management, scouting, and inspection for HOs (harmful organisms) during harvest and packing, assist in finding reasons for non-compliances, gathering information relevant for the DCIC.

As a result of the DCIC support, the UFEA and the companies in the flower sector carry out all kinds of plant health tasks during the crop season, the harvest and sorting/packing. These tasks include inspections in the crops, pest monitoring, traceability, providing information on export requirements, enforcing phytosanitary measures, etc. The results are made available to the DCIC. The companies implement these activities with well-trained scouts and specialists. The DCIC inspectors visit regularly, some three to four times per year the companies to check the company's records of pest findings, scouting and control implemented. Although the system proved its effect in the export of cut flowers and planting material, the visits and company's record checks are not often enough to be in conformity with the provisions of Annex IV, Part A, Section I, of Directive 2000/29/EC.³²

For the FFV sector, due to its fragmentation, the situation is more complex. The DCIC started to try to implement a similar system as for the floriculture. The DCIC trained export companies' staff and provided advice to the export companies and to responsible staff in pack houses. The pack houses for FFVs apply a system with – as mentioned before – registered (small scale) growers, enabling to trace back the observed HOs (harmful organisms) to the grower. Export companies employ supervisors and agronomists who may or may not – depending on the company – advice growers or groups of growers – on agronomic and pest management practices. Upon arrival in the pack house, the FFVs are inspected mostly by company inspectors, who are trained in the visual identification of major types of harmful insect pests, which is extremely difficult for false codling moth in chillies. The company inspector also supervises also the sorting and packing and carrying out random inspections for EU export consignments.³³ Some pack houses have a staff shortage, in which case the supplying grower does the sorting and packing.

Basic equipment is available in – probably most – pack houses. This encompasses tables, tables with a special through light source, magnifying glasses and knives. However, there are pack houses, not

³¹ The laboratory in Namalere is located north of Kampala along a very bad dirt road, thus far away from the Entebbe airport. For example, if during an inspection at the Entebbe airport an inspector would find a pest he/she is not able to identify, it will take at least three to four hours, depending on the time of the day and transport available, to deliver the sample at the Plant Health Laboratory for further investigations. Meanwhile the consignment might be almost half way Europe.

³² Final Report of an Audit Carried out in Uganda from 6 September to 15 September 2016, in order to evaluate the System of Official Controls for the Export of Plants and Plant Products to the EU.

³³ It was understood that no inspections are carried out for export to neighbouring countries, like Kenya, South Sudan, etc.

using tables and sort and pack under poor light conditions where no special tables with through light are available or used.³⁴

DCIC staff try to inspect all the export consignments of HOs (harmful organisms) for risky FFVs (chillies, gourds and eggplants) at the pack houses in accordance with the DCIC policy and their SOPs and work instructions. ISPM 31 guides the used sample size. However, due to the fact that there is a constant stream of export consignments and the limited number of available DCIC staff, it is logistically impossible to manage the system properly, meaning that not all the export consignments are checked at the pack houses and thus the requirements of the SOPs are not fully met.

DCIC inspectors check company records and pay specific attention to consignments of 'risky' growers. Rejected consignments may be re-sorted, provided the level of infestation is below the threshold of 2–5 % of the boxes. This is, for example, contrary to procedures in Kenya, in such cases no re-sorting is allowed.³⁵

Furthermore, according to DCIC policy the consignments are checked randomly at the airport. Two refrigerated warehouses in the airport's cargo area handle the consignments at the Entebbe airport. A small office is considered as the inspection area, or in the area where the boxes are placed on the airplane's pallets. In both places, no proper inspection can be implemented, even though the inspectors have the basic equipment to perform visual inspections.³⁶ Export consignments are supposed to be inspected in the reception area of the produce where the boxes are put on the specific airplane pallets. Proper phytosanitary inspections are very difficult to perform for the DCIC inspectors due to:

- (a) Lack of light in these areas,
- (b) Lack of time while the produce is in the cargo centre, and
- (c) The difficult logistic conditions to select randomly boxes which are basically ready to be put straightaway on the airplane pallets without interference.

The issuance of Phytosanitary Certificates (PCs) is almost completely a paper business. The PCs are based on (a) reports of official inspections in the fields and pack houses, and (b) documents provided by the companies. A small part of the available information is stored in an electronic database that can be consulted by inspectors. As mentioned above, under the description of STDF's Flower Project, the system in which the PC is based on observations and declarations of the private sector, is not in line with EU directives and Article V.2 of the IPPC³⁷ as well of ISPM 12 (chapter 5)³⁸. This was as well observed by the EU audit team.³⁹

2.2 Previous studies institutional framework for SPS management

2.2.1 SPS-related capacity evaluations

The IPPC has developed a Phytosanitary Capacity Evaluation (PCE). This PCE is a tool used by the IPPC for establishing the level of organisation of a plant health service. Such an evaluation is very

³⁴ In addition to these issues that have an effect on the phytosanitary inspections, also extremely poor conditions were observed in relation to the first S of SPS, the sanitary conditions, like very dirty toilets, no proper hand washing facilities, sorting at the floor on plastic where people walk on and in between the sorting.

³⁵ Inspection manual for *Thaumatotibia leucotreta* (Meyrick) (Lepidoptera: Tortricidae), False Codling Moth on capsicums for pack house, field and border inspection points. Technical assistant provided by Samuel. K. Muchemi with financial support from EDES 26th-29th October 2015. KEPHIS, EDES, COLEACP. 20 p

³⁶ No binocular microscopes are available, although these were foreseen in the STDF Flower Project. As there was not a proper place to install these binocular microscopes, the instruments were installed in the Namalere Laboratory.

³⁷ Article V.2 of the IPPC indicates, "Inspection and other related activities leading to issuance of phytosanitary certificates shall be carried out only by or under authority of the official national plant protection organisation".

³⁸ Chapter 5 of ISPM 12 indicates, "Plants, plant products or other regulated articles described in the PC have been inspected and/or tested according to appropriate official procedures".

³⁹ Final Report of an Audit Carried out in Uganda from 6 September to 15 September 2016, in order to evaluate the System of Official Controls for the Export of Plants and Plant Products to the EU. See: ec.europa.eu/food/audits-analysis/act_getPDF.cfm?PDF_ID=12870. See further 2.2.4.

useful for the Ugandan phytosanitary authority to assess the level of organisation and harmonisation in relation to the international standards. A description of earlier PCEs relevant for Uganda is described in STDFs project proposal 335 “*Strengthening the Phytosanitary Capacity of the Floriculture Sector in Uganda*”⁴⁰. The results of further PCE activities were not published⁴¹, while in recent years no PCE has been conducted. The identified needs of the previous PCE are surpassed by DCIC’s recent activities, including the implementation of STDF’s Floriculture Project.

2.2.2 Diagnostic Trade Integration Study

A Diagnostic Trade Integration Study (DTIS) was prepared with World Bank support in June 2006. This was updated in 2013; by an Enhanced Integrated Framework (EIF) supported study Report No. 77079-UG Uganda Diagnostic Trade Integration Study (DTIS)⁴².

The studies highlight the potential impact of non-compliance with SPS measures of importing countries as possible Non-Tariff barriers (NTBs) and identify the priorities for development of appropriate systems. In the latter report the DTIS action matrix implementation scorecard, which assesses progress on implementation of key trade development criteria, identified that “*more work needs to be done in the implementation of SPS and quality management, trade facilitation outside Uganda, and market access. Trade policy and market access received generally low implementation scores, in part because many recommendations involved actions that could only be taken at the regional level and with the participation of the other members.*”

In Chapter 4 of this document, entitled “*Toward a better regulatory framework*”, the following recommendation is made: “*Uganda needs to engage in deep regulatory cooperation at the regional level and use multilateral trade liberalization and regional integration to reform and strengthen its professional services sectors. The government could engage with donors to secure technical and financial assistance to strengthen the capacity of regulatory organizations, and develop appropriate regulation*”. This proposed STDF project supports the capacity development of a regulatory organisation, in the form of a PPP (which will be explained later).

2.2.3 Strengthening of SPS and Quality Infrastructure in Uganda

In 2015, the Ministry of Trade Industry and Cooperatives and MAAIF requested assistance from the United Nations Industrial Development Organisation (UNIDO) to address the problem of increasing rate of rejections in the horticultural sector. A UNIDO field mission took place in May 2015 with a national and international expert. The following number critical problems were identified⁴³ (not all issues are of a phytosanitary nature, but of a much wider full SPS scope):

- Uganda Legislation is not sufficiently in line with Importer Countries Legislation,
- Lack of Effective Policies to Implement SPS and Food Safety measures,
- No list of harmful organisms in Uganda,
- No Rapid Alert mechanism for notification of pests (an IPPC obligation),
- Weak cooperation between official administration and private companies,
- Lack of human and financial resources to deal with all plant issues in MAAIF,
- Specific requirements to be met by the exports not detailed,
- Gaps in the control of pesticide registration and controls, as well as monitoring of residues,
- Ineffective institutional structure and overlapping mandates for SPS institutions,
- Weak and disorganised controls both reflecting the risk analysis approach,
- Poor control over export certification procedures to prevent export of non-compliant products,

⁴⁰ See: http://www.standardsfacility.org/sites/default/files/STDF_PG_335_Application_Sep-12.pdf

⁴¹ Personal communication with the Assistant Commissioner Phytosanitary Inspection and Quarantine, Department of Crop Inspection and Certification, Directorate of Crop Resources, MAAIF.

⁴² Report No. 77079-UG. Uganda Diagnostic Trade Integration Study (DTIS) update Prepared for the Enhanced Integrated Framework. April 2013. WB Financial and Private Sector Development Africa Region. 197 p.

⁴³ Source: Draft Final Report on a Mission to Uganda. December 2015 by Dr... Ian Goulding, International Expert SPS and Food safety. United Nations Industrial Development Organization (UNIDO), 25 p. and also based on information from Ministry of Trade Industry and Cooperatives (MTIC).

- Fragmented organization of the producers (Several national associations represent producers and exporters of fruits and vegetables),
- Low awareness of SPS and its importance to the agro-food industry,
- Insufficient training (from exporters, middlemen, extensionists) at farm level, and
- Action plan proposed by Ministry of Agriculture and private sector not implemented.

In brief, the mission proposed an intervention which would support the:

- Development and Implementation of National Sanitary, Phytosanitary and Quality Infrastructure,
- Reorganisation and strengthening of official controls body,
- Improvement of farm and value chain at private level,
- Enhancement of communication and relationship, and
- Strengthening of local expertise.

Based on the above findings and recommendations, UNIDO and Uganda Ministries are developing a project to be funded by the African Development Bank (AfDB)⁴⁴ entitled: “*Agricultural value chain development programme (AVCP) - Product diversification, market development and standards compliance*”. The overall objective of the programme is to contribute to poverty reduction and economic growth in Uganda through increased productivity and marketing of agricultural produce. The specific objective is to build functional input and output markets, improve the agribusiness environment, especially via strengthening regulatory bodies, innovative financing mechanisms, and to encourage inclusivity, especially of youth and women.

UNIDO will contribute to Component 3 (*Market development and trade facilitation*) of the programme. The UNIDO project will build capacities of stakeholders to comply and conform to food safety, sanitary, phytosanitary (SPS) and quality for agro food products especially for dairy, maize, and rice products, to enable them to meet the domestic and export requirements in Uganda. MAAIF will be the cooperating agency with as counterparts the Dairy Development Authority (DDA) and the Uganda National Bureau of Standards (UNBS). It is understood that the project has not yet been signed or this component did not yet start implementation.⁴⁵

This proposed STDF project will partly be in line with the proposed AfDB project, but focussing only on the FFV export value chain, and capacity building and strengthening the performance of one of the regulatory bodies, particularly the one involved in phytosanitary regulations. Presently⁴⁶ the implementation details of the AfDB project are not yet clear, but as soon as these are clear and this STDF Project would have been approved it is recommended that both projects cooperate and seek for options to complement each other.

2.2.4 EU Audit of Official Controls for the export plants and plant products to EU⁴⁷

More recently, from 6–15 September 2016, the Directorate General for Health and Food Safety of the European Commission carried out an audit to evaluate in Uganda the system of plant health controls for export of plants, plant products and plants intended for planting. Table 4 below reflects the Audit's final recommendations, but only those relevant to the export of FFVs. The table includes the proposed actions by the CA.

Table 4. FFVs relevant recommendations by the EU Audit team and actions proposed by the Competent Authority.

⁴⁴ Based on an e-mail from Mr Bruno Otto Tokwing, UNIDO Uganda, on 12.05.2017 and a draft project proposal UNIDO / AfDB.

⁴⁵ Situation as per 1 December 2017.

⁴⁶ Situation as per 1 December 2017.

⁴⁷ Final Report of an Audit Carried out in Uganda from 6 September to 15 September 2016, in order to evaluate the System of Official Controls for the Export of Plants and Plant Products to the EU.

No.	Audit team's recommendation	Action proposed by the CA
1.	Ensure that plant health inspectors' knowledge of EU import requirements is up-to-date, as required by Article 2 (i), first indent of Directive 2000/29/EC and by points 3.1, 3.2 and 3.3 of ISPM 7. Particular attention should be paid to provisions listed in the relevant parts of Annex IV, Part A, Section I to the same Directive.	Conduct monthly meetings of Inspectors to update on EU import requirements as well as any notifications. The Head of Phytosanitary Services will regularly receive updates and share them Inspectors as and when there amendments. The changes will be implemented with immediate effect.
4.	Ensure that cut flowers of roses and leafy vegetables of <i>Ocimum</i> spp. have been officially inspected prior to the export and found free from <i>Bemisia tabaci</i> , as required by point 45.2 of Annex IV, Part A, Section I. of Directive 2000/29/EC.	<ul style="list-style-type: none"> • Each farm has been allocated an inspector to carry out inspection on every consignment at farm pack house prior to export for <i>Bemisia tabaci</i> • Pest data is collected and analysed monthly from flower farms scouting system • Enforce inspection / schedule for flowers 3 hours prior to export.
5.	Ensure that appropriate checks are carried out at the airport. In particular, that facilitates and time available for performing checks are sufficient to enable controls in line with the requirements of ISPM 31 and that staff performing checks are free from interference or pressure from other parties in order to ensure that they can perform appropriate checks in line with section 1.4 of ISPM 23.	<ul style="list-style-type: none"> • Increased staff number from #3 to #7 for airport operations • In the medium to long term expansion of the airport has consideration for state of the art Inspection area for goods destined to EU⁴⁸ • Shipment schedules provided by shipper to enable inspectors carry out official checks • Inspection is done at packhouses and reports disseminated to airport inspectors to issue certificates • Sampling procedures will be followed (ISPM31) • Inspectors will be trained and assigned inspection operation at the airport.
6.	Ensure that the sample size selected for inspection of plants and plant products immediately prior to export is sufficient to ensure the appropriate probability of finding any harmful organisms present and that the entire sample is subject to examination in line with ISPM 31.	Sampling according to the MAAIF SOP manual is being implemented and sample sizes for each inspection is recorded on the inspection forms.
7.	Ensure that phytosanitary certificates are issued only to those consignments of plants and plants products listed in Annex V. Part B of Directive 2000/29/EC, which had been subject to official phytosanitary inspections as required by Article V of the IPPC and by ISPM 7.	<ul style="list-style-type: none"> • Issuing Phytosanitary certificates to plants listed in the EU Directive 2000/29/EC • Consignments of plants and plant products to be issued with phytosanitary certificates will be published on MAAIF website to create awareness • By statutory instrument, regulated articles including plants and plant products will be published in the media for awareness creation.

As has been observed during the fact-finding mission and as was revealed in discussions while in Uganda, it is rather difficult to implement some of the proposed actions by the CA, although they are willing and motivated to do so. Therefore, it is important that the proposed actions and supporting activities are receiving attention in this STDF project proposal. Below, Table 5. reflects the proposed

⁴⁸ As will be mentioned in a footnote in the Logical Framework, the participants of the Validation Workshop had their doubts about the expansion in the short or medium term.

STDF project activities that will address directly the Audit Teams recommendations as indicated in Table 4. The other proposed activities in the project may support indirectly the issues raised by the Audit Team and / or will create an enabling environment in the FFV value chain to enhance access to international and regional markets.

Table 5. Project's proposed activities addressing EU Audit Team's recommendations

Activities	No. of recom menda tion(s)
Activity 2.1. Continuous specialised training of trainers (ToTs) on integrated pest management (IPM) geared to harmful organisms (HOs (harmful organisms)) causing interceptions.	1, 5
Activity 2.5 Specialised training on managing pack houses and transport of FFVs.	5
Activity 2.6 Recruitment by MAAIF of about 7 new Agricultural Inspectors. (Note: To date there is progress on this activity with 2 new Agricultural inspectors having been recruited for posting at the airport and 3 for inspecting FFV pack houses)	5
Activity 2.7 Review and update of DCIC's procedures, documentation and reference materials related to specific issues of FFVs' export certification system with technical assistance from an international specialist.	1, 5, 6, 7
Activity 2.9 Specialized and detailed hands-on training for (new) Agricultural Inspectors and other phytosanitary staff.	1, 5
Activity 2.10 Further development and improvement of the existing operational manual for phytosanitary inspection and compilation of other reference materials for HO of FFVs for export.	4, 5, 6, 7
Activity 3.1 Dialogue and agreement on (i) improved institutionalized inspection arrangements and requirements between DCIC and stakeholders in FFV chain and (ii) a communication strategy on phytosanitary issues,	4, 5, 7
Activity 3.4 Procurement of small equipment and tools for export inspectors to be used in the field and at pack houses by inspectors and agronomists of export companies.	4, 5, 6
Activity 3.5 Technical assistance on the needs of the Plant Health Laboratory in Namalere in order to become a fully functional laboratory with accreditation in order to be able to provide comprehensive diagnostic services, or alternative options.	5, 6, 7
Activity 3.6 Strengthening of the export certification system for document control, storage and retrieval	4, 5, 6, 7
Activity 4.1 Development and design of specific FFV phytosanitary survey and monitoring system based on PPP.	4
Activity 4.3 Specialized and practical training of trainers (ToTs) on phytosanitary survey, monitoring, and quarantine pest surveillance systems.	1, 4, 5
Activity 4.4 Procurement of surveillance equipment including traps, data capture devices and software.	1, 4, 5
Activity 4.5 Implementation of specific phytosanitary surveys, monitoring and analysis of survey results and communication of outcomes.	1, 4, 5
Activity 6.1 Development of a communication strategy on phytosanitary issues	4, 5, 7

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

The following national development plans and policies and the national SPS strategy are important for various reasons as indicated under the concerned topic.

3.1 Uganda Vision 2040

The Uganda Vision 2040⁴⁹ identifies Agriculture as one of the key opportunities to strengthen the Ugandan economy and transform society from a peasant to a modern and prosperous country⁵⁰. The National Development Plan II⁵¹ (NDP II) further recognizes the sector as key to increasing wealth creation and pushing the country into a middle-income state by 2020, through commercializing agriculture. It emphasizes increasing production and productivity along the agricultural value chains; increasing access to critical farm inputs; improving agricultural markets and value addition in the priority commodities; and strengthening the institutional capacity of the sector.⁵²

The Policy Statement indicates further that “*the 2016/17 national budget will focus on production, productivity and value addition to strategic agricultural commodities of Coffee, Fish, Dairy, Beef, Beans, Cotton, Tea, Maize, Rice and Horticultural Crops; among others.*”

The Agriculture sector’s priorities in Financial Year (FY) 2016/17, in accordance with the national budget strategy and NDP II, among many others, are:

Additional support to agricultural exports inspection and certification services at border posts. Uganda faces impending exports bans by the EU due to pests found in Uganda’s exported products to Europe. The FFV and flower exports contribute about 30% of Uganda’s agricultural exports revenue. MAAIF requires an additional UGX 8.5 billion to equip and boost the work of the newly recruited crop and animal inspectors at the airport and border posts as well as the recently established Departments of Crop Inspection and Certification of MAAIF. The inspectors are also needed to assist farmers in eradication of the false codling moth and any other harmful organisms in the exportable agriculture produce during the production process on farm. There are 20 border posts, of which only nine (9) are manned with a crop inspector (Mutukula, Katuna, Busia, Malaba, UCDA, Nakawa Bus terminal, Railway bus Shade, Lwakhakha and Entebbe airport).

This proposed STDF project would support the phytosanitary part of the described activities in the FFV export sector.

Based on Uganda Vision 2040 the Agriculture Sector Strategic Plan, 2015/16-2019/20⁵³planned interventions to boost production and exports of fruits and vegetables which includes: (i) provision of quality seedlings; (ii) *improving grading standards, packaging and handling of fruits and vegetables*; (iii) *registration of exporters*; (iv) support to quality assurance; (v) *plant quarantine restrictions*; (vi) *pests and disease control*; and (vii) support to processing of fresh fruits through PPP arrangements. The funds required to achieve these interventions are UGX417,18 billion. SPS is mentioned one time in the document, but not referring specifically to phytosanitary issues.

3.2 National Standards and Quality Policy

A National Standards and Quality Policy⁵⁴(NSQP) is in place, promoted by the Ministry of Trade Industry and Cooperatives (MTIC) and the Uganda National Bureau of Standards (UNBS), and adopted by Government of Uganda in May 2012. The vision is to have effective and efficient National Quality Infrastructure (NQI) that delivers internationally competitive goods and services. The NSQP has a number of general objectives, of which some are or could be relevant to SPS. The policy guiding principle mention regulatory practices compliant with the WTO TBT agreement, but makes no mention of how SPS measures will fit into this framework, although many of the measures promulgated by the NQI do or could concern SPS issues.

⁴⁹Source: <http://npa.ug/wp-content/themes/npatheme/documents/vision2040.pdf>

⁵⁰ The Uganda Vision 2040 sounds very ambitious in relation to agriculture and maybe overambitious as the foreseen expectations would require a tremendous budget and a very motivated farming community not struggling with all kinds of minor and major constraints as partly described in the above.

⁵¹Source: <http://npa.ug/wp-content/uploads/NDPII-Final.pdf>

⁵²Policy Statement for MAAIF, for the Financial Year 2016/17. Presented to Parliament by Tress Bucyanayandi (MP), Minister of MAAIF, March 2016.

⁵³Agriculture Sector Strategic Plan, 2015/16-2019/20. MAAIF. April 2016.

⁵⁴RoU. National Standards and Quality Policy. For quality, safety and competitiveness of goods and services. MTIC. May 2012. 30 p.

Under the guidance of the MTIC a NSQP Implementation Plan is also in place for the period 2014/15 to 2018/19. This builds on policy, adding specific interventions (activities and expected outcomes) in relation to each of the seven policy objectives and actions.

The Technical Regulation Office in the PM office is to coordinate the activities of the regulatory authorities and the NQI to define mandates and so limit duplication, fragmentation overlaps, gaps and conflicting mandates. However, - again - the implementation plan does not indicate how the SPS measures will be addressed within this framework.

Related to NSQP, there is also a Uganda Micro, Small and Medium Enterprise (MSME) Policy⁵⁵ for the years 2016 – 2020. This policy could back-up one of the NSQP objectives “*Support Micro, Small and Medium Enterprise to conform to national standards and comply with technical regulations*”. However, the MSME Policy is rather vague, it mentions in general terms support to research (MAAIF and NARO) and extension (MAAIF and NAADS), but does not mention agricultural standards and technical regulations.

The proposed STDF project could fill some of the lacunas related to phytosanitary issues in the NSQP implementation.

3.3 National SPS Policy

Through a National SPS Policy, the Government of Uganda is taking steps to improve SPS implementation to promote safety of consumers and improve the competitiveness of the agro-products in the markets. The draft Policy⁵⁶ explains that the country faces several challenges in complying with SPS requirements. The described challenges are:

- weak institutional coordination and enforcement mechanisms,
- inadequate production, processing and distribution infrastructure,
- low public awareness,
- limited conformity assessment services,
- limited skilled human resource,
- inadequate funding,
- inadequate regulatory infrastructure (laboratories, quarantine facilities, laboratory services),
- inadequate coverage and scope of extension services, and
- Inadequate capacity for involvement of the private sector small-scale producers.

A number of the described phytosanitary related challenges are in line with the observations reflected by various stakeholders in the FFV value chain, during the fact-finding mission.

The Draft of National SPS Policy has been developed and is due for approval by the cabinet. The overall Policy objective is “*To protect human, animal and plant life or health, promote trade and strengthen national, regional and international cooperation through implementing science based Sanitary and Phyto-Sanitary measures*”, while seven (7) specific Policy objectives have been specified. The Policy is expected to:

- i. strengthen the legal and regulatory framework for human, animal and plant life or health protection,
- ii. improve SPS management and control systems in accordance with international best practices,
- iii. foster coordination and collaboration among SPS related institutions,
- iv. harmonize SPS measures with regional and international requirements,
- v. strengthen the skills and technical capacity for management of the SPS measures along the value chain,
- vi. promote awareness on human, animal and plant life or health protection measures, and

⁵⁵RoG. Uganda Micro, Small and Medium Enterprise (MSME) Policy. Sustainable MSMEs for Wealth Creation and Socio-Economic Transformation. Ministry of Trade, Industry and Cooperatives (MTIC). June 2015. 31 p.

⁵⁶RoG. Draft National Sanitary and Phytosanitary (SPS) Policy. National Sanitary and Phytosanitary (SPS) Policy. *Promotion of human, animal and plant life or health for sustainable trade and competitiveness*. MAAIF. 24th May 2016. 22p.

- vii. support the Private Sector in development and implementation of necessary SPS measures required to protect the human, animal and plant life and plant health.
- viii. Strengthen border control and internal quarantine systems to manage SPS.

There are 35 specific interventions foreseen in the Policy, which are maybe slightly ambitious. These are grouped according to the above seven challenges with the following headings:

- i. promote awareness on human, animal and plant life or health measures,
- ii. strengthen the legal and regulatory framework for food safety, plant and animal health,
- iii. improve SPS management and control systems in accordance with international good practices,
- iv. foster coordination and collaboration among SPS related institutions,
- v. harmonize SPS measures with regional and international requirements,
- vi. strengthen the technical capacity for management of the SPS measures along the value chain, and
- vii. support the private sector in development and implementation of necessary SPS measures.

This proposed STDF project would, at least in the phytosanitary sphere, support partly some of the interventions of this Draft National SPS Plan, either directly or indirectly through the project's various relevant activities and lessons learnt.

As an example of foreseen activities of the SPS Plan, under the above point vi (*to strengthen the technical capacity for management and control of the SPS measures along the value chain*), the Government is expected to:

- build and maintain adequate human resources for SPS management and control, establish and equip SPS laboratories to undertake tests and analysis according to international best practice,
- establish a national accreditation and referral systems,
- provide and improve accessibility to the requisite SPS infrastructure including, laboratories and production, marketing, distribution and transportation (PMDT),
- strengthen application of SPS measures in the national extension services,⁵⁷
- develop a scientific data management system that should be shared and made available for SPS management and risk assessment,
- improve the governance of the inspection and certification process,
- establish and implement fulltime surveillance, monitoring and enforcement systems along the entire value chain,
- establish management systems to adequately respond to SPS related emergencies and incidences,
- establish systems that will facilitate and assure product identification and traceability, and
- build the capacity of the Private Sector to appreciate and conform to the traceability requirements.

The foreseen interventions under the above point vii (*support the private sector in development and implementation of necessary SPS measures*) are the following, to:

- institutionalize Public-Private Partnership (PPP) in the development and implementation of SPS measures,
- enhance the capacity of the private sector to apply co-regulation and self-compliance mechanisms,
- establish financing mechanisms to support the private sector to create the necessary infrastructure and comply with SPS measures,
- develop special schemes to enhance MSMEs capacity to meet SPS measures, and
- provide incentives for the private sector investment in SPS infrastructure including joint venture, build operate and transfer mechanism, among others.

⁵⁷ The national extension services do not exist anymore, but extension services are under the responsibility of Local Governments.

As will become clear in chapter 7 and in the Logical Framework, this proposed STDF project would, in the Phytosanitary field, support the implementation of a number of the above foreseen interventions.

3.4 National Plant Health Policy

The Plant Protection and Health Act (Act No 6 of 2016) provide the legal basis for phytosanitary control, signed by His Excellency The President⁵⁸ on 11/1/2015.

- (i) defines stakeholder obligations in preventing the introduction and control of pests,
- (ii) designates the DCIC,
- (iii) defines duties of the Commissioner for Crop Protection, or any other delegated responsibility
- (iv) authorises and empowers DCIC inspectors for implementing and enforcing the Act.

Another act is the Agricultural Chemicals Control Act of 2006, which regulates the use of chemicals in agriculture including the use of pesticides. The act provides a framework for control of manufacture, import, export and sale of agrochemicals. Other acts are the Seed and Plant Act of 2006 and the Plant Variety Protection Act of 2014. Certain provisions of these Acts also relate to plant health activities.

By regulations of the Act MAAIF is authorised to implement the provisions. The regulations describe the powers and tasks of the inspectors, the issuing process of the PCs and plant health responsibilities of growers, pack houses and transporters. Enforcement topics, such as offences and penalties, are dealt with in the Act's statutory instruments. These instruments are in line with plant health requirements and guidelines of the IPPC's ISPMs and EU legislation. Thus, in practice the Act authorises the DCIC inspectors to implement EU export inspections:

- (i) in the field during the crop season,
- (ii) in the pack houses and during transport, and
- (iii) at the border.

In case of observed non-compliances immediate sanctions can be instigated, for example ordering corrective measures or rejecting export consignments.

This proposed STDF Project would strengthen the implementation of the National Plant Health Act.

4. Past, on-going or planned programmes and projects

In the following table 5 a summary is provided of the described projects in this chapter.

Table 5. Summary descriptions of presented projects.

Title of project	Project focus	Implementing organisations and donors	Start and end dates	Relevance for proposed STDF Project
1. Enhanced Integrated Framework	Highlight impact of non-compliance with SPS measures. Reflected in action matrix. E.g. <i>"...more work needs to be done in the implementation of SPS and quality management, trade facilitation outside Uganda, and market access"</i> . Further: <i>"The government could engage with donors to secure technical and financial assistance to strengthen the capacity of regulatory</i>	WB and GoU	Start date: 2006 End date: unclear, last update website 2013	STDF project supports the capacity development of a regulatory organisation using a PPP approach.

⁵⁸RoU. The Plant Protection and Health Act, 2015 (signed 11/2/2015)

Title of project	Project focus	Implementing organisations and donors	Start and end dates	Relevance for proposed STDF Project
	<i>organizations, and develop appropriate regulation”.</i>			
2. Quality Infrastructure and Standards Programme (QUISP)	Strengthen the Uganda Quality Infrastructure and Standards. A committee that included MAAIF developed the draft SPS Policy under this project.	SIDA and GoU (MTIC)	Start date: October 2010. End date: April 2017	The STDF Project implements specific practical aspects of the quality infrastructure and standards. More specifically outcomes mentioned in the Draft National SPS Policy like (i) strengthen the technical capacity for management of the SPS measures along the value chain, and (ii) support the private sector in development and implementation of necessary SPS measures.
3. Plant Health Clinics	Diagnostic and advisory services to farmers mainly on crop health problems.	CABI, local governments, DFID and different other donors	Start date: 2005 End date: on-going	145 plant clinics established. In districts where exports FFVs are grown the STDF Project should collaborate with the Plant Health Clinics. The ‘plant doctors’ should be trained in the Project’s foreseen ToTs on recognition and control of FFV HOs (harmful organisms).
4. Strengthening the Phytosanitary Capacity of Floriculture Sector in Uganda	Improve and maintain market access to the EU for Ugandan flowers by enabling MAAIF (DCP) and the private sector to comply with international standards and requirements of the EU Market.	GoU (MAAIF), UFEA, STDF and CABI	Start date: October 2012 End date: March 2015	The experience in the Flower Sector how to build a PPP in order to deal with phytosanitary issues will be valuable for this proposed Project, with the observation that the FFV value chain is more complex than the Flower one, as it has more stakeholders while the FFV producers are mainly small-scale growers. This requires a different approach for the FFV export inspection system.
5. Horticulture Sector: Compliance with Phytosanitary Requirements	Development of Quality Management Systems (through QUISP) in order to overcome FFV exports problems. Using the QMS as a preparation for the export market (EU and other) audits.	UEPB, UgoCert, MAAIF and others.	Start date: 2015? End date: 2016	The QMS to which export companies will (or are expected) to adhere to, is relevant for certain activities of this proposed STDF Project. Building upon the experiences preparing the EU Audit in 2016, MTIC and its UEPB should be supportive partners in the implementation of this proposed STDF Project.

Title of project	Project focus	Implementing organisations and donors	Start and end dates	Relevance for proposed STDF Project
6. Enabling Policy Influencing for Improved Livelihoods in Uganda – Fruits & Vegetables Component	Adoption of sustainability improved standards in the fruits and vegetable sub sector that will enhance the safety and quality of horticulture produce. This would include, among others, the development of a private voluntary standard, UGANDAGAP.	Solidaridad, AgriProFocus, Private sector, Local Governments, Netherlands Government	Start date: 2016 End date: 2021	Most of project's activities relate to food safety. However certain aspects of the development of UGANDAGAP could be supportive for certain activities of the proposed STDF Project, e.g. assist in designing a simple certification system for FFVs export producers.
7. Fresh fruits and vegetables in Uganda	Support to cooperatives and farmers associations to improve horticultural production. Capacity building and strengthening the trade, partnerships between exporters and the producers' organizations is foreseen, including GlobalGAP certification.	VECO (NGO), local governments, farmers' associations	Start date: 2017 End date: 2021	Similar as in previous one.
8. Australia-Africa Plant Biosecurity Partnership	Enhance the plant biosecurity capacity in Sub Saharan African countries through the implementation of a Plant Biosecurity Capacity Development Programme. Indirectly it will support increased production, market access for African farmers - through improved national and regional quarantine and plant protection capacity - and improved food security. The Assistant Commissioner Phytosanitary Inspection and Quarantine, Department of Crop Inspection and Certification of DCR has been involved in this Partnership and developed an action plan entitled "Biosecurity Planning and Pest Management".	ACIAR, PBCRC, CABI, MAAIF	Start date: 2014 End date: 2017	The capacity building of Assistant Commissioner Phytosanitary Inspection and Quarantine, Department of Crop Inspection and Certification of DCR is highly relevant for this proposed STDF project. The assistant commissioner is expected to coordinate this STDF project.
9. Research on HOs (harmful organisms) control by National Agricultural Research Organization	Applied research on control of a HO (false codling moth) in pepper. No conclusive results.	MAAIF and NARO	Start date: 2014 End date: 2016	Conclusive recommendations on the effective control of FFV HOs (harmful organisms) are needed. More applied research would be required as a component of this STDF Project Proposal.
10. Sustainable Vegetable Production and Marketing Project	Establishment of Uganda Vegetable and Fruits Marketing Agents Association (UVGMA), which brought together 23 key traders in six local markets in Kampala and support to FFV small holders in Central Province.	Ford Foundation, Solidaridad	Start date: 2015 End date: 2016	The establishment of the fruit and vegetable stakeholders' forum, which brings together traders, farmer representatives and government institutions by AgriProFocus Uganda will be the basis for a future dialogue. This PPP might be interesting for this STDF Project.

4.1 Enhanced Integrated Framework (see also 2.2.2)

Uganda is fully engaged in the EIF process. Uganda undertook a Diagnostic Trade Integration Study (DTIS) Update, which was validated in June 2013⁵⁹ (updating the original DTIS of 2006). Uganda is one of the three LDC representatives on the Board of the EIF. The EIF website⁶⁰ provides the following information: *“Starting in October 2009, Uganda began the implementation of their Tier 1 project, “the Second Trade Capacity Enhancement Project (TRACE II)”. Furthermore, the EIF Board approved the first EIF Tier 2 project in August 2011 with a focus on supporting District Commercial Officers (DCOs). Uganda is also working on other Tier 2 project proposals prepared by the NIU and in June 2013 validated an update to the DTIS”.*

However, projects within the Tier 2 process under development do not include phytosanitary topics and/or those related to FFVs.

4.2 Quality Infrastructure and Standards Programme

The MTIC implemented the Quality Infrastructure and Standards Programme (QUISP) through support from the Swedish International Development Cooperation (SIDA) and Trade Mark East Africa in order to strengthen the Uganda Quality Infrastructure and Standards. QUISP terminated the 1st of April 2017. Generally it supported trade, industry, health, safety, consumer protection and a sustainable environment while at the same time promoting use of best practices in the productive and service sectors.

The SPS Policy (see 3.3) development was one of the components of QUISP. The policy was developed by different Ministries involved in SPS in a committee under Ministry of Tourism, Trade and Industry (MTTI) chairmanship. MAAIF DCP was part of the committee.

4.3 Plant Health Clinics

A plant health clinic is a form of primary healthcare to farmers on crop problems. The staff ('plant doctors') give advice and recommendations to farmers based on field diagnosis and available information. The Plant Health Clinic approach differs from project led interventions, as clinics offer a regular service and demand is defined by the queries that farmers present, not by extension workers or researchers.

'Plant doctors', being trained agronomists or local extension workers who are familiar with agriculture and local conditions, run plant Health Clinics. The plant doctors receive basic training infield diagnostics and plant health management. Other training courses are subsequently provided to enhance the technical competence of plant doctors and the quality of service. The clinics operate for about half a day once every one or two weeks, in a public place frequented by farmers. Often, they are not in a building, so require simple furniture (e.g. tables, chairs) and shade, along with basic equipment such as photographs of symptoms, reference literature, knives and hand lenses.

In 2005 and 2006, the first plant health clinics were established in Mukono, Iganga and Soroti districts of Uganda as a novel way to provide plant health advice to farmers. Early results showed that the plant clinics had the potential to enhance the outreach of agricultural extension, capture wider farmer demand and improve disease vigilance. Recognizing this potential, MAAIF included plant clinics in the 5-year Development Strategy and Investment Plan (DSIP) as part of the approach taken by the Pest and Disease Control Sub-programme. The Plant Health Clinics programme was an initiative of Centre for Agriculture and Biosciences International (CABI) and MAAIF.

The clinics experienced a number of initial challenges: e.g., maintaining the regularity of clinics, limited ownership and unclear institutionalisation. Nevertheless, the results and lessons from the initial phase triggered the engagement of new districts and organisations, while from 2011 onwards, the plant clinic

⁵⁹Report No. 77079-UG. Uganda Diagnostic Trade Integration Study (DTIS) update Prepared for the Enhanced Integrated Framework. April 2013. WB Financial and Private Sector Development, Africa Region. 196 p.

⁶⁰Source:http://www.enhancedif.org/en/system/files/uploads/uganda_apr2013.pdf

expansion happened very quickly. Over 145 plant clinics are now established in four regions of Uganda. There are plant clinics in 71 of the 112 districts in these regions, operating at different levels as they become established. The plant clinics are either run by the district local government or non-governmental organizations (NGOs), or run by both in order to share the responsibilities of coordinating and making resources and staff available as plant doctors.

During the different phases, the Clinics were funded by different donors and MAAIF, e.g. the (UK) Department for International Development (DFID), NGOs and through CABI's Plantwise⁶¹ by other donors. Together with CABI's Plantwise⁶² MAAIF's DCP allocated staff and some funds for training plant doctors, backstopping and clinic materials and to manage plant clinic data. The clinics are connected with knowledge resources such as the Plantwise Knowledge Bank⁶³. Some districts have started to include plant clinics in their annual budgets and work plans.

Obviously, as the Plant Health Clinics are demand driven, depending on the region, the Clinics will cope mainly with the major crops, and to a limited extent with FFVs export related HOs (harmful organisms). For that reason, the plant doctors will have limited knowledge and experience coping with these HOs (harmful organisms). Therefore, in districts with FFVs, particularly export FFVs, the plant doctors could be involved in providing advice on the control of HOs (harmful organisms) to growers of export FFVs. Obviously, first doctors should receive training (in the ToT) on the control of these organisms as part of the STDF project.

4.4 Strengthening the Phytosanitary Capacity of Floriculture Sector in Uganda

The goal of the STDF Flower Project was to improve and maintain market access to the EU for Ugandan flowers by enabling DCP and the private sector to comply with international standards and requirements of the EU Market. DCP led in implementing the project, working closely with the Uganda Flower Exporters Association (UFEA). The IPPC, Netherlands Plant Protection Service (NPPS), Kenya Plant Health Inspectorate Service (KEPHIS) on behalf of the Centre of Phytosanitary Excellence (COPE), CABI, and private consultants provided technical expertise. CABI Africa managed the project, which ran from October 2012 to March 2015.

The project partners made recommendations on how results and benefits produced through the project could be enhanced and sustained. As these recommendations, will be – partly – valid for this STDF project proposal, these recommendations⁶⁴ are given in the following. To implement these recommendations further investments are needed as well as necessary changes in institutional structure:

- I. Provide the legal framework for the DCP⁶⁵ to operate fully as the DCIC in line with IPPC requirements. This would give the necessary autonomy it requires to carry out its functions including addressing management, staffing and resource mobilization.
- II. Mobilize/allocate adequate funds at both DCP and UFEA to carry out phytosanitary work as current allocations were not adequate. One possibility would be cost recovery at DCP by charging for services such as inspections.
- III. Build a surveillance database for timely risk assessments.
- IV. Continue to pursue e-certification in order to improve efficiency and quality of certification process and the certificates.
- V. Enhance diagnostic capacity at national level. Most flower farms were seeking diagnosis abroad, which increased costs of production.
- VI. Improve capacity and facilities for carrying out inspections and first line diagnosis at the airport. DCP and UFEA to liaise with flower companies to provide a facility for inspection on-farm and

⁶¹Plantwise is a global programme led by CABI, which helps farmers to reduce crop losses caused by plant health problems. Source: <http://www.plantwise.org/about-plantwise/>

⁶² Source: <http://www.plantwise.org/plant-clinics/>

⁶³See: <http://www.plantwise.org/KnowledgeBank/Home.aspx>

⁶⁴ Source: Project: STDF/PG/335. Strengthening the phytosanitary capacity of the floriculture sector in Uganda. Final Report. 30th of June 2015. 24 p.

⁶⁵ In 2015, at the time of the recommendations the NPPO was within DCP, presently it is within the Directorate of Crop Resources (DCR).

- explore means of securing the consignments enroute to the airport. On farm inspections, would be a good way of mitigating pests in good time.
- VII. Explore ways of getting adequate and skilled staff. For example, some of the technical staff at the flower farms could be trained and certified to undertake pest scouting and surveillance with supervision from the DCIC. The high staff turnover could be prevented by facilitating them adequately to conduct their duties, training, mentoring and offering competitive terms. In the case of diagnosis, it was proposed that DCP explores collaboration with the NARO.
 - VIII. Put in place a system for confirming species of moths collected by the flower farms in order to enhance pest information.
 - IX. Document pest monitoring activities being undertaken at the flower farms and draw up a bench mark that could be used by the horticulture sector and others.
 - X. DCP needs to develop other SOPs including one on implementing the QMS it has developed.

The broader recommendations, that are also valid for this project proposal, refer to how to build a PPP that could benefit other countries as well. Surveillance results and policy changes, such as an adoption of the Plant Protection and Health Act, should be shared with IPPC and Inter African Phytosanitary Council (IAPSC). The model of the project design and implementation, having a partner led advisory team, is necessary to ensure ownership of project activities and results as demonstrated in this STDF Flower Project.

The report of an evaluation mission^{66f} for this STDF Flower Project provides – in short –the following recommendations:

- I. Ensuring an effective export inspection system. Having the export inspection at the production site should be pursued. For this more DCIC inspectors are needed, also to fulfil the tasks indicated in the Plant Protection and Health Act.
- II. Further training required as part of the training plan. As part of a quality management system and establishing and improving the competences of their personnel. Applies to DCP and the cut flower sector.
- III. Strengthening data and information systems at DCP and at sector level. This refers to changes in national legislation and international changes on phytosanitary requirements. Electronic certification either through Asycuda or Client is advised. The information of the survey and monitoring programme should be compiled with available surveillance data at production sites, provided the collected insects are properly identified.
- IV. Strengthening the collaboration and communication between DCP and the sector through regular meetings between DCP and the sector.
- V. Diagnostic facilities and service aiming at identification of HOs (harmful organisms) should be improved. The risk of a miss-identification and the consequent unjustified measures is very realistic. It is suggested either: (i) Make use of the NARO facilities and increase their staff capacities on molecular biology techniques, or (ii) have a complete diagnostic laboratory within DCP for which a plan with a financial paragraph is recommendable, or (iii) collaborate with private or public diagnostic laboratories in the region, e.g. a foreign DCIC having an up-to-standard diagnostic laboratory.

It is clear that many of the pending issues are relevant to receive attention in this proposed STDF project, while this proposed project builds on the experiences of the Flower Project as there are differences between these two sectors.

The production systems of the flowers and FFVs differ and the value chain of FFVs are longer, the approach for inspection and detection procedures will be different. The FFV sector is dominated by small scale growers who are mostly not well organised and thus the approach for capacity building needs to be different. DCIC will build on the experiences of the flower project to demonstrate cohesion of producers and the methods of production. The capacity building of officers for the FFV needs to cover a wider scope and to include a ToT for extension workers in order to specialise in giving advice to the farmers on export production. This Project would also build capacity of the traders to support their suppliers/growers since the government paid staff are limited.

^{66f}Meggelen, Jos van, 2015. Strengthening the phytosanitary capacity of floriculture sector in Uganda. (Project STDF 335). Evaluation report (activity 2.3). Period: 9 – 15 March 2015. 24 p.

A summary of the differences between the Flower sector and the FFV sector is reflected in the following table 6.

Table 6. Summary difference Flower Project / sector and proposed FFV Project / sector

Flower Project / sector	Proposed FFV Project / sector
Small sector, few stakeholders, approximately rather large 15 companies growing flowers / flower cuttings and exporting these products.	About 50 exporters sourcing their FFV products from many, mostly, small scale growers.
Flower growers have rather good technical knowledge and employing specialised agronomist or crop protection expert for managing specific activities in growing the flowers.	Technical knowledge of small scale growers limited, receive mostly advice from the exporter's agronomists. Often these agronomists do not have sufficient knowledge on pest management and thus on HOs (harmful organisms) and their control.
Production in large (green) /screen houses.	Production in small scale plots often less than ½ ha.
All flower growers well organised with one association (UFEA).	Three associations representing FFV exporters.
All flower growers are member of UFEA	Small scale growers not well organised, sometimes they are collaborating in farmers' groups, which are not specifically geared to FFV export crops.
Capacity building relatively easy and more direct to company agronomist or crop protection specialists.	Capacity building, to reach the small-scale growers, more complex. Should include local extension workers, advisors of export companies, representatives of farmers' groups and others (often NGOs) advising growers.
Chemical control of HOs (harmful organisms) has no or limited impact on public health (does not apply for occupational health).	Chemical control of HOs (harmful organisms) may result in excess of the MRLs and thus on public health and may cause rejections in the EU.
Short value chain.	Longer value chain.

4.5 Horticulture Sector: Compliance with Phytosanitary Requirements⁶⁷ by Uganda Export Promotion Board (UEPB)

In 2016 it was observed that over the two (2) previous years, Uganda's fresh produce exports – especially to the EU – came under strict scrutiny for conformity and compliance with phytosanitary requirements. The most prevalent concerns were the high risk of presence of HOs (harmful organisms), the same as mentioned in this proposal. This caused concern among public and private sector players particularly because of its importance to the livelihoods of rural producer households and the country's Vision 2040 goal (see also 3.1) of achieving middle income status.

In response, these stakeholders have invested enormous time, effort and resources to ensure that the country sustains its access to these key markets. Remedial actions were sought in the direction of developing and maintaining prudent production and quality management systems (QMS) along the entire value chain. In 2015 the Ministry of Trade, Industry and Cooperatives (MTIC) through its QUISP Programme (see 4.2) together with MAAIF supported the development and establishment of a Quality Management System (QMS) for Horticulture. This process was technically facilitated by Uganda Certification Ltd (UgoCert), a local organic and QMS certification agency. The key deliverable was a Quality Management Manual.

As preparatory activities for EU Audit for Horticulture Exporters in Uganda (see 2.2.4), drawing from the provisions of the QMS, in the months of May to August 2016, the exporters through their association

⁶⁷Source: <http://www.ugandaexports.go.ug/en/2016/08/03/horticulture-sector-compliance-phytosanitary-requirements/>

(UFVPEA) together with UEPB and MAAIF conducted two (2) self-audits to assess the state of affairs and, most especially, the readiness of the exporting firms for the EU inspections. Results indicated that firms are re-organising their processes and systems to ensure compliance. For example, they improved their pack houses⁶⁸, hired and/or re-trained their quality managers; complying with statutory requirements such as registration with UEPB and MAAIF in addition to training farmers.

With continued efforts such as continuous training of farmers, supporting exporting firms to establish pack houses and quality management systems, and streamlining regulatory and control process, Uganda would be able to minimize cases of non-compliance and hence improve market access with minimal risk of market-entry restrictions in these key markets.

Building upon the experiences preparing the EU Audit in 2016, MTIC and its UEPB should be an important supportive stakeholder in the implementation of this proposed STDF Project.

4.6 Enabling Policy Influencing for Improved Livelihoods in Uganda – Fruits &Vegetables Component

Solidaridad with funding from the Ministry of Foreign Affairs of the Royal Kingdom of the Netherlands, and in partnership with the Embassy of the Kingdom of the Netherlands in Kampala, AgriProfocus Uganda⁶⁹, identified member Fruits and Vegetable Associations in Uganda, selected core and support role private sector actors, knowledge institution and other stakeholders for the implementation of a five year project titled ‘Enabling Policy Influencing for Improved Livelihoods in Uganda (EPE – Uganda) – Fruits and Vegetables Component’.^{70 and 71}In 2016 the project started with a number of consultancies and a multi-stakeholder workshop and produced an inception report.⁷²

The Project Overall goal is: ‘*Promote an inclusive and competitive horticulture sector through adoption of sustainability improved standards in the fruits and vegetable sub sector that will enhance the safety and quality of horticulture produce in Uganda*’. To achieve the overall goal of this component, the project will be guided by a number of specific objectives. These objectives are quite broad. Only the ones that have – mostly - an indirect relevance for this STDF Project Proposal are indicated:

Objective 1: Establish, convene and support national level stakeholder dialogues through a multi-stakeholder initiative to discuss food safety policy issues in Uganda.

Outcome 1: Criteria for National fruits and vegetables food safety standard are enforced and adopted by stakeholders⁷³.

Objective 2: Formulate a national voluntary standard(s) for sustainable fruits and vegetables value chains, in order to ensure that local and export fruits and vegetables are safe and the product value chains are socially, environmentally and economically sustainable.

Outcome 2: National fruit and vegetable voluntary standard (UGANDAGAP) established leading to sustainable and inclusive social, environmental and economic development.

Outputs:

2.1 Brands and companies mobilized to adopt sustainable national fruits and vegetables standards.

2.2 Individual companies start applying sustainable sourcing and production policies.

2.3 Private sector implements national UGANDAGAP and integrates sustainability information into their reporting cycle.

Objective 3: Build the capacity of relevant stakeholders with a special focus on civil society organisations (CSOs) to effectively engage in dialogue and policy change processes in the fruit and vegetable sector in Uganda.

⁶⁸ During the Fact-finding Mission it was observed that not all pack houses were improved.

⁶⁹ See also: <http://agriprofocus.com/horticulture-uganda-page>

⁷⁰Source :

http://images.agriprofocus.nl/upload/4b_TOR_F&V_UG_SUB_SECTOR_SURVEY_20161461054920.pdf

⁷¹Source : <http://agriprofocus.com/post/5715ee37a93f25267332e41f>

⁷²Enabling Policy Influencing for Improved Livelihoods in Uganda (EPE-Uganda) Solidaridad Eastern and Central Africa Expertise centre (SECAEC). Final Inception Report. 2016, 25 p.

⁷³ The food safety refers as well to the use of pesticides and implementation of IPM, which relates – in case of export crops – also to this Project Proposal. The specific outputs are not reflected.

Objective 4: Create awareness, disseminate knowledge and learning and provide documented lessons for future improvement of the standard as well as link to other Solidaridad initiatives in the continent.

4.7 Fresh fruits and vegetables in Uganda (VECO)

VECO⁷⁴, a worldwide operating NGO has been implementing several projects to organise farmers in Uganda over the last years. A total of 764 farmers (256 women and 508 men) are now organized in four farmers' organizations: Sabinu Agro-Commodity Multi-Purpose Cooperative Society Ltd., Kwapa Vegetable Farmers' Cooperative Society, Bududa Yetana Area Cooperative Enterprise Ltd. Shunya Yetana Community Based Organization (CBO) and Tororo Fruits and Vegetable Farmers Coop Society. They are specialized in growing passion fruits and onions.

Some of VECO's implementation strategies are to;

- control pests the farmers will be linked to research institutes to establish sustainable disease-free nurseries within the farming communities,
- improve quality; in cooperation with Amfri Farms Ltd., farms will be assisted to get their GlobalGAP and UgoCert certifications by establishing a QMS and monitoring their compliance through training in Good Agricultural Practices (GAP).
- strengthen the trade; partnerships between exporters and the producers' organizations will be facilitated.

As with the above Solidaridad/AgriProfocus project (see 4.6) these activities link and/or may support in the same way as the Solidaridad Project the implementation of this STDF Project Proposal, therefore collaboration should be sought.

4.8 Australia-Africa Plant Biosecurity Partnership

This partnership project⁷⁵ aims to enhance the plant biosecurity capacity in Sub Saharan African countries through the implementation of a Plant Biosecurity Capacity Development Programme.

The three-year Plant Biosecurity Capacity Development Initiative – which is funded by the Australian Centre for International Agricultural Research (ACIAR) – is being delivered by a consortium led by Australia's Plant Biosecurity Cooperative Research Centre (PBCRC) and also including the Crawford Fund and CAB International (CABI).

This project aims to build the skills and capacity of plant biosecurity managers and decision makers in ten target countries in Eastern and Southern Africa: Burundi, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Uganda, Tanzania, Zambia and Zimbabwe. This will support increased production, market access for African farmers -through improved national and regional quarantine and plant protection capacity - and improved food security.

International organizations with an interest in plant biosecurity capacity development, including the Common Market for Eastern and Southern Africa (COMESA) and the IPPC, are being encouraged to have further involvement in achieving the objectives of the project.

The Assistant Commissioner Phytosanitary and Quarantine Inspection Services, Department of Crop Inspection and Certification of DCR has been involved in this Partnership and developed an action plan entitled "Biosecurity Planning and Pest Management". This plan includes activities implemented in 2016 and next steps for 2017. The following topics are indicated for 2017⁷⁶:

- determine pest list and worldwide status as well as their association with specific crops,

⁷⁴ <https://www.veco-ngo.org/en/project/fresh-fruits-and-vegetables-uganda>

⁷⁵Source: <http://www.pbcrc.com.au/research/project/4130>

⁷⁶ Action Plan Update. Biosecurity Planning and Pest Incursion Management. Tumuboina Ephrance. 2p.

- design targeted survey procedures and carry out surveys for specific pests selected during biosecurity planning exercise. Priority will be given to pests identified in neighbouring countries that pose the greatest risk,
- contingency planning for pests reported elsewhere and appropriate response plans e.g. the fall army worm that has been reported in Africa,
- draw biosecurity plans priority crops and create awareness among stakeholders,
- update the plant protection and health regulation to include inventory phytosanitary measures for different plants and products, and
- establish alliances with academia, research and private sector to support biosecurity research. Academia have been helpful in testing and evaluating phytosanitary treatments especially fumigants for dried products as alternatives to methyl bromide.

At least the above part related to the FFV export will receive attention in this proposed STDF Project Proposal.

4.9 Research on HOs (harmful organisms) control by National Agricultural Research Organization (NARO)

NARO carried out research⁷⁷ in order to achieve control methods for HOs (harmful organisms). At the request of MAAIF integration of alternative control methods for false codling moth (FCM), such as the use of bio pesticides. Cryptogram® was evaluated alongside other insecticides with the view that it would reduce over-dependence on chemical insecticides. The focus of this study was to determine the efficacy of insecticides with different modes of action against field populations of FCM on *Capsicum*.

Unfortunately, the results of these first trials showed inconsistencies in effectiveness of the various pesticides and did not meet expectations of control reported elsewhere by the various insecticides.

A second report⁷⁸ of trials implemented in collaboration with the private sector summarizes the following: *“Because the hot pepper production is constrained with various pests and diseases, the IPM package should not only address FCM but be revised to include management options for the observed constraints: Fruit flies, aphids, mites, fungal, viral, bacteria diseases, nutrient deficiencies and agronomic issues.”*

To provide more conclusive recommendations on the effective control of HOs (harmful organisms) that can be implemented by growers of FFVs for export, more applied research will be needed as a component of this STDF Project Proposal.

4.10 Sustainable Vegetable Production and Marketing Project (SVMP)⁷⁹

During 2015 – 2016 the Ford Foundation funded the Sustainable Vegetable Production and Marketing Project (SVMP) that was implemented by Solidaridad. The project worked with 2,300 smallholder farmers on improved FFV production and marketing in Central Uganda. A rapid evaluation undertaken indicated that for these farmers to benefit from the local and export market. A preliminary foundation has been laid, through this project and other partners, for future stakeholder engagement. Initial engagement with local traders led to the establishment of Uganda Vegetable and Fruits Marketing Agents Association (UVGMA), which brought together 23 key traders in six local markets in Kampala. While the main aim was to link the traders to the fruit and vegetable farmers in the project, issues related to food safety were not addressed. The establishment of the fruit and vegetable stakeholders’ forum,

⁷⁷ Source: Efficacy of insecticides with different modes of action against field populations of false codling moth in *Capsicum*. Technical Report Submitted to Ugandan Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), Submission date (March, 2016).

⁷⁸ Source: Preliminary Field Evaluation of Three Biological Control Products against the False Codling moth (*Thaumatotibia leucotreta*) on Hot Pepper (Scotch Bonnet) in Uganda. Collaborative research with NARL-KK Fresh Food exporters, PSM, Real IPM (October 2015 to January 2016).

⁷⁹ Source: Enabling Policy Influencing for Improved Livelihoods in Uganda (EPE-Uganda). Solidaridad Eastern and Central Africa Expertise Centre (SECAEC). Final Inception Report, 2015. 25 p.

which brings together traders, farmer representatives and government institutions by AgriProFocus Uganda, will be the basis for a future dialogue.

The foreseen PPP of this STDF Project Proposal points in the same direction, but it might be useful to invite representatives of this project to the initiation workshop of this Proposed STDF Project.

5. Public-public or public-private cooperation

The project is geared at strengthening FFVs phytosanitary measures and thus addresses immediate compliance threats to international and regional exports in this sector. It will provide an action-based case study for the strengthening of phytosanitary measures in general, which is expected to be applicable to other sectors, e.g. management of animal health and food safety measures. The project design addresses not only the further development of regulatory and enforcement measures for plant health, but also supports the private sector operators (farmers, farmer groups, pack-houses, pesticide traders, exporters and their associations) to comply with the phytosanitary measures. Technical assistance and training for compliance in the form of guidelines advice to farmers, exports and support for simple certification system are included in the project to ensure that regulatory compliance can be achieved by the stakeholders in the FFV value chain. This may act as models for phytosanitary application in neighbouring countries like Burundi and Rwanda and in Uganda to be adapted/adopted in other sectors in the future.

The above is based on the experiences in the STDF Flower Project, where PPP with shared responsibilities was instrumental for the success of the project. This proposed FFV project will build on these experiences. An advantage for this project is that the DCIC has experience with such partnership. The DCIC will need this experience as the FFV export sector is more fragmented than the cut flower export sector. In the FFV export sector, there are three associations, being the Uganda Fruits & Vegetables Exporters and Producers Association (UFVEPA), Horticulture Exporters Association of Uganda (HORTEXA) and Uganda Horticulture Exporters and Processors Association (UHEPA). These represent a large number of exporters, farmers, some farmer groups and middlemen⁸⁰.

This proposed STDF Project supports in another PPP the DCIC (MAAIF) to collaborate with one or more certification bodies and / or projects like the above mentioned Solidaridad project (see 4.6) or the Fresh fruits and vegetables in Uganda (VECO) (see 4.7), in order to support the development of a simple certification system for export small-scale FFV growers.

A public – public cooperation between the MAAIF's DCIC and NARO is foreseen in the validation of recommendations from other countries to control HOs (harmful organisms) under Ugandan conditions. In addition, cooperation between MTIC is needed for support on general policies issues related to trade.

Improvement of the SPS system is considered within the donor community as a key issue in the agri sector. EU, USAID and The Netherlands have a direct involvement. The Feed the Future/Enabling Environment in Agriculture program of USAID is part of the wider working group on SPS. USAID is in full support of the proposal. The US Department of Agriculture, through their regional representation in Nairobi, offers occasionally places to Ugandans in the regional SPS training course but have no further involvement in Uganda. USAID facilitates communications with USDA. Both DFID and The Netherlands are supporting Trade Mark East Africa, which offers opportunities for alignment, especially in cross border procedures.

6. Ownership and stakeholder commitment

Introduction. MAAIF's Division of Phytosanitary and Quarantine Inspection Services (PQIS) in the Department of Crop Inspection and Certification (DCIC), under the Directorate of Crop Resources (DCR) is responsible for phytosanitary issues. MAAIF has clearly demonstrated the wish to play a central

⁸⁰ There are no figures available on how many exporters, farmers, farmer groups and middlemen.

role in phytosanitary management. Although hindered by various constraints as described in the above chapters, MAAIF tries to implement effective and efficient inspection and enforcement regime.

In a more general sense MTIC actively promotes the adoption and implementation SPS measures by the relevant institutions of Uganda. It does so as it has a clear interest in ensuring and maintaining market access to global markets for Ugandan agricultural and food products. Additionally, MTIC supports trade facilitation and reduction of non-tariff barriers and thus ensure the protection Ugandan interests for safe products and sustainable agro-food production systems.

In the following section a description is given of the main stakeholders who actively will support this Project. Additionally, a couple of secondary stakeholders are given, who are expected to provide important services to the project or who are indirectly linked to the Project.

Main stakeholders

DCIC together with other MAAIF departments in the DCR and Directorate of Extension, will be responsible for the day-to-day implementation of the project including the provision of staff, undertake practical activities such as procurement of equipment, arranging meetings, organising training and a study tour in concert with the FFV associations (UFVEPA, HORTEXA and UHEPA), the Project Management Committee (PMC), CABI Africa and organisations / companies providing the requested services. The DCIC will organise and take minutes of the PMC meetings. A part of the staff will benefit from this project and some of the needed phytosanitary facilities will be improved or established. Appendix 4 provides DCR's letter of agreement with the project proposal.

Private Sector Companies. Most of the Ugandan's major exporters are members of one of the three associations mentioned above and described in the following. The exporters are required to supply quality produce for their exports; most of the large export companies employ agronomists to advise growers in Good Agricultural Practices (GAP). The companies may also purchase and supply pesticides for the growers to control pests in the various export crops. The agronomists may conduct pre-inspection of fresh fruits and vegetables and forward reports to the Agricultural Inspectors who carry out final phytosanitary inspections. In addition, some of the companies build the capacity of their growers through training and other advisory services that are run with funding support from donors and non-governmental organizations.

Uganda Fruits and Vegetables Exporters and Producers Association (UFVEPA). Following the increased number of interceptions in the EU of Ugandan horticultural exports, an all-inclusive horticulture apex body was formed in 2014. Uganda Export Promotion Board (UEPB) was charged with leading the initiative with the task to improve monitoring, compliance and information sharing in the Horticulture sector. The Uganda Fruits and Vegetable Producers and Exporters Association (UFVEPA) has taken the lead in the sustainability of a focused horticultural association to coalesce and synergize farmers and products to curb quality issues at farm gate level as an umbrella organization of over 40 companies that export fruits and vegetables. Some of the companies – as described in the above - have employed agronomists that help to advise growers on pest management. The various company agronomists also provide a link to the out-grower schemes with district production staff and commercial officers. The association mobilizes the company agronomists and organizes trainings for growers and farmer's group leaders in GAP. Pest management practices training on the control of HOs (harmful organisms) needs urgently to be strengthened. Advice on the improvements of pack houses in line with the Hazard Analysis Critical Control Points (HACCP) will also be provided through UFVPEA.

Horticulture Exporters Association of Uganda (HORTEXA). HORTEXA is one of the voices of FFV exporters in Uganda, with companies such as KK Fresh and SULMA being members. In general, the association's role is to organize growers and exporters of horticultural products to increase production of high quality fruits, vegetables, spices, and other, for export; to encourage quality by way of establishing post-harvest and packaging standards and to lobby government and advocate for favourable policies by acting as a link between policy makers and horticultural farmers.

The association supports an out-grower scheme for various horticultural crops. HORTEXA links these growers to the exporters of fruits and vegetables to various destinations. In practice, the association ensures that the growers are trained in GAP, safe use of pesticides, IPM, on farm HACCP, quality

management systems, record keeping, food safety, worker welfare and other social responsibilities. The association covers over 2000 growers and functions as sources of exportable fruits and vegetables by linking them to the exporters. The association runs practical demonstration gardens and provides applied training for growers. Major crops that receive attention are *Capsicum* spp., white garden egg, banana, sweet potatoes and okra. However, their farmers, as most farmers in Uganda, are faced with the supply of poor quality seeds, counterfeit pesticides and limited information access. Through this proposed project their activities would be strengthened.

Uganda Horticulture Exporters and Processors Association (UHEPA). This association has 14 members, being a mix of export companies, large scale growers mostly without out-growers schemes, processing and service providers. Most companies are also involved in processing. Companies that are member of UHEPA are for example KK Foods Ltd, Bio Fresh Ltd, Aseel Impex Ltd., Sulma Foods Ltd. And ReallPM Uganda are members. Product range includes fair trade and organic products. Companies employ agronomists for advice to their out growers.

UFVEPA, HORTEXA and UHEPA. The three associations will be represented in the Project Management Committee. A support letter from the associations is included in Appendix 4. A couple of major exporters and growers should participate by (i) making staff / scouts / agronomists available for training (ToT), (ii) making staff / scouts / agronomists available for quarantine pest scouting in farms as a support to the phytosanitary survey by DCIC, and (iii) advise / apply improved pest control of HOs (harmful organisms). A support letter of one company, namely KK Foods, is also provided in Appendix 4.

Ministry of Trade Industry and Cooperatives (MTIC) and Uganda Export Promotion Board (UEPB). The National SPS and TBT Notification Authority for Uganda reside in this Ministry. It is expected to ensure that compliance of Uganda fruits and vegetables with export and import requirements are well coordinated in the international markets. UEPB is under the External Trade Department of MTIC. It is the national focal point for export promotion and development. UEPB's role is to help export products and services out of Uganda, offering support services to exporters in Uganda and foreign buyers including market information, information on SPS requirements, assistance with entering and establishing in new export markets, business linkages, export product development and capacity building. The Board supports the horticulture sector in a programme "*Compliance with Phytosanitary Requirements*" (see further in 4.2), that includes the establishment of a QMS and self-audits. Through this programme MTIC may support this project, e.g. in setting up a simple certification scheme. MTIC should be a member of the PMC. A support letter of MTIC is included in Appendix 4.

Fresh Handling LTD (FHL). This is a private sector entity charged to handle some fruits and vegetables before export. The firm ensures good quality of the fruits and vegetables reach the market and with proper documentation. FHL also links with the airlines and exporters in arranging cargo space. Recently FHL has been involved in negotiation to expand the cargo area at Entebbe International Airport to provide decent inspection facilities to support phytosanitary inspection of fresh produce. As mentioned earlier, several MAAIF officers and private stakeholders question the timely expansion of the airport facilities.

National Agricultural Research Organization (NARO). NARO is a public institution and an agency mandated to conduct research in all fields of agriculture, forestry, animal husbandry etc. It is composed of several research institutes and aims to enhance the contribution of agricultural research to sustainable agricultural productivity, sustained competitiveness, economic growth, food security and poverty eradication. The different end users share the technologies that are developed. The various technical committees hosted by MAAIF approve the technologies developed. NARO has diagnostic expertise and experts in the fields of surveillance and pest management practices. NARO (e.g. the Horticultural Programme, and crop protection departments / specialist) are expected to be involved in validating recommendations for the control of HOs (harmful organisms) (see above under 4.9) and assisting in the identification of HOs (harmful organisms) and in various capacity development activities. A representative from NARO could be a member of the PMC, or an observer.

CABI (Centre for Agriculture and Biosciences International) Africa. CABI is an international not-for-profit organization that improves people's lives worldwide by providing information and applying scientific expertise to solve problems in agriculture and the environment. CABI has a wide international experience in project management and projects on phytosanitary issues. The STDF project COPE was

supervised by CABI Africa, which was – according to the STDF Secretariat - well done. The same applies for the STDF Flower Project. CABI Africa will take care of the external project management. CABI Africa will be member of the PMC. CABI will be responsible for reporting to the donor. See further below in chapter 16 on Project Management. A support letter is included in Appendix 5.

International Plant Protection Convention (IPPC). Contracting parties to the IPPC agree to promote the provision of technical assistance to other contracting parties with the objective of facilitating the implementation of the Convention. In this context, when required, the IPPC Secretariat will be requested to provide technical advice to the project and build the capacity of the DCIC' PQIS (Phytosanitary and Quarantine Inspection Services) Staff on sustainability aspects of the project. This is particularly relevant as one of the IPPC's major areas of work is the international standard setting, and implementation of the IPPC and associated adopted international standards. A number of these International Standards for Phytosanitary Measures (ISPMs) are crucial in the project implementation.

Uganda Agribusiness Alliance (UAA). UAA is a 5-year old Ugandan NGO which among other accomplishments has used the development of private sector-led Multi-stakeholder platforms to transform the national Agricultural Finance Platform (AFP) from a dormant body into an effective and successful platform by adding active participation of private sector actors from banking and farmer organizations who had been previously absent. As a result, the AFP has been able to get increased commitment from the Ministry of Finance, Planning and Economic Development to add a staffed desk for agricultural finance; with the leadership of UAA as the Secretariat AFP has conducted an extensive diagnostic mapping of agricultural finance in Uganda resulting in specific recommendations now being incorporated into an official Agricultural Finance Policy and Strategy for Uganda. It has also developed private sector-led Multi-stakeholder platforms focussed on commodity value chains, most recently the Uganda National Potato Platform in the Irish potato value chain. As part of this project, UAA will be implementing the diagnostic mapping, market study, and guiding the development of the private sector-led SPS Multi-stakeholder platform.

Other supportive, cooperating or benefitting stakeholders will be:

- National Organic Agricultural Movement of Uganda (NOGAMU)
- Uganda Certification Ltd (UgoCert)
- Makerere University (Crop Science Department, Horticulture, crop protection)
- Local Governments and their extensionists
- Plant Health Clinics and their plant doctors
- AgriProFocus/ Solidaridad (Uganda), through their programme “*Enabling Policy Influencing for Improved Livelihoods in Uganda (EPE – Uganda) – Fruits and vegetables component*” (see under 4.6)
- Fresh fruits and vegetables in Uganda (VECO) (see under 4.7)
- Out-growers, small scale growers of FFVs for export
- Farmers' groups
- Ugandan National Agro Dealer Association (UNADA)
- Kenya Plant Health Inspectorate Service, Relevant research / extension institutions in Kenya
- Biological control companies in Kenya
- UK Department for Environment, Food and Rural Affairs (Defra)
- Netherlands Plant Protection Service (NPPS, presently part of the Netherlands Food and Consumer Safety Authority (NVWA).

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

7. Project Goal / Impact

The overall goal of the project is to improve market access to the EU and other high-end markets for Ugandan fresh fruits and vegetables (FFVs). The project's expected spill over effects includes

enhanced access to regional markets and improved domestic food security. Overall, through the project is expected to contribute to sustainable economic growth and poverty reduction in line with the STDF's vision.

8. Target Beneficiaries

The final beneficiaries of the Project are all the stakeholders in FFV export value chain, with – possibly - the most important ones, the primary producers of FFVs. These FFV growers are mostly small-scale farmers. For the intensive production of FFVs, the growers need to hire labour, for a large part women labour. As mentioned in the above chapter 2.1.1, 90% of the women are involved in agriculture. The 90% may not apply to these FFV cash crops, as in most parts of Africa male farmers are in charge of the cash crops, but no figures are available in this case. Additionally, other people are dependent on the farm labourers' income and the cash income the growers earn. As such, the project will positively influence domestic economic development and food security.

As most of the fruits and vegetables originate from Central Region, Western Region and Eastern Uganda, the proposed Project should target some 30 - 50 export companies in these regions. Each company exports all the regulated FFVs with a condition of the presence of an agronomist. The small-scale farmers should have at least ½ ha. Criteria need to be set on availability of packing premises and ability of the company to recruit farmers. This will be gender balanced. It is foreseen that the Project should train 40 technical staff and directors of the companies, the latter will also be involved in dialogue sessions related to Project content and cooperation in a PPP modus. The advantage of involvement of Company directors and staff is the fact that these tend to change job far less often than Government staff and thus have a positive effect on the sustainability of the post project activities.

Each identified district should have one contact person trained during the project (pilot 40 districts). Roughly on average each company employs five persons on their payroll multiplied by 40 companies resulting in a target of 200 pack house staff. The Project should train 40 extension workers being TOTs for other staff and/or farmers. These extension workers will be for the major part district extensionists and some extensionists will be involved in donor / NGO projects that also deal with export FFVs. The total number of farmers that will be targeted during the life of the project should be at least 150.

In addition to the above beneficiaries, the exporters, transport companies, staff of DCIC, PQIS and other above-mentioned stakeholders will benefit as well.

(a) Gender-related issues

As women in Uganda are for 90% involved in agriculture and are employed by different stakeholders in the value chain (e.g. as labour in the farms, as sorters and packers in the pack houses), it is expected that women will benefit through improved income generation. The percentage of women FFV farmers is not known. However, of the roughly 150 farmers the Project is expected to target, the aim would be to include 80 women farmers.

In the pack houses, two third of the companies' permanent staff are women sorters; meaning that roughly 175 women would be targeted by the Project. Most, but not all, company managers are male.

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

The project purpose is an improved compliance with international phytosanitary standards for production and export of FFVs to international markets, including the EU, as well as to regional markets.

The project has six expected outputs and related activities (see table 7) that need to be implemented to achieve the specified outputs. The Logical Framework specifies the outputs and in more detail the

related activities (see Appendix 1). The detailed work plan is given in Appendix 2 and the Terms of Reference (ToR) of key expert is provided in Appendix 6.

Table 7. Project's proposed outputs and activities

<p>Output 1. A diagnostic mapping of public and private partners and SPS services along the horticulture value chain is completed in order to identify priority areas for capacity building (which is developed for phytosanitary compliance of public and private partners) and to provide input to the streamlining of the inspection and certification system. A private sector-led SPS Multi-stakeholder platform is developed to complement and assist national coordinating mechanisms increasing ownership of the responsibility for improvement in SPS compliance by private sector actors.</p>
<p>Activity 1.1 General Project Initiation Workshop</p>
<p>Activity 1.2 A diagnostic mapping of public and private partners and SPS services along the horticulture value chain is completed in order to identify priority areas for capacity building (which is developed for phytosanitary compliance of public and private partners) and to provide input to the streamlining of the inspection and certification system. (Implemented by UAA)</p>
<p>Activity 1.3 Preparation of Concept Note for a private sector-led SPS Multi-Stakeholder Platform, based on mapping (implemented by UAA)</p>
<p>Activity 1.4 Initial meeting of key public and private stakeholders to validate/adopt Concept Note for a private sector-led SPS Multi-Stakeholder Platform (implemented by UAA)</p>
<p>Activity 1.5 Revision of Concept Note based on input at initial key stakeholders meeting (implemented by UAA)</p>
<p>Activity 1.6 Quarterly meetings of SPS Multi-Stakeholder Platform to assist national coordinating mechanisms in improving communication, coordination, accountability, and ownership of responsibility for improvement in SPS compliance by private sector actors (implemented by UAA)</p>
<p>Output 2. A capacity development plan is implemented, upon validation by the results of diagnostic mapping in Output 1, which confirms and prioritizes the capacity gaps identified in the planned activities for this Output</p>
<p>Activity 2.1 Continuous specialised training of trainers (ToTs) on integrated pest management (IPM) geared to harmful organisms (HOs) causing interceptions. Includes training extension workers in the use of healthy planting material, recommended pesticides and cultural controls (sanitation and weeding) during pre-harvest, proper timing of harvest and removal of infested material and trash at harvest, and other integrated phytosanitary measures.</p>
<p>Activity 2.2 Conduct demonstrations on recommended technologies in an IPM system for management of HOs (harmful organisms) from elsewhere for adaptation under the Ugandan agro-ecological systems and the type of farming e.g. use of radiations and Cryptogram. This will also include locally available pesticides. Reference to be made to guidelines for the use of integrated measures in a systems approach for pest management ISPM 14.</p>
<p>Activity 2.3 Develop practical farmer's / extension guides on the most important HO's and make these available to leaders of farmers' groups, growers, extensionists and agronomists of export companies. Guides include practical information on management of FCM & Psyllids using a systems approach.</p>
<p>Activity 2.5 Specialised training on managing pack houses and transport of FFVs.</p>
<p>Activity 2.6 Recruitment by MAAIF of about 7 new Agricultural Inspectors.</p>
<p>Activity 2.7 Review and update of DCIC's procedures, documentation and reference materials related to specific issues of FFVs' export certification system with technical assistance from an international specialist.</p>
<p>Activity 2.8 Study tour supported by a phytosanitary specialist for DCIC PQIS inspectors and other staff and stakeholders involved in implementing phytosanitary measures</p>
<p>Activity 2.9 Specialized and detailed hands-on training for (new) Agricultural Inspectors and other phytosanitary staff of DCR.</p>
<p>Activity 2.10 Further development and improvement of the existing operational manual for phytosanitary inspection and compilation of other reference materials for HO of FFVs for export.</p>
<p>Output 3.A streamlined inspection and export certification system through the value chain for horticultural products based on public-private partnership (PPP) is designed and adopted in accordance with the results of the diagnostic mapping, ISPM 7, ISPM 14, ISPM 23, and reference made to the IPPC Import Verification Guide and Export Certification Guide.</p>

Activity 3.1 Dialogue and agreement on (i) Certification improved institutionalized inspection arrangements and requirements between DCIC and stakeholders in FFV chain
Activity 3.2 Development (coordinated by UAA) of high level strategic plan for streamlining inspection and export certification and strengthening institutionalization of the coordination, monitoring, consultation, communication and advocacy roles in SPS sector
Activity 3.3 Elaboration (coordinated by UAA) of prioritized actionable areas & relevant SPS requirements identified by the high level strategic plan, including innovative solutions in the areas of training, promotion and motivation for good agronomic practices, certification systems.
Activity 3.4 Procurement of small equipment and tools for export inspectors to be used in the field and at pack houses by inspectors and agronomists of export companies.
Activity 3.5 Technical assistance on the needs of the Plant Health Laboratory in Namalere in order to become a fully functional laboratory with accreditation in order to be able to provide comprehensive diagnostic services, or alternative options, including on HOs (harmful organisms) and MRLs
Activity 3.6 Multi-stakeholder workshop to explain the proposed export certification system, create support and receive feedback.
Activity 3.7 Further development of a computer-based format of the export certification system for document storage and retrieval
Activity 3.8 Develop advisory material for the export certification system and carefully rollout the system.
Activity 3.9 Develop a GAP manual for Uganda
Activity 3.10 Adapt existing international training material for use in training of inspectors, extension workers and producers
Output 4. Specific phytosanitary survey and monitoring systems in the FFV value chain based on public private partnership (PPP) are effectively operational developed in reference to standards in the guidelines for surveillance ISPM 6 and the IPPC Plant Pest Surveillance Guide.
Activity 4.1 Development and design of specific FFV phytosanitary survey and monitoring system based on clear public and private roles, including PPP.
Activity 4.2 Creation of a small task force on the development of a specific phytosanitary survey and monitoring and technical assistance on the practical set-up of such a system in concert with the private sector.
Activity 4.3 Specialized and practical training of trainers (ToT) on quarantine pest surveillance systems.
Activity 4.4 Procurement of surveillance equipment including traps, data capture devices and software
Activity 4.5 Implementation of specific phytosanitary surveys and monitoring, including use of pest surveillance traps, geospatial data/ weather stations and analysis of captured data in reference to ISPM 6, 8 & 9.
Activity 4.6 Strengthen the Pest Risk Analysis Team in its on-going Pest Risk Analysis work (availability of desk computers, printers and Internet) with reference to ISPM 2.
Activity 4.7 Strengthen field and exit inspection for phytosanitary compliance (availability of tablets, laptops, motorcycles, uniforms and signage at border posts).
Output 5 Based on a market study to assess opportunity to increase fruit and vegetable exports to both new and current markets with improved SPS compliance, a realistic Uganda Export Marketing Strategy for FFVs is developed and agreed upon by the key stakeholders of the FFV export value chain.
Activity 5.1 Market study conducted to assess opportunity to increase fruit and vegetable exports to both new and current markets if SPS compliance is improved, & relevant SPS requirements (implemented by UAA)
Activity 5.2 Drafting workshop for Uganda Export Marketing Strategy for FFVs.
Activity 5.3 Multi-stakeholder validation workshop on the draft Uganda Export Marketing Strategy for FFVs.
Activity 5.4 Finalising Uganda Export Marketing Strategy for FFVs.

Output 6 Improved awareness at national levels of inspection and certification systems in the horticulture sector as a whole and based on the experiences, recommendations on improvements to be made for the FFV Export Value Chain and expansion of the results to other horticulture sub-sectors are made.
Activity 6.1 Development of a communication strategy on Phytosanitary issues in reference to the IPPC Pest Risk Communication Guide.
Activity 6.2 Organization of a final seminar.
Activity 6.3 Compile proceedings of the seminar and other relevant results of the project not discussed during the final seminar and publish.
Activity 6.4 Awareness creation of project's main findings and procedures to limit the non-compliance of FFV export crops through public media.
Activity 6.5 Creation of communication product e.g. short video, highlighting the impact of the project

10. Environment-related issues

To manage the HOs (harmful organisms) while growing FFVs, the first options that need to be used are preventive and curative environmentally friendly control measures, preferably non-chemical. However, in FFVs it will be difficult to fully control HOs without the judicious use of pesticides. Therefore, these pesticides that need to be sprayed by the FFV growers should be the ones that are the least toxic to the environment and to public and occupational health, in other words, according to an integrated pest management (IPM) approach. Obviously, for FFV exports to the EU, the applied pesticides should not be banned in the EU and the residues on the exported produce should not exceed the MRLs as set by Codex standards or the EU (Regulation (EC) No. 396/2005).⁸¹ This will be a challenging task for the validation research to be implemented by NARO.

It cannot be ascertained whether climate change plays a role in the development of HO in export FFVs. However, there are reports that this could be the case in Uganda, particularly in coffee.^{82and83}

11. Risks

There are some general risks that are not indicated in the logical frame work (Appendix 1). These are:

- insecurity and conflicts in rural areas affecting activities at local level; and
- changes of export conditions, for example agricultural production systems undermined by external threats such as climate change, re-valuation of Uganda shilling.

The key risks, partly described in the logical framework (Appendix 1), are the following:

- a) Insufficient cooperation of the private sector. The private sector should make staff available (their scouts and / or agronomists / quality controllers) for training and implementation of activities as described in the logical framework.

Companies should make room in their pack houses for facilities to check properly HOs (harmful organisms) of produce that will be exported.

- b) Failure to recruit new phytosanitary staff because of insufficient budget in government wage bill, for inspections and first-line diagnostics, implementation of survey and monitoring system and supervision of company / exporters' activities. For the sustainability of project results, no or only a limited turnover of staff would be beneficial.
- c) Un-availability at airport of a room / space that can be transferred into a simple laboratory and office where phytosanitary inspectors can inspect the exported produce.

⁸¹See for EU MRLs of pesticides: <http://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=homepage&language=EN>

⁸²<https://news.nationalgeographic.com/2017/08/climate-change-drought-uganda-coffee/>

⁸³ <http://www.ipsnews.net/2014/09/as-uganda-heats-up-pests-and-disease-flourish-to-attack-its-top-export-crop/>

- d) No cooperation from the exporters and handling companies at the Entebbe airport to improve logistics arrangements and conditions, including time available, for final phytosanitary inspections.
- e) Insufficient MAAIF budget to continue the implementation of the various phytosanitary measures after the project is over.

Considering the above risks, the following additional information can be given to try to mitigate the risks.

Ad a). In the long term, it is in the interest of the companies, the exporters, the growers involved in export that the whole phytosanitary system improves, which starts at their farms with scouting and appropriate pest management approaches to control quarantine pests (and other pests). So, in the short term, it will cost some staff time and extra efforts by the growers, but in the long term the private sector will benefit. At the onset of the project, the three associations (UFVPEA, HORTEXA and UHEPA) in concert with DCIC and CABI Africa need to spend time (i) to agree on the way forward, and (ii) to get support of a couple of the farmer groups, agronomists of export companies. Among others, expected results and activities 1.1, 1.2, 1.4, 1.6 and 2, 3, 4, 3 and 6 are designed to support awareness raising, capacity building and eventually to get full cooperation from the private sector.

Ad b) New DCIC staff will be recruited with the appropriate qualifications. This is on going and is expected to continue in the next months, before the start of the project. MAAIF DCIC will make the jobs attractive enough for the staff in order that they do not start to look for alternative employment. (Note: To date there is progress on this activity with 2 new Agricultural inspectors having been recruited for posting at the airport and 3 for inspecting FFV pack houses)

Ad c) This is also dependent on the transfer of the facilities used by Fresh Handling Limited to the new Entebbe Airport buildings. On this issue doubts were aired by MAAIF staff and others.

Ad d & e) The increased sense of ownership by the private sector in PPP arrangements such as the multi-stakeholder platform to be developed in this project, has been shown in other countries to result in increased compliance, decreased confiscations of exports, and recommendations by platform participants for public policy changes, voluntary guidelines and innovations. Amongst other arrangements, private sector participants shall be involved in discussions on cost- recovery mechanisms for potential inspection fees. These should be based among others, on the size of the firm/ exporter tonnage, distance to pack house/ garden and period (in hours) for inspection at pack houses.

12. Sustainability

Both the public and private sector shall appreciate their various roles, i.e. the private sector recognizes that they are the ones to comply with set standards and the public sector is there to assure issues of quality and provide an enabling environment and regulatory framework. The local communities where the export FFVs are grown will benefit through income generation of the labourers in these farms and the owners, and thus it may result in a general poverty reduction of members of these communities through spill-over of increased commercial activities. The local economy will benefit.

As the project activities through capacity building of the various stakeholders in the FFS value chain result in a strongly improved compliance with (EU) legislation, all the stakeholders will benefit which will be the biggest motivation to continue and to sustain the project's results. The project will endeavour to sustain the growing cooperation through several means: through meetings of the private sector-led SPS Multi-stakeholder platform and regular dialogue meetings to update each other on new development in the markets, in SPS requirements, and to monitor and evaluate implementation of agreed project PPPs.

The Project would put in place a PPP strategy that will be adopted by the Government, as the Government is eager to support mechanisms to promote the export of FFVs, the non-traditional export crops. Ugandan export volumes have declined tremendously and there is a need to find ways to reverse this tendency by using new strategies. The current Government is in support of this sector and a cabinet paper has been submitted to solicit support from the Government budget. Through the PPPs, mechanisms shall be put in place that will provide peer pressure self-regulating frameworks to ensure compliance in the sector.

The electronic certification system shall be strengthened to cover all exporters, and an agreement developed with the sector to make available pest surveillance reports to the DCIC to establish an early warning system (EWS). Collaboration will be strengthened with the EU delegation in Kampala to be able to get up to date information from EU to be able to get SPS information and notifications in time as the SPS inquiry point.

A cost recovery system of inspections would be one of the high guarantees of sustainability of the project results. Private sector members shall be involved in discussions on cost- recovery mechanisms for potential inspection fees. These should be based among others, on the size of the firm/ exporter tonnage, distance to pack house/ garden and period (in hours) for inspection at pack house.

Therefore, an effort should be made to develop further such a system. However, a condition of such a system to make it more effective would be that the DCIC could use the earnings for its activities. It is also imperative to make sure that any such cost recovery system will not have inadvertent negative effects on regional or international trade and will be in line with relevant national and regionally laws legal provisions. Such system will be considered in line with Article 8 and Annex C of the WTO SPS Agreement (control, inspection and approval procedures) and Article 6 of the WTO Trade Facilitation Agreement (fees and charges imposed on or in connection with importation or exportation). The FFV sector shall put in place a partnership fund to support regular inspections to improve compliance of exports to the International markets, including the European Union, and the regional market requirements. This shall be established through signing a memorandum of understanding between the Government of Uganda and the sector players.

A broad spectrum of stakeholders will be engaged in the private sector-led SPS Multi-stakeholder Platform, and by a smaller number of their representatives on the Project Management Committee, thereby ensuring ownership of project outcomes and agreeing on sustainability measures. Grower associations will be supported to engage their members in project activities by mobilizing them to participate in SPS Platform and other meetings, make in-kind contributions and implement interventions agreed to enhance compliance. Under result area 4 a Technical Task Teams comprised of farm managers and DCIC will be proposed to undertake compliance audit from time to time. Farm owners or heads of farmer associations will be encouraged to have monthly meetings to address issues raised by the technical teams as well visit each other's farms for joint learning and self-auditing. These interactions, and the on-going forum provided by the private sector-led SPS Multi-stakeholder Platform, are intended to foster collaboration during and after the project period an important aspect for sustainability.

Several additional approaches will be taken for long-term sustainability. A proposal will be developed for cost sharing between government and private sector to demonstrate the benefits of a semi-autonomous certification department. Benchmarking other semi-autonomous institutions like National Drug Authority and Uganda National Bureau of Standards can convince government that there will be increased revenue when the DCIC is semi-autonomous; an RIA consultant to do a cost benefit analysis of having a semi-autonomous DCIC. In addition, other funding proposals will be considered, and the private sector-led SPS Multi-stakeholder platform will review the sustainability that results by the end of the project period, and propose plans for increasing private sector and other support.

III. BUDGET

13. Estimated budget

Appendix 3 specifies a detailed breakdown of the various project budget lines per foreseen activity. However, a breakdown of the project's activity costs is summarised in table 8. With the addition of the contingency costs of 5% and the overheads for CABI Africa of 10%, the total estimated budget is US\$882,726. The in-kind contribution of the applicant and the collaborating associations and private companies amounts over 16% of the total project budget. The Netherlands Embassy (RNE) will co-finance an amount of US\$ 252,565 implying an amount of US\$ 484,788 requested from STDF.

The Appendix is provided as a separate excel sheet. The budget specifies:

- (i) the amount requested from STDF and co-financing from the Royal Netherlands Embassy (RNE); and
- (ii) the applicant's own contribution to the project, being MAAIF, the three associations (HORTEXA, UFVEPA and UHEPA) and linked export companies, largely related to salary costs and use of premises, such as providing facilities for training workshops and meetings.

Table 8. Overview of the project budget per activity.

Output	Activity	STDF US\$	RNE US\$	MAAIF US\$	Total US\$
Output 1. A diagnostic mapping of public and private partners and SPS services along the horticulture value chain is completed. A private sector-led SPS Multistakeholder platform is developed to complement and assist national coordinating mechanisms	1.1. General Project Initiation Workshop	29,350		5,500	34,850
	1.2 A diagnostic mapping of public and private partners and SPS services along the horticulture value chain is completed in order to identify priority areas for capacity building of public and private partners and to provide input to the streamlining of the inspection and certification system. (Implemented by UAA)		20,000		20,000
	1.3 Preparation of Draft Concept Note for a SPS Multi-Stakeholder Platform, based on mapping (implemented by UAA)		2,452		2,452
	1.4 Initial meeting of key public and private stakeholders to validate/adopt Concept Note for a SPS Multi-Stakeholder Platform (implemented by UAA)		1,147		1,147
	1.5 Revision of Concept Note based on input at initial key stakeholders meeting (implemented by UAA)		817		817
	1.6 Quarterly meetings of key public/private Stakeholders to assist national coordinating mechanisms in improving communication, coordination, accountability, and ownership of responsibility for improvement in SPS compliance by private sector actors (implemented by UAA)		4,360		4,360
Output 2. A capacity development plan is implemented, upon validation by the results of diagnostic mapping in Output 1, which confirms and prioritizes the capacity gaps identified in the planned activities for this Output	2.1 Continuous specialised training of trainers (ToTs) on integrated pest management (IPM) geared to harmful organisms (HOs) causing interceptions. Includes training extension workers in the use of healthy planting material, recommended pesticides and cultural controls (sanitation and weeding) during pre-harvest, proper timing of harvest and removal of infested material and trash at harvest, and other integrated Phytosanitary measures as per ISPM 14.	19,450		14,600	34,050
	2.2 Conduct demonstrations on recommended technologies in an IPM system as per ISPM 14 for management of HOs (harmful organisms) from elsewhere for adaptation under the Ugandan agro-		40,800	4,500	45,300

	ecological systems and the type of farming e.g. use of radiations and Cryptogram. This will also include locally available pesticides.				
	2.3 Develop practical farmer's / extension guides on the most important HO's and make these available to leaders of farmers' groups, growers, extensionists and agronomists of export companies. Guides include practical information on management of FCM & Psyllids using a systems approach.	2,750		1,750	4,500
	2.4 Training of farmers, traders and other middlemen involved in FFV export.	9,550		5,000	14,550
	2.5 Specialised training on managing pack houses and transport of FFVs.	1,850		3,750	5,600
	2.6 Recruitment by MAAIF of about 7 new Agricultural Inspectors.				
	2.7 Review and update of DCIC's procedures, documentation and reference materials related to specific issues of FFVs' export certification system (ISPM 7 & 23) with technical assistance from an international specialist.	15,350		1,750	17,100
	2.8 Study tour supported by a phytosanitary specialist for DCIC PQIS inspectors, other staff involved in implementing phytosanitary measures, and key stakeholders from FFV chain, e.g. HORTEXA, UFVPEA, UHEPA and others..	39,425		3,150	42,575
	2.9 Specialized and detailed hands-on training for (new) Agricultural Inspectors and other phytosanitary staff of DCR.	26,500		8,350	34,850
	2.10 Further development and improvement of the existing operational manual for phytosanitary inspection and compilation of other reference materials for HO of FFVs for export.	100		1,000	1,100
Output 3. A streamlined inspection and export certification system through the value chain for horticultural products based on public-private partnership (PPP) is designed and adopted in accordance with the results of the diagnostic mapping and with ISPM	3.1 Dialogue and agreement on improved institutionalized inspection arrangements and requirements between DCIC and stakeholders in FFV chain	1,850		1,750	3,600
	3.2 Development (coordinated by UAA) of high level strategic plan for streamlining inspection and export certification and strengthening institutionalization of the coordination, monitoring, consultation, communication and advocacy roles in SPS sector	12,259			12,259
	3.3 Elaboration (coordinated by UAA) of prioritized actionable areas & relevant SPS requirements identified by the high level strategic plan, including innovative solutions in the areas of training, promotion and motivation for good agronomic practices, certification systems.	2,452			2,452
	3.4 ⁸⁴ Procurement of small equipment and tools for export inspectors to be used in the field and at pack houses by inspectors and agronomists of export companies.	25,450		350	25,800
	3.5 Technical assistance on the needs of the Plant Health Laboratory in Namalere in order to become a fully functional laboratory with accreditation in order to be able to provide comprehensive diagnostic services, or alternative options, including on HOs (harmful organisms) and MRLs	14,500		1,250	15,750

⁸⁴ Total budget for requested equipment under activity 3.4 and 4.6 has to be within 10% of the budget requested from STDF.

	3.6 Multi-stakeholder workshop to create support and receive feed-back on the PPP export certification system for fresh fruits and vegetables.	3,100	1,650	4,750	
	3.7 Strengthening of the export certification system through training of stakeholders along the FFV value chain, implementation of MRLs analysis, producer registration, crop traceability and e-certification based on PPP.	18,900	20,400	39,300	
	3.8 Develop advisory material for the export certification system and carefully roll-out the system.	2,750	650	3,400	
	3.9 Develop a GAP manual for Uganda	4,000	1,000	5,000	
	3.10 Adapt existing international training material for use in training of inspectors, extension workers and producers		7,500	7,500	
Output 4. Specific phytosanitary survey and monitoring systems in the FFV value chain based on public private partnership (PPP) are effectively operational.	4.1. Development and design of specific FFV phytosanitary survey and monitoring system based on clear public and private roles, including PPP ISPM 6.		14,500	900	15,400
	4.2. Creation of a small task force on the development of a specific phytosanitary survey and monitoring and technical assistance on the practical set-up of such a system in concert with the private sector ISPM 6.		8,450	1,900	10,350
	4.3. Specialized and practical training of trainers (ToT) on phytosanitary survey, monitoring, and quarantine pest surveillance systems.		18,150	6,000	24,150
	4.4 Procurement of surveillance equipment including traps, data capture devices and software		30,500	20,350	50,850
	4.5. Implementation of specific phytosanitary surveys and monitoring, including use of pest surveillance traps, geospatial data/ weather stations and analysis of data.		18,450	4,250	22,700
	4.6 Strengthen the Pest Risk Analysis Team in its on going Pest Risk Analysis work (availability of desk computers, printers and Internet).		8,450	1,900	10,350
	4.7 Strengthen field and exit inspection for phytosanitary compliance (availability of tablets, laptops, motorcycles, uniforms and signage at border posts).		50,595	50,595	
Output 5 Based on a market study to assess opportunity to increase fruit and vegetable exports to both new and current markets with improved SPS compliance, a realistic Uganda Export Marketing Strategy for FFVs is developed and agreed upon by the key stakeholders of the FFV export value chain.	5.1 Market study to assess opportunity to increase fruit and vegetable exports to both new and current markets with improved SPS compliance. Study will incorporate key elements of the IPPC Market Access Guide in the Market Study including feasibility of accessing market; PRA; feasibility of on going access to market through continued compliance with SPS as well as other market requirements. (Implemented by UAA)	15,000		15,000	
	5.2. Drafting workshop for Uganda Export Marketing Strategy for FFVs.	3,310	2,000	5,310	
	5.3 Multi-stakeholder validation workshop on the draft Uganda Export Marketing Strategy for FFVs.	3,800	2,650	6,450	
	5.4 Finalising Uganda Export Marketing Strategy for FFVs.	710	600	1,310	
Output 6. Improved awareness at national levels of inspection and certification systems in the horticulture sector and based on the experiences,	6.1 Development of a communication strategy on Phytosanitary issues in reference to the IPPC Pest Risk Communication Guide.	2,500		2,500	
	6.2 Organization of a final seminar.	7,900	2,000	9,900	
	6.3 Compile proceedings of the seminar and other relevant results of the project not discussed during the final seminar and publish.	3,550	1,500	5,050	

recommendations on improvements to be made for the FFV Export Value Chain and expansion of the results to other horticulture sub-sectors are made.	6.4 Awareness creation of project's main findings and procedures to limit the non-compliance of FFV export crops through public media.	2,500			2,500
	6.5 Creation of communication product, e.g. short video, highlighting the impact of the project	15,000			15,000
Total Project Activity Costs		283,856	218,671	127,950	630,477
Project Management local and CABI		112,900		5,400	118,300
Project Management Committee Meetings		13,450		5,100	18,550
Independent end of project assessment		10,000			10,000
Contingencies 5%		20,510	10,934	6,923	38,367
Overhead CABI implementation 10%		44,072	22,960		67,032
TOTAL		484,788	252,565	145,373	882,726
		STDF	RNE	MAAIF	TOTAL

14. Cost-effectiveness

With a successful implementation of the project, it is expected that the consignments of FFVs intercepted in EU, due to the presence of HOs (harmful organisms), will reduce possibly to a few per cent. The estimated total losses for Uganda was roughly over US\$ 100,000 on average over the last two years (2015 and 2016), depending on the year (see table 5). How much individual companies would benefit is not known as figures on the average costs of pest management per company do not exist, due to the large number of small scale FFV growers. Improved pest management practices to control the HOs would result in judicious use of pesticides that will have a lower negative impact locally on public and occupational health and the environment.

To solve the described problems a properly functioning phytosanitary service is needed that implements appropriate phytosanitary surveys and monitoring systems. Additionally, the DCIC must guarantee enhanced scouting methods at the export FFV production sites.

An alternative for phytosanitary procedures does not exist, as this is internationally agreed under the international treaty of the IPPC. The FFV sector has to prevent that in their export consignments (to international or regional markets), quarantine pests are detected during the phytosanitary inspection. In such cases, the consignments will not receive a Ugandan Phytosanitary Certificate. This would reduce their exports to the EU and other markets, which is critical to the profitability of the sector. Even worse would be the case that the consignments are intercepted at the other end, as has happened often in Europe during the last couple of years (see 2.1.2). Therefore, strengthening the phytosanitary capacity of MAAIF/DCIC and improvement of the implementation of the phytosanitary measures, partly in concert with the private sector, is the only way to tackle the earlier described problems in the export of FFVs to Europe and elsewhere.

The benefit of this proposed project would be higher in the future, provided Uganda's FFV exports manage to enter the international markets (e.g. high-end markets in the EU).

IV. PROJECT IMPLEMENTATION & MANAGEMENT

15. Implementing organization

The applicant organization is the Ministry of Agriculture Animal Industry and Fisheries. The contact is:

Mr. Paul Mwambu, Commissioner,
Department of Crop Inspection and Certification
Ministry of Agriculture Animal Industry and Fisheries (MAAIF)
P.O. Box 102, Entebbe, Uganda
E-mail: pmwambu2@yahoo.com
Tel. +256 774013363

+256 414 320801
+256 414 322458
Fax: +256 414 320642

The day-to-day running of the project will be coordinated in consultation with local government extensionists, associations and companies including:

- Uganda Fruits & Vegetables Exporters and Producers Association (UFVEPA), Chairperson
- Horticultural Exporters Association (HORTEXA), Coordinator
- Uganda Horticulture Exporters and Processors Association (UHEPA), Chairman
- Uganda Agribusiness Alliance, Steve Hodges, Chief Operating Officer

The proposed project managers will be:

CABI Africa, Nairobi, Kenya
Dr. Morris Akiri
Regional Director, Africa

Canary Bird
673 Limuru Road
Muthaiga
P.O. Box 633-00621
Nairobi
Kenya
E-mail: f.chege@cabi.org
Telephone: +254 (0)20 2271000/20
Fax: +254 (0)20 7122150

The letters of support from a number of organizations to be involved in project implementation, particularly MAAIF/DCIC, MAAIF / DCR, MTIC, CABI and UAA, HORTEXA, UFVEPA and KK Foods are attached in Appendix 4.

CABI Africa provides in Appendix 5 a written consent agreeing to manage and supervise implementation of the project. CABI Africa will be responsible for procurement, disbursement and accounting for the funds to the funding partners.

16. Project management

In the beginning of the project a small Project Management Committee (PMC) will be set up, in order to:

- develop a management structure in which the practical management will be carried out by CABI Africa,
- oversee progress of project activities against agreed timelines
- oversee disbursement and monitoring the use of STDF funds as per agreed budgets
- supporting the development of good working relations and partnerships
- reporting to the STDF Secretariat and disseminating of project results, and
- intervene in the event of any problem.

The management and implementation by CABI Africa will be implemented in concert with the PMC, where particularly attention should be paid to support MAAIF's DCIC to coordinate and implement activities in a PPP, together with the three associations.

The PMC will be composed of one representative from each of the following stakeholders, with the exception of DCIC having two representatives:

- DCIC (2x)
- CABI Africa (1x)
- Associations (each 1) (3x)
- MTIC (1x)
- Uganda Agribusiness Alliance (1x)

The PMC will attempt to reach all decisions by consensus.

The PMC will meet in Entebbe six times during the three years' duration of the project. As indicated in Appendix 2, this is foreseen for months 1, 7, 13, 19, 25, and 31.

V. REPORTING, MONITORING & EVALUATION

17. Project reporting

Regular reporting, on the project progress in relation to the foreseen work plan (Appendix 2) will be carried out by CABI Africa. The progress reports will include a financial report.

In month 1 an inception report will be prepared. Regular progress reports will be written in months 7, 13, 19, 25, 31 and a final report in month 36. The decisions of the PMC meetings will be included in these reports.

18. Monitoring and evaluation, including performance indicators

The PMC will be responsible for the overall monitoring of the project implementation and progress related to the work plan. During the first PMC meeting, when an inception report will be drafted, a detailed and refined work plan will be further developed. Based on this one and the key indicators indicated in the logical framework (appendix 1), progress will be monitored by the representatives of the PMC and discussed and assessed in each PMC meeting.

A final independent end-of-project assessment will be carried out at the completion of the project by an external evaluator (Art. 104 of the STDFs Operational Rules). The independent assessment will be the responsibility of the implementing agency, and the estimated cost of the final assessment is included in the project budget as outlined in the STDF Guidance Note for Applicants.

19. Dissemination of the projects results

During the project implementation, the website of MAAIF will publish key information and progress, if possible, on a project specific page of that website. The project final results will be disseminated within the country through the organisation of a final seminar (activity 6.1), publishing the proceedings (activity 6.2) and the awareness creation (activity 6.3). The dissemination of the results will be geared to stakeholders in other sectors of export horticulture. The seminar should also aim at awareness raising towards decision makers and/or politicians on the importance of the FFV export and significance and benefits of a well-functioning phytosanitary system for the export of FFVs and other export crops. The lessons learnt will be instrumental for the implementation of the phytosanitary issues of the National SPS Plan.

The results and lessons learnt of the various activities need to be published (see activity 6.3). This can be done on the MAAIF website, the websites of the associations and large export companies, agricultural magazines, daily papers and (local) radio and national television.

ATTACHMENTS

- Appendix 1:** Logical framework.
- Appendix 2:** Work Plan.
- Appendix 3:** Detailed Project Budget (given in separate excel sheet).
- Appendix 4:** Letters of support from organizations that support the project request.
- Appendix 5:** Written consent from an STDF partner that agrees to implement the project, being CABI Africa.
- Appendix 6:** Terms of Reference for key staff involved in project implementation.
- Appendix 7:** Requested equipment (provisionally).
- Appendix 8:** Abbreviations and acronyms.

APPENDIX1: Logical Framework

Logical Framework

	Project description	Measurable indicators	Sources of verification	Assumptions and risks
Overall objectives (Goals)	Improve market access to the EU, other high-end markets and regional markets for Ugandan fresh fruits and vegetables (FFVs).	<p>Trade volume and value of FFVs to the EU stays at least the same or improves (Y0: 7,000 MT, Y3 9,000 MT and Y5: 11,000 MT)⁸⁵ and includes more the high-end EU market (after Y3).</p> <p>Trade volume and value of FFVs to regional markets stays the same or improves.</p> <p>The total revenue from the FFV sector increases and the production levels increase to meet the demand.</p> <p>Number of FFV certified companies or farmer groups: Y0: a few – 0, Y3: 5 – 10, Y5: 10 – 15.</p>	<p>Export and financial data from MAAIF and/or the MTIC and EU Market Access Database.</p> <p>High end market: e.g. GlobalGAP Database</p>	<p>Growers are willing to implement improved pest management practices for HOs (harmful organisms). Demand of export FFVs to the EU does not decrease. No new HOs of the EU quarantine list appear in Uganda that are difficult to control by the growers.</p> <p>The GoU provides ongoing operational funding as appropriate for the DCIC to support phytosanitary activities.</p> <p>The private sector and FFV associations, including through an on going national multi-stakeholder SPS platform, provide active support to the project's activities.</p>
Purpose	Improved compliance with international phytosanitary standards for production and export of FFVs for the EU, regional and other markets.	Reduction of number of interceptions of FFVs in the EU (Y0: 80, Y3: 50, Y5: 30).	EUROPHYT database and DCIC data.	<p>The present and new HOs can be controlled by the growers or detected using the established capacity.</p> <p>FFV Growers are interested in exporting to EU markets</p>

⁸⁵ Product groups 07 and 08, see EU Market Access Database.

	Project description	Measurable indicators	Sources of verification	Assumptions and risks
				and are willing to implement the required extra production efforts.
Expected result 1	A diagnostic mapping of public and private partners and SPS services along the horticulture value chain is completed A private sector-led SPS Multi-stakeholder platform is developed to complement and assist national coordinating mechanisms	<p>Mapping identifies a prioritized list of areas for capacity building of public and private partners, which is used to guide the staff capacity building.</p> <p>Staff and growers are confident to implement various necessary phytosanitary and control measures resulting in less cases of non-compliance. Implementation of phytosanitary measures according to Standard Operating Procedures. Reference materials and manuals improved.</p>	<p>Diagnostic mapping report.</p> <p>Notification reports EUROPHYT.</p> <p>Procedures documented.</p> <p>MAAIF / DCIC Progress reports.</p> <p>Job assessments.</p> <p>Reference materials and manuals.</p>	<p>Staff and farmers motivated to participate in mapping, and in training and to change the procedures and implement changes.</p>
Activity 1.1	<p>General Project Initiation Workshop: Two-day Multiple Stakeholder Workshop for all relevant stakeholders in the export horticultural value chain in order to:</p> <ol style="list-style-type: none"> 1) Create general awareness among the stakeholders on the project, 2) Create awareness on the roles of different stakeholders in the FFV export value chain, 3) Agree how the three associations should collaborate in the project 4) Create a working group with representatives of the different stakeholders to develop an Export Marketing Strategy for FFVs (see activity 5.2), and 5) Provide a technical introduction on the relevant topics. <p>This Multiple Stakeholder workshop is also a training workshop for participants</p>	<p>Number of relevant different stakeholders in the FFV value chain.</p> <p>At least 20 relevant persons actively participated.</p> <p>The three associations agree to cooperate.</p> <p>Proceedings of the workshop.</p>	<p>List of participants.</p> <p>Workshop reports.</p> <p>Overview of activities and evaluation.</p> <p>Agreements on PPP collaboration between relevant groups.</p>	<p>Representatives from relevant stakeholders come to the workshop with an open mind and willing to share their experiences and ideas and are prepared to collaborate.</p>

	Project description	Measurable indicators	Sources of verification	Assumptions and risks
	<p>representing key stakeholders (such as DCIC staff, relevant policy makers, agricultural inspectors, associations representative(s) (UFVPEA, HORTEXA, UHEPA), non-association member exporters, UAA, Solidaridad/AgrProFocus, crop protection specialists / scouts / quality controllers / agronomists / managers of pack houses from FFV export companies, quality assurance controllers, input suppliers and their association and Local Government extensionists).</p> <p>Facilitation of the workshop by a facilitator specialised in Multi Stakeholder Processes, with inputs from specialized consultants on:</p> <ul style="list-style-type: none"> (i) UFEA: Lessons learned from the STDF Flower Project (ii) Importance of appropriate pest control at grower's level (iii) Tracking and tracing (iv) Responsibilities of MAAIF, DCIC-PQIS, (v) Functions and new developments of an export certification system (vi) EU phytosanitary import requirements (Council Directive 2000/29/EC), import procedures, notification systems of non-compliance, and its developments, (vii) Phytosanitary import requirements in other markets of interest (e.g. Middle East and possibly neighbouring countries in Africa), (viii) Difference between general surveillance and specific phytosanitary surveys and role in 			

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	<p>phytosanitary system</p> <p>Observation: The Multiple Stakeholder Workshop needs to be repeated, in an adapted form half yearly, as the sector is very fragmented. It should be the basis for building a PPP, where e.g. the Export Marketing Strategy for FFVs will be discussed and reviewed.</p> <p>Participants: minimum 20 Duration: 2 days Organised by DCIC- PQIS in concert with Associations, CABI Africa, and UAA. Inputs from 1 expert multi-stakeholder processes, 1 international phytosanitary expert, 1 staff member UFEA. Location: Entebbe.</p>			
Activity 1.2	A diagnostic mapping of public and private partners and SPS services along the horticulture value chain is completed in order to identify priority areas for capacity building of public and private partners and to provide input to the streamlining of the inspection and certification system. (Implemented by UAA)	Mapping identifies a prioritized list of areas for capacity building and streamlining of inspection and certification	Copies of diagnostic mapping report available to all SPS stakeholders	Ability to identify and reach all key partners Willingness of public and private sector partners to provide information fully and honestly
Activity 1.3	Preparation of Draft Concept Note for a SPS Multi-Stakeholder Platform, based on mapping (implemented by UAA)	Draft Concept Note for a private sector-led Platform completed with focus and function in line with key findings of diagnostic mapping	Draft Concept Note available to all SPS stakeholders	Risk of delay in completion of Draft Concept Note if mapping takes long
Activity 1.4	Initial meeting of key public and private stakeholders to validate/adopt Concept Note for a SPS Multi-stakeholder Platform (implemented by UAA)	At least 30 key public and private stakeholders participate in meeting, including private sector stakeholders who have not previously been involved in SPS committees	Participants validate the Draft Concept Note, making changes as needed Meeting report	Willingness of public and private sector partners to participate with a vision for improvement beyond their own self-interest
Activity 1.5	Revision of Concept Note based on input at initial key stakeholders meeting (implemented by UAA)	Revised Final Concept Note is completed	Revised Final Concept Note available to all SPS Stakeholders	

	Project description	Measurable indicators	Sources of verification	Assumptions and risks
Activity 1.6	Quarterly meetings of key public/private Stakeholders to assist national coordinating mechanisms in improving communication, coordination, accountability, and ownership of responsibility for improvement in SPS compliance by private sector actors (implemented by UAA)	Three meetings are held with an average of 20 persons attending per meeting including private sector stakeholders who have not previously been involved in SPS committees Actionable improvements are identified for assisting national coordinating mechanisms in each of the areas of communication, coordination, and accountability	Meeting minutes available to all SPS Stakeholders	Willingness of public and private sector partners to participate without reimbursement , and with a vision for improvement beyond their own self-interest
Expected Result 2	A capacity development plan is implemented, upon validation by the results of diagnostic mapping in Output 1, which confirms and prioritizes the capacity gaps identified in the planned activities for this Output	Staff and growers are confident to implement various necessary phytosanitary and control measures resulting in less cases of non-compliance. Implementation of phytosanitary measures according to Standard Operating Procedures. Reference materials and manuals improved.	Notification reports EUROPHYT. Procedures documented. MAAIF / DCIC Progress reports. Job assessments. Reference materials and manuals.	Staff and farmers motivated to participate in training and to change the procedures and implement changes.
Activity 2.1	Continuous specialised training of trainers (ToTs) on integrated pest management (IPM) geared to harmful organisms (HOs) causing interceptions. Includes training extension workers in the use of healthy planting material, recommended pesticides and cultural controls (sanitation and weeding) during preharvest, proper timing of harvest and removal of infested material and trash at harvest, and other integrated phytosanitary measures.⁸⁶ Agricultural inspectors, Local Government extensionists, plant doctors of Plant Health Clinics, company agronomists and leaders of farmer groups should be trained in a series of training sessions on the	Number of participants trained (15) during the year at the 3 locations. Training programme. The trained participants are able to train farmers in 'farmers' training sessions' (see 1.5). Demonstration plots.	Lists of participants of the ToT. Training materials. Evaluation of the ToT courses. Number of properly managed demonstration plots.	Participants of the ToT are willing to learn actively and are motivated to increase relevant knowledge and skills and to organise afterwards training for farmers.

⁸⁶Field visits and discussions with various stakeholders showed that there is an urgent need for FFV farmers (and extensionists) on IPM training, in a hands-on practical training approach like Farmer Field Schools. However, this would be outside the scope of this STDF project and would be a development project on its own.

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	<p>various options to manage these pests not risking the public and occupational health while conserving the environment. Thus including safe use of pesticides, pesticides not banned in the EU or other markets of interest, pesticide residues (including MRLs), pre-harvest intervals healthy planting material, sanitation, etc. Demonstration plots should be part of the training.</p> <p>Trainees: approximately 10-15 at 3 locations Duration 1½ day, 3 times / year (for the same group) Trainers: specialists of e.g. Makerere University and NARO and/or others.</p>			
Activity 2.2	<p>Conduct demonstrations on recommended technologies in an IPM system for management of HOs (harmful organisms) from elsewhere for adaptation under the Ugandan agro-ecological systems and the type of farming e.g. use of radiations and Cryptogram. This will also include locally available pesticides. The recommendations to manage some of the HOs as given for Ghana and Kenya based on recommendations of the Europe-Africa-Caribbean-Pacific Liaison Committee (COLEACP), or those in CABI's Plantwise, may need further (re) confirmation for the Ugandan conditions as the initial NARO trials did not yet yield conclusive results (see 4.9). However not only adaptation to Uganda conditions in general, but possibly also specifically to the type of producer (i) large commercial, (ii) medium sized and well organized, and (iii) small scale growers (more or less subsistence)). Priority shall be given to setting up farmer field school demonstration plots for management of the false codling moth and fruit flies in Capsicum spp., Mangoes, Momordica spp. and Trioza spp. on curry leaves. For fruit flies, ISPM 35 Systems approach for pest risk management of fruit flies (Tephritidae) and ISPM 37 Determination of host status of fruit to fruit flies (Tephritidae) will be used. To be implemented by NARO entomologists / IPM / biological control specialists after the development and approval of a detailed research approach aiming at pest management applicable for the above-mentioned categories of growers.</p>	<p>Practical recommendations that can be and are implemented (by the middle of Y3) by different types of FFV export growers on the control of the relevant and different HOs.</p>	<p>Proposed research programmes and research protocols.</p> <p>Reports of research with practical recommendations on the control of relevant HOs.</p> <p>In the end, growers implement the new recommended control measures.</p>	<p>Applicable and safe measures that control HOs properly are identified.</p> <p>Farmers are able and willing to implement those control measures.</p>

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	Based on the outcome of this research, the training of trainers under activity 2.1 may need to be adapted.			
Activity 2.3	<p>Develop practical farmer's / extension guides on the most important HO's and make these available to leaders of farmers' groups, growers, extensionists and agronomists of export companies. Guides include practical information on management of FCM & Psyllids using a systems approach.</p> <p>Based on the outcome of activity 2.2 these practical manuals in simple language (and preferably in relevant local languages) should be developed in concert with NARO jointly with e.g. HORTEXA, UFVEPA, UHEPA, CABI Plantwise, AgriProFocus and/or LG extension services.</p>	Extension guides of three most important HOs developed and produced in suitable quantities (at least 1000 each).	Number of manuals distributed to the relevant stakeholders	No practical control measures are available for HOs and/or were not identified in NARO's research (of activity 1.3).
Activity 2.4	<p>Training of farmers involved in FFV export</p> <p>The trainers trained in the ToT under Activity 1.2 should train farmers registered by export companies on pest management of HOs (harmful organisms) during the cropping seasons. In a later stage the training should include the simple certification system of outcome 5.</p> <p>Each training should be organised by 2 trainees of the ToT (see 1.2) in different locations (in Central, Western and Eastern Uganda), 10 - 15 training sessions for farmers a couple of times during the seasons.</p>	<p>Number of farmers trained (at least 150).</p> <p>Training programmes.</p> <p>Farmers implement the suggested measures to control the HOs.</p>	<p>Lists of farmers trained in the farmers' training sessions.</p> <p>Evaluation of the farmers' training.</p> <p>Verification in farmers' fields.</p>	Farmers are motivated to learn actively and are motivated to increase relevant knowledge and skills and use the new knowledge.
Activity 2.5	<p>Specialised training on managing pack houses and transport of FFVs.</p> <p>Managers of pack houses and FFV transporters of the different exporters to be trained on:</p> <ul style="list-style-type: none"> (i) FFV Transport and Pack house requirements and logistics (ii) Implementation of tracking and tracing systems (iii) EU product specifications for export (size, quality, packaging, labelling) (iv) Recognition of HOs relevant for export 	<p>Number of relevant trainees.</p> <p>Training programme.</p> <p>The 40 trained participants are implementing the lessons from the course.</p>	<p>Lists of participants of the courses.</p> <p>Training materials.</p> <p>Evaluation of the courses.</p> <p>After some time, at random verification of pack houses and transport.</p>	<p>Willingness of companies and transporters to make relevant staff available for training.</p> <p>Willingness of companies and transporters to implement the required measures.</p>

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	<p>(v) Hazard Analysis and Critical Control Points (HACCP)</p> <p>As a part of the training an onset could be made to develop Standard Operational Procedures for Transport in a PPP cooperation.</p> <p>Participants: 20 participants Duration 1½ day Number of courses: 2 Trainer: local expert</p>			
Activity 2.6	<p>Recruitment by MAAIF of about 7 new Agricultural Inspectors to be deployed for activities as required implementing and sustaining the improved phytosanitary measures of this project.⁸⁷ Such institutional reinforcement will strengthen Uganda's phytosanitary management systems in general, exerting possible effects on domestic crop production and also on regional trade.</p>	Number of new full-time staff available to implement phytosanitary measures.	MAAIF and Local Government staff records.	<p>No funds and/or priority to employ new staff.</p> <p>Applicants have the needed qualifications.</p> <p>New staff is motivated to be involved in various phytosanitary measures.</p> <p>(New) staff does not quit the job.</p>
Activity 2.7	<p>Review and update of DCIC's PQIS procedures, documentation and reference materials related to specific issues of FFVs' export certification system with technical assistance from an international specialist. (e.g. from IPPC, Defra, NPPS, Kenya Plant Health Inspectorate Service, or other).</p> <p>This would include recommendations and improvements in procedures, arrangements related to relevant DCIC- PQIS responsibilities and functions to be implemented specifically in the FFVs export certification system (in line with ISPM No.7 and Article V of the IPPC).</p> <p>Develop further a functional export certification system that will shift its focus away from end point inspection, to inspections of the whole FFV chain, including production sites of small scale</p>	<p>Agreement on new and updated procedures and updates of manuals and reference material.</p> <p>Advice on relevant staff capacity development.</p>	<p>Records / reports of various project activities.</p> <p>Report of international expert.</p> <p>Outline of updated operational procedures.</p>	<p>Willingness of staff and stakeholder to change phytosanitary procedures related to FFV export.</p> <p>Inspectors and other DCIC staff are willing and capable to work according to the new operational procedures.</p>

⁸⁷ Plans are in already in place to recruit and boost staff levels.

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	<p>farmers and handling facilities of the companies all the way to dispatch after issuance of phytosanitary certificates.</p> <p>Streamline further phytosanitary export inspection procedures and the issuance of Phytosanitary Certificates at Entebbe Airport. As the facilities at Entebbe airport are prohibitive in this respect, design a system of inspections that fulfils the IPPC, ISPM and EC requirements⁸⁸.</p> <p>Enhance cooperation between phytosanitary inspectors; export companies and Fresh Handling Ltd. and set-up simple inspection facilities at the airport.</p> <p>Streamline auditing by DCIC- PQIS of relevant activities done by employees of the companies and other relevant activities in the FFV chain.</p> <p>Advice on phytosanitary operational manuals in the whole export certification system, including auditing procedures by MAAIF and other supportive documentation and additional staff capacity building geared to issues in the FFV chain.</p> <p>By: one international phytosanitary advisor, DCIC PQIS staff, KNE and other relevant stakeholders. Duration: 7 days Location: Uganda</p>			
Activity 2.8	<p>Study tour to Kenya supported by a phytosanitary specialist.</p> <p>This study tour is geared to DCIC PQIS inspectors and other staff involved in implementing phytosanitary measures and key stakeholders from FFV chain, e.g. HORTEXA, UFVPEA, UHEPA and others. Practical aspects of the implementation of the various phytosanitary measures in Kenya have to be studied, particularly related to the phytosanitary requirements of the importing country (e.g. UK and the Netherlands) with emphasis on the False Codling Moth and Fruit Flies. The Kenyan DCIC, relevant public and private research</p>	<p>Number of participants (8)</p> <p>Study tour programme.</p> <p>Report with specific lessons learned and recommendations to take home and that are feasible to be implemented in Uganda.</p>	<p>List of participants.</p> <p>Evaluation of the study tour.</p> <p>Report of study tour, including lessons learned to take home and recommendations how to improve the organisation of inspections along the FFV vale chain and</p>	<p>Participants write a decent report with appropriate recommendations.</p> <p>Participants are willing to translate findings from RSA into practical recommendations for implementation in Uganda.</p>

⁸⁸The new airport facilities would solve these constraints in the future; however, there is serious doubt about materialisation of these facilities.

	Project description	Measurable indicators	Sources of verification	Assumptions and risks
	<p>institutes should be visited, while interactions with the Kenyan horticultural exporters association are crucial as well. Procedures of the importing country (UK or the Netherlands) should be studied and assessed.</p> <p>Issues to be included are: (i) responsibilities of Kenyan DCIC, (ii) procedures of export certification system for FFVs, (iii) phytosanitary export inspections, (iv) procedures for the notification of non-compliance, (v) specific surveillance by the DCIC, (vi) scouting by companies and role of the DCIC in supervising, (vii) use of central databases, and (viii) role diagnostic support services.</p> <p>The output of the study tour should be recommendations by the participants on how to improve the organisation of inspections along the FFV vale chain and the improvement of existing SOPs in Uganda or replace the old ones.</p> <p>Participants: 8 DCIC PQIS staff, representatives of associations Duration: 7 days Organised by: DCIC in concert with KNE, CABI Africa, Kenyan DCIC and other (above mentioned) stakeholders in Kenya Location: Kenya</p>		the improvement of existing SOPs in Uganda or replace the old ones.	
Activity 2.9	<p>Specialized and detailed hands-on training for (new and old DCIC PQIS staff).</p> <p>Topics: inspection procedures of the export certification system, auditing processes, pest and disease detection, handling of documents and phytosanitary certificates, quarantine pest detection, first line diagnostics etc. International expert on practical aspects of all relevant export and import procedures.</p> <p>Participants: 10 (PQIS staff) Duration: 1 week Organised by DCIC- PQIS, KNE in concert with CABI Africa Implemented by: 1 international phytosanitary inspector with knowledge of EU phytosanitary import procedures in UK and/or the Netherlands. Support by a phytosanitary inspector with knowledge of phytosanitary challenges in regional trade.</p> <p>Location: Uganda</p>	<p>Number of relevant participants trained (10).</p> <p>Training programme.</p> <p>Participant's improved knowledge and skills related to their phytosanitary tasks.</p>	<p>List of participants</p> <p>Training materials.</p> <p>Course evaluation.</p> <p>Participants' reports.</p> <p>On-the-job assessment of participants.</p>	<p>Participants are able and willing to learn actively and are motivated to increase relevant knowledge and skills</p>

	Project description	Measurable indicators	Sources of verification	Assumptions and risks
Activity 2.10	<p>Further development and improvement of the existing operational manual for phytosanitary inspection and compilation of other reference materials for HO of FFVs for export.</p> <p>Based on advice of an international technical expert (activity 1.8) and observations of study tour (activity 1.9), manuals should include a list of quarantine organisms. Pilot testing and adjustment. Make operational manual and other materials available for pack house and airport inspections.</p> <p>By: DCIC, PQIS Location: Uganda</p>	<p>Operational manual up-dated and practical enough to be understood and used by inspectors.</p> <p>Hard copies of new up-dated manual available at inspection sites.</p>	<p>New manual available at inspection sites for use by inspectors.</p> <p>Inspectors use the available manuals.</p>	<p>Changes in the operational manual are an improvement for inspectors.</p> <p>Inspectors are willing to work according to the new operational manuals.</p>
Expected Result 3	<p>A streamlined inspection and export certification system through the value chain for horticultural products based on public-private partnership (PPP) is designed and adopted in accordance with the results of the diagnostic mapping and with ISPM 14.</p>	<p>An implementation plan for phytosanitary inspections, indicating responsibilities of the different stakeholder groups, is adopted and reflected in the operational procedures of all stakeholder groups.</p>	<p>Quality of Phytosanitary Certificates.</p> <p>Notification reports from the EU.</p> <p>Operational procedures of all stakeholder groups.</p>	<p>Staff of different stakeholders are willing to implement new procedures.</p>
Activity 3.1	<p>Dialogue and agreement on (i) Integrating a number of pest control measures in the field, packing facilities, and transport to prevent pest establishment in pest-free places of production and production sites (ISPM 10) in accordance with the requirements of ISPM 14⁸⁹; (ii) improved institutionalized inspection arrangements and requirements between DCIC, PQIS and relevant stakeholders in the FFV value chain for compliance purposes which can be implemented during fruit set, just before harvest, after harvest (before and after packing) and at export (ISPM 23⁹⁰);</p> <p>By: DCIC, PQIS, CABI, UAA, KNE the three associations, exporters, middle men and growers' groups.</p>	<p>Number of meetings.</p> <p>Number of participating stakeholders in meetings (all mentioned stakeholders should participate).</p> <p>Feasible decisions and action plans on strategies and communication.</p>	<p>Minutes of meetings with relevant information.</p>	<p>All stakeholders are willing to participate actively.</p> <p>Stakeholders are willing to implement changes in existing procedures.</p>
Activity 3.2 ⁹¹	<p>Development of high level strategic plan (coordinated by UAA) for streamlining inspection and export certification and strengthening</p>	<p>A strategic plan will be drafted and validated by the Private Sector-led</p>	<p>Strategic plan will be available to every</p>	<p>Actors chiefly responsible for, or key to fulfilling, an</p>

⁸⁹ ISPM 14 - The use of integrated measures in a systems approach for pest risk management

⁹⁰ ISPM 23 – Guidelines for inspection

⁹¹A provisional list is provided in appendix 7. In case the new export facilities at Entebbe airport would be ready during the project period, small equipment and tools for export inspections and the set-up of a small laboratory and office would be required as well. However, it is understood that the likelihood of this assumption is rather low.

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	institutionalization of the coordination, monitoring, consultation, communication and advocacy roles in SPS sector	Multi-stakeholder Platform and will include prioritized outcomes, activities, responsible, and a timeline for strengthening institutionalization of the coordination, monitoring, consultation, communication and advocacy roles in SPS sector	participant in the Platform	element of the strategic plan may not be willing to take responsibility
Activity 3.3	Elaboration (coordinated by UAA) of prioritized actionable areas & relevant SPS requirements identified by the high level strategic plan, including innovative solutions in the areas of training, promotion and motivation for good agronomic practices directly related to key SPS issues, and various certification systems.	At least 3 actionable areas related to SPS requirements will be identified for research by the Private Sector-led Multi-stakeholder Platform during the review of the Concept Note or subsequent meetings (Activities 1.4 and 1.6)	A synthesis report on each of the identified actionable areas will be available to every participant in the Platform	Less than 3 actionable areas will be identified for research
Activity 3.4	Procurement of small equipment and tools for export inspectors to be used in the field and at pack houses by inspectors and agronomists of export companies for inspection and first-line diagnosis and certification purposes. First a final list should be drafted. Basic tools, equipment and reference material for plant inspectors and some additional simple equipment for supportive diagnostics in entomology. By: DCIC, PQIS in concert with CABI Africa, the three associations and exporters.	Small equipment and tools at pack houses in working condition. Phytosanitary inspections and issue of certificates follow described procedures.	Available procedures. Records on inspected FFV produce and results.	Timely delivery of small equipment and tools. Inspectors and company staff are willing and capable to use new equipment and tools.
Activity 3.5 ⁹²	Technical assistance on the needs of the Plant Health Laboratory in Namalere to become a fully functional laboratory with accreditation in order to be able to provide comprehensive diagnostic services. Assessment of its logistics to back-up identifications of HOs (harmful organisms) in export crops and make the laboratory fully functional: assessment of (i) the condition of the available equipment, (ii) missing essential equipment and needed consumables, (iii) required technical staff and (iv) staff training needs. Based on the outcome procurement of reasonably small equipment (it is not possible to procure expensive	Advice on Namalere laboratory and alternative possibilities, including needs as mentioned in the description.	Report of expert.	Negative advice on Namalere, while alternative possibilities are not or limited available

⁹² Should be done early in the project in order that the laboratory could be used in the lifetime of the project.

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	equipment) and arrange staff training. By: DCIC PQIS and an international expert. Duration: 5 days international expert.			
Activity 3.6	<p>Multi-stakeholder workshop to create support and receive feedback on the PPP export certification system for fresh fruits and vegetables.</p> <p>All stakeholders should take part to understand general advantages of such a system for the export of FFV including details like tracking and tracing and the need of essential data recording, registration, traceability and gap and e-certification <i>farmers who are not certified are not allowed to export.</i></p> <p>By: DCIC- PQIS, MTIC, KNE, Associations (and other relevant organisations/companies) Duration: @ 1 day Location: Uganda</p>	Feedback on the export certification system by at least 20 participants representing different FFV stakeholders.	<p>List of participants of the workshop.</p> <p>Report on feedback and its inclusion in certification system.</p>	<p>Stakeholders have a positive view on such a system.</p> <p>Recommendations do not complicate too much the system.</p>
Activity 3.7	<p>Strengthening of the export certification system through training of stakeholders along the FFV value chain, implementation of MRLs analysis, producer registration, crop traceability and e-certification based on PPP.</p> <p>This would be in line with ISPM guidelines, to improve efficiency and quality of certification process. International technical assistance to assess the base line on what is available and to clearly indicate what the project can aim to achieve. Based on this outcome procurement of equipment (PM) and internet connection for all inspectors.</p> <p>By: international expert, in concert with DCIC PQIS staff Duration: 5 days Location: Namalere and satellite borders</p>	Computer-based system is operational near the end of the project (Y3).	<p>Report of technical advice including list of needed hardware and/or software.</p> <p>Equipment and software is installed and operational. System is functional.</p>	Phytosanitary staff is willing and able to change their working procedures and use the e-certification system
Activity 3.8	<p>Develop advisory material for the export certification system and carefully rollout the system.</p> <p>Leaflets, posters, a manual, recording sheets, etc. to be developed in the local languages. Expand slowly the system, taking farmers on board who are interested.</p>	<p>Produced advisory materials and other materials.</p> <p>At least 10 growers and their exporters implement the system by the end of Y3.</p>	<p>Availability of materials for growers and exporters.</p> <p>Articles in relevant magazines</p>	<p>Local Government extension services are cooperating.</p> <p>Growers are willing to implement the</p>

	Project description	Measurable indicators	Sources of verification	Assumptions and risks
	By: Associations, in concert with DCIC PQIS, and other relevant organisations/companies		and on MAAIF website. Number of certified and registered growers.	certification system.
Activity 3.9	Develop a GAP manual for Uganda Stakeholders to develop a GAP for use by growers for export produce. By: DCIC and other MAAIF Departments, in consultation with associations.	GAP manual completed	GAP manual available to growers, processors and exporters	Growers willing to use the GAP manual
Activity 3.10	Adapt existing international training material for use in training of inspectors, extension workers and producers. By: DCIC and other MAAIF Departments, in consultation with associations.	Completion of training curriculum	Training curriculum available to those training inspectors, public and private extension workers and producers	Trainers of inspectors, extension workers and producers willing to use the training curriculum
Expected result 4	Specific phytosanitary survey and monitoring systems in the FFV value chain based on public private partnership (PPP) are effectively operational.	Survey and monitoring system for FFV value chain developed and implemented.	Report on the developed survey and monitoring system. Reports with results of the monitoring system and its communication to stakeholders. Number of visits of DCIC staff to FFV export growers. Reports of the scouting by the various private stakeholders.	Private companies are willing to cooperate and provide enough staff for training on scouting. DCIC PQIS provides enough staff time to implement the system. The developed system is practical and rather easy to implement by the stakeholders of the private sector.
Activity 4.1	Development and design of specific FFV phytosanitary survey and monitoring system based on PPP (objectives, sampling procedures, etc., as per ISPM No. 6) by DCC (PQIS) in cooperation with an expert experienced in the FFV chains. Identify, if needed, hardware and software. By: DCIC (PQIS) staff and international expert Duration: 6 days international expert Location: Uganda	System and monitoring system developed.	Expert's report on the FFV survey and monitoring system and details of implementation.	DCIC, PQIS staff is willing and has time to cooperate and assist the international expert

	Project description	Measurable indicators	Sources of verification	Assumptions and risks
Activity 4.2	<p>Creation of a small task force on the development of a specific phytosanitary survey and monitoring and technical assistance on the practical set-up of such a system in concert with the private sector. UFVPEA in concert with HORTEXA and UHEPA will form a taskforce together with DCIC (PQIS) and other stakeholders, meanwhile receiving expert advice from an expert (the same one of activity 4.1) on specific FFV phytosanitary survey systems and role of private sector. Communication and implementation with growers through Associations and exporters on survey design, system of data and information collection and cooperation between crop scouts and / or agriculture advisors working in the big farms and/or for the export companies and DCIC (PQIS) staff. Pest data collected from the farmers' fields through a network of pest scouts will be collated at the (DCIC (PQIS) office into a functional pest database. This will help enable the farmer to apply just the right amounts of acceptable pesticides to the affected areas, thereby yielding both economic and environmental benefits. The DCIC (PQIS) will also be able to determine pest status in an area and also provide survey data including pest distribution maps to trading partners for pest risk analysis. The DCIC (PQIS) will establish a whatsapp group for pest scouts to facilitate easy identification of pests.</p> <p>By three associations and key exporters, in concert with DCIC, NARO and CABI Africa and international expert Duration international expert: 4 days Location: Uganda</p>	<p>Taskforce created</p> <p>Survey and monitoring system described</p> <p>Communication on the system with growers.</p>	<p>Expert's report.</p> <p>Number of participating stakeholders in the meetings of the task force.</p> <p>Action plans on strategies to implement phytosanitary surveys and monitoring.</p>	<p>Representatives of companies, exporters and members of associations are willing to participate actively in the taskforce.</p> <p>Stakeholders are willing to cooperate, participate and play their roles in the phytosanitary survey and monitoring system.</p>
Activity 4.3	<p>Specialized and practical training of trainers (ToT) on quarantine pest surveillance systems; including mobilization of interest among the large FFV producers, agricultural advisers of the export companies and other relevant staff, like local government extensionists and plant doctors of Plant Health Clinics. Technical topics include field recognition of different quarantine pests of FFVs (first line diagnostics), scouting techniques, design and systematic data analysis techniques, ways to implement, reporting, including roles of public sector MAAIF</p>	<p>Number of relevant participants from public and private sector (at least 15).</p> <p>Training programme.</p> <p>Improved knowledge and skills related to survey and monitoring systems and practical aspects of implementation.</p>	<p>List of participants.</p> <p>Training materials.</p> <p>Course evaluation.</p> <p>Report participants.</p> <p>On-the-job assessment.</p>	<p>Participants are willing and motivated to increase knowledge and skills on survey and monitoring systems and the implementation .</p> <p>Companies provide enough staff time for their staff to follow the training.</p>

	Project description	Measurable indicators	Sources of verification	Assumptions and risks
	<p>specialists as auditors and those of the private sector.</p> <p>Participants: 15 – 20 (as described above) By: international expert (same as in 4.1 and 4.2) and DCIC- PQIS Inspectors (PQIS staff) Duration: 5 days Location: Uganda</p>			
Activity 4.4	<p>Develop curriculum for specific phytosanitary survey and monitoring training and implement three training session. To be developed by the task force (see 4.2) in concert with the trainees of the specialized training of quarantine pest surveys (activity 4.3). The training sessions will be implemented for agricultural advisors, crop protection specialists and scouts of companies who did not attend the training under 4.3. As the FFV sector is rather fragmented more training sessions have to be implemented to cover most relevant staff.</p> <p>Curriculum: By: task force and one international expert (same as 4.1, 4.2 and 4.3) Duration: 2 days Training: By: Trained DCIC PQIS staff and some company staff (of training under 4.4) Supervised by one international expert (same as 4.1, 4.2 and 4.3) Duration of three trainings: 5 days each. Location: Uganda</p>	<p>Course curriculum</p> <p>Number of relevant participants from the private sector (at least 15).</p> <p>Training programme.</p> <p>Improved knowledge and skills related to survey and monitoring systems and practical aspects of implementation.</p>	<p>List of participants.</p> <p>Training materials.</p> <p>Course evaluation.</p> <p>Report participants.</p> <p>On-the-job assessment.</p> <p>Report of expert.</p>	<p>Participants of activity 4.3 and members of the task force are willing to cooperate and invest time in curriculum development.</p> <p>Participants are willing and motivated to increase knowledge and skills on survey and monitoring systems and the implementation .</p> <p>Companies provide enough staff time for their staff to follow the training</p>
Activity 4.5 ⁹³	<p>Procurement of surveillance equipment Specific pheromone traps, sticky traps, or other traps and simple equipment need to be acquired, after the draft list is finalised.</p> <p>By: DCIC PQIS in concert with CABI Africa in consultation with the international expert (Activities 4.1, 4.2, 4.3, and 4.4)</p>	<p>Equipment available and in working condition</p>	<p>Observations in the locations where the equipment will be stored for use.</p>	<p>Timely delivery.</p>
Activity 4.6	<p>Applied training: Implementation of specific surveys and analysis of survey results and communication of outcomes to export growers, international phytosanitary organization (e.g. IPPC and IAPSC), Defra and DCIC. Re-familiarisation with ISPM No. 6 (Guidelines for surveillance), EU Directive 2000/29/EC. Use of surveillance protocol designed under</p>	<p>Implemented survey and monitoring system is analysed and communicated and SOP developed.</p>	<p>Survey and monitoring report and communication message to relevant organisations.</p> <p>Reports by scouts.</p>	<p>Growers of FFVs are willing to cooperate.</p> <p>Companies provide enough staff time.</p>

⁹³ A provisional list is provided in appendix 7.

	Project description	Measurable indicators	Sources of verification	Assumptions and risks
	<p>Activity 4.1, pest identification and sampling methods of Activity 4.3 & 4.4 and develop pest survey Standard Operational Procedure (SOP) and work instructions (as per ISPM No. 6) for a chosen pest and a detailed plan to conduct the survey.</p> <p>By: DCIC, PQIS and scouts from companies under guidance of international expert (same as for the other activities under this result. Duration:5 days Location</p>		<p>Supervision report by DCIC.</p> <p>Expert report.</p>	MAAIF/ DCIC provides logistic support.
Activity 4.7	Strengthen field and exit inspection for phytosanitary compliance (availability of tablets, laptops, motorcycles, uniforms and signage at border posts).	Procurement of all equipment as indicated	All equipment and motor bikes observed and recorded with designated staff; PQIS signage (banners) in place at all border posts, including airport and Head Office	Timely delivery
Expected result 5	Based on a market study to assess opportunity to increase fruit and vegetable exports to both new and current markets with improved SPS compliance, a realistic Uganda Export Marketing Strategy for FFVs is developed and agreed upon by the key stakeholders of the FFV export value chain.	<p>Market study to assess opportunity to increase fruit and vegetable exports to EU, regional and other both new and current markets is completed and areas of improvement in SPS compliance needed to reach these markets is identified.</p> <p>Export Marketing Strategy for the FFV export value chain is developed and stakeholders adhere to it (end of Y3).</p> <p>Improved export of FFVs: improves (Y3 over 10.000 Mt) and includes more the high-end EU market (after Y3).</p>	<p>Copies of market study available for FFV export value chain stakeholders</p> <p>Hard copy of the strategy is available for the FFV export value chain stakeholders.</p> <p>PPP stakeholders do agree and adhere to the strategy.</p> <p>Export quantity and value statistics of MAAIF and MTIC</p>	<p>Completion of market study may be delayed, thus delaying the drafting workshop for marketing strategy (Activity 5.2)</p> <p>Disagreement of different PPP stakeholders on the strategy.</p> <p>Too optimistic views on the strategy.</p>
Activity 5.1	Market study to assess opportunity to increase fruit and vegetable exports to both new and current markets with improved SPS compliance (implemented by UAA)	Market study to assess opportunity to increase fruit and vegetable exports to EU, regional and other new and current markets is completed and areas of improvement in SPS	Copies of market study available for FFV export value chain stakeholders	Completion of market study may be delayed, thus delaying the drafting workshop for marketing

	Project description	Measurable indicators	Sources of verification	Assumptions and risks
		compliance needed to reach these markets is identified.		strategy (Activity 5.2)
Activity 5.2	<p>Draft workshop Uganda Export Marketing Strategy for FFVs. The working group installed under Activity 1.1 develops a draft Uganda Export Marketing Strategy for FFVs in a write workshop.</p> <p>The strategy to be written has at least to include:</p> <ul style="list-style-type: none"> a) an analysis of what went well and what went wrong with the Export Strategy of the Fruits and Vegetable Sector of 2007 (see also Chapter 5.8)⁹⁴ b) lessons to be learned from the Export Strategy 2008 – 2012 c) need of market research d) how to build trust and partnership amongst the stakeholders in the FFV chain e) identification of crops with a comparative advantage for export to different markets, low and/or high-end markets, internationally and in the region f) feasibility and need to (re) introduce UgandaGAP g) a realistic analysis of the present Strengths, Weaknesses, Opportunities and Treats (SWOT) of the FFV sector and the export value chain h) implementation of phytosanitary enforcement, its time frame and personnel needed in the short run, i) need of a FFV export information / data repository centre, and j) time frame of activities <p>Observation: the resulting strategy does not have to be implemented during the STDF project period, but will provide a basis for the short and long-term activities related to the FFV sector and may assist in requesting donor funds.</p> <p>By: 1 national expert on “writer’s workshops”, and in concert with DCIC-PQIS staff, representatives of other relevant ministries (like Ministry</p>	<p>Working group installed.</p> <p>First draft version of strategy.</p>	<p>List of members of the working group.</p> <p>Report drafted on the workshop including observations on the points a) – j) of the description and a draft strategy</p>	<p>Members are willing to come to a consensus, even though representing different stakeholders’ interests.</p> <p>Working group not able to come to a consensus and a strategy.</p>

⁹⁴Republic of Uganda (2007). The Uganda National Export Strategy 2008 – 2012. Ministry of Tourism Trade and Industry. 176 p.

	Project description	Measurable indicators	Sources of verification	Assumptions and risks
	of Tourism Trade and Industry), associations, etc. Time: 2 days Number in working group: 6 - 8 Location: to be decided			
Activity 5.3	<p>Multi-stakeholder validation workshop on the draft Uganda Export Marketing Strategy for FFVs</p> <p>Workshop to be facilitated by an independent external facilitator. Draft to be presented to stakeholders (the same stakeholders of activity 1.1) and analysed by the stakeholders, providing suggestions for improvements. Finally, the resulting Strategy should be validated by the stakeholders in order to receive wide support within the sector and value chain.</p> <p>By: 1 facilitator in concert with MAAIF, DCIC- PQIS and leading stakeholders. Number participants: 20 - 25 Location: to be decided</p>	<p>Number of participants (at least 20) of the workshop and their role in the FFV value chain.</p> <p>Observations and changes of the strategy.</p>	<p>List of participants.</p> <p>Report of the workshop with the suggested changes in the Marketing Strategy</p>	<p>The participants are willing to look further than their own interests.</p> <p>Suggested changes not in line with each other, too much opposing.</p>
Activity 5.4	<p>Finalising Uganda Export Marketing Strategy for FFVs</p> <p>The working group finalises the Uganda Export Marketing Strategy for FFVs based on results of activity 2.2</p> <p>By members of working group Duration: 1 day</p>	<p>Working group meeting.</p> <p>Final draft of the Strategy (end of Y1)</p>	<p>Report of the meeting, including list of participants.</p> <p>Final draft of the Strategy available.</p>	<p>Same members of the working group are willing to include some of the suggestions and changes proposed by the participants of the Validation Workshop</p>
Expected result 6	<p>Improved awareness at national levels of inspection and certification systems in the horticulture sector as a whole and based on the experiences, recommendations on improvements to be made for the FFV Export Value Chain and expansion of the results to other horticulture sub-sectors are made.</p>	<p>Implementation of concluding workshop and proceedings.</p>	<p>Seminar report.</p> <p>Final report of the project, including lessons learned and way forward.</p> <p>Main recommendations on MAAIF website.</p>	<p>Project results limited and/or not transferable to other parts of the horticultural sector.</p>
Activity 6.1	<p>Development of a communication strategy on phytosanitary issues</p> <p>This shall fit in with the TBT/SPS notifications and ensure information flow in the sector</p>	<p>Communication strategy document completed</p>	<p>Communication strategy available to all stakeholders</p>	<p>Willingness of stakeholders to implement the communication strategy</p>

	Project description	Measurable indicators	Sources of verification	Assumptions and risks
Activity 6.2	Organization of a final seminar by DCIC- PQIS and the FFV sector at the end of the project. Inputs from main stakeholder and those involved in the project. The seminar should also cover a component geared at dissemination of the results to all stakeholders of export horticulture. Additionally, the seminar should aim at awareness raising towards decision makers and/or politicians on the importance of the FFV industry and significance and benefits of a well-functioning plant health system, both for domestic production and export. Finally, the workshop should include lessons learnt that can be used for further development of National SPS Plan and its implementation and that of the Uganda Export Marketing Strategy for FFVs (Output 2). DCIC staff of e.g. Rwanda and Burundi could participate as well ⁹⁵ .	Final workshop organised for at least 25 participants representing the different stakeholders in the FFV value chain and other relevant representatives. Inputs by the various stakeholders.	List of participants. Report of seminar. Possible update of Uganda Export Marketing Strategy.	No striking projects results. Participants and representatives of different stakeholders willing to participate actively.
Activity 6.3	Compile proceedings of the seminar and other relevant results of the project not discussed during the final seminar and publish. Publish project results related to the implementation of all the relevant phytosanitary measures related to export of FFVs.	Seminar proceedings and other results reported in final report.	Seminar proceedings. Final report.	No motivation to publish project results. (Final report by CABI Africa has to be written).
Activity 6.4	Awareness creation of project's main findings and procedures to limit the non-compliance of FFV export crops through public media. Through educational programmes on radio and television, bill boards, publications in agricultural magazines, national daily papers, website of MAAIF, etc.	Awareness created by publications in public media and on MAAIF website. At least 5 articles in national daily papers, 10 in agricultural magazines and six educational programmes of national radio and television.	Number of articles in public media on the outcome / achievements of the project	Project results disappointing, thus no articles.
Activity 6.5	Creation of communication product e.g. short video, highlighting the impact of the project	Communication product created and shared	Communication product created and shared via MAAIF website	Project has outcomes of interest to others

⁹⁵ Was verified with the STDF Secretariat, the NPPOs of Burundi and Rwanda have to pay the expenses of travel board and lodging.

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. Staff capacity of public and private partners (PPP), including growers, along the horticultural value chain further developed in order to apply appropriate pest management practices and to bring the implementation of phytosanitary inspections and certification of FFVs export consignments in line with international standards of export certification systems and the requirements of the EU market.													
Activity 1.1. General Project Initiation Workshop	DCIC-PQIS, CABI, Associations, Experts, (IPPC)												
Activity 1.2A diagnostic mapping of public and private partners and SPS services along the horticulture value chain is completed in order to identify priority areas for capacity building and streamlining of system	UAA (Uganda Agribusiness Alliance)												
Activity 1.3 Preparation of Draft Concept Note for a SPS Multi-Stakeholder Platform, based on mapping	UAA (Uganda Agribusiness Alliance)												
Activity 1.4 Initial meeting of key public and private stakeholders to validate/adopt Concept Note for a SPS Multi-Stakeholder Platform	UAA (Uganda Agribusiness Alliance)												
Activity 1.5 Revision of Concept Note based on input at initial key stakeholders meeting	UAA (Uganda Agribusiness Alliance)												
Activity 1.6 Quarterlymeetings of key public/private Stakeholders to assist national coordinating mechanisms in improving communication, coordination, accountability, and ownership of responsibility for improvement in SPS compliance by private sector actors	UAA (Uganda Agribusiness Alliance)												

Activity	Responsibility	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Output 2. A capacity development plan is implemented, upon validation by the results of diagnostic mapping in Output 1, which confirms and prioritizes the capacity gaps identified in the planned activities for this Output													
Activity 2.1 Continuous specialised training of trainers (ToTs) on integrated pest management (IPM) geared to harmful organisms (HOs) causing interceptions.	DCIC-PQIS, NARO and/or others												
Activity 2.2 Conduct demonstrations on recommended technologies in an IPM system for management of HOs (harmful organisms) from elsewhere for adaptation under the Ugandan agro-ecological systems and the type of farming e.g. use of radiations and Cryptogram. This will also include locally available pesticides.	DCIC-PQIS, NARO												
Activity 2.3 Develop practical farmer's / extension guides on the most important HO's and make these available to leaders of farmers' groups, growers, extensionists and agronomists of export companies.	DCIC-PQIS, NARO, Associations												
Activity 2.4. Training of farmers, traders and other middlemen involved in FFV export.	DCIC-PQIS, Associations, Extensionists of DLGs												
Activity 2.5. Specialised training on managing pack houses and transport of FFVs.	DCIC- PQIS, KNE, Local Expert												
Activity 2.6. Recruitment by MAAIF of about 7 new Agricultural Inspectors.	MAAIF												
Activity 2.7. Review and update of PQIS' procedures, documentation and reference materials related to specific issues of FFVs' export certification	DCIC- PQIS, CABI, KNE Expert												

Activity	Responsibility	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
system with technical assistance from an international specialist.													
Activity 2.8. Study tour supported by a phytosanitary specialist.	DCIC-PQIS, CABI, Associations, KNE and others												
Activity 2.9. Specialized and detailed hands-on training for new Agricultural Inspectors and other phytosanitary staff of DCIC.	DCIC-PQIS, CABI, KNE												
Activity 2.10. Further development and improvement of the existing operational manual for phytosanitary inspection and compilation of other reference materials for HO of FFVs for export.	DCIC-PQIS, Experts												
Output 3. A streamlined inspection and export certification system based on public-private partnership (PPP) is designed and adopted.													
Activity 3.1. Dialogue and agreement on (i) improved institutionalized inspection arrangements and requirements between DCIC- PQIS and stakeholders in FFV chain and (ii) a communication strategy on phytosanitary issues,	DCIC- PQIS, Associations,												
Activity 3.2 Development of high level strategic plan for strengthening institutionalization of the coordination, monitoring, consultation, communication and advocacy roles in SPS sector	Uganda Agribusiness Alliance												
Activity 3.3 Elaboration (coordinated by UAA) of prioritized actionable areas & relevant SPS requirements identified by the high level strategic plan, including innovative solutions in the areas of training, promotion and motivation for good agronomic practices, certification systems.	Uganda Agribusiness Alliance												

Activity	Responsibility	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Activity 3.4. Procurement of small equipment and tools for export inspectors to be used in the field and at pack houses by inspectors and agronomists of export companies.	DCIC- PQIS, CABI,												
Activity 3.5 Technical assistance on the needs of the Plant Health Laboratory in Namalere in order to become a fully functional laboratory with accreditation in order to be able to provide comprehensive diagnostic services, or alternative options, including on HOs (harmful organisms) and MRLs	DCIC-PQIS, CABI, expert (NARO)												
Activity 3.6 Multi-stakeholder workshop to create support and receive feed-back on the PPP export certification system for fresh fruits and vegetables.	DCIC-PQIS, associations, companies, farmer groups												
Activity 3.7. Strengthening of the export certification system through training of stakeholders along the FFV value chain, implementation of MRLs analysis, producer registration, crop traceability and e-certification based on PPP.	DCIC-PQIS												
Activity 3.8 Develop advisory material for the export certification system and carefully roll-out the system	DCIC-PQIS, KNE, local expert, companies, growers												
Activity 3.9 Develop a GAP manual for Uganda	DCIC- PQIS, MAAIF multiple departments, DLGSs, KNE												
Activity 3.10 Adapt existing international training material for use in training of inspectors, extension workers and producers	DCIC- PQIS and other MAAIF Departments, KNE												

Activity	Responsibility	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Output 4. Specific phytosanitary survey and monitoring systems in the FFV value chain based on public private partnership (PPP) are effectively operational.													
Activity 4.1. Development and design of specific FFV phytosanitary survey and monitoring system based on clear public and private roles, including PPP.	DCIC- PQIS, CABI, expert												
Activity 4.2. Creation of a small task force on the development of a specific phytosanitary survey and monitoring and technical assistance on the practical set-up of such a system in concert with the private sector.	DCIC-PQISCABI, Associations, (NARO)												
Activity 4.3. Specialized and practical training of trainers (ToT) on phytosanitary survey, monitoring, and quarantine pest surveillance systems	DCIC- PQIS, CABI, Associations, expert												
Activity 4.4. Procurement of surveillance equipment including traps, data capture devices and software	DCIC-CABI, expert												
Activity 4.5 Implementation of specific phytosanitary surveys and monitoring. Trade, including use of pest surveillance traps, geospatial data, weather stations and analysis.	DCIC-PQIS, CABI, Associations, expert												
Activity 4.6 Strengthen the Pest Risk Analysis Team in its on going Pest Risk Analysis work (computers, accessories, tablets, Internet, training)	DCIC-PQIS, CABI												
Activity 4.7 Strengthen field and exit inspection for phytosanitary compliance (availability of tablets, laptops, motorcycles, uniforms and signage at border posts).	DCIC PQIS, KNE												

Activity	Responsibility	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Output 5 A realistic Uganda Export Marketing Strategy for FFVs is developed and agreed upon by the key stakeholders of the FFV export value chain.													
Activity 5.1 Market study to assess opportunity to increase fruit and vegetable exports to both new and current markets with improved SPS compliance	Uganda Agribusiness Alliance												
Activity 5.2. Draft Uganda Export Marketing Strategy for FFVs.	DCIC- PQIS, MTIC, KNE, associations, UAA												
Activity 5.3. Multi-stakeholder validation workshop on the draft Uganda Export Marketing Strategy for FFVs.	DCIC-PQIS, MTIC, KNE, Associations, Companies, UAA												
Activity 5.4. Finalising the Uganda Export Marketing Strategy for FFVs.	DCIC- PQIS, MTIC, KNE, Associations, UAA												
Output 6. Improved awareness at national levels of inspection and certification systems in the horticulture sector as a whole and based on the experiences, recommendations on improvements to be made for the FFV Export Value Chain and expansion of the results to other horticulture sub-sectors is made.													
Activity 6.1. Development of a communication strategy on phytosanitary issues.	DCIC-PQIS, KNE, CABI, Associations												
Activity 6.2. Organization of a final seminar	DCIC-PQIS, KNE, CABI, Associations												
Activity 6.3. Compile proceedings of the seminar and other relevant results of the project not discussed during the final seminar and publish.	DCIC-PQISMTIC, KNE Associations												

Activity	Responsibility	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Activity 6.4 Awareness creation of project's main findings and procedures to limit the non-compliance of FFV export crops through public media.	DCIC-PQIS, KNE, MTIC, Associations												
Activity 6.5 Creation of communication product e.g. short video, highlighting the impact of the project	DCIC-PQIS, KNE, CABI												
Inception report	CABI, DCIC-PQIS, Associations												
PMC meetings	CABI, KNE, MTIC, DCIC-PQIS, Associations												
Report to donor	CABI												

Appendix 3. Detailed project budget.

See separate excel file.

Appendix 4. Support letters from (i) Ministries: (a) MAAIF/DCR, (b) MAAIF/DCR/DCIC, (c) MTIC, and (ii) Private Sector(a) Uganda Agribusiness Alliance (b) association HORTEXA, (c) association UFVEPA and (d) export company (KKFOODS).

In any correspondence on
this subject please quote No. FDD140/302/01



**MINISTRY OF AGRICULTURE,
ANIMAL INDUSTRY AND FISHERIES
P.O BOX 102,**

E-MAIL: psmaarif@infocom.co.ug

WEBSITE: www.agriculture.go.ug

TELEPHONE: 320987/9, 320004, 320327/8

FAX: 256-041-321047, 256-041-321010,

256-041-321255

ENTEBBE, UGANDA

17th July 2018

The Secretary
Standards and Trade Development Facility
World Trade Organisation
Centre William Rappard
Rue de Laussane 154
CH1211 Geneva 21
Switzerland

SUPPORT LETTER FOR RESUBMISSION PROJECT: STDF/PPG/543

Reference is made to yours Ref. SPS/101 dated 11th April, 2018. We note that STDF Working group agreed on the relevance and merit of the proposal in line with the STDF Secretariat's review, and welcomed a re-submission of a revised version of the application for consideration.

The Ministry, with technical support from the Royal Netherlands Embassy has addressed the issues that were raised thus:

- The project scope has been widened to enhance the capacity of the Fruit and Vegetable Sector to comply with EU and regional Phytosanitary requirements.
- The proposed activities have been realigned and are based on the use of International (IPPC) standards including a systems approach to pest control (ISPM 14),
- A proposal has been made to hold multi stakeholder platforms and among the key issues for discussion will be the proposal for charging for phytosanitary inspections.
- More details have been provided on how "middlemen" will be involved in the proposed inspection and export certification system, specifically through registration and training, through the multi stakeholder platforms, and
- Proposed activities include the tracking and provision of evidence of reduction in the pest population/ inspection confidence. This is going to be done through training and involving district and sub county extension staff in cascading the training of individual farm scouts.

The purpose of this letter therefore is to resubmit the above project proposal to address the identified challenges.


Byarugaba B. Beatrice
For: PERMANENT SECRETARY



ANIMAL INDUSTRY AND FISHERIES
P.O BOX 102,
E-MAIL: psmaif@infocom.co.ug
WEBSITE: www.agriculture.go.ug
TELEPHONE: 320987/9, 320004, 320327/8,
256-041-321047, 256-041-321010,
256-041-321255
ENTEBBE, UGANDA

In any correspondence on
this subject please quote No. FDD140/302/01

17th July 2018

The Secretary
Standards and Trade Development Facility
World Trade Organisation
Centre William Rappard
Rue de Laussane 154
CH1211 Geneva 21
Switzerland

SUPPORT LETTER FOR PROJECT: STDF/PPG/543

The Department of Crop Inspection and Certification would like to resubmit their support to the project: **Enhancing the capacity of the Fruit and Vegetable Sector to comply with EU and regional Phytosanitary requirements.** The Department is responsible for enforcing regulations in the Ministry of Agriculture, Animal Industry and Fisheries.

The phytosanitary requirements of fruits and vegetables in the European Union follow the EU Plant Health Directive 2000/29/EU, and since 2014 have become more stringent. Among the pests and diseases of concern in the EU are widely spread in the country. The possible method of controlling such pests requires integrated approaches. The pests include; False Codling Moths (*Thaumatotibia leucotrata*) on capsicums, fruit flies on *Anona* spp, Soursop and Mangoes. The African Psyllid also affects the curry leaves that has a niche market in the EU. The rejections of fruits and vegetables due to the above pests have resulted into reduced volume of such exports and have resulted into several self-suspensions distorting the value of fruits and vegetable exports.

Most of the pests mentioned above are managed by systems approaches where a combination of methods must be used to achieve pest freedom. To achieve systems approaches collaboration among academia, research, regulatory agencies, civil society and the private sector is needed.

Therefore support is sought to develop systems and approaches to manage pests of quarantine importance to EU market. We believe that this support will facilitate research and investigation, dialogue among the stakeholders and other approaches that will significantly reduce rejections of fruits and vegetables from Uganda. In addition, the support will align Uganda's phytosanitary system to EU and regional plant health regulations.

Paul Mwambu

COMMISSIONER CROP INSPECTION AND CERTIFICATION

TELEGRAMS: "MINTRADE"
TELEPHONES: +256-414-343947, 230916, 256395,
314000
Fax: +256-414-347286
Email: mintrade@mtic.go.ug, ps@mtic.go.ug
Website: www.mtic.go.ug
IN ANY CORRESPONDENCE ON
THIS SUBJECT, PLEASE QUOTE NO. ADM 137/141/01



THE REPUBLIC OF UGANDA

MINISTRY OF TRADE, INDUSTRY
AND COOPERATIVES,
FARMERS' HOUSE, PLOT 6/8,
PARLIAMENTARY AVENUE
P.O. BOX 7103,
KAMPALA, UGANDA

18th July 2018

The Secretary,
Standards and Trade Development Facility (STDF),
World Trade Organization,
Centre William Rappard
Rue de Lausanne 154
CH 1211 Geneva
SWITZERLAND.

**SUPPORT LETTER FOR THE PROJECT NO. STDF/PPG/543 FOR THE
MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND FISHERIES**

Reference is made to the above subject matter in support of the Ministry of Agriculture, Animal Industry and Fisheries for the above project aimed at addressing Sanitary and Phyto-sanitary challenges in Uganda. The Horticulture, Fruits and vegetables Sector is one of the main sectors with potential to grow as indicated by exports so far.

Uganda exported US\$ 50,861,000 in 2015, US\$ 51,563,000 in 2016 and US\$ 57,682,000 in 2017 of Live trees and other plants to the rest of the world and US\$ 11,202,000 in 2015, US\$ 9,990,000 in 2016 and US\$ 9,413,000 of Edible Vegetables and certain roots and tubers to the rest of the world.

Despite all this however, there have been quite a number of challenges since 2014 due to the false codling moths – *Thaumatotibia Leucotreta* on Capsicums, *Trioza erytrea* on Curry Leaves (*Murraya koenigii*) and *Tethritidae sp*, *Mangifera indica* as well as *Leucinodes orbonalls* on Egg Plants. This led to the rejection of several tons amounting to US\$ 120,000 annually and a decline in exports.

The purpose of this letter therefore, is to support the Ministry of Agriculture, Animal Industry and Fisheries (Uganda) in their application for support such that they are empowered to comprehensively address the challenges.

Silver OJAKOL
For: PERMANENT SECRETARY

BUY UGANDA BUILD UGANDA (BUBU)



Uganda Agribusiness Alliance

Partnering for Growth

1st Floor, Victoria House, Kiira Road, Bukoto
P.O. Box 12036, Kampala +256 703 679 000 +256 753 461 348

30th July 2018
Secretary, Standards and Trade Development Facility (STDF)
World Trade Organization
Centre William Rappard
Rue de Lausanne 154, CH 1211 Geneva
Switzerland

SUPPORT LETTER FOR PROJECT NO. STDF/PG/543 APPLICATION BY THE UGANDA MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND FISHERIES

The agricultural sector in Uganda contributes 42 percent of the national gross domestic product and 80 percent of export earnings. These export trade flows give support to rural employment and economic development and are also linked to horticultural products such as fresh fruits and vegetables. Exports to the EU represent approximately 60% of all fresh fruit and vegetable exports, with the other 40% going mainly to the Middle East and very little going to neighbouring countries.

Yet several key export products (curry leaves, hot peppers (= *Capsicum*), jack fruit, bitter gourd, soursop, mango, basil, okra, and some minor FFV commodities) have been severely affected by SPS measures and the reduction is a result of incompetence in the production and management of the HOs (harmful organisms) that are regulated by the EU. As a result, most of the products cannot comply with EU Phytosanitary requirements nor with the relevant international standards. In the 6 years from 2012-2017 alerts in the European Rapid Alert System for Food and Feed (RASFF) increased by 31% over the previous 6 years. According to data provided by the Uganda Ambassador to the EU, confiscations of Ugandan agricultural exports to the EU increased by 67% from 2014 to 2016, even though total agri-foods exports remained about the same.

The proposed Project 543, "Enhancing the capacity of the Fruit and Vegetable Sector to comply with Phytosanitary requirements for export to EU, other high end markets and regional markets" will address this situation by taking a wide range of actions which will result in improving compliance with international phytosanitary standards for production and export of FFVs for the EU market, and other western and regional markets. Uganda Agribusiness Alliance (UAA) has participated in the development of this project proposal, and we will implement the roles as described in the proposal. These include implementing a fresh diagnostic mapping of public and private partners and SPS services along the horticulture value chain to identify priority areas for capacity building and to provide input to the streamlining of the inspection and certification system; coordinating development of a private sector-led SPS Multi-Stakeholder Platform to complement and assist national coordinating mechanisms increasing ownership of the responsibility for improvement in SPS compliance by private sector actors; conducting a market study to assess opportunity to increase fruit and vegetable exports to current markets if SPS compliance is improved, and which will form the basis for a Uganda Export Marketing Strategy for fresh fruits and vegetables; and developing a high level strategic plan for streamlining inspection and export certification and strengthening institutionalization of the coordination, monitoring, consultation, communication and advocacy roles in SPS sector.

We agree with the Ministry of Agriculture, Animal Industry and Fisheries and with the Embassy of the Kingdom of the Netherlands that a multi-stakeholder approach integrating effective private sector involvement is key to the success of this proposal, so we hope that this proposal receives positive consideration.

Sincerely yours,

Edward Katende, CEO
Uganda Agri business Alliance

www.ugandaagribusinessalliance.com

The Agriculture Finance Platform Secretariat is situated at:

Uganda Agribusiness Alliance | 1st Floor, Victoria House Bukoto, Opp. Kadic Hospital | P. O. Box 12036, Kampala, Uganda



HOTCULTURE EXPORTERS ASSOCIATION OF UGANDA (HORTEXA)

MakindyeWalimi House,
Nabisalu Zone
P.O. Box 10487,

Tel: 0772-419357 / 0782-548477
Email hortexa@yahoo.com

Our Ref:

Your Ref:

Date:03/08 2018

Secretary

Standards and Trade Development Facility (STDF)
World Trade Organization
Centre William Rappard
Rue de Luasanne 154
CH1211 Geneva 21
Switzerland.

Re: Support letter for project STDF/PPG/543

The Horticulture Exporters Association Uganda Limited (HORTEXA) supports the project **STDF/PPG/543** HORTEXA is an umbrella association for farmers and exporters of fresh fruits and vegetables in Uganda. It supports an out grower scheme for various horticultural crops. It links these growers to exporters of fresh fruits and vegetables to various destinations. The association ensures that growers are trained in GAP, safe use of pesticides, IPM, on farm HACCP, QMS, food safety record keeping worker welfare and other social responsibilities. The association covers over 2000 growers.

Over time there has been reduced activity in the export business due to rejections in the EU market due to pest presence in the produce, of the 73 registered export companies only 36 are actively exporting, this being as a result of lack of skills and knowledge to produce quality products that meet the market requirements as well as failure to manage the pests

Through this project we hope that a systems approach where a combination of methods will be applied along the production chain. Improved inspection methods, stronger producer groups and coordination will contribute greatly to improved quality and availability of Ugandan fruits and vegetables to the EU market, a multitude of smaller holder farmers including youth and women gaining employment, hence improved house hold incomes. Therefore this letter serves to support the project in totality for a vibrant fruits and vegetables industry in Uganda.

Nakitto Florence
National coordinator HORTEXA

KK FRESH PRODUCE EXPORTERS LTD

All cargo forwarding - Exporters of Fresh Fruits and Vegetables

FRESH FRUITS AND VEGETABLES FROM AFRICA



KKFOODS™

02/08/2018

Secretary
Standards and Trade Development Facility (STDF)
World Trade Organization
Centre William Rappard
Rue de Luasanne 154
CH1211 Geneva 21
Switzerland.

Re: SUPPORT LETTER FOR PROJECT STDF/PPG/543

KK Fresh Produce Exporters Limited strongly supports the project; **Enhancing the Capacity of the Fruits and Vegetable Sector to comply with European Phytosanitary Requirements.** KK Fresh Produce Exporters Limited is legally registered and recognised by Ministry of Agriculture Animal Industry and Fisheries and Uganda Export Promotion Board as an Exporter of Fresh fruits and vegetables. We offer a high opportunity for exports in agro-processed food stuffs, fresh fruits and vegetables including Okra, Bullet chillies, Hot pepper, Eggplant, Groundnuts, Matooke, Maize, Yam, Apple bananas, Gunda, Passion fruits, Sugarcane, Raw mangoes, Sweet potatoes, Karella, Avocado and Beans. All these crop products are produced and supplied by small scale out growers and the main market is in European Union (EU). We are committed to helping Ugandan farmer's access global markets while providing them with complete agricultural solutions.

KK Fresh Produce Exporters Ltd and its suppliers (Small scale farmers) are at a risk of losing the lucrative EU market over failure to meet set standards by the EU. All produce for export should be free of harmful pests and meet the required Minimum Residue Levels. EU has a provision of 100% inspection of all peppers and destruction of imported produce that does not meet the required standards. The most urgent concern for the horticultural sector with respect to fresh fruits and vegetables especially hot pepper and chili is False Codling Moth (FCM) and Fruit fly which have caused increased rejections of imports from Uganda into the EU market and this calls for urgent actions to address the issue of FCM and Fruit fly so that KK Fresh, farmers and entire horticultural sector is not doomed.

Based on the framework of the proposed project by Directorate of Crop Resources, Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) we are convinced that this problem will be solved and this will result into reduced post harvest losses, reducing number of rejections in the EU market resulting into increased revenue to the company, increased employment opportunities especially youths and women hence increased income that would in turn lead to the improved livelihoods of the local communities producing these crop products for export.

Therefore, the purpose of this letter is to express our total support to the project for the growth and development of the fruits and Vegetable industry in Uganda.

Dr. James Kanyire
Chief Executive Officer



Plot 1567 Naalya Opp Northern bypass P.O.Box 20078, Kampala Uganda
tel: 0392-202-606,0776-748-799, Email: info@kkfoods.co www.kkfoods.co



UGANDA FRUITS AND VEGETABLES EXPORTERS AND PRODUCERS
ASSOCIATION

2nd Floor UEDCL Towers Nakasero
P.O.Box 5045 Kampala-Uganda
Tel: 0392176 685 I
E-mail: secretariat@uvepa.co.ug

The secretary
Standards and Trade Development Facility (STDF)
World Trade Organization

3rd. August. 2018

Centre William Rappard
Rue de Luasanne 154
Ch1211 Geneva 21
Switzerland

**RE: SUPPORT LETTER FOR PROJECT NO.STD/PPG/543 FOR THE MINISTRY
OF AGRICULTURE ANIMAL INDUSTRY AND FISHERIES (MAAIF)**

Reference is made to the above subject in support of the Ministry of Agriculture Animal Industry and Fisheries for the project aimed at enhancing phytosanitary issues in Uganda. The horticulture, fruits and vegetables sector is one of the main sectors with potential to grow.

Uganda exported US\$ 51,806,000 in 2016, US\$51,651,000 in 2015 and US \$57,611,000 in 2014, of live trees and other plants to the world and also exports of US\$ 39,534,000 in 2014, US\$ 79,636,000 in 2015 and 72,400,000 in 2016 of Edible vegetables and certain roots and tubers to the world.

However Uganda has been facing challenges since 2014 when Uganda' exports started to decline due the false codling moths *Thaumatotibia*, *Leucotreta on capsicum* ,*Trioza erytrea* on curry leaves(*Murraya koenigii*) and *Tethritidea* of capsicums *Anona Marmedica Muricata sp*,*Mangifera induce* as well as *luecenodes orbanilis* of Egg plants lead to rejection of several tons to amounting to USD 120,000 annually.

The purpose of this letter therefore is to support Ministry of Agriculture Animal Industry and Fisheries in their application for support so that they are empowered to comprehensively address the challenges

Yours faithfully
Yiga Thomas

Chairperson

Appendix 5: Written consent from an STDF partner that agrees to implement the project, being CABI Africa.



30 July 2018

Secretary
Standards and Trade Development Facility (STDF)
World Trade Organization
Centre William Rappard
Rue de Lausanne 154
CH 1211 Geneva 21
Switzerland

Dear Sir/Madam

Re: STDF/PPG/543

I wish to confirm that CABI has been consulted and has participated in the development of this project proposal and given further inputs following the initial review by the STDF working group in March 2018. I also confirm that CABI agrees to play the role as described, if the project is funded.

We support this project for a number of reasons. Overall its objectives are well aligned to the Sustainable Development Goals (SDGs) that Uganda and CABI are committed to achieving, including SDGs 1, 2, 4, 12, 15 and 17.

The project aims to improve livelihoods of small scale farmers and other stakeholders in the fruit and vegetables value chain by boosting Uganda's capacity to meet official phytosanitary requirements for trade with the EU. Agriculture contributes over 40% of the country's national gross domestic product and over 80% of export earnings, so is one of the 3 priority areas under the 2nd National Development Plan (NDP II, 2015/16 to 2019/20). Hence by addressing and helping to reduce interceptions of Uganda's produce the project has a good potential of contributing to rural development and national economic growth.

CABI's Member Countries, including Uganda, have prioritized work that promotes market access and implementation of standards. The project is thus in line with CABI's mid-term strategy, based on our Member Countries' needs.

We are willing and able to take on the role as assigned to us in the proposal. We have a good working relationship with Uganda's National Plant Protection Organization and other stakeholders, and have managed similar projects in Uganda and elsewhere in the past. We agree to the responsibilities proposed and the associated budget, including:

- ensuring that project outputs are achieved against agreed timelines
- disbursing and monitoring the use of STDF funds as per agreed budgets
- supporting the development of good working relations & partnerships
- reporting to STDF Secretariat
- assisting in dissemination of project results

CABI therefore gives its full support to this proposal, and commends it for financial support.

Yours sincerely,


Dr. Morris Akiri
Regional Director, Africa



CABI is a not for profit organization

CABI improves people's lives worldwide by providing information and applying scientific expertise to solve problems in agriculture and the environment.

CABI
Canary Bird, 673 Limuru Road, Muthaiga
PO Box 633-00621, Nairobi, Kenya
T: +254 (0) 20 2271000/20
F: +254 (0) 20 4042250

CABI, the trading name of CAB International, is an international organization recognized by

Appendix 6: Terms of Reference for key staff involved in project implementation

Terms of reference Ugandan Project Coordinator

Under the overall supervision of the CABI Coordinator and the Project Management Committee (PMC), the national coordinator will undertake the following;

- Organise and supervise the planned activities in the country (workshops, training programmes);
- Identify constraints and gaps in the implementation of the activities and analyse, prioritise and propose solutions;
- Carry out other duties suggested by the CABI coordinator and/or PMC from time to time; and
- Write detailed monthly reports of activities undertaken, and progress made under the project and submits to the CABI coordinator and the head of division.

Qualifications and Experience required:

- An appropriate degree in Agriculture (Plant Protection and relevant training in Entomology);
- Prior experience in application of Phytosanitary measures, and
- Be conversant with management of donor funded projects.

Appendix 7: Requested equipment (provisionally)

For activity 3.2. Procurement of small equipment and tools for export inspectors to be used in the field and at pack houses by inspectors and agronomists of export companies.

Suggested list of equipment's and their cost for the field.

Equipment	Number of items	Unit Cost (USD)	Total cost
Indelible pens	100 pieces	0.8	81
Sweep nets	250 pieces	14	3378
Insect Vials	50 sets	1.08	54
Ethanol	15 litres	9.5	142
Swiss Knife	20 pieces	4.05	81
Hand lenses	20 pieces	2.7	54
Dissecting kits	20 pieces	10.8	216
Gloves	100 packets	5.4	541
Soil Auger	4 pieces	27.0	108
Containers	20 pieces	2.70	27
Plastic bags	500 pieces	1.40	676
Geographical positioning system/smart phones	10 pieces	0.81	8,108
Cameras/Digital Microscope	20 pieces	324.3	6487
Gumboots	20 pieces	13.5	270
Over coats	20 pieces	8.10	162
Diagnostic kits	5 kits	270.2	1351
Cool box	10 pieces	67.57	676
Masking tapes	50 pieces	13.5	676
Surveillance Software and Computers	1	5405.4	5405
Pheromone traps/acre	120 pieces	47.3	5676
Sticky traps/acre	120 pieces	47.3	5676
Other traps/acre	120 pieces	47.3	5676
Uniforms	90 pieces	121.5	3645
Total			49,166

Suggested list for inspection tools at pack houses.

Item	Number of items	Unit cost (USD)	Total Cost (USD)
Inspection trays	100	4	400
Magnifying lens with Light bulb	50	25	1250
Cutting blades	1500	2.2	3300
Nose masks/Respirator	1000	2.5	2500
Gloves (heavy duty)	500	8	4000
Sample bottles	3000	2	6000
knives	20	5	100
Total			17,550

For activity 4.5: Procurement of surveillance equipment

Suggested List of Equipment's and their cost.

Equipment	Unit (US\$)	Cost	Quantity	Total costs
Indelible pens	1			
Sweep nets	15			
Insect Vials	1,5			
Ethanol	10			
Swiss Knife	5			
Hand lenses	3			
Dissecting kits	12			
Gloves	6			
Soil Auger and containers	30			
Plastic bags	1,5			
Geographical positioning system/smart phones	850			
Cameras/Digital Microscope	350			
Gumboots	15			
Over coats	9			
Diagnostic kits	275			
Cool box	70			
Masking tapes	15			
Surveillance Software and Computers	5500			
Digital Microscopes	150			
Pheromone traps/acre	105			
Sticky traps/acre	105			
Other traps/acre	105			
TOTAL				

Remark: in a later stage, during implementation of the proposed project, the items and quantity should be determined in detail, possibly after advice of the international consultant. The total cost of equipment lists for activity 3.2 and 4.5 has to be within 10% of the project budget requested to STDF.

Appendix 8.

Abbreviations and acronyms.

ACIAR	Australian Centre for International Agricultural Research
AfDB	African Development Bank
AVCP	Agricultural value chain development programme (by WB)
CA	Competent Authority
CABI	Centre for Agriculture and Biosciences International
CBO	Community Based Organization
COLEACP	Comité de liaison Europe-Afrique-Caraïbes-Pacifique
COPE	Centre of Phytosanitary Excellence
DCIC	Department of Crop Inspection and Certification (of MAAIF)
DCP	Department of Crop Protection (of MAAIF)
DCR	Directorate of Crop Resources (of MAAIF)
DDA	Dairy Development Authority
Defra	UK Department for Environment, Food and Rural Affairs
DFID	Department for International Development (UK)
DTIS	Diagnostic Trade Integration Studies
EAC	East African Community
EIF	Enhanced Integrated Framework
ESAFF	Eastern and Southern Africa Small Scale Farmers Forum
EU	European Union
EUREPGAP	Euro-Retailers Produce Working Group Good Agricultural Practices
FAO	Food and Agriculture Organisation of the United Nations
FFVs	Fresh Fruits and Vegetables
FHL	Fresh Handling Ltd
FMC	false codling moth
FPEF	Fresh Produce Exporters' Forum (RSA)
FY	Financial Year
GAP	Good Agricultural Practices
GLOBALGAP	Global Good Agricultural Practice (A key reference / certification scheme for GAP. In the global market place, formerly EUREPGAP)
GoU	Government of Uganda
HACCP	Hazard Analysis and Critical Control Points
HO	Harmful Organism
HORTEXA	Horticulture Exporters Association of Uganda
IAPSC	African Union's Inter African Phytosanitary Council
IPM	Integrated Pest Management
IPPC	International Plant Protection Convention
ISPM	International Standard for Phytosanitary Measures
ITC	International Trade Centre
KEPHIS	Kenya Plant Health Inspectorate Service
LDC	Least Developed Country
LG	Local Government
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MDG	Millennium Development Goals
MRL	Maximum Residue Limit
MSME	Support Micro, Small and Medium Enterprise
MT	Metric Ton
MTIC	Ministry of Trade Industry and Cooperatives
MTTI	Ministry of Tourism, Trade and Industry
NAADS	National Agricultural Advisory Services
NOGAMU	National Organic Agricultural Movement of Uganda
NARO	National Agricultural Research Organisation
NGO	Non-Governmental Organisation
NDP	National Development Plan
DCIC	National Plant Protection Organisation
NPPS	Netherlands Plant Protection Service (within the NVWA)

NQI	National Quality Infrastructure
NSQP	National Standards and Quality Policy
NTB	Non-Tariff Barrier
NVWA	Netherlands Food and Consumer Product Safety Authority
PBCRC	Australia's Plant Biosecurity Cooperative Research Centre
PC	Phytosanitary Certificate
PCE	Phytosanitary Capacity Evaluation
PPG	Project Preparation Grant
PPP	Public Private Partnership
PQIS	Phytosanitary and Quarantine Inspection Services (of MAAIF)
QUISP	Quality Infrastructure and Standards Programme
RoG	Republic of Uganda
RSA	Republic of South Africa
SAI	Sustainable Agriculture Initiative
SECAEC	Solidaridad Eastern and Central Africa Expertise Centre
SIDA	Swedish International Development Cooperation Agency
SOP	Standard Operational Procedure
SPS	Sanitary and Phytosanitary Standards
STDF	Standards and Trade Development Facility (WTO)
SVMP	Sustainable Vegetable Production and Marketing Project
TBT	Technical Barriers to Trade
ToR	Terms of Reference
UAA	Uganda Agribusiness Alliance
UEPB	Uganda Export Promotion Board
UFEA	Uganda Flower Exporters Association
UFVEPA	Uganda Fruits and Vegetable Exporters and Producers Association
UgoCert	Uganda Certification Ltd
UGX	Uganda Shilling
UHEPA	Uganda Horticulture Exporters and Processors Association
UK	United Kingdom
UNADA	Ugandan National Agro Dealer Association
UNBS	Uganda National Bureau of Standards
UNFA	Uganda National Farmers' Association
UNFF	Uganda National Farmers Federation
UNIDO	United Nation Industrial Development Organisation
UVMGA	Uganda Vegetable and Fruits Marketing Agents Association
VECO	Vredes Eilanden Country Offices
WB	World Bank
WSSD	World Summit on Sustainable Development
WTO	World Trade Organisation
QMS	Quality Management System