





PROJECT: STDF/PG354

IMPROVING THE SAFETY AND QUALITY OF SRI LANKAN FRUITS AND VEGETABLES

FINAL REPORT

1 MARCH 2013 - 30 JUNE 2016

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PROJECT INFORMATION

Title	
Improving the Safety and	d Quality of Sri Lankan Fruits and Vegetables
Implementing Agency	
International Trade Cent	re (ITC), Geneva, Switzerland
Partners The Ceylon Chamber of C Ministry of Agriculture (M Ministry of Health (MOH) National Agribusiness Co Lanka Fruit and Vegetabl	Commerce (CCC) 10A) uncil (NAC) le Producers Processors and Exporters Association (LFVPPEA)
Start Date	
1 March 2013	
End Date	
30 June 2016	
Beneficiaries	
Farmers, Processors & E Health Inspectors and ot	Exporters, Plant Quarantine Officials, Agricultural Extension Officers, her stakeholders in the fruits and vegetables value chain in Sri Lanka
Budget	
Project value:	US\$ 868, 005
STDF contribution:	US\$ 623,606 (including project support cost)
Non- STDF contribution: plus US\$ 17,019 as inves	US\$ 154,035 (137,016 USD jointly borne by CCC and MOA as IKC stment income from the grant to CCC)
ITC contribution	US\$ 90,364

LIST OF ABBREVIATIONS

AETD		Agriculture Extension and Training Division
CCC		Ceylon Chamber of Commerce
CFCA		Central Food Control Administration
DOA		Department of Agriculture
EU		European Union
FAO		Food and Agriculture Organization
FEO		Field Level Extension Officer
FPQO		Field Level Plant Quarantine Officer
FT		Field Level Trainer
F&V		Fruit and Vegetable
FVO		Food and Veterinary Office of the European Union
GAP		Good Agricultural Practices
IPPC	······	International Plant Protection Convention
ITC		International Trade Centre
LFVPPEA		Lanka Fruit and Vege. Producers, Processors and
		Exporters Association
MOA		Ministry of Agriculture
МОН		Ministry of Health
MOU		Memorandum of Understanding
MT		Master Trainer
NAC		National Agribusiness Council
NSC		National Steering Committee
NPM		National Project Manager
PHI		Public Health Inspector
PQO		Plant Quarantine Officer
SCPPC		Seed Certification and Plant Protection Centre
SLSI		Sri Lanka Standards Institute
SPS		Sanitary and Phytosanitary Measures
STDF		Standards and Trade Development Facility
тот		Training of the Trainer
WTO		World Trade Organization

1. EXECUTIVE SUMMARY

The potential for cultivating and exporting fruits and vegetables in Sri Lanka is high. Improving the quality and safety of these products supplied to domestic and export markets can significantly increase national and farm income, employment opportunities, and enhance nutrition and health of the people. The main export markets for the sector are the Middle East and South Asia, with low market penetration in East Asia (e.g. Japan, Korea) and the West (e.g. European Union). This is due to difficulties in meeting the stringent safety and quality requirements of importing countries. An ITC survey in Sri Lanka in 2010 revealed that the majority of reported Non-Tariff Measures (NTM) adversely affecting agricultural companies are Sanitary and Phytosanitary Measures (SPS) and Technical Barriers to Trade (TBT) and related conformity assessments.

To address the problems and accelerate trade of Sri Lankan fruits and vegetables, the Ceylon Chamber of Commerce (CCC) submitted with the assistance of the International Trade Centre (ITC) a project proposal for funding to the Standards and Trade Development Facility (STDF). The project "Improving the Safety and Quality of Sri Lankan Fruits and Vegetables" implemented by ITC in partnership with CCC officially started on 1 March 2013 with the signature of the Memorandum of Understanding (MoU) between ITC and WTO and was successfully concluded in June 2016, after obtaining a one-year extension. National ownership was also enabled through a MoU between ITC and CCC with a grant to CCC for implementation of a number of project activities, hiring national experts and project staff. An effective use of funds and in-kind contributions permitted implementing additional activities.

The problems the project was set to address were:

- Minimal measures taken at growing stage to ensure quality and safety;
- Improper pesticide and fertilizer use;
- Poor post-harvest practices, handling, sorting, inappropriate storage and transportation;
- Lack of awareness of the importance of SPS standards and requirements;
- Lack of training regarding international and export market SPS requirements and measures to adhere to these;
- Lack of a proper pest risk analysis system; and
- Poor coordination among different stakeholders

The major goal of the project was to enable fruit and vegetable producers from Sri Lanka to comply with international market access requirements through training and technical assistance activities tailored to the above-mentioned problems and directed to public and private sector stakeholders. The project had two main objectives:

- Objective 1: Build and sustain the competence of public and private stakeholders to comply with international food safety and quality requirements
- Objective 2: Improve the international, regional and national market opportunities of selected value chains of fresh fruit and vegetables

The project was designed and implemented along five main outputs:

- Output 1: The value chains of selected crops of fruits and vegetables with high income generation and export potential are assessed;
- Output 2: Enhanced availability of information on updated regulated pest list;
- Output 3: Enhanced capacity of public and private stakeholders to understand and comply with SPS standards, pest risk analysis/surveillance, and improved entrepreneurial skills;
- Output 4: Enhanced availability, accessibility and awareness of information on SPS standards, improved SPS compliance; and
- Output 5: Improved public-private cooperation and networking between stakeholders.

The project implemented a value chain approach. The methodology started with stakeholders selecting six crops with export potential (namely mango, papaya, pineapple, green chilli, tomato and protected agriculture), following a value chain analysis and market demand selecting the regional coverage (14 provinces) and beneficiaries (400 farmers and trainers and trainees) as pilot. An in depth cascading training programme and specific technical advisory services were delivered by a large pool of international and national experts and local trainers, benefiting three Departments of the Ministry of Agriculture (MoA), other government department/agencies, and the private sector.

The project built an important foundation for collaboration between public and private sector stakeholders in Sri Lanka to address jointly SPS issues that could hamper export and to respond to international and EU requirements, being the latter as a target market for the project. Awareness was built and skills enhanced for the public and private stakeholders on the need to comply with plant health and food safety standards in national and international markets. The F&V sector improved its capacity to identify and address challenges, access export opportunities and mobilize additional support.

A number of actions in the SPS area took place for the first time in Sri Lanka, such as training on pest risk analysis, the development of an up-to-date regulated pest list as per the international obligations under the International Plant Protection Convention (IPPC)¹, and initiation of a national committee to address SPS and TBT issues. The project provided timely assistance to prepare for plant health and pesticides control audits by the Food and Veterinary Office (FVO) of the European Union. It provided recommendations to the national residue monitoring laboratory, national plant protection office and registrar of pesticides.

More than 40 training programmes for more than 900 stakeholders with a special focus on good agricultural practices (GAP) and other relevant SPS-related topics were delivered, resulting in an increased awareness on compliance with international SPS export requirements along the value chain. More than 250 government officials enhanced their knowledge of good agricultural practices (GAP), pest and disease prevention, business and finance. An established pool of master trainers within MoA continued the training and knowledge transfer and ensured a spillover effect after the project completion. Field training activities focused to enhance the knowledge of more than 550 farmers from 14 districts in the country. A number of refreshment courses for farmers were already conducted by the trainers during project implementation.

The Extension and Training Division under the DoA made the SPS component compulsory for their trainings replicated during the project, covering a number of modules, such as GAP and Integrated Pest Management (IPM). According to the DoA, as a result of the project 1200 officers were trained under the new curriculum. In addition, it is expected that the new officers will be trained with the same materials, helping to disseminate the knowledge further.

The private sector requested the introduction of a farmer friendly GAP standard in the country that was officially launched by the Department of Agriculture (DoA) and Sri Lanka Standards Institute (SLSI) and recognized by the stakeholders as a key national step to promote and implement good agriculture practice and safe use of pesticides. A number of farmers trained under the project were included in the certification process.

To maximize dissemination of information and the results of the project, a website (<u>http://www.spssrilanka.lk</u>) was developed, where timely information on the activities and training materials were released. As part of this package more than 100,000 copies of SPS-related informative brochures and a booklet on Maximum Residue Level (MRL) in local language and English were distributed.

The project established strong intergovernmental relations between all the trade support institutions via its project steering committee, which played a key role as a discussion and operational platform that was lacking in the country.

A large number of institutions were engaged. CCC as national implementation partner, actively assisted in coordinating the project activities, built a strong relationship with other public stakeholders and private representatives and drove the sustainability of the project. MoA was a key beneficiary of the project and partner; it supported the project training activities throughout the country with a large in-kind contribution, providing experienced officers. DoA also provided further trainings to outreach other provinces, maximize information dissemination to farmers, customs officers and exporters, summing up to a total of additional 250 beneficiaries. The MoA DG was instrumental in facilitating public private partnership to address SPS issues and to encourage the country and institutions to face the challenges of

¹ The list developed included the following information: name of the pest, taxonomic group name, category of regulated pest (Presence/Absence in Sri Lanka, Presence and widely distribution, Presence/Limited distribution or restricted distribution), Quarantine Pest or Regulated Non-Quarantine Pest, association with regulated articles, etc))

compliance with EU requirements. The Lanka Fruit and Vegetable Producers, Processors and Exporters Association was a key partner in bringing in the private sector and working together with the MoA to address issues. The association requested to develop a national standard on GAP. The National Agribusiness Council played an important role in conducting the networking events and engaging the private sector.

B2B activities enhanced the stakeholders' relations and introduced an innovative approach in establishing a dialogue between all the actors along the value chain, in particular between farmers and exporters. This helped to increase the confidence of the beneficiaries and initiate business at national and international level. The study tours for government officials, farmers and exporters to European and Asian countries demonstrated the development of a similar value chain, farming practices and food safety controls, and provided opportunities for new business linkages. Participants contributed to the costs, and for the first time, farmers had this kind of exposure with exporters. As a result of these visits, two European companies showed interest in building further trading relationships with Sri Lankan farmers and exporters, conducted feasibility missions to Sri Lanka at their own cost, initiated negotiation for orders and facilitated training on production technology, packaging and quality assurance methods for three Sri Lankan officers in Italy. To continue the good work of the project of the established private-private and public-private partnerships and to scale up to value addition, LFVPPEA submitted to STDF, with the assistance of ITC, an application for a Project Preparatory Grant (PPG) to further develop a feasibility study for value addition in the fruit and vegetable (F&V) sector of Sri Lanka.

Thanks to the strong engagement of the government and private sector to maintain access to EU market and the contribution of the project, the notifications related to food (including fruits and vegetables) originating from Sri Lanka have been decreasing with about 40% since 2013². The figures reported by EUROPHYT³ on the inceptions on plant health for Sri Lanka also demonstrate a very positive change since the beginning of the project implementation and the self-ban imposed by the government with a reduction of 30% (115 in 2013 and 40 in 2016).

Feedback from project beneficiaries was very positive. One of the biggest Sri Lankan fruit and vegetable producers reported that at least 30% of the farmers who underwent the trainings increased their knowledge and started applying the new techniques. Farmers and exporters interviewed claimed an improvement between 25 and 50% in the volume of quality fruits and vegetables available for export while exporters stated between 15%- 20% depending on the crops. Exporters also confirmed a reduction in SPS-related rejections of selected fruits and vegetables by at least 20%. As a practical example, a pineapple producer that took part in project activities confirmed to have learnt new techniques, built business contacts and changed his way of thinking and practicing toward agriculture as a business. Thus, as contribution to the Sustainable Development Goals, the project contributed to SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

² Based on the information from the EU RASFF system,

³ European Union Notification System for Plant Health Interceptions, website:

2. BACKGROUND

A survey conducted by the ITC on Non-Tariff Measures faced by Sri Lankan Exporters, revealed that the majority of reported NTM cases adversely affecting agricultural companies in Sri Lanka are technical regulations (SPS and TBT) and related conformity assessments. The survey further revealed that from the partner country perspective, the majority of cases are related to exports of agricultural goods to the European Union. In addition, there are several institutions which presently support enterprises directly and indirectly to combat these issues. However, the lack of proper communication, coordination and collaboration among these institutions make it more difficult for enterprises to comply with their targeted market technical requirements. Further analysis on the technical regulations and the sectors was done, concluding there is a need for a project on improving the SPS situation in Sri Lanka on fruits and vegetables.

Taking into account the high potential of Sri Lankan fruits and vegetables sector, this project was important because of the significant contribution it can make to increase the level of national income, generate new employment opportunities, increase farm income and enhance the nutrition and health of the people. The scope of the project aimed not only addressing the international demand, but also the local demand for high quality products. After 2009, the economy has grown rapidly and the GDP per capita of Sri Lanka which stood at USD 899 in 2000 has increased to 3,924 USD by 2015 (Central Bank Annual reports). During the post conflict economy, the tourism sector has experienced a rapid expansion and the tourist arrivals increased from 450,000 in 2009 to 1.8 million by 2015. The industry expects further increase, thus local demand for quality and safe fruits and vegetables is rapidly growing.

The great potential for cultivating fruits and vegetables in Sri Lanka for the domestic and export markets has increased after the liberalization of the North and East part of the country, where the concentration of production of fruits and vegetables is located. Between 2003 and 2017, the values of fruit production (fresh and dry) and vegetables have been increasing according to Figure 1. However, as a percentage of total exports of the country (see Figure 2), the export revenue generated by this sector still remains below 1% for several crops in comparison to the domestic production, although an increase has been recorded from 2009 to 2017 for a number of reasons including the non-compliance issues with the SPS requirements further explained below.

Year	Fru (fresh o	its r dried)	Veç	getables
	RsMn	US \$ Mn	RsMn	US \$ Mn
2003	605	6	679	7
2004	651	6	964	10
2005	609	6	1153	11
2006	982	9	1005	10
2007	1317	12	1252	11
2008	1508	14	2717	25
2009	1397	12	1343	12
2010	1289		1639	?
2011	1920	17	2051	19
2012	2318	18	1921	15
2013	3779	29	2548	20
2014	5786	44	3234	25
2015	5190	38	3445	25
2016	5057	42	3456	24
2017	6386	42	4308	28

Figure 1 Val	ue of Fruit and	Vegetable	products	from Si	∙i Lanka⁴
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⁴ Source: Central Bank Annual reports

	2	009			2017	
Сгор	Domestic Production (MT)	Exports		Domestic Production (MT)	Ехр	orts
		MT As	a % of total duction		MT	As a % of total production
Pineapple	51611	1254	2.4	46,708	1,205.824	2.58
Mango	67941	47	0.1	99,549	224.300	0.22
Papaw	24258	454	1.9	71,245	5,072.154	7.12
Tomato	73917	10.2	0.0	129,434	63.964	0.0494
Leeks	26793	4.6	0.0	47,918	N/A	N/A
Cucumber	31061*	6.7*	0.0*	56,405	N/A	N/A
Carrot	35830	0.02	0.0	57,920	N/A	N/A
Beans	40513	0.8	0.0	94,633	N/A	N/A
Capsicum	14406	820	5.7	41,876	N/A	N/A

Figure 2 Comparison of Production and Export Statistics for selected fruits and vegetables and for 2009 and 2017

2.1 SPS PROBLEMS

The Master Plan of the Ministry of Agriculture (2006-2010) and the corporate plan of the Ministry for 2011-2013 in addition to research conducted, concluded that the quality and safety of fruits and vegetables produced in Sri Lanka suffer due to improper pesticide and fertilizer use, poor handling/sorting during collection, inappropriate storage and transport. The problems are described below:

- Improper pesticide and fertilizer use, poor post-harvest practices and lack of proper pest risk analysis system

According to studies done and cited by Hector Kobbekaduwa Agrarian Research and Training Institute (HARTI), Sri Lanka is the highest fertilizer consumer in the South Asian Association for Regional Cooperation (SAARC) region, and farmers in Sri Lanka apply two to eight times more fertilizer than other countries in the region. It is estimated that about 55% of cash crop growers have over used fertilizers and there is a 48.5 percent chance of fertilizer over use when imported hybrids are cultivated.

Crop	Inorganic Fertilizers (N+P2O5 + K2O)			
	Recommended	Applied		
Beet	489	1,731		
Cabbage	421	1874		
Carrot	489	1032		
Leeks	421	868		
Potato	550	1798		

Figure 3 Fertilizer application in upcountry vegetable farming⁵

Research conducted on the intensive cultivating farmers in the hill country shows that about 45% of farmers prefer to use more pesticides than recommended to ensure better crop productivity. All these findings invariably increase the risks posed to human health due to the high toxicity of the fruits and vegetables produced in the country. Several research reports indicate that the farmers have limited knowledge about the adverse effects of the pesticides used.

The Master plan of the Ministry of Agriculture for 2006-2010 had identified a number of fruits and vegetables based on consumer preference, demand, production, per capita availability, short-term production potential, export and agro industrial potential, income generation, contribution to national income and agro ecological suitability. These products were further analysed by the

⁵ Source: Hector Kobbekaduwa Agrarian Research and Training Institute

baseline study under the project to filter the most relevant ones to penetrate into the international market.

One of the basic requirements in managing pests is pest risk analysis. With identification, determination and evaluation of risk, the process helps avoid or reduce the probability of entrance or establishment of the pest into the country. There is an urgent need to train the respective officials on pest risk analysis and update the database of quarantine pests in Sri Lanka to facilitate trade of safe and healthy fruits and vegetables.

- Lack of awareness and training

From the surveys and preliminary research it was concluded that there is poor awareness of international and export market SPS requirements and of the importance and benefits of adhering to these standards among all stakeholders in the F&V value chain. Training on SPS standards and how to meet them is rare and ad hoc. Another problem flagged was the lack of trained officials, constituting a significant barrier that affects the safety and quality of exported agricultural produce. For example, the survey found out that export inspection processes were very time consuming and adversely affected the export of perishable products, involving several (possibly redundant) steps. Further, the safety and quality of the goods was adversely affected as a result of inspections carried out by untrained officials. A survey on National Plant Protection Organization's (NPPO) capacity to meet IPPC standards done in 2007 by FAO, revealed that in addition to providing training for plant quarantine officials in areas such as pest risk analysis and pest surveillance, there was a need to create awareness programmes for other stakeholders; especially major exporter and importer groups on the WTO/SPS Agreement, IPPC and the international standards.

- Poor Coordination among different stakeholders

The findings of the preliminary research found the institutional mechanism responsible for SPS management to be highly fragmented and coordination and cooperation among the respective institutes poor. The functionality and efficiency of various committees among institutions was not satisfactory. A need to strengthen the communication among the stakeholders is very high. In addition, the capacity of testing infrastructure was very low.

The biggest export markets for Sri Lankan fruits and vegetables at present are Maldives and Middle Eastern countries, due to their geographic proximity. Only a very small percentage is exported to the developed economies in the EU, US, Japan and Australian markets.

Region	2009		2014		2015	
	% share	Avg. Price USD/kg	% share	Avg. Price USD /kg	% share	Avg. Price USD /kg
South Asia						
Middle East	79.4	1.1	87.6	1.0	90.2	1.5
EU, US, Canada,						
Japan and						
Australia	13.0	2.1	4.6	3.8	6.6	4.7
Others	7.6	0.6	7.7	0.65	3.2	1.7

Figure 4 Share of exports on Sri Lankan fruits and vegetables

Penetration to developed country markets is low because of the stringent phytosanitary requirements imposed by those countries compared with the less stringent measures adopted by the Maldives and markets in the Middle East. Prices fetched for the exports to developed economies such as the EU are higher than prices received from the Maldives and Middle Eastern countries. Therefore, an increase in the exports to the EU market will mean an increase in the price and profit for Sri Lankan producers and the local economy. Exports to the EU declined in 2015, as a result of a voluntary ban of exports to EU imposed by the DOA on account of the plant health issue reported by EU (please see below for more info under sections: 4 and 7.)

2.2 ACTIVITIES TO ADDRESS THE SPS PROBLEMS

In order to address the problems and overcome the trade obstacles, the project held a number of activities on three different levels: **1. Government level**, **2. Exporters and Processors level**, **3. Producers level**.

Overall, the activities included, inter alia, trainings, advisory services, networking workshops, meetings on roles and responsibilities of various stakeholders, strategic meetings, study tours to Europe and Asia.

In the first year of the project, a **value chain analysis** was conducted. As a result, the priority crops with export potential and affected by SPS issues and the relevant districts where those crops are grown were chosen. In the second and the third year of the project, the capacity building trainings for the project beneficiaries commenced.

On government level, the project strongly supported the human capacity development and provided timely assistance related to urgent needs in addition to the trainings, such as support to the national residue monitoring laboratory, national plant protection office and registrar of pesticides in relation to the Food and Veterinary Office of the European Union. The activities focussed on current problems the beneficiaries are facing, and how to resolve them in a sustainable manner with long-term effect. The project also provided assistance on the formulation of a Sri Lanka National Good Agricultural Practices standard (SL GAP). Some of the activities were not foreseen in the initial project plan, as the need for implementation arose during the implementation process itself.

The project launched the <u>http://www.spssrilanka.lk/</u> website, which releases regularly news related to SPS issues on fruits and vegetables in Sri Lanka and around the globe by email and sms. The website also provides information on the project activities and events taking place. For information dissemination purposes, a number of newsletters and brochures were created and released between the beneficiaries. For awareness purposes of the tourists and locals entering Sri Lanka, information boards on plant protection were developed and placed at the entrance and exits of the airport. At the final project workshop, stakeholders confirmed the usefulness of the website and encouraged CCC to maintain and sustain it over time.

The pest list of Sri Lanka was updated and the new list is released under the Department of Agriculture (https://www.doa.gov.lk/SCPPC/NPQS/images/PDF/Regulated-Pest-List.pdf)⁶.

On private sector level, besides the training activities for different group of farmers, processors and exporters from different regions in the country, ITC also coordinated B2B activities to enhance the stakeholders' relations and introduce an innovative approach in establishing a dialogue between all the actors along the value chain. This helped to increase the confidence of the beneficiaries and enable businessfr on national and international level. The business match making events received a lot of attention by the representatives from the sector, government officials and interested buyers of Sri Lankan fruits and vegetables. The networking sessions were held in Colombo, Kilinochchi, and Mhailuppalama.

A **project steering committee** was established. It met twice per year to discuss the obstacles and the way ahead for project activities. Regular **reporting** on project activities was done by biannual reports submitted to STDF.

Also **additional activities** not originally foreseen under the project were conducted at a later stage during the implementation process. An international consultant was hired to provide extensive training on plant health issues before the FVO audit planned by the European Commission in February 2015. He also developed Standard Operating Procedures (SOPs) and Instructions Manuals.

⁶ The list is available with DOA and with STDF as part of the deliverables produced under the project. The list developed included the following information: name of the pest, taxonomic group name, category of regulated pest (Presence/Absence in Sri Lanka, Presence and widely distribution, Presence/Limited distribution or restricted distribution), Quarantine Pest or Regulated Non-Quarantine Pest, association with regulated articles, etc))

Another two experts were hired to provide trainings on pesticides-related issues before the FVO audit on pesticides in September 2016. Assistance was provided to the Core Group dealing with pesticides in the country and the Industrial Technology Institute- Sri Lanka on residue analysis.

The project introduced a farmer friendly national SL GAP standard in the country, which was officially launched by the Department of Agriculture and Sri Lanka Standards Institute. It is recognized by the stakeholders as a key national step to promote and implement good agricultural practices and a safe use of pesticides. A number of project trained farmers were included in the certification process.

The major activities and trainings focused on enhancing the whole value chain, starting from the Government officials. These trainings included:

- Trainings provided to the Field Level Trainers who are responsible on providing trainings to the farmers
- Trainings for Extension officers
- Trainings for Plant Quarantine Officers
- Trainings for Field Level Quarantine Officers
- Capacity building for sessions for plant and health inspectors, exporters, processors and other relevant officers were held. These trainings aimed to increase the awareness and ability to meet SPS standards. The training programmes were tailor-made to better meet the needs and cover the knowledge gaps.
- 20 Training sessions were held for Farmers from 14 different regions in Sri Lanka, cultivating various crops. The trainings covered a number of topics, such as Good Agricultural Practices and their application, harvesting and post-harvesting methods, business management, etc.

More detailed information on the topics, dates and achievements are given further in the report in the related sections (See section 5- PROJECT OBJECTIVE, OUTPUTS & ACTIVITIES).

In order to bring more practical experience, the project organized **study tours to Europe and Asia.** After finalizing the trainings, the best performing farmers (two) and exporters (five) attended a study tour to Milan (Italy). The study tour aimed to demonstrate the best practices applied in the production of fruits and vegetables, packaging practices, marketing methods and allow networking opportunities via B2B sessions. In addition, a study tour to Thailand was held for best performing farmers and government officials to learn from the practices applied there and learn from their system. Visits to farms, processing and packaging venues, as well as markets were held to showcase the Asian perspective of market access. Participants also learnt new techniques applied in the farms that were not practiced in Sri Lanka.

2.3 INFORMATION ABOUT THE APPLICANT

The Project originated from a request of the private sector (CCC and LFVPPEA) with the support of the government to obtain funds from STDF and partner with ITC.

The Ceylon Chamber of Commerce (CCC) was the applicant for fundings. CCC is a not for profit, business support organization with over 170 years' service and with objective to assist the private sector to enhance their export capacity, to establish better and closer working relationship with relevant government institutes by facilitating a dialogue between relevant public and private stakeholders, encourage the formal private sector to integrate backwards with the regions. CCC has a direct membership of over 500 companies representing businesses ranging from small businesses to medium and large enterprises and a network of 42 affiliated sectoral trade associations and 21 business councils. CCC was in the driving sit of the project to mobilise the private sector and link with the government.

ITC and the **WTO/STDF** signed an interagency Letter of Agreement on 05 March 2013 with respect to the participation of ITC in the Standards and Trade Development Facility (STDF) project 354 entitled "Improving the Safety and Quality of Sri Lankan Fruits and Vegetables". In accordance of the letter of Agreement and the Project document STDF/PD/354, ITC was

designated as the implementing organization, while **CCC** as the national coordination unit in Sri Lanka.

ITC and **CCC** signed a letter of Agreement in June 2013 with the purpose to set the framework for cooperation between CCC and ITC and a grant from ITC to CCC for the implementation of activities in Sri Lanka within the framework of the project aimed at improving the safety and quality of the Sri Lankan Fruits and Vegetables. **CCC** consequently signed an Agreement with **DoA** setting the respective roles and responsibilities and in-kind contribution.

2.4 EXTENSIONS OF THE PROJECT

- First Extension of the project: Extended from 28 February 2015 until 29 February 2016

Project duration according was for two years commencing from 1 March 2013 to 28 February 2015. However, the project entered officially into the implementation phase with the official kickoff launch event taking place approximately six months after its start on 27 September 2013. This delay was caused by the time needed to finalise the MoU between ITC and CCC for ensuring ownership and smooth implementation of project activities on the ground. ITC, through this Grant and activities conducted within the framework of the project, was committed to contribute to strengthening the CCC's capacity in assisting the private sector in Sri Lanka to enhance its export capacity in the agricultural sector.

The initial delay of six months at the beginning led to a delay in the implementation of the training programmes for farmers. Further, during this period there were two general elections in the country which hampered the scheduled farmer training programmes in the regions. In addition it was evident that the farmer training programmes could not be held continuously for five consecutive days. Five-day farmer training programmes were held on the basis of one or two days per week which prolonged the duration of the programmes.

- Second Extension of the project: Extended from 29 February 2016 until 30 June 2016

The reason for the second extension was to finalize the study tour to Thailand and utilize the additional savings (approximately 50 000 USD) to achieve the objectives of the project. In addition, thematic and networking events were held between the growers, exporters and relevant institutions, as well as additional technical support for the upcoming FVO audit was delivered.

3. PROJECT GOAL

According to the export data, Sri Lankan fruits and vegetables are exported mainly to the Maldives and Middle Eastern Markets with low market penetration in East Asia (e.g. Japan, Korea) and the West (e.g. European Union). However the statistics shows that if the fruits and vegetables are exported to the EU and other developed economies the prices fetched are higher compared to the prices fetched form Maldives and the Middle Eastern markets Figure 3.

Region	2009			2014			2015		
	Qty, mt	Value USD'00 0	Price USD/k g	Qty, mt	Value USD'00 0	Price USD/k g	Qty, mt	Value USD'00 0	Price USD/kg
South Asia	3650.3	2486.9	0.7	4967.2	11538. 7	2.3	3732. 6	7338.7	2.0
Middle East	4530.6	6539.8	1.4	29302. 1	23988. 6	0.8	16747	22441. 8	1.3
EU	975	2199.4	2.3	1367.8	4901.4	3.6	940.6	4399.2	4.7
US and Canada	104.3	326	3.1	281.6	1440.5	5.1	347.4	2149.8	6.2
Japan, Aust. and NZ	258.9	305.8	1.2	164.8	474	2.9	206	542.5	2.6
Seychelle s	0.3	0.5	1.7	150.8	218.3	1.4	147.8	285.1	1.9
Others	778	495.3	0.6	2879.7	1754.8	0.6	593.8	955.1	1.6
Total	10297. 4	12353. 7	1.2	39114	44316. 3	1.1	22715	38112. 2	1.7

Figure 5 Export figures for fruits and vegetables in 2009, 2014 and 2015

ITC surveys revealed that the majority of reported Non-Tariff Measures (NTM) adversely affecting agricultural companies in Sri Lanka are technical regulations (Sanitary and Phytosanitary Measures – SPS and Technical Barriers to Trade) and related conformity assessments, relating mainly to exports of agricultural goods. Sri Lankan produce is facing difficulties to penetrate to the EU and US markets, due to the stringent SPS measures and lack of compliance on quality and safety.

To penetrate into the more lucrative markets it is essential that the produce conform to stricter quality and safety measures and is safe for consumption. SPS regulations in Sri Lanka were reported not to be in compliance with the international SPS standards, especially on fruits and vegetables. The interventions at the production/growing stage are also minimal. To overcome all these problems consultations between agencies is needed, as currently it happens in an adhoc/informal manner, which is not institutionalized.

If better prices could be fetched for the produce, all the beneficiaries in the value chain will gain benefits. Exporters getting better prices will ultimately reach the producers and will assist in reducing poverty levels in the remote producing areas. Producing safe and better products will not only help in increasing the exports to more lucrative markets, but also provide safe produce for the local consumers. This is due to difficulties in meeting the stringent safety and quality requirements of importing countries.

To address the problems and accelerate trade on Sri Lankan fruits and vegetables, ITC and CCC commenced in 2013 the project entitled "Improving the Safety and Quality of Sri Lankan Fruits and Vegetables", funded by the Standards and Trade Development Facility (STDF).

The project set two major goals, namely to:

1) build and sustain the competence of public and private stakeholders to comply with quality and food safety international requirements;

2) improve the international, regional and national market opportunities of selected value chains of fruits and vegetables with the ultimate goal of income generation.

In order to support the major goals mentioned above, the project executed activities in the following areas:

- introduce improvement on the measures taken at growing stage to ensure quality and safety
- change improper pesticide and fertilizer use
- enhance poor post-harvest practices, handling, sorting, inappropriate storage and transportation
- increase awareness of the importance and requirements of SPS standards, and benefits
- introduce trainings regarding international and export market SPS standards requirements and measures to adhere to these
- introduce a proper pest risk analysis system
- strengthen coordination among different stakeholders

The implementation of the activities under the project was designed and applied in a holistic manner to ensure a long term impact for the beneficiaries. This was done by reaching beneficiaries from all the regions in Sri Lanka, involving various Ministries for the follow up actions and creating a pool of trainers who will continue assisting the beneficiaries even after the completion of the project⁷. In addition, the direct beneficiaries included not only targeted operators, such as small growers, group of farmers/lead farmer, but also support services - authorities responsible for inspection and control services/Platforms of public and private stakeholders.

Moreover, all the activities implemented and described below aimed to increase production while minimising negative impacts on the climate, ecosystems and the productive environment. The project also addressed the social and economic dimensions of sustainability, including livelihoods, economic sustainability, social justice and inclusiveness. Special emphasis was put on the participation of small growers, youth and women, who are often disadvantaged by the changes taking place in local and global supply chains, and who often have more to gain from improvements in conditions of production, employment and trade. Approximately 30% of beneficiaries were women.

As a result, the capacities of farmers and other actors involved in the value chain in the fruit and vegetable sector to access local and international markets are reinforced through compliance with SPS standards and other market requirements. More information on the topics and the implementation of the training activities is provided in the report.

⁷ The List of Trainers is made available under: <u>http://www.spssrilanka.lk/index.php/stdf-project-update</u> and provided to STDF Secretariat as part of the deliverables of the project

4. PROJECT IMPLEMENTATION AND MANAGEMENT

The implementing agency of the project was ITC. During the implementation process ITC worked very closely with CCC and the DOA (Department of Agriculture) under the Ministry of Agriculture, while the CCC acted as the national coordinator and worked very closely with other public and private stakeholders in the fruits and vegetables sector to ensure long-term impact.

MoA was a key beneficiary of the project and partner; it supported the project training activities throughout the country via providing experienced officers in the regions to assist the international experts and ensure the smooth implementation.

LFVPPEA was a key partner in bringing in the private sector and working together with the DOA

NAC played an important role in conducting the networking events and engaging the private sector.

The top policy reviewing body of the project was the project steering committee, represented by the following organizations:

- 1. Ceylon Chamber of Commerce (CCC)
- 2. Ministry of Agriculture Addl. Secretary
- 3. Director Seed Certification and Plant Protection Service (DOA)
- 4. Director Extension and Training DOA
- 5. Director National Plant Quarantine Service (NPQS)
- 6. Ministry of Health (MoH)
- 7. Chairman National Agribusiness Council (NAC)
- 8. President 'Sri Lanka Fruit and Veg. Producers Association (LFVPPEA)
- 9. Director Sri Lanka Standards Institute (SLSI)
- 10. International Trade Centre (ITC)



Figure 6 Project Management Structure

In addition to the above-mentioned members, the Steering Committee also invited other relevant public and private sector institutions for the meetings on a regular basis. Public sector institutions that attended the meetings were: the Export Development Board (EDB), Sri Lanka Accreditation Board (SLAB), Industrial and Technology Institute (ITI). From the private sector representatives, Crop Life was invited to attend some of the meetings.

ITC adviser on export quality management and project manager had frequent missions to Sri Lanka and often attended the Steering Committee Meetings. However, due to limited budget for travelling ITC did not participate in all PSC meetings. For reporting purposes, the list of attendees

and minutes were regularly submitted to the ITC adviser for clearance and further distributed for information dissemination purposes.

4.1 INTERNATIONAL TRADE CENTRE (ITC)

The role of ITC in the project implementation is to coordinate the overall project via providing guidance and advice to counterparts for the successful implementation of the programme activities and reach its objectives. ITC regularly reviewed the work plan as per stakeholders' recommendations, participated in meetings of the PSC and provided the necessary assistance for beneficiaries.

The overall responsibility of ITC was as follows:

- Ensure agreed activities, timelines and outcomes are delivered as per plan
- Ensure effective and timely implementation of individual project components
- Decide on budget allocation and revision
- Liaise regularly and coordinate activities with the NPM and project stakeholders
- Ensure effective involvement of the NPM in project coordination
- Regularly review progress of the project and where necessary make recommendations to enhance effective and timely implementation of responsibilities and activities of all project partners
- Conduct monitoring and evaluating of activities
- Ensure delivery of progress reports
- Disseminate information and success stories of the project achievements

4.2 CEYLON CHAMBER OF COMMERCE

The Ceylon Chamber of Commerce is a non-profit business support organization in Sri Lanka. CCC's responsibility under this project was to assist the private sector in enhancing its export capacity potential, to establish better and closer working relationship with relevant government institutes by facilitating a clear and direct dialogue between relevant stakeholders. In addition to that, it assisted in the increase of income and enhancement of living standards via encouraging the private sector to integrate with the regions.

CCC also provided in-kind support with human capacity to coordinate the delivery of the project. The project manager, project assistant and project accountant were based at the CCC premises in Colombo. The CCC was responsible for organizing the National Steering Committee Meetings and keeping minutes, as well as identifying resource persons to carry out the programme in consultation with other stakeholders.

4.3 MINISTRY OF AGRICULTURE

The Department of Agriculture (DOA) which comes within the purview of the Ministry of Agriculture was the main stakeholder in the project. Seed Certification and Plant Protection Centre (SCPPC) and the Agricultural Extension and Training Division (AETD) are the two main divisions in the DOA that complemented and supported the overall project objectives. Three divisions of the Ministry directly benefited of the project are 1) the Quarantine Division; 2) Extension Division and 3) Registrar of pesticides. A large number of officers were trained through the Trainer of Trainer approach and further trained other project beneficiaries. In addition to the project funded activities, the DOA also provided further trainings to maximize the information dissemination to farmers, customs officers and exporters. As a result, considerable outreach in all regions of Sri Lanka was obtained. The DG of MoA was instrumental in facilitating public private partnership to address SPS issues and to encourage the country and institutions to face the challenges of compliance with EU requirements.

The National Plant Quarantine Service (NPQS), which is directly under the SCPPC, was responsible for plant quarantine activities including the prevention, introduction and spread of quarantine pests within the country, due to its essential involvement in the inspections process of exports and imports consignments at the ports of entry and exit.

Agricultural Extension and Training Division (AETD) is involved in the transfer of improved technologies to the farming community and other stakeholders in the agricultural sector, while encouraging them to use improved technologies to solve technical problems. Under the project,

AETD conducted training programmes for the extension officers and farmers. Training programmes were conducted at the In – Service Training Institutes (ISTI) at Gannoruwa and Angunukolapelessa with the purpose to improve the professional skills and enhance the knowledge on new agricultural technologies. Under the project a number of training materials were developed. The latter was handed over to the Ministry for further replication and training purposes over the country for future training programmes for the field level extension officers and farmers.

While the NPQS issues the PhytoSanitary Certificates (PSC) for the export consignments of agricultural commodities, the Registrar of Pesticides Office is responsible for the enforcement of the control of Pesticides Act. Office of the Registrar has the responsibility to ensure that only the high quality pesticides which are least hazardous to human health and environment enter the Sri Lanka market. For this purpose, the project was welcomed and supported by the Registrar of Pesticides office.

5. PROJECT OBJECTIVE, OUTPUTS & ACTIVITIES

5.1 PROJECT OBJECTIVE

The project aimed at:

- i) "Building and sustaining the competence of public and private stakeholders to comply with international quality and food safety requirements"
- ii)"Improving the international, regional and national market opportunities of selected value chains of fresh fruit and vegetables".

In order to achieve the abovementioned objectives, a number of activities on five different output levels were provided targeting the private and public sector level. The objective was to select the right crops (six crops with export potential following a value chain analysis and market demand - mango, papaya, pineapple, green chilli, tomato and protected agriculture) in Sri Lanka and provide proper training to private and public sector stakeholders. Through this, the project aimed to enhance knowledge and increase awareness of safety and quality issues.

To improve market opportunities, the project conducted a number of networking events where the project provided a platform in the form of B2B events between various stakeholders. In addition, proper technical assistance was provided to the public sector to strengthen their services and successfully face FVO audits conducted by the European Union on SPS compliance issues.

The project did not only aim ad-hoc interventions, but also progressed towards ensuring continuity via inclusion of the training materials in the curriculum of the training programmes (See Chapter 5.2.3 for more information on the training approach and implementation).

5.2 OUTPUT AND ACTIVITIES

5.2.1 Output 1: The Value Chains of selected crops of fruits and vegetables with high income generation and export potential are assessed

As a first step of the project, a value chain analysis was undertaken to identify high potential fruits and vegetables in the country, as well as quality, safety and other issues that impede the development and exports of the sector in Sri Lanka.

To identify the potential products, a focus group discussion was organized with senior government officials, the private sector and research institutes engaged in the sector. With further inputs from the members of the Sri Lanka Export Development Board Advisory Committee on Fruits and Vegetables and the ITC, a list of eleven products were shortlisted. These included five vegetables: Tomato, Green Chilly, Cocoyam (Kiriala), Cassava (Manioc) and Protected Agriculture; and six fruits: Pineapple, Mango, Papaya, Rambutan, Banana & Passion Fruit.

The key stakeholders engaged in the production, processing and export of Fruits and Vegetables were interviewed to obtain views on the potential products and the impediments for increasing production and export of the selected products.

The stakeholders surveyed were exporters, processors, supermarkets, hotels, farmers, input suppliers, Government officials and research institutes. The private sector institutes that were selected were the larger entities and were mainly located in Colombo and suburbs. The farmers were selected from the main growing areas of the selected products and covered seven districts. The farmers' survey showed that the current farming practices have a significant impact on the quality of products.

Some of the findings of the survey underlined that the farmers are following only some Good Agricultural Practices; most of the cultivation practices are manual and very few follow mechanization. In addition, the results showed that they always use pest/ disease resistant and high yielding crop varieties; very few of them use compost or cow dung because of non-availability or lack of knowledge. Almost all the farmers use pesticides and their knowledge on pesticides application is very poor; most of the farmers and companies do not practice Post-harvest intervals

on pesticide applications and farmers have many difficulties in marketing, market coordination, and market promotion.

The survey among the private sector entities indicated that pineapple and mango are the two fruits that are exported the most. In addition to them, papaya is in demand by hotels and supermarkets.

Among the vegetables, chillies and tomato are in higher demand for processing and export by hotels and supermarkets. Crops grown and exported as protected agriculture, such as cucumber, zucchini, salads and tomato are gaining more popularity.

The survey shows that the main export markets for Sri Lankan Fruits and Vegetables are Asia and the Middle East.

At the final stage of the analysis, the research results were presented to the stakeholders and three fruits and three vegetables were selected for the next stage (Pineapple, Mango, Papaya tomato, chillies and protected agriculture products). The next step of the project was to create awareness among stakeholders on how to address some of the issues farmers indicated via training programmes.

Some of the specific training areas that were highlighted for farmers were good agricultural practices from land selection to marketing, plant protection and post-harvest intervals, integrated pest management, harvesting principles and methods, time and stage of harvesting and marketing.

For the exporters and buyers the training requirements identified were exposure to GAP at a practical level, particularly a model value chain for green houses, training on packaging and labelling for export markets, training on growing vegetables in green houses, and growing organic strawberries. It was also emphasized that awareness should be created among local wholesale buyers on the safety/quality of produce.

The Value Chain analysis was conducted by two national consultants - Gayathri Gunaruwan and Gamini de Silva⁸.

5.2.1.1. Identifying crops and districts

To identify the relevant crops and districts, a preliminary preparation was done, such as preparing the Terms of References for consultants' selection to conduct the study and planning the meetings. Once the consultant was recruited, the actual work started.

The existing research and statistics were analysed to identify the crops with high income generation and export potential and the top six crops were selected as the target crops for the project. To identify the potential crops, a focus group discussion was organised with senior relevant government officials of the DOA, EDB and Research Institutes and private sector members of LFVPPEA and NAC.

Initially, eleven products were shortlisted. This list was further reduced to six crops after considering the statistics and expert opinions. Ultimately, the following six crops (three fruit crops and three vegetable crops) were selected as the most potential ones..

Fruits

- 1. Pineapple
- 2. Papaya
- 3. Mango

• Vegetables

- 1. Tomato
- 2. Green Chillies
- 3. Crops grown under protected agriculture

⁸ Gayathri Gunaruwan, Chief Economist, CCC (<u>gayathri@chamber.lk</u>)



Figure 7 Selected crops - Pineapple, Papaya, Mango, Chillies, Tomatoes and Tomatoes (example of crops under protected agriculture)

Based on the available statistics of the Ministry of Agriculture and the inputs from the DOA officials, the Districts in which these crops were predominantly grown were identified to conduct the training programmes. The list is presented in the table below.

Сгор	Districts						
Pineapple	Gampaha ⁹ and Kurunegala						
Mango	Monaragala, Ampara and Jaffna						
Рарауа	Hambantota, Anuradhapura, and Ratnapura,						
	Monaragala						
Tomato	Matale, Badulla and Nuwara eliya						
Green chillies	Anurathapura, Puttalam, Ampara, Jaffna and						
	Hambantota						
Protected Agriculture	Kandy, Nuwara Eliya and Badulla						

Figure 8 Crops and the districts selected for farmer training

5.2.1.2. Identifying stakeholders in the F&V value chain

The key stakeholders engaged in production, processing and export of fruits and vegetables were interviewed to obtain views on the potential products, the obstacles in the production process and in the export of the selected products. The stakeholders surveyed were exporters, processors, supermarkets, hotels, farmers, input suppliers, government officials and research institutes.

The private sector institutes that were selected were larger entities mainly located in Colombo and suburbs. The farmers were selected from the main growing areas of the selected products and covered seven districts.

5.2.1.3. Survey to identify current status of the F&V value chain

A representative sample of the identified stakeholders were selected and interviewed to define the current status. A questionnaire was developed in consultation with the consultants, focusing on assessing; production & agro practices, quality management, quality testing and certification.

Three separate questionnaires were developed to gather information from the farmers, exporters and processors. The interviews were carried out by an experienced team. The results were summarized and included in the Value Chain Analysis report. Information gathered from the survey identified the weaknesses that affect the safety and quality of the fresh fruits and vegetables produced. Shortcomings and deficiencies identified were used in the development of training materials and modules for the capacity building of extension officers and farmers to ensure safe production of fruits and vegetables with high quality.

In short, the farmers' survey demonstrated that the current farming practices have a significant impact on the quality of products. Some of the findings of the survey on farmers are:

- farmers were following only some Good Agricultural Practices;
- most of the cultivation practices are manual and very few follow mechanization;
- they always use pest/ disease resistant and high yielding crop varieties;
- very few use compost or cow dung because of non-availability or lack of knowledge;
- almost all the farmers use pesticides, but their knowledge on the application is very limited;
- most of the farmers and companies do not practice post-harvest intervals on pesticide applications

⁹ Two training programs were conducted in the Gampaha district for Pineapples while in the other districts one was conducted

• farmers have many difficulties in marketing, market coordination, and market promotion.

As a result of the value chain analysis the findings of the survey gave guidelines and defined the focus of the trainings at different levels:

Farmers

- Training on GAP is of prime importance to develop quality F&V in Sri Lanka. This shall cover all the practices from land selection to marketing; special emphasis should be placed on improving the quality of F&V produced in Sri Lanka.
- Training on Plant protection programme including maintaining post-harvest intervals.
- Introduction of Integrated Pest Management Programme especially for vegetables.
- Training and awareness on harvesting principles, methods, time and stage of harvesting, processing, packaging type, cold chain, etc.
- Awareness should be given to market promotion, market coordination, marketing, wholesale and retail marketing.

Exporters and Buyers

- Training for supporting staff on the entire supply chain.
- Exposure to GAP at a practical level. A pilot programme to have a model value chain for green houses.
- Training on packaging and labelling for export markets (signs/colour codes etc.).
- Training on the growing of vegetables in green houses.
- Training on growing of organic Strawberries.
- An in-depth knowledge of GAP is given to all farmers for the selected products
- Local wholesale buyers (supermarkets, specialty stores, etc.) should be educated on safe/quality produce.
- Consumer awareness programme to educate end users on the importance of certification, which will encourage F&V suppliers to comply with GAP.

Government officials

- Most of the officials involved in the sector need to get trained in all GAP activities because it's a new concept.
- Agronomy introduce GAP.
- Commercial Agriculture To develop farmer to Agri businessman.
- High tech Agriculture to grow value crops in protected areas.
- Marketing- understanding the market is very important for the sustainability.
- Nutrition understanding about nutritional value of crops.
- Packaging understanding proper and attractive, economical packaging.
- Pesticide Modern pesticides for cost and impact effectiveness.
- Plant protection IPM, and all activities related to PP.
- Plant quarantine important for exporters to know PP act and procedures.
- Quality control/certification to reach international standards.

Detailed information on the products, districts and questionnaires can be found in the Value chain analysis report. The report was posted under the project website¹⁰.

5.2.2 Output 2: Enhanced availability of information on updated pest list

As part of Output 2, the project gathered information on pests/weeds/diseases that affect the fruit and vegetable sector in Sri Lanka. This was done in order to assist Sri Lanka in meeting its obligation under the IPPC, where the existing database was updated. The purpose of the activity is to help the country to minimize pest outbreaks, reduce the risk of contamination and facilitate trade.

¹⁰ <u>http://www.spssrilanka.lk/index.php/publications/14-publications/104-fruit-vegetable-sector-analysis-2015</u>

Collect and document information on pests and regulated pests

The activity started with the appointment of the team and the distribution of tasks under the guidance of the ITC International Phytosanitary Expert. Three scientists with extensive experience in their fields were appointed to upgrade the existing regulated Pest List. The team consisted of the following experts:

- a. Dr. A. Rajapakse Senior Plant Pathologist
- b. Ms. D. Galanihe Senior Entomologist
- c. Dr. D.P Jayakody Senior Weed Scientist/Head NPQS

The Director General of the Department of Agriculture (DOA) circulated a draft report to university academics and other relevant stakeholders in the agricultural research for their views and comments on the draft prior to publishing the updated regulated pest list on the DOA website. After a revision of the comments, the final pest list was developed and released through the DOA website¹¹.

5.2.2.1 Purchasing of equipment needed for pest surveys

A list of the equipment to be purchased for pest survey was compiled by the ITC International Phytosanitary expert and submitted to the NPQS for review. NPQS submitted to ITC a revised list of equipment that took into consideration equipment that can be purchased with funds from the NPQS and from the project. A set of equipment was purchased to enable the conduct of pest surveys related to the selected crops. The equipment granted to the NPPO consists of the following:

- 1. Stereoscopic microscope (1)
- 2. Inverted microscope (1)
- 3. Gel documentation system
- 4. Units of laptops for the above three equipment (with authentic software installed) (3)
- 5. Units of GPS (2)
- 6. Arc GIS software (1)
- 7. Units of Optical visors (10)
- 8. Units of Insect collection kits (3)
- 9. Units of handheld microscopes (6)

In addition, two years' access to the CABI Crop Protection Compendium was purchased by the project to be used by the National Plant Quarantine Service. During the training for the Plant Quarantine Service, the participants were shown how to use the tool.

5.2.3 Output 3: Enhanced capacity of public and private stakeholders on understanding and complying with SPS standards, pest risk analysis/surveillance and improved entrepreneurial skills

The objective of the capacity building programme under the above-mentioned output is to bring up the knowledge/awareness of all key stakeholders in the public and private sector to one platform in terms of their awareness and understanding of SPS standards and the importance of adhering to these standards. In order to reach that goal, the project introduced training programmes on different levels, illustrated in the figure below.

¹¹ The document was made available at <u>https://www.doa.gov.lk/SCPPC/NPQS/images/PDF/Regulated-</u> <u>Pest-List.pdf</u> and was provided to STDF as part of the set of deliverables produced by the project



Figure 9 Overview of the training programmes on capacity building

The training programme captured beneficiaries from three different levels: plant quarantine department of DOA, the extension and training division of DoA that implemented a training programme with spill over effect towards the farmers and other government officials such as inspectors of MoPH, exporters and processors to gain same understanding of requirements. The training was done through a Train the Trainer (TOT) programme, to ensure continuous capacity building after the end of the project.

Before the project commenced, there was a very high variance in the knowledge between and within institutions and. This was also one of the reasons for lack of cooperation and coordination among institutions and officials. Lack of awareness and structured training was one of the challenges for the current low supply of safe fruits and vegetables with good quality for the local and international markets. The mechanism proposed under the project was to combine training programs to help officers from different institutions to better understand SPS requirements, each other's needs and role and improve coordination. This was done with a spill-over effect among all levels, as illustrated in Figure 13.

The various training programs started from Training of the Master Trainers and cascaded towards the farmers' trainings. It is schematically explained in the figure below. The training programme was developed in consultation with the Department of Agriculture, Extension Division and Plant Quarantine Service.



Figure 10 Capacity building programme of the project

The first stage of the capacity building programed started with the Master Trainers, where ten-day training programme was conducted from 04-15 December 2013 for 28 participants. In that activity, the initial training was provided by international experts to the Master Trainers, where the major topics were discussed:

- 1. Business Management Finance
- 2. Marketing
- 3. Pest and Disease Management at the Field Level
- 4. Good Agricultural Practices (GAP)
- 5. Phytosanitary and Food Safety Standards
- 6. Post-harvest handling

The topics were selected in a way to enhance the knowledge through the whole chain and mainly to meet the knowledge needs of the farmers in different provinces. It included six modules to provide farmers with tools and information to improve the safety and quality of Sri Lankan fruits and vegetables. The fruit and vegetables to be addressed are mango, papaya, pineapples, tomato, green chilies, and crops in protected horticulture (bell pepper, zucchini, and cucumber). The selected farmers received five (5) days of training in following areas:

• Module 1: Good Agricultural Practices

Under this module, the beneficiaries received extensive information about Good Agricultural Practices. The latter are production practices in agriculture that address environmental, economic and social sustainability for on-farm processes resulting in safe and quality food products. During the production process all possible measures are taken to prevent biological, chemical and physical contamination of the fresh produce. The same applies to the distribution system. Thus fresh fruits and vegetables (FFV) grown under GAP diminishes the hazards of on-farm contamination of the produce and thus improves food safety for the consumers. GAP minimizes the negative impact of production practices on the environment and on workers' health (occupational health). GAP implementation relies on the identification of hazards (of physical, biological and chemical nature) and description of measures appropriate for their prevention and control.

In the last decade, to support the implementation of GAP codes, standards, regulations and guidelines have been developed by the food industry, super market chains, producers' organizations, governments and non-governmental organizations (NGOs), aiming to regulate agricultural practices at farm level for a range of commodities.

• Module 2: Post Harvest Handling

Under this module, the beneficiaries received extensive information on post-harvest handling, that aims to explain the practices applied to harvested fruits and vegetables in the value chain in order to maintain quality (appearance, texture, flavor and nutritive value) and food safety. As a result the losses between harvest and consumption will be reduced as much as possible.

Despite decades of educational efforts, the most common causes of postharvest losses continue to be rough handling and inadequate cooling and temperature maintenance. The lack of sorting to eliminate defects before storage and the use of inadequate packaging materials further add to the problem. In general, minimizing rough handling, sorting to remove damaged and diseased produce and effective temperature management will help considerably toward maintaining a quality product and reducing storage losses. Storage life will be enhanced if the temperature during the postharvest period is kept as close to the optimum as feasible for a given commodity. Food losses in low income countries appear to be more prevalent from the harvest to the market, while in medium-high income countries the losses are the heaviest in the end of the value chain in retail and in the households.

• Module 3: Phytosanitary and Safety Standards

Producers must comply with SPS regulations to prevent the entry and spread of animal diseases and plant pests into new areas. The phytosanitary part of the regulations deals with plants. The Commission on Phytosanitary Measures (CPM) adopts international standards for phytosanitary measures and governs the International Plant Protection Convention (IPPC). The major importing countries around the world implement pest risk analysis in order to determine the risk level of an imported product and inspect products on arrival to ensure that the level of risk is not exceeded. It is necessary to apply for phytosanitary certificates for regulated products such as fruits, vegetables, plants, seeds, and cut flowers. For example to export to the European Union, producers and exporters must comply with the plant health regulations of the European Union. These regulations are enforced at the point of entry. Therefore, the beneficiaries received extensive training on this module.

Food Safety is the absence of adverse health effects due to food contamination. This is important in order to protect the health of the consumers and to gain market access. Producers need to ensure the quality and safety of their produce and avoid all potential hazards such as risks from microbial, chemical or physical contaminants. An important regulation deals with the Maximum Residue Limits (MRLs) of plant protection chemicals. MRLs are effective both at national and international levels. Producers and exporters must comply with the regulations of their country and the regulations of import countries. The Codex Alimentarius Commission, created by FAO and the World Health Organization (WHO), develops food standards, guidelines and related texts such as codes of practices under the joint FAO/WHO Food Standards Programme. These are a few of the topics covered by the module.

• Module 4: Marketing

Under the marketing module, the definition of marketing was explained, in addition to the basic principles of marketing. This helped the participants to better understand how to implement those principles in their marketing procedure.

• Module 5: Business Management and Finance

During the training provided under this module, farmers were exposed to information on the business management perspective for their farms and how to apply the knowledge to improve the control costs. Detailed information on the role of record keeping in the decision making process was provided.

• Module 6: Pest and Disease Management and Field level

Module 6 covers each of the selected crops. As no post-harvest phytosanitary treatment is currently available in Sri Lanka, the module covers all pre-planting and post planting methods used to reduce the risk of pest in/on fruits and vegetables.

As a result of the capacity building programme, the project reached the following successful results:



WP 3.1: Training of the Trainer (TOT) Programme for Master Trainers (MTs)

The MTs are attached to In Service Training Institutes of the Extension and Training Division of the Department of Agriculture and are primarily responsible for training field level extension officers. As a result of the training under this project their capacity was enhanced to better serve the training needs of extension officers and the knowledge base of the agriculture extension and training division upgraded. This also provides sustained training in SPS area for current and future extension staff.

TOT for MTs was conducted from 4 to 15 December 2013 (12-day programme) for 30 selected trainees at the In Service Training Institute (ISTI) of the DOA at Gannoruwa, Sri Lanka. The Private sector representatives were invited to appoint at least two participants for the programme. 27 Master Trainers from the DOA and one private sector participant completed the training. The programme consisted of 10 days of training on Good Agricultural Practices, Pest and disease management at field level, Post-harvest handling, Phytosanitary and food safety standards, Training and extension methodology, Business Management, Finance and Marketing.

The training included a field visit to a farm. Trainees were evaluated continuously during the training programme and based on the evaluations, the interactions and the marks obtained from the quiz at the end of the training session; eight best performing trainees were selected to further

cascade the training to the Field Level Trainers (FLTs). From all the selected best performing trainees, six continued to further cascade the training to the FLTs.

WP 3.2: TOT programme for Field Level Trainers (FTs)

Two training programs for FLT were conducted under the supervision of the international trainer in parallel from the 10 to 21 February 2014 (10-day programme) at the ISTI at Gannoruwa. Fifty trainees were selected to undergo the training; however, only 48 completed the programme and improved their knowledge on Good Agricultural Practices, Pest and Disease Management at field level, Post-harvest handling, Phytosanitary and Food safety standards, Training and Extension methodology, Business Management, Finance and Marketing. The training was cascaded by the selected best performing Master Trainers under the supervision of the international and national consultants. The 10-day training programmes followed the same topics as those of the training for the MTs.

WP 3.3: Capacity Building of Agri. Extension Division of DOA – Field level extension officers (FEOs)

The capacity building programme was designed and planned for six batches; the first batch was delivered in July 2014 for 25 FEO. The majority of the FEOs operate under the purview of the Provincial Directors (PDs) of Agriculture and not with the Central Government. Therefore, the preparation of the capacity building intervention firstly focused on raising interest and support among the PDs and request for appointment of focal points. In mid-March 2014, a presentation was made by the National Project Manager and the ITC representative with the support of the Director General of Agriculture to all the nine PDs in Kandy to stress the importance of the project. Response from the Directorate and the Provincial Directors was positive to support the project in the improvement the livelihood of farmers by linking them to exporters and fetch premium price.

Two meetings were held by the National Project Manager with the Directors of Extension and Training along the selected Master Trainers and Field Level Trainers on 20 June 2014 at the In-Service Training Institute at Gannoruwa (Kandy) and on 25 June 2014 at the Vavuniya District at the Agricultural Training Centre. The meetings discussed the modification of the curricula to suit a five-day programme and allocated the sessions among the prospective trainers. Sessions were distributed among the trainers to translate the curricula to the local languages in Sinhala and Tamil for the training to the FEO and farmers.

The first training programme of the Field Level Extension Officers (FEOs) was successfully held from 21 to 25 July 2014 for 25 participants at the In-Service Training Institute of the DOA at Gannoruwa. Seven trainers were selected from the participants who underwent the previous Training of Trainer programmes for Master Trainers and the Field level Trainers of the DoA to conduct this programme. Training programme was initiated by the Additional Director Training of the DoA and I G Tilakaratne.

The FEO trainees of the Central Province were selected from three districts coming within the purview of the Central Province (Kandy District: 8 trainees, Nuwara Eliya District: 9 trainees, Matale District: 8 trainees).

WP: 3.4 TOT programme for Plant Quarantine Officers (PQOs)

Training of Trainer for Plant Quarantine Officers was conducted from 30 October to 8 November 2013 at the Golden Star Beach Hotel in Negembo. The trainees included plant quarantine officers, pathologists, entomologists, virologists and weed scientists. Twenty trainees (15 of them women) underwent the ten-day programme. The first half of the training covered pest surveillance, vapour heat treatment and cold treatment, international and export market phytosanitary standards applicable to fruit and vegetable sector. The second half of the training covered five days on pest risk analysis based on the PRA training course developed by the IPPC International Advisory Group on Pest Risk analysis. This second part of the training was conducted by two experts in the IPPC PRA training.

The TOT course was well attended; the participants were present in all the scheduled lectures, exercises and practical visits. The quality of discussions reflected the experiences of the participants at their various workstations. Some of the participants showed a high level of understanding of the concepts of modern phytosanitary system especially pest risk analysis. The

PRA training was conducted for the first time in Sri Lanka and was extremely well received and acknowledged.

The project made recommendations for the eight best performing trainees to further cascade the training to the Field Plant Quarantine Officers (FPQO). Best performing trainees were selected based on a transparent mechanism, where the trainees were continuously evaluated by the trainers during the training sessions, on the criteria: such as participation in discussions, interactions and assignments.

As an effort to build the capacity of the PQO to further cascade training by getting exposure to public speaking and presentation skills, a one-day training on training Methodology was added to the programme.

WP 3.5: Capacity Building of the Field Plant Quarantine Officers (FPQOs)

The programme was conducted from 28 January to 6 February 2014 for two batches of 25 officers each by trainers from the TOT programme for Plant Quarantine Officers (PQOs). It was a 5-day training programme, with replication of the information from the TOT programme for Plant Quarantine Officers (PQOs), and included four modules to provide the respective officials with tools and information to better serve importers, producers and exporters to improve the safety and quality of Sri Lankan fruits and vegetables. The fruit and vegetables to address were the selected ones (e.g. mango, papaya, pineapples, tomato, green chilies, and protected agriculture (bell pepper, zucchini, cucumber).

One of the trainers was an International consultant and a previously-trained National consultant, who participated in the TOT programme. The latter assisted in guiding and supervising this training programme.

The methodology used in the training was presentations, handouts, interactive sessions and field visits.

The training covered the following modules: Module 1: International and EU Market Phytosanitary Standards; Module 2: Training on Plant Pest Surveillance; Module 3: Training on Pest Risk Analysis (PRA) based on IPPC methodology; Module 4: Phytosanitary treatments.

In the course of the STDF project, a team for pest risk analysis was established within the plant quarantine office. Following the closure of the project, the Department found having a permanent pest risk team was found not effective as members were transferred to other places. Thus a new technical division under the name of Biosecurity and International Relations was established to coordinate PRA and surveillance with Ms Jayani Nimanthika, Head (Biosecurity, International relations and Weed Science) and Ms. Apsara Koralage - Research Assistant - as permanent members and when required, other technical officers are called for performing PRAs. This was found by the technical staff to be more effective and feasible than having a permanent team. In 2016 the team conducted 32 rapid PRAs and 1 comprehensive PRA and in 2017 27 rapid PRAs and 3 comprehensive PRAs.

WP 3.6 Capacity Building of Farmers

Under the activity on capacity building of the farmers, in total 20 farmers' trainings were held. The trainings aimed at enhancing the capacity of the farmers via trainings on various topics, such as: Good Agricultural Practices (GAP), Good Hygienic Practices, Harvesting methods, Post-harvest management, SPS Agreement and the WTO's role on the international arena. In additional to that, the farmers were trained on business management and finance, as well as marketing.

As it is described in the methodology, the trainings were divided by crops and delivered in different districts to enable higher numbers of participants to benefit from the project. The duration of each training was 5 (non-consecutive) days. The trainings were held in local languages (Sinhala and Tamil).

CROP	No. of Prog.	Farmers	Female
Pineapple	03	56	13

Mango	04	111	51
Рарауа	03	89	38
Tomato	02	54	18
Chillies	05	168	75
Protected Agri.	03	85	25
Total	20	563	220

Figure 7 Table on Total number of Crops, Trainees, Training programs and female participants

The trainings were provided in various districts of Sri Lanka, as can be seen from the figure below.

12



Figure 8 Trained Farmers in Sri Lanka (District wise)

As a breakdown of districts and farmers trained the images below illustrate the results:



Figure 13 Farmers trained on chilli cultivation



Figure 9 Farmers trained on tomato cultivation



Figure 15 Farmers trained on pineapple cultivation



22

Figure 16 Farmers trained on papaya cultivation



Figure 17 Farmers trained on protected agriculture



Figure 18 Farmers trained on mango cultivation

After completing the farmers' trainings, an extensive evaluation was done on their performance. The best performing farmers were selected to join a study tour in Thailand (WP 3.8: Evaluation of best performing farmers and agri. extension officers) to learn the best practices applied in the country and be directly exposed to it. As an outcome, it was expected that those farmers will replicate the lessons learnt from Thailand back in Sri Lanka and conduct trainings for the other farmers, who were not selected to join the study tour¹². Participants shared their lessons learned from the Study Tour in various occasions. Some farmers showed the equipment they bought and some good practices among other farmers directly in the field; sessions on experience sharing were conducted at the ITC workshop on 19-20 May 2016 on "Meeting food safety and quality standards: Market access opportunity for Sri Lankan Fruit and Vegetable farmers and exporters" where testimonials were provided by (Mr. Ruwan Hemage - farmer), (Ms. B.P. H Madana - Extension Officer), (Mr. A. Junaid CBL - Exporter), (Mr Lal de Silva - National Project Manager).

As it was already mentioned in the introduction part, in order to commence with the farmers` trainings a baseline study was conducted. The study defined the most important crops from economic point of view in Sri Lanka in different regions. A number of farmers (25 in each region) were identified in the project regions in Sri Lanka and invited to participate in the trainings that are specific for each crop.

The methodology used in the training is presentations, handouts, interactive sessions and field visits for practical application of the knowledge.

The trainings schedule for the farmers can be found in Annex III of this report.

At the final stage of the project, farmers were given a refresher training on "How to minimize pesticide residue in FFV" and Safe use of pesticides and safety kit was distributed among farmers.

WP 3.7: Capacity Building of PHIs, exporters, processors, other relevant stakeholders

In order to increase awareness and ability to meet SPS standards among exporters, processors and other relevant stakeholders, a two-day training session was held for 70 participants on 13/03/2014 and 14/03/2014. Other relevant stakeholders (e.g. ITI, SLSI, Ministry of Health Senior

¹² The Study Tour mission report includes main findings and reccomendations and is made available to STDF as part of the set of deliverables.

officials, Export Development Board officials, importers and distributors of seeds, fertilizer and chemicals etc.) underwent a two-day Seminar on international SPS standards and one day Seminar on Exporting to EU. The training programme was tailor-made for the fruit and vegetable sector and advertised in newspapers and promoted through chambers and other partner institutes to encourage participation by the private sector. The participants who underwent the training were selected based on objective criteria. The government officials were nominated by respective government institutes.

The training covered areas such as international SPS standards, EU-specific standards, national laws and regulations, international best-practices, and case studies of success stories.

WP 3.8: Evaluation of the best performing farmers and agriculture extension officers

Under the above-mentioned component, the project aimed at enhanced capacity of public and private stakeholders on understanding and complying with SPS Standards, pest risk analysis/ surveillance and improved entrepreneurial skills. To achieve that, an evaluation of the best performers between the farmers and government officials was done through questionnaires. As a result, the questionnaires were evaluated and the best performers invited to participate in a study tour to Thailand to learn more from other countries and the practices applied there.

Initially, it was decided to select the three best performing farmers and the three best performing extension officers, however based on the savings made and the increased in-kind contributions from the DOA, it was suggested to increase the number of participants for the study tour to six farmers and six officers. In total 12 participants were selected. The selection of the beneficiaries was done through a selection process by the Selection Committee represented by the following:

- 1. Senior Officer of the CCC (who has Agricultural qualifications) Mr. Chandra Vithanage
- 2. Officer from the Extension division (Provincial Director) (Mr. U Mendis PD Western province)
- 3. Nominee from the Exporters (Mr. G.Ganaskandan –representative from Eastern Allied)
- 4. Local consultants on the Project (Mr. Yahajeewa de Silva)
- 5. National Project Manager (Mr. Lal de Silva)
- 6. ITC representative (Ms. Ludovica Ghizzoni)

Officer Selection Criteria

The selection criteria are listed below, including the maximum score for each criterion. Marks are given on a scale from 0 to the maximum under each category depending on the qualifications and performance.

- a. Educational Qualifications (10)
- b. Experience (5)
- c. Age (5) balance period to be served 01 point for each 5 years.
- d. Recommendation from the immediate supervisor (5)
- e. Performance at the TOT (10)
- f. Dissemination of Knowledge and skills (10)
- g. Contributions and commitments towards the Project (10)
- h. Relevant publications (20)
- i. Presentation skills ((10)
- j. Training aids (10)
- k. Other (specify) (5)

Allocation of marks under each category was scaled according to the following points:

a. Educational Qualifications: Post graduate qualifications 10/ degree 5/ diploma 3

- b. Experience: 1 point for each 5 years
- c. Age: Balance no. of years to be served 1 point for each 5 years
- d. Recommendation from supervisor: Strongly recommended 5/ Recommended 3
- e. Performance at TOT,1 point for each 15 marks obtained at Training
- f. Dissemination of Knowledge and skills. No. of trainings conducted (1 per training max.10)

g. Contributions and commitments towards the project (Assisting in coordinating train. activities)

- h. Relevant publications 10 per publication (Max.20)
- i. Presentation skills based on observations and evaluations
- j. Teaching aids (power point presentations etc.)
- k. Other (formation of farmer organization/contributions to B2B events

Initially the Project conducted a TOT programme for 28 Officers referred to as Master trainers. Out of them, 24 officers were from the Extension and Training Division of the DOA, 3 Officers from the Mahaweli Authority and one from the private sector. The majority of the Master Trainers were from the Extension division (22 were from extension and 05 from the In service Training Institutes). Of these 28 officers the best performing 14 officers were selected to cascade the training to the Field Level Trainers (FLT) and Field Level Extension Officers (FEO).

They were considered eligible for the study tour. All the fourteen officers were requested to apply for the scholarship through their respective immediate supervising officers with their recommendation. Of the 14 officers, 1 officer had retired from service and one officer did not apply. Therefore, altogether 12 applications were received.

These applicants were evaluated and ranked according to the marks obtained.

Farmer Selection Criteria

The following criteria were considered in the selection of farmers. The maximum number of marks under each criterion is given in the parentheses. Marks were given on a scale from 0 to the maximum under each category depending on the qualifications and performance.

- a. Age (10)
- b. Education (20)
- c. Experience (10)
- d. Part time or Full time farmer (10)
- e. Attendance at farmer training (15)
- f. Adaptability (20)
- g. Recommendation (10)
- h. Previous Foreign training under Project (yes=0, no =5)

Allocation of marks under each category was scaled according to the following.

a. Age 10 points for age between 20 to 45/ 6 points for age 45 to 55/2 points for 55 to 65 and 0 for over 65 (max10)

b. Education: 20 points for degree/15 points for diploma/12 points for AL/8 points for OL/6points up to grade 8/4 points up to grade5. (max.20)

- c. Experience 0.5 points per year (max.10)
- d. Full time 10/ part time 05 (max.10)
- e. Training attendance 3per day. (max.15)
- f. Adaptability 4 points per each adoption (max 200)
- g. Recommendation: strongly recommended 10/ recommended 5 (Max. 10)
- h. Previous foreign training attended under the project (yes=0, No=5)
- i. willingness to teach other fellow farmers (max 5)

In total 560 farmers were trained in the 20 training programs conducted for the farmers in 14 different districts for the six crops identified. Farmers were initially shortlisted by the extension staff in the respective areas based on the adaptation by the farmers of the techniques taught in the classroom in the different training modules. Shortlisted farmers were given the application forms to apply. Total of 62 applications were received. These applications were reviewed by the above panel and marks given according to the criteria identified. One of the major points was to try to select at least one farmer from each crop. In case of a farmers cannot be selected from a certain crops the best or the second highest ranked farmer from the group will be selected. The pineapple farmer Ruwan Hemage was an additional farmer who joined the study tour covering his travel costs.

Selection Process

The selection committee gathered together to proceed with selecting the study tour participants. An extensive evaluation according to the criteria was done on all the candidates. The best 12 candidates (6 of them being farmers and 6 of them being extension officers) were selected. The aim of the selection was to have one best performing farmer for each crop and one best performing extension officer from each region.

Full list of all the qualified officers and farmers can be found in the report titled "Selection of participants for the Thailand study tour". The following participants were selected:

		Fa	armers				
No.	Name	Gender	District	Crops			
1.	Mr. H.M Nimal Bandara	male	Kandy district	Protected agriculture			
2.	Mr. H.H Patrick Bonifus	male	Nuwara Eliya district	Protected Agriculture/Tomato			
3.	Mr. H. M. Anthony Pieris	male	Anurathapura	Chilli / Mango home garden			
4.	Mr. R. M Vijitha Dharmasiri	male	Gampaha	Pineapple/ Papaya			
5.	Mr. E.G.G Dharmasiri	male	Ratnapura	Рарауа			
6.	Mr. Suppiah Chandiran	male	Vavuniya	Chilli / Mango home garden			
7.	Mr. Ruwan Hemage	male	Gampaha	Pineapple			
		Offi	cers DOA				
	Name	Gender	Designation	Duty Station			
8.	Mr. Y.K. Bamunuarachchi	Male	Asst. director (Development)	ISTI Rajawaka (Sabaragamuwa province)			
9.	Ms. C.K.D Wellala	Female	Asst. director (Development)	ISTI Gannoruwa (Central Province)			
10.	Mr. E.H.B Ekanayake	Male	Asst. director (Development)	Nuwara Eliya			
11.	Ms. S.Jegatheeswary	Female	Subject Matter Officer (Supra)	Vavuniya			
12.	Ms. B.P.H Madana	Female	Provincial Director	North Central Province			
13.	Mr. T.H.N Sudarshana	Male	Asst. director (Development)	Hambantota Inter provincial			
		Proj	ect Staff				
14.	Mr. Lal de Silva	Male	National Project Manager				

The agenda of the study tour, the visits and detailed information can be found in the mission report on study tour to Thailand.

5.2.4 Output 4: Enhanced availability, accessibility and awareness of information on and compliance with SPS standards

5.2.4.1 Developing training material, manuals, leaflets on all key areas covered in the training programme in all three languages (Sinhala, Tamil, English)

Besides all presentations for each training module under the Capacity building programme, the project developed booklets with the training materials that were handed over to the DOA and regional offices conducting the trainings.

In order to assist the famers trained under the project and those that did not receive training, brochures on four major topics (in Sinhala and Tamil) were developed and distributed between the different districts. Booklet "How to minimize Pesticides Residues on Fresh Fruits and Vegetables?" (in Sinhala) was developed and distributed after the FVO audit to help farmers and other stakeholders in the fruits and vegetables sector to better understand the burdens and apply new methods aiming at a safe use of pesticides and reducing the level of pesticide residues in the final products.

Brochures	Quantity printed	Quantity distributed
GAP brochure (Sinhala)	25,000	20,000
GAP brochure (tamil)	5,000	4,500
Post Harvest Technology (sinhal)	25,000	21,500
Post Harvest Technology (Tamil)	5,000	4,500
Food hazard and Safe Food (sinhal)	20,000	18,750
Plant quarantine and Implementation of Phyto Sanitary Regulations	20,000	15, 000
How to minimize Pesticides Residues on Fresh Fruits and Vegetables? - MRL Booklet (Sinhala)	10,000	1,000

Figure 19 List of brochures developed with quantity printed and distributed during the project life

5.2.4.2 Developing a Website

The website <u>www.spssrilanka.lk</u> was developed and officially launched with the launch of the project on 27 September 2013. The website was meant as a repository of information and documentation related to the FFV sector in Sri Lanka with focus on quality and SPS and on the STDF project activities/announcements. Through its SMS text function helped registered stakeholders reach relevant information on how to overcome technical barriers.



Figure 20 Content management flow of the spssrilanka.lk website

The website was linked to relevant national and international institutions' websites, including STDF. Relevant institutions in Sri Lanka such as DoA, MoH, SLSI, LFVPPEA were asked to provide content and contribute to the promotion by cross linking the website. The content management of the website was administrated by CCC.

As at end May 2016, total number of news items uploaded stood at 522. This is in addition to details of training programs, newsletters, training material we have been regularly uploading to the web.



Figure 21 Type of data updated under the spssrilanka.lk website

Although the website was extremely useful for the beneficiaries, scientist and stakeholders from the fruits and vegetables sector, the website still faced the following challenges in its maintenance:

- Localising data dissemination for SMS and E-mails Sinhala, Tamil
- Lack of availability of related data for Sri Lanka
- Popularising of the web amongst farmer community to access data via SMS
- Sustainability of the Web Usability Vs Cost

During the final workshop of the project, discussions were initiated on how to ensure sustainability of the website beyond the project duration, where the DOA took the responsibility on further to follow up on this topic and inform ITC accordingly.

5.2.4.3 Disseminating information and creating awareness on SPS issues and their importance through media

For information dissemination purposes and to increase awareness of project activities, the following materials were developed and released:

- 1. Fact sheet (released in March 2013): captured the most import information relevant for the project, such as the impact, goal and various activities and its implementation. It was released in March 2013 when the project commenced.
- 2. Issue 1 of the Newsletter (November 2015): highlighted the developments under the project, including progress activities and results.

STDF 354 PROJECT- NEWSLETTER

(JUNE 2015)

Improving Safety and Quality of the Sri Lankan Fruits and Vegetables

The international Trade Centre (ITC), the Ceylon Chambers of Commerce (CCC), with the support of the Standards and Trade Development Facility (STDF) of the World Trade Organisation (WTO) are partnering with the Department of Agriculture (DOA), The Ministry of Health, The National Agribusiness Council (NAC) and the Sri Lanka Fruit and Vegetables Producers Processors and Exporters Association (LFVPPEA) and relevant private and public stakeholders in Sri Lanka to contribute to:

"improve the safety and quality of the Sri Lankan Fruits and Vegetables" (STDF 354)

The project aims to 1) build and sustain the competence of public and private stakeholders to comply with quality and food safety international requirements, 2) improve the international, regional and national market opportunities of selected value chains of fruits and vegetables with the ultimate goal of income generation.

Duration of the project: March 2013 - February 2016

NEEDS BEING ADDRESSED

- Non-compliance with Non-Tariff measures of the agricultural goods in target markets;
- Minimal measures taken at growing stage to ensure quality and safety;
- Improper pesticide and fertilizer use;
- Poor post-harvest practices, handling, sorting, inappropriate storage and transportation;
- Lack of awareness and training on the importance and requirements of international Sanitary and Ebydosanitary (SPS) measures, and benefits;
- Lack of a proper pest risk analysis system;
- · Poor coordination among different stakeholders to address SPS issues of the F&V sector.

The project focuses on the improvement of the six crops being identified with high potential of export, predominantly grown in selected targeted districts: pineapple; papaya; mango; green chilli; tomato and protected agriculture.

3. Issue n. 2 of the Newsletter 2 (December 2015): reflected the project activities progress, mainly the experience of a study tour to Milan for selected beneficiaries.



- 4. Issue n. 3 of the Newsletter 3 (June 2016): developed and released before the end of the project to report on the activities conducted in the final 6 months, such as the study tour to Thailand for selected beneficiaries, technical assistance provided by a Plant health inspector for the NPQS and final trainings to be provided under the project.
- 5. Ten Boards on Plant health with information were erected in the arrival and departure halls, where the passengers can easily see. The boards provide important information and guidance on permitted and not permitted fruits and vegetables in Sri Lanka for imports and exports. Examples of the boards are below.





6. Note on the safety kits and refreshment course

In view of the challenges to comply with the EU requirements on Pesticide residues and some detections in consignments of F&V exported from Sri Lanka the STDF Project facilitated a special training programme to enhance the knowledge the trained farmers on the MRLs.

Twelve training programmes were conducted in the following locations with the collaboration of Crop Guard, a subsidiary company of a leading corporate Pesticide importer. Crop Guard provided safety kits to the farmers free of charge as a Corporate Social Responsibility (CSR) activity. STDF Project gave the booklet printed by the project on "How to Minimize Pesticide Residues on Fresh fruits and Vegetables?" to the farmers. Over 250 farmers were additionally trained.

Date	District	Venue
06 June 2016	Hambantota	Vtharandeniya
		Sooriyaweva
07 June 2016	Gampaha	Waeke
		Meerigama
10 June 2016	Nuwara eliya	Nuwara eliya
		Rikillagaskada
11 June 2016	Kandy	Peradaeniya
	Matale	Yatawatte
14 June 2016	Anurathapura	Thirappane
		Andiyagala
16 June 2016	Monaragala	Tanamalwila
		Buttala

Figure 22 Schedule of the training conducted in collaboration with Crop Guard on distribution and use of safety kits and refreshment course on MRL

Below is a picture of some of the farmers with the safety kits on.



5.2.5 Output 5: Improved public-private cooperation and networking between stakeholders

In order to strengthen the institutional networking mechanism, the project initiated the activity with a survey and mapping of institutions in the F&V Sector with ITC funding. The findings of this survey and assessment served as an input to a national workshop for key institutions involved in SPS-related issues affecting the F&V sector in Sri Lanka.

The findings of the survey suggested that the generic F&V supply chain was segmented into three systems and maps out an asymmetry of institutional links converging on to the downstream part of the chain. These systems were the production base (System 1), the primary (domestic) market (System 2), and the exporter chain (System 3). The role of Department of Agriculture (DOA) across the supply chain was prominent. Seven out of total 10 institutions found in the production base of the supply chain were institutions which come under DOA's purview. There were a total of 17 institutions in the exporter chain. Out of these institutions, 13 were connected to the exporter link of the supply chain segment.

Validating the findings of the survey and developing linkages and networking of the stakeholders were the objectives of the national stakeholders' consultative workshop. Three thematic groups, viz. (i) trade, promotion, and policy/ institutional coordination; (ii) R&D, training, awareness creation, and advisory/consultancy; and (iii) standardization, testing/ certification and inspection/ enforcement, were identified and later formed into core groups. The other key outcomes of the event included the formation of an informal working group and developing initial action plans comprising short- and long- term activities.

The core group for trade, promotion, and policy/ institutional coordination found the low quality and the inefficiencies related to the exchange of market specific SPS related information across the supply chain not conducive for effective policy making. Weak links to the producer base and limited space for producers' active participation in policy formulation, as well as lack of a proper mechanism to facilitate effective policy dialogue amongst institutions were the other two impediments found in this core area. It was suggested that policymaking become more participatory to allow space and opportunity for farmers in the process, and that mechanisms and committees which facilitate efficient and effective processes for demand driven policy and advocacy be established. Lack of coordination as well as poor cooperation amongst agencies in inspecting and enforcing available standards was found to be the main impediment by the working group focusing on standardization, testing/ certification and inspection/ enforcement. The group found inadequate capabilities and resources in the institutions as well as weak legal provisions which were not sufficient in order to cater to current demand. Elevating the level and frequency of information sharing and communication, strengthening the network and the coordination across the supply chain too were suggested as remedies for the issues found in this core area.

The Codex point of the Ministry of Health (MOH) as the National Enquiry Point (NEP) for all food safety concerns in the international trade (SPS matters) was found ineffective due to the existing legislative, structural, and resource vulnerabilities and; consequently not effectively channelling SPS related enquiries and notifications. In the absence of an effective NEP, most of the SPS issues related communications is channelled through bilateral communications between the respective international standardisation bodies (the Three Sisters), the National Contact Points (NCPs) viz. the Codex point/ MOH, NQSP, and the Directorate of Animal Production and Health. Nevertheless, a well-defined and functional mechanism between these institutions facilitating the effective and efficient communication and coordination of actions on SPS issues was also found to be lacking.

As a result of this research four major interventions to strengthen these points were suggested and implemented:

- 1. Conduct a national workshop and create a Steering committee and establish core groups implementing the action plans, and monitoring outcomes and capturing experiences were the main components recommended.
- 2. Focus on strengthening the structure of the network for sustainability and scaling-up. This would involve the strengthening the Codex point of MOH to function as NEP for effectively channelling SPS related enquiries and notifications to the relevant institutions for action. Consolidating the strategic and operational capacities of the Codex point of MOH, NQSP, and DOC would vitalize the existing bilateral communication channels and coordination with the international regulatory bodies. Additionally, the second intervention would include the placing permanent focal points and establishing communication and dissemination channels in the Extension Division of DOA and EDB for the in order to ensure effective response and preparedness covering critical stages of the supply chain affecting the SPS and TBT issues.
- 3. Developing and strengthening the existing mandate, resources, structure, legal provisions and recognition of the Codex point of MOH for it to perform effectively as NEP. Even though the chances of implementing this action would be beyond the ITC – CCC Project period, preliminary work could be carried out. However, it is advisable that NEP be recognized by an act of parliament, especially concerning the effectiveness of the legal provisions this could bring to the entire national system of managing SPS and TBT issues for the country.
- 4. Develop a national SPS and TBT response and adaptation plan for the F&V sector. This sectorial plan would be developed through the enactment of the renewed and broadened legal provisions and institutional span of NEP. This plan would be effective at national level and institutionalized through the NEP, which would consist of tactical and strategic level objectives spanning over short-term through long-term implementation periods. The formulation of this plan would benefit from assessing current issues and trends followed by analysing the causes and effects of the issues.

More detailed information on the survey, institutional mapping, validation workshop and recommendations for the way ahead is available in the related report (Value Chain Report).

As a result of this activity, the following developments were achieved:

1. Development of a catalogue that contains information on services provided by Trade Supporting Institutions in Sri Lanka (the catalogue is provided as a separate document).



2. Formulation of Terms of Reference to establish a National Committee on Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary Measures (SPS), where their roles and responsibilities are described. In addition, membership of the committee is suggested, as well as the chairman, secretariat and meeting schedule.

Various networking and information dissemination events were organized to exchange information and strengthen the relationship between the private and public stakeholders. The events are listed below:

5.2.5.1 Networking Events:

- 1. Forum on Best practices for future export agriculture with focus on pineapple (6 August 2015), took place in Colombo, organized by Lanka Fruit & Vegetable Producers, Processors & Exporters Association. The topics discussed were: New technology for propagation and planting material; Practices for production of quality pineapples for export markets; Postharvest practices and compliance standards. More than 115 people attended the event..
- 2. B2B Networking event between farmers and exporters, organized by Lanka Fruit & Vegetable Producers, Processors & Exporters Association (9 January 2016)

LFVPPE, NAC and DOA organized a joint event between the farmers and exporters, where it was stressed that the farmers should group into clusters or an association and produce the same quality product to obtain adequate quantity of quality products and make it available for the exporters to purchase. There was an active participation (8 exporters and 117 farmers and more than 30 Field officers) and an expert from the Industrial Technology Institute (ITI) gave a presentation on the importance of post-harvest handling of fruits and vegetables.

3.B2B Exporters meeting farmers at Mah Illupallama, organized by In Service Training Institute of the Department of Agriculture and Ceylon chamber of Commerce

In order to capture more farmers and ensure more business networking, the project organized a B2B event, attended by buyers of chilli and mango and respective farmers. The topics discussed were on pests and diseases, as well as ways to combat these issues.

4. Feasibility mission of a potential partner to develop a dry fruit value chain in Sri Lanka-Noberasco

In May 2016, an Italian dried fruit products company (Noberasco) conducted a feasibility mission to Sri Lanka to evaluate the potential of sector as a source of supply for them. They wished to source produce from Sri Lanka under certified Fair Trade Concepts, mainly organic and "natural" where the producers could achieve better trading conditions and promote sustainability. Noberasco's idea was to place Sri Lankan products as a different proposition to their other products in the eyes of consumer. The mission included visits to actors along supply chains including farmers' communities with growing potentials, trained by STDF project and others (pineapple, coconut, mango and other products of interest for drying and dehydration processes), collection centres and pack houses, processors, exporters. Bilateral meetings and roundtable with public and private stakeholders were held to discuss a possible way forward. Meetings with Italian Embassy and Sri Lanka Italy Business Council were organised to explore partnership interest.

Separate B2B sessions were held between Noberasco company owner, producers and exporters to assess their capacity and better understand the products they are working with. This was followed by a number of field trips and visits to actors along supply chains including farmers' communities with growing potentials, trained by STDF project and others (pineapple, coconut, mango, papaya and other products of interest in particular super fruits for drying and dehydration processes), collection centres and pack houses, processors, exporters. During the roundtable meeting, Noberasco presented their company strategy and discussed possible areas of collaboration to develop a long term project for the establishment of a sustainable value chain of dry fruits in Sri Lanka. At the roundtable meeting, exporters and farmers brought and displayed some samples of their dry products that could be of interest to Noberasco. In total 38 participants were at the roundtable meeting, public and private stakeholders.

In addition, a number of videos were made reflecting the visit with the beneficiaries, ITC adviser, Project manager and owner of Noberasco Company. One ITC produced video received large visibility with more than 40K likes on ITC Facebook page.

As a result of this collaboration, with the support of the ITC, EDB and Sri Lanka Embassy, Noberasco would like to increase the visibility of the products at the time of launching. The company is willing to transfer technical knowledge. Four main products were identified: banana, pineapple, mango and papaya. Further discussion would take place between stakeholders and the company for the development of a possible project (e.g. establishment of a cooperative society with recognition of a percentage of the sales value to farmers to sustain own operations and undertake community based projects; the drying of fruit to take place in Sri Lanka, processing facilities to be HACCP certified; LFVPPEA to facilitate training for those involved/interested in processing). Discussion for an initial order took also place with one company.

5. Feasibility mission by a packaging company Goglio with various Sri Lankan fruit and vegetable producers

In parallel to the final workshop, the project held its last B2B sessions between a packaging company and Sri Lankan fruits and vegetable producers and exporters. Goglio company was visited by the Sri Lankan participants during the study tour to Italy and they requested further discussion given packaging a critical issue in Sri Lanka. Between 27 June and 02 July 2016, various stakeholders were visited, such as fruit producer, agro-process and exporter, Technology Institute, farmers and big scale companies. The company representative discussed the current status of production, world demand and export potential.

As a result of this collaboration, Goglio was willing to continue working with the project beneficiaries and act as an advisor on various aseptic packaging materials, such as suggesting/involving suppliers for aseptic packaging, advising on inventory (machines needed for the processing). Goglio organized a visit for three beneficiaries from EDB, ITI and Packaging Institute in their premises in Italy, where the participants had the unique opportunity to further enhance their knowledge on production technology, aseptic packaging and quality assurance methods, which do not exist in Sri Lanka. This will be further replicated in the country to ensure information dissemination and greater impact on knowledge development. All the costs were covered by Goglio.

6. Development of an Application for Project Preparatory Grant (PPG) of the Lanka Fruit and Vegetable Producers, Processors and Exporters Association (LFVPPEA)

LFVPPEA with ITC technical support developed a project idea to apply for a STDF project proposal grant to further develop a feasibility study for value addition in the fruit and vegetable (F&V) sector of Sri Lanka through Private Public Partnerships and a Strategic Plan for the Lanka Fruit and Vegetable Producers, Processors and Exporters Association. The project aims to focus on three areas: (i) value addition strategies for the above crops by further increasing compliance with Sanitary and Phytosanitary (SPS) measures and reducing post-harvest issues (ii) a sustainable Fair Trade-based business model for a proposed partnership with world-class agribusiness firms such as Noberasco SpA (one of Italy's largest producers of dried fruits) and Goglio SpA (global leader in modern aseptic and flexible packaging and (iii) strategies for intercropping coconut with pineapple. It is expected that the proposed partnerships with companies would result in establishing a fully-fledged processing centre in a selected district in Sri Lanka as a model for replication.

5.2.5.2 Establishing National Steering Committee (NSC)

The National Steering Committee was established as an institutional mechanism to provide guidance and oversee the successful implementation of the project. It was a forum to discuss various topics on the way ahead and exchange creative ideas. The Steering Committee was led by the National Project Manager and whenever possible the ITC adviser on quality. The members of the steering committee were representatives of the something missing?, research organizations, and public and private sectors, including the DOA, MOH, CCC, NPQO. The regular and initial members of the SC representatives were the following:

- Ministry of Agriculture Dr. D B T Wijeratne, Additional Secretary
- Department of Agriculture
 Mr. W G M G Dayawansa, Director- Extension and Training Division
 Mr. Sarath Wanigasuriya, Addl Director- National Plant Quarantine Service
 Mr. O P K Chandrasiri, Director, Seed Certification Center
- International Trade Centre Ms. Ludovica Ghizzoni, Adviser on Export Quality Management and STDF Project Manager
- The Ceylon Chamber of Commerce Mr. Harin Malwatte, Secretary General/ CEO
- Ministry of Health
 Dr. H D B Herath, Deputy Director- Environmental & Occupational Health
- National Agribusiness Council Mr. Aruna Weerakoon, Chairman- National Agribusiness Council
- Lanka Fruits and Veg Producers, Processors and Exporters Association Mrs. Indira Malwatte, Second Vice Chairperson
- Sri Lanka Standards Institution Ms. I S Jayasekera, Director

During the course of project implementation, various heads of institutions stepped down and were replaced.

Until the end of the project nine Steering Committee Meetings were held. The minutes and details about the SMC can be found under the Documents produced by the project.

1) First Steering Committee Meeting held on 27 September 2013

2 Second Steering Committee meeting held on 12 March 2014

3) Third Steering Committee meeting held on 23 May 2014

4) Fourth Steering Committee meeting held on 29 August 2014

- 5) Fifth Steering Committee meeting held on 25 November 2014
- 6) Sixth Steering Committee meeting held on 28 July 2015
- 7) Seventh Steering Committee meeting held on 13 November 2015
- 8) Eight Steering Committee meeting held on 14 January 2016
- 9) Ninth Steering Committee meeting held on 20 May 2016

5.2.5.3 Identifying and recruiting consultants

The project recruited both national and international staff and experts to carry technical activities.

Project implementation team:

- 1. Lal de Silva National Project Manger
- 2. Lilakshini De Mel Web Content Co-ordinator WTO-STDF
- 3. Dimuthi Eranthi Project Accountant
- 4. Ludovica Ghizzoni- ITC Adviser on Quality Management
- 5. Neshe Yusuf ITC intern and consultant on Food Safety and Quality
- 6. Kenza Le Mentec STDF Project Coordinator

National consultants:

- 1. Yahajeewa de Silva Sanitary and Phytosanitary
- 2. Kithsiri Dharmapriya Business Management and Finance
- 3. Sarath Buddhadasa Marketing
- 4. K.H. Sarnanda Post-Harvest Technology
- 5. Shanti Wilson lab assessment
- 6. I.G. Tilakartne- SL GAP and master trainer on GAP
- 7. Gayathri Gunaruwan
- 8. Gamini de Silva

International Consultants:

- 1. Huub Stoerts- SPS and EU requirements
- 2. Nagat M. El Tayeb- Pest risk analysis and plant health
- 3. Gritta Schrader- Pest risk analysis and plant health
- 4. Sameer Bandali- Plant health EXPERT
- 5. Anut Visetrojana GAP Expert
- 6. Manel Orpella EU pesticides expert
- 7. Benoit Glaud- EU laboratory expert

5.2.5.4 Kick off and concluding Workshops

• Kick off workshop

A kick off workshop was organized by ITC and CCC in Colombo on 27 September 2013. Various public and private stakeholders were present. During the workshop, ITC presented the project activities and received valuable feedback from the participants on the implementation strategy. The agenda, participants list and the presentation can be found under the documents developed by the project.

• Final project workshop

In order to finalize the STDF 354 project on improving the safety and quality of Sri Lankan fruits and vegetables, the ITC with close partnership of CCC conducted the final workshop of the project on 29 June 2016 in Colombo, Sri Lanka. Along the workshop and its preparatory activities, a few activities were held in parallel with the support of international experts to strengthen the capacity of the government institutions related to the fruits and vegetables sector in Sri Lanka. During the workshop, the project manager presented the project achievements and milestones. This was followed by presentations of the other parties invited and finalized with a roundtable discussion. During the latter, the sustainability of the project was discussed, as well as the next steps after the end of the project. The workshop was attended by more than 70 people representing the private and public sectors, as well as other partner organizations.

The roundtable meeting was perceived positively by all the attendants. The major achievements on various topics were discussed as below:

- 1. **Trainings:** Great success in regard to the trainings of the government officials, exporters, processors and more than 500 farmers from 14 districts in Sri Lanka.
- 2. **Certification:** One of the key outcomes of the project is the development of SL GAP and its launch under the SLSI. This is described in more detail in the next pages.
- 3. Plant health and Pesticides issues: The country successfully faced a plant health audit conducted by the EU in 2015. The project brought an intentional expert, who actively trained and guided the government officials involved in the preparation of the country for the audit. This was also acknowledged by the stakeholders during the workshop. In addition, just before the final workshop, the project assisted Department of Agriculture in receiving training on pesticides for the upcoming audit scheduled for September 2016.
- 4. **Networking sessions:** The project actively organized matchmaking sessions to establish more B2B opportunities, as a result a dried fruit company and a packaging company visited Sri Lanka to seek further business prospects.
- 5. **Sustainability:** In order to sustain and replicate the achievements of the project the DG of the DOA announced that collaboration between the DOA and CCC will be made to ensure a formal structure to enhance the private-public partnership in the sector.

The agenda, list of participants and pictures and other materials can be found under the document produced by the project.

Following the final project workshop, all stakeholders endorsed a Concept Note on Establishing a National TBT and SPS Committee based on the draft ToR prepared under the project. CCC took the leadership to follow up on the setting up of a National Committee on SPS and TBT under the leadership of the Department of Commerce to coordinate proper communication and collaboration among various institutions that presently support enterprises directly or indirectly on these matters. The Department sought the approval from the Ministry of Industry and Commerce. This will cover all the sectors. Steps with the Ministry of Agriculture and the Ministry of Finance to make necessary arrangements to formally establish the National Expert Committee on Improving Safety and Quality of Fruits and Vegetables were taken following the final project workshop as concrete actions of the project impact.

5.2.5.5 Monitoring, evaluating and reporting progress

Every six months during implementation, Project Progress reports were produced with inputs on the district level and submitted to STDF Secretariat. The activities, budget, outcome and the progress were also discussed at the NSC.

- 1. First Project Progress report (05 March 31 August 2013)
- 2. Second Project progress report (01 September 2013- 28 February 2014)
- 3. Third Project Progress report (01 March 2014 31 August 2014)
- 4. Third Project Progress report (01 March 2014 31 August 2014)
- 5. Third Project Progress report (01 March 2014 31 August 2014)
- 6. Forth Project progress report (01 September 2014 28 February 2015)
- 7. Fifth Progress report (01 March 2015 31 August 2015)

Due to the extended duration of the project the last project progress report (1 September 2015 - 28 February 2016) was postponed and it was agreed with the STDF to merge it with the Final project report.

5.2.6 ADDITIONAL ACTIVITIES

Under this section, additional activities that were not foreseen in the initial project proposal are detailed. These additional activities arose during the implementation period, due to urgent needs and opportunities for the sector and savings accumulated from the budget allocation.

1 Development of a simplified SL GAP

On several occasions, the public and private stakeholders in Sri Lanka raised the concern of the lack of a National Good Agricultural Practice (GAP) standard and the importance to develop and implement it for the F&V sector. Having a national GAP standard and certification scheme was considered as a prime need to upgrade the quality and safety of the sector among the prime producers and for export. The DoA with the SLSI and relevant partners initiated some preliminary work on the development of the standard. The DoA also published booklets for individual crops on the procedure to be followed in adopting GAP. However, an urgent need to expedite the process of defining the scope and developing of the standards, to learn from and apply lessons and experiences of other countries in the Region (i.e. Q GAP & Thai GAP) and to initiate the implementation of the standards in pilot farms before February 2016 was needed.

In order to support that, an expert from Thailand was brought to Sri Lanka to share his experience. The expert had experience and in-depth knowledge on development and implementation of the Q GAP, Thai GAP, ASEAN GAP and related certification schemes to be able to provide advice on the approach to be followed in Sri Lanka for fruits and vegetables. FAO was consulted to identify the preferred expert and to build on their ongoing work in the area in the region and in Sri Lanka.

The support was provided in the form of presentations, working sessions, discussions and field demonstration on testing and verification of the proposed scope of the standards in pilot farms.

As a result of the support provided by the project a farmer-friendly SL GAP standard was introduced in the country. That was officially launched by DoA and SLSI and recognized by the stakeholders as a key national step to promote and implement good agriculture practice and safe use of pesticides. A number of project trained farmers were included in the certification process.

Stakeholders also expressed on several occasions the need to strengthen the national enquiry point on SPS and the national focal points for the three international standard setting bodies in particular the focal point of the CODEX Alimentarius Commission with the aim of improving the communication on SPS issues and implementation of international SPS related standards. The need to support Sri Lanka to participate in the WTO SPS Committee meetings and to build capacity to collect and respond to notifications was also raised. To support the abovementioned, the project organized of a number of networking events around specific themes related to SPS issues of concern to the public and private stakeholders of the F&V sector and a thematic workshop was organized on "The WTO Agreement on SPS: A business perspective" for both public and private stakeholders from the F&V sectors. The workshop was focused on the General Provisions of the Agreement on SPS, in particular food safety and plant health and basic rights and obligations and with focus on the implementation of the transparency provisions. As a result of that a ToR of the national WTO SPS Enquiry Point was developed and handed over to the DOA and CCC to follow up.

2 Study tour to Milan, Italy

In order to contribute towards the project objectives and enable exporters to better understand the EU buyers' requirements and to explore B2B opportunities, a study tour was organized to Milan in November 2015. It was a collaboration between the ITC, CCC, Export Development board (EDB) and Lanka Fruit & Vegetable Producers, Processors and Exporters Association (LFVPPEA), with support and co-operation of Associazione Italiana Commercio Estero (AICE), the Italian Association of Foreign Trade. The opportunity to organise the tour raised on the occasion of the SL EDB participation in the 2015 Expo in Milan and their collaboration with AICE.

The study tour was partly funded by STDF with the participants contributing for hotel & subsistence. An application form was widely circulated. The members of the LFVPPEA were identified to be the target beneficiaries of this study tour. As a result, seven participants were selected.

- 1. Mr. Mohamed Annes Junaid CBL Natural Foods (Pvt) Ltd (Processor/Exporter)
- 2. Ms. Shenali Panabokke Eastern & Allied Agencies (Pvt) Ltd (Exporter)
- 3. Mr. Jagath Fernando Jagro (Pvt) Ltd (Producer/Exporter)
- 4. Mr. Harsha Karunarathna Transgrow (Pvt) Ltd (Processor/Exporter)
- 5. Mr. Ruwan Tilaka Hewage (Farmer)
- 6. Ms. Kiloshani Manthri Kumari Wedande (Farmer)
- 7. Mr.Channa Madawal Nidro Supply Ltd, (Exporter).

Selected participants visited the General wholesale market of Milan, logistic company, warehouse, packaging premises and stores/supermarkets. The General Wholesale Market of Milan is the most important in Italy for fruit & vegetables, flowers, fish and meat products. 30% of the goods imported are re-exported all over Europe. The fruit and vegetable wholesalers association groups approximately 120 companies.

Via the study tour, both the farmers and exporters received first-hand experience and knowledge on:

- propagation materials;
- proper packaging and use of packaging material;
- use of bulk transport and small deliveries to shops;
- good harvesting and post-harvest practice and handling;
- hygiene, correct utilization of cold chain facilities;

• demonstrated environmental friendly market interior (all interior market transport by electric mode), adequate road network in market area with parking and goods handling.

The group had an opportunity of studying and understanding how retail & wholesale markets operate in Italy, met with potential buyers and conducted an excellent and informative meeting with regulatory authorities. Contacts were established with suppliers of machinery, equipment & packaging material and improved the understanding on the supply chain. The participants rated the study tour very high saying that it was an "eye opener" and a unique opportunity for Sri Lankan people. More testimonials and videos from the study tour can be found on YouTube channel: https://www.youtube.com/watch?v=anulB-ehYCs

Additional materials, such as mission report, agenda and participants can be found under the documents produced by the project.

3. Lab Assessment

As a follow up action to the ITC survey on Non-Tariff Measures (NTM) in 2010, the project with other funding from ITC conducted a study on the potential of laboratories in Sri Lanka. For this purpose, a national expert from ITI conducted research that provided valuable inputs for further work in this field. Findings underlined that at present both government and private laboratories are used by exporters for testing and certification of export commodities as required by respective buyers. However, as facilities available in these laboratories vary and have their limitations for reliable and efficient reporting in terms of trained personnel and necessary equipment, it is necessary that measures are taken to address these non-tariff barriers so that the volumes of exports of cinnamon, coconut products, fruits and vegetables and tea may be increased. Effective systems need to be established for certification of conformity to maximum residue levels (MLRs) of pesticides and mycotoxins, as these requirements are prerequisite in many countries, including those within the Asian region and the European Union, as for example with respect to fresh fruits and vegetables, tea, cinnamon, and coconut products.

The report covers the compilation of SPS risks and requirements for fresh fruits and vegetables, tea, cinnamon, and coconut products and includes a list of all major and relevant tests for trade to Asia and European Union for fresh fruits and vegetables, tea, cinnamon, and coconut products. Information is also documented on the existing public and private laboratories in Sri Lanka and the relevant individual range of services they provided, their testing capacity and available resources including equipment, infrastructure and human resources accreditation scope and where possible current costs of services provided. Recommendations for upgrading both public and private sector laboratories identified as those with potential for collaborating and servicing the above industry requirements together with possible business models are here with proposed for consideration. The report can be found under the documents produced by the project.

4. Training and advisory services provided in relation to the FVO audit on Plant Health Control

4.1 Training for NPPO Officers

Additional funding (within the project budget) was allocated to address the problem of lack of coordination and effectiveness in the plant health area and to complement the activities of the project. In 2014, there have been several interceptions of consignments of plant and fresh fruits and vegetables by the European Union Member States due to presence of harmful organisms and also lack of phytosanitary certificates. The Food and Veterinary Office (FVO) of the European Union planned to conduct an audit of the plant health control system in Sri Lanka and how applies the relevant EU standards with respect to plants and plant products intended for export to the EU in February 2015. Upon the request of the MoA of Sri Lanka, ITC pursued the collaboration of an international expert on Plant Health regulations and EU inspection procedures. The expert selected was one of the trainers of the BTSF regional workshop conducted in 2014 in India and who received positive feedback from the SL participants.

The assistance provided by the expert between 18 – 23 January 2015, was in form of an internal review of the National Plant Quarantine Service (NPQS) of Sri Lanka and its controls and procedures in place and their compliance with the EU plant health regulations (for plants and plant products) and provide on-site recommendations to fine-tune the system. In order to achieve that working sessions with the officers of the NPQS were conducted and controls and procedures in place analysed.

The expert found that the pest interceptions in the EU of Sri Lankan produce significantly reduced as SL placed a self-imposed ban on certain plant material/produce to the EU. There were several non-compliances within the process and the competencies of the inspectors (training & support) which need to be addressed immediately. Although the issues were not a direct Plant Health requirement, good farm practices needed to be encouraged by the way of farm registrations, farmer training workshops and traceability systems to be set up from farm to export. To address those, the expert provided an Action plan with detailed recommendations that were followed by NPPO and provided a good starting point for reducing rejections of fruits and vegetables from the EU. All the relevant documents, including the mission plan, training materials and the action plan can be found under the documents produced by the project.

4.2 Trainings on Plant health regulations and inspections

In order to further build up the capacity of the plant health inspectors, additional training sessions were conducted between 7 and 11 December 2015. Participants totalled 120, including NPQS export inspectors, lab personnel (part of the sampling team), NPQS operations team who collate all Additional Declarations (ADs) information and EU requirements, extension officers and research institutions staff.

The topics included general EU Plant health strategy with emphasis on import controls, pests and diseases relevant to fruit and vegetables sector, ADs and practical sessions on inspections techniques, methodology of sampling rates, use of good equipment, record keeping and dealing with rejections.

The mission also included a session with exporters, which included the above training, and an interactive Q&A session on imports into the EU and the role of the exporters in collaborating with NPQS to achieve the desired outcomes of reducing non-compliance. The use of trusted growers and suppliers was encouraged to have full confidence in the quality of the material packed and exported.

One aspect of the training which was well received was the physical inspections that resulted in all inspectors being able to detect and identify quarantine pests. Real-life examples were used in all training sessions at the NPQS inspection facility, the main exit point where export inspections are conducted for all exports destined to the EU by air. Inspectors experienced detecting white fly scales on leafy veg and learned how to detect other pests such as fruit-fly on fruits and chillies.

A scoping and mapping session was conducted with the various heads and experienced staff of NPQS heads of department to assist in developing guidelines for their respective areas of work within the export process. This incorporated the inspection team, laboratory staff and the

operations department. With these trainings, the knowledge and capacity of the trainees have improved, which will help in the future to better facilitate the inspections on plant health.

Additional information on the structure of the training, participants and training materials can be found under documents produced by the project.

4.3 Trainings on Plant health control systems and export certification systems

The last capacity building assistance on the FVO-related audits was provided between 2 and 7 May 2016, where fine tuning on the plant health control system and processes was done. The aim was to enable the issuance of instructions for each task within the export certification process (export applications, sampling rates, inspection techniques, recording inspections, collecting samples and issuing Phytosanitary Certificates (PCs)). In addition to that, it also aimed at making the SOPs a mandatory procedure for all inspectors to follow in addition to the action plan following the FVO audit.

As part of the training, two types of pack houses were visited to analyse what processes were in place. After the visit findings of the day were discussed, which included non-segregated areas within the pack houses of both intake and packed material. During the visits cross contamination of the high risk intake materials were analysed. As a result, the NPQS team had to develop a protocol locally and the consultant would verify its content.

The target date for the 1st draft was 1st September 2016. The extended deadline was required, as part of the process required an audit of 12 pack houses exporting to the EU and put in place a process flow. The NPQS team on this project would also include quarantine officers from the point of exit for better understanding of the challenges faced by exporters and devise of corrective measures to mitigate pest and disease interceptions according to these fruit & vegetables exports to the EU.

A short audit of the export process at point of exit found no major concerns with inspectors' skills, inspection techniques, inspection tools available and sampling sizes in line with the FVO report expectations.

The positive reaction of the NPQS on the STDF programme's training and following through on increased levels and focused inspections, reduced number of notifications from approximately 128 interceptions in 2014 to 24 in 2015. The latest Alert list for 2016 stands at 9 interceptions for 2016 (to 30th April), which only includes 2 interceptions on Momordica for fruit-fly. The other 7 are of aquatic plants infested with Bemisia tabaci. This reflects that fruit and vegetable exports are of clean quality and overall compliant, despite the continuing growing number of export volumes. In addition to that 2 SOPs were developed: 1) Plant Quarantine Export Check SOP and 2) Plant Quarantine General SOP.

All the relevant materials, including presentations and reports can be found in the project documents.

5. Training and advisory service on in relation to the EU FVO Audit on Pesticide

The project assistance given to strengthen the plant health control system in preparation and follow up of the FVO audit proved very beneficial for the country's capacity to comply with the EU requirements. Thus, stakeholders requested ITC to provide support in preparation of the second FVO audit on pesticides planned in September 2016. The FVO audit on pesticides control was a novel experience for Sri Lanka. The country confirmed its willingness to take it as a good opportunity to recognize the draw backs in existing procedures of food safety on local scale and international business including the EU exports of fresh fruit and vegetables and address the shortcomings and strengthen the system.

To maximize the assistance provided by the project, right before the final and its preparatory activities, a few activities were held in parallel with the support of international experts to strengthen the capacity of the government institutions related to the fruits and vegetables sector in Sri Lanka. For this purpose, workshops by two international experts – Mr. Manel Orpella (EU Expert on Pesticides Controls) and Mr. Benoit Glaud (Laboratory Expert) were provided. The workshops took place respectively in Kandy and Colombo.

• Training on Pesticides Controls and EU requirements

The EU Expert on Pesticides Controls conducted a workshop on pesticides, as requested by the Registrar of Pesticides, in order to successfully face the audit by the EU-FVO in September 2016. The whole mission took place between 19 and 29 June, while the workshop started on 23 June and was conducted in four consecutive days. The participants were advised on current inspection controls and facilities at the market in Sri Lanka, point of exit of plant and plant products to the EU, testing procedures, issue of certificates and provided recommendations to fine-tune and adjust them. In addition, the expert reviewed the main points covered by FVO missions to evaluate controls of pesticides in food of plant origin intended for export to the EU, including relevant national legislation, competent authorities organisations, official controls of the marketing and use of plant protection products (PPP), and official controls of pesticides residues in food of plant origin. In particular the review looked at some of the challenges currently faced in Sri Lanka with regard to implementation of GAP to face EU market, large awareness programme of the farmer community on stringent maximum residue limits and corresponding pre-harvest intervals of the crops, minimum detectable levels of pesticides in F&V.

As a result of it, recommendations and guidance on the action plan to improve the compliance with the EU regulations in Sri Lanka were provided. The recommendations were provided to:

- Recommendations related to National Legislation
- Recommendations related to Competent Authorities
- Recommendations related to Registration of PPPs
- Recommendations related to control of retailers
- Recommendations related to control of grower
- Recommendations related to laboratory for formulation analysis
- Recommendations related to control of pesticide residues
- · Recommendations related to control of pesticide residues
- Recommendations related to private controls

The expert presented the findings and recommendations at the final project workshop in June in Colombo and this helped to sensitise public and private stakeholders, including chemical companies, and engage them in addressing the shortcomings. More detailed information on the trainings, materials and mission report can be found under the documents produced by the project.

• Training and assessment on Laboratory analysis methods and techniques

The training was planned to mainly provide quick technical support to laboratories testing pesticide residues in view of the forthcoming EU FVO visit on pesticides. In particular, emphasis was put on the use of the QuEChERS method to prepare extracts for analysis by LC MS/MS. It was requested by the government of Sri Lanka and took place between 23 and 30 June 2016 in Colombo and Kandy. The expert visited the ITI (Industrial Technology Institute), SLSI (Sri Lanka Standards Institution) and RoP (Registrar of Pesticides) to assess their laboratory analysis capacity and provided training to DOA officers on monitoring programmes for involvement of laboratories.

During the laboratory visits an assessment of the status and capacity of the laboratory for testing MRLs as per the EU requirements/legislations through review of existing equipment, laboratory documentation, test methods and competencies of technicians was done. Based on that, the expert provided recommendations, covering test methods (including method development and method validation), in addition to other necessary technical matters for expansion and accreditation of the testing scope for pesticide residues.

As a result of the visits, the expert made comparative analysis of various laboratories and provided technical trainings, as well as recommendations on the methods and products at the end of his mission. The finding of the mission were that Maximum Residue Level analyses are currently conducted in different laboratories in Sri Lanka, including the one at the Register of Pesticide (RoP) of DoA and the chemical laboratory at ITI under the Ministry of Technology & Research. ITI recently took the decision to adopt all the latest analytical protocols in order to meet the global analytical needs in Sri Lanka. ITI decided to expedite the establishment of new analytical

techniques and strengthened the activities of CRU to provide national support in controls of pesticides in fruits and vegetables and in preparation of the EU FVO audit.

The RoP laboratory is not accredited internationally and is trying to upgrade its capacity. ITI delivers technical services towards exportable commodities at an accredited laboratory as per ISO 17025:2005 and has established and empowered a separate Chemical Residue Unit (CRU) with high-end analytical instruments such as LC MS/MS and ICP MS to respond to the emerging trends in global trade.

The visit at SLSI was focused on the laboratories capabilities in pesticides analysis and to assess potential testing of packaging materials. SLSI has six laboratories (chemical laboratory, electrical & electronics laboratory, food laboratory, materials laboratory, microbiology laboratory and textile laboratory) testing 12 000 samples/year including 123 import products. SLSI was credited in 2002 by SWEDAC and from 2007 by SLAB. Only the chemical and food laboratories were visited as part of the mission. The main focus was to assess existing capabilities in pesticide analysis and potential capabilities to further support the quality and safety of fruits and vegetables, in particular regarding packaging.

A weakness pointed by all the laboratories visited was the lack of GC MS/MS systems to analyse certain pesticide residues at low level. Although that should not affect the immediate trade of fruits and vegetables to the EU, the expert noted that the acquisition of such a system was desirable in the future.

As a result of the assessment, specific recommendations to all the laboratories was provided, in addition to that the expert also provided recommendations for the National Pesticide Residue Control Plan.

More detailed information on the trainings, assessment and recommendations can be found under the documents produced by the project.

6. ITC Workshop on Export Quality Management

In order to provide beneficiaries working knowledge on quality-related issues, ITC technical advisers conducted with SLSI a workshop in Colombo on 28 November 2014 for representatives of enterprises and private sector organisations, ministries and trade support institutions. The workshop focussed on quality management, standards, technical regulations, SPS measures, conformity assessment, metrology and accreditation, to better plan and support exports to regional and international markets. Thirty participants took part in the workshop, where they were sensitised on the quality and food safety infrastructures in Sri Lanka and the services offered.

	STDF (USD)	CCC In kind / Other (USD)	Total (USD)	ITC In kind / other (USD)	Total (with ITC)
Total project estimated budget (US\$)*	629,982	144,875	774,857	51,239 (IKC)	868,005
Total amount received* (US\$)	629,982	154,054 (136,016 (IKC) + 17,019 (interest income generated))		90,364 (financial)	
Total expenditure*	623,606	154,054	777,641	90,364	854,041
Unspent funds (US\$)	6,375.46				

6. FINANCIAL OVERVIEW

*including PSC at 12%

CCC and DoA contributed up to 24% of the total budget with in-kind contribution of professional staff time (e.g. research and consultations, post-harvest technology, field level trainers, Plant Quarantine Trainers, coordinators at provincial level), of admin staff time (e.g. project assistant, support staff), of local transportation for official meetings and field visits for extension and quarantine officers (e.g. taxi, official car), for training costs, and meeting rooms.

ITC and CCC signed on 4 June 2013 a legal document (MoU) with clear roles and responsibilities of ITC and CCC with an initial financial provision of USD 342,260 as grant for project implementation. Through this Grant and activities conducted within the framework of the project, ITC was committed to contribute to strengthening CCC's capacity in assisting the private sector in Sri Lanka to enhance its export capacity. ITC transferred the first two tranches to CCC equivalent to 95% of the total grant, e.g. USD 325,147 USD. The expenditure incurred on the project by CCC was USD 339,674. CCC earned USD 17,019 as investment income after investing the grant in treasury bills and this amount was used to cover project activities expenses. Thus last foreseen tranche of the grant was not transferred and CCC returned the amount of USD 2,419 to the project.

7. OVERALL PROJECT RESULTS AND LESSONS LEARNED

7.1 LESSONS LEARNT

The project was largely successful in its implementation and met its planned objectives. The overall project results are listed below.

- 1. An important foundation of skills and competences related to compliance with international requirements in both public and private sector built. The F&V sector has improved capacity to understand and comply and its export opportunities. Chairman LFVPPEA stated that this is the first time that a project of this nature was implemented in the agriculture sector in Sri Lanka, where a close dialogue was maintained by the public and the private sector parties.
- 2. A number of actions in the SPS area took place for the first time in Sri Lanka, such as the training on pest risk analysis, the development of an up to date pest list under the obligation of the International Plant Protection Convention (IPPC), initiation of a national committee to address SPS and TBT issues.
- 3. More than 40 training programs and workshops conducted on SPS-related topics, with nearly 900 people trained on SPS and other topics (public and private sector). Improved and enhanced the capabilities of the Master Trainers and Field Level extension Officers of the Department of Agriculture (DOA) and the National Plant Quarantine Department. A pool of master trainers (28), field level trainers (47), field level extension officers (149), quarantine

inspectors (50), quarantine master trainers officers (20) of the Department of Agriculture empowered and enhanced that cascaded successfully training to colleagues.

- 4. More than 600 farmers trained completed 20 five-day training programmes covering a large portion of the country in 14 districts (GAP, Identification of Pests and Diseases, Post-harvest handling, SPS issues, Finance and Business & Marketing and Field Visit). Majority of the farmers have given a very good grading for most of the presentations made by the trainers
- 5. Upgraded the capacity of the National Plant Quarantine service by capacity building of the staff and also by way of providing equipment to upgrade the facilities of the NPQS laboratory. The Extension and Training Division under the DoA made the SPS component compulsory for their trainings replicated during the project covering a number of modules, such as GAP, Integrated Pest Management (IPM), etc. According to the DoA, as a result of the project 1200 officers were trained under the new curriculum, where the project materials developed by the project were used. In addition to that, it is expected that the new officers will be trained with the same materials, which will help to disseminate the knowledge further.
- 6. For the first time Pest risk analysis was formally conducted in Sri Lanka Pest list has been created to meet the national obligation under IPPC. An initial permanent team was established with three members to conduct PRA; consequently a new technical division "Biosecurity and International Relations" was established to coordinate PRA and surveillance with two members and when required, other technical officers are called for performing PRAs. In 2016 the team conducted 32 rapid PRAs and 1 comprehensive PRA and in 2017 27 rapid PRAs and 3 comprehensive PRAs.
- 7. DOA included a module on GAP in their agriculture diploma holders course
- 8. Initiated the development of a simple national SL GAP system as a step by step approach to upgrade the country farming capacity through the development of training modules, standard development, certification scheme, checklist, manuals. GAP was piloted in one Region by DOA, possibly leading to a national programme. Under this programme, farmers will be trained on Good Agricultural Practices (GAP), whereas the DOA plans on certifying the ones that are audited and show compliance with the required standard.
- 9. Increased and sustained collaboration between public and private stakeholders in Sri Lanka and with the EU to respond to trade related issues such as compliance with EU requirements with the establishment of the National Export Committee on Improving the Safety and Quality of Fruits and Vegetables and the National Committee on TBT and SPS.
- 10. Improved ability to comply with EU plant health regulations and official audit of the Food and Veterinary Office (conducted in February 2015) with the assistance of the trained PQO and the other trained staff of DOA. As a result the number of notifications of non-compliance in EU has been reduced (reduced risk of a ban from the EU on exports)
- 11. A set of sensitisation and training materials and tools made available also in local languages for sustainability. Among others these covered four brochures on different topics (1. Good Agricultural practices; 2. post-harvest handling and management of Fruits and Vegetables; 3. Food hazards and Safe food; 4. Plant Quarantine and implementation of Phytosanitary regulations); a booklet on maximum residue levels (MRLs); various sign boards erected at the airport and long awaited that warn air passengers of the ban on carrying fresh agricultural commodities by air without the proper permission from the Director General of Agriculture; and a number of training materials for DOA
- 12. Developed www.spssrilanka.lk website as a repository of updated information on SPS in the F&V sector
- 13. Improved the international, regional and national market opportunities of selected value chains of fruits and vegetables. The project actively organized matchmaking sessions and established more B2B opportunities, as a result exporters made contacts with 11 farmers individually at the B2B events plus through a leading farmers on behalf of 30 farmers from the Welimada area who includes all the farmers who underwent STDF farmer training

- 14. Enhanced understanding of the Italian / EU market requirements, confirmation of the potential of Sri Lanka for export, initiated contacts with possible importers as a results of a Study Tour to Milan, Italy (5 exporters and 2 lead farmers)
- 15. ITC and CCC established a strong partnership through the implementation of the STDF project. This is a strong foundation to further build collaboration for the benefit of the private sector.
- 16. Through the grant MoU and collaboration with ITC CCC strengthened its capacity in assisting the private sector in Sri Lanka to enhance its export capacity in the agriculture F&V sector and strengthened the links between private, public and sector organisations involved in ensuring compliance with technical requirements of both local and international export markets. Such a private public partnership programme was implemented for the first time in Sri Lanka.
- 17. In order to sustain and replicate the achievements of the project the DG of the DOA publicly announced that collaboration between the DOA and CCC will be made to ensure a formal structure to enhance the private-public partnership in the sector.
- 18. One of the biggest Sri Lankan fruits and vegetables lead producers reported that at least 30% of the farmers who underwent the trainings increased their knowledge and started applying the new techniques. Farmers and exporters interviewed claimed an improvement between 25 and 50% in the volume of quality fruits and vegetables available for export while exporters stated between 15%- 20% depending on the crops. Exporters also confirmed a reduction in rejections of selected fruits and vegetables due to SPS issues by at least 20%. One of the pineapple producers as a beneficiary confirmed to have learnt new techniques, built business contacts and changed his way of thinking and practicing toward agriculture as a business

7.2 LESSONS LEARNT

- Need to be flexible and respond to newly SPS issues arising in the course of the project implementation: Sri Lanka had experienced a high number of interceptions of fruits, vegetables, and plants over the years preceding the project due to pests and a lack of phytosanitary certificates. The EU planned two FVO audits, the first one for the country in 2015 on plant health control and one in 2016 on pesticides. The government and the private sector requested an STDF project for technical assistance that could be timely and quickly mobilised to better equip the country to prepare for their first FVO audit in 2015. The project also established links with the BTSF regional training and encouraged stakeholders to request additional assistance.
- This timely intervention played a major importance in maintaining market access and contributed to the positive impact of the project beyond the expected results. It instilled confidence among the stakeholders to face the FVO audit for plant health controls, strengthened the system, and gave means to follow up on the action plan. This was a good example of the collaboration established between the public and private sector under an emergency situation to address the issues of pests and diseases with the results that the number of EU notifications was reduced, there was an increase in export compliance and Sri Lanka overcame the threat of a ban. The country was also better prepared for the FVO audit on pesticides in 2016 with the assistance of a technical mission of two experts that delivered training and coaching to the control bodies, the national laboratory and exporters on testing procedures, EU requirements and legislation. The auditors recognised the initiation process of certification of farmers for GAP and noted that the authorities were taking several measures to control pesticides in F&V and herbs intended for export to the EU although at an early stage of implementation.
- Larger awareness needs to be achieved at the beginning of similar projects to mobilise and engage exporters and buyers and link them to farmers to enable monitoring of transactions. Organising B2B sessions, study tours with both exporters and farmers, and bringing international players to Sri Lanka provided good matchmaking and market opportunities.

International and national buyers shall be identified at the beginning of the projects to lead the changes.

- Identifying leading farmers and exposing them across a large number of project activities was found instrumental to motivate and engage other farmers and lead changes. This should be done at an early stage of projects.
- The study tours to Italy and Thailand were a "eye opener" for the farmers and exporters for the new opportunities gained and knowledge exchanged. It enabled to connect exporters and farmers that face resistance to link in many countries; they had opportunities to openly discuss about respective issues and challenges and identify opportunities for business.

8. **RECOMMENDATIONS**

8.1 Recommendation specific to the project

At the final workshop the stakeholders reached consensus with regard to the following recommendations on the sustainability and way forward:

- Conduct trainings for collectors who supply exporters, on the requirements of GAP, especially with regards to traceability and the need to supply fresh produce which meets the SL GAP / EU MRL standards. After the trainings, the changes in the practices and replication of the trainings shall be monitored.
- 2. Sustain and enhance project achievements by scaling up the STDF project via various activities and possible projects on SPS matters. The country made significant improvements in strengthening its plant health and food safety control system but it is crucial to continuously apply, improve on the recommendations and follow through on setting up protocols for EU export. This shall be linked to a second phase of the project as requested by exporters, farmers and institutions.
- 3. Ensure the follow up of the training and the implementation of proper practices at field level through continual support of the extension officers.
- 4. Identify lead farmers to motivate and engage other farmers.
- 5. Under the project a number of farmers were trained on Good Agricultural Practices (GAP). As a continuation of this activity, the DOA foresees to certify the farmers and pack houses that successfully face the audit and comply with the required standards.
- 6. Further strengthen the SPS-related institutional networking mechanism for the F&V sector and public / private partnership (PPP):
 - a. Establish a National Committee on Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary Measures (SPS)
 - b. Set up a dedicated Working Group for fruits and vegetables sector (including spices) under the above committee consisting of all stakeholders (MRL Core Group).
 - c. Strengthen the national enquiry point on SPS and the national focal points for the three international standards organisations

Following the final project workshop all stakeholders endorsed the Concept Note on Establishing a National TBT and SPS Committee based on the draft ToR prepared under the project. CCC took the leadership to follow up on the setting up of a National Committee on SPS and TBT under the leadership of the Department of Commerce to coordinate proper communication and collaboration among various institutions that presently support enterprises directly or indirectly on these matters. The Department sought the approval from the Ministry of Industry and Commerce. This will be to cover all the sectors. Steps with the Ministry of Agriculture and the Ministry of Finance to make necessary arrangements to formally establish the National Expert Committee on Improving Safety and Quality of Fruits and Vegetables were also taken following the final project workshop.

- 7. Enabling market linkages and facilitating backwards integration between farmers, processors, supermarkets, hotels, exporters. Further build on contacts established with those buyers and companies that expressed interest and conducted feasibility missions to Sri Lanka, e.g. Noberasco and Goglio. They can be a good opportunities to pilot a public private partnership project for the development of the sector and improving compliance with SPS measures.
- 8. Sustainability of www.spssrilanka.lk website as a repository of updated information on SPS in the F&V sector, and as one stop shop for public and private sector to access information. Currently hosted by CCC, its future beyond the project duration is uncertain. Create a blog, in order to maintain the project website, bring more visibility to the project achievements and allow the audience to share their views and ideas for the fruits and vegetables sector.

8.2. Broader recommendations

- 1. The project duration was initially two year and then extended to three years actual implementation. As often emphasised by the stakeholders this type of project should have a minimum of three to four year implementation to allow changes of practices, monitoring of improvement and establishing linkages.
- 2. Delivery of training to farmers is challenging due to the limited time they have to participate. This requires extended timeframe and logistics. As often emphasised by the stakeholders this type of project should have a minimum of three to four year implementation to allow changes of practices, monitoring of improvement and establishing linkages. Identification of buyers shall take place at an early stage of this type of technical assistance projects, even at the design phase. Building trust and confidence among buyers and suppliers takes long time.









9. ANNEXES

9.1 LOGICAL FRAMEWORK

	Project	Measurable indicators / targets	Sources of	Assumptions
Goal	Increase in income generation through supply of high quality and safe fruits and vegetables to the local and international market	 At least 80 farmers receive or about to receive an increase in the average revenue for their products in compliance with quality ad SPS measures Reduction in incidents due to usage of fertilizers/pesticides Reduction in post-harvest losses of selected F&V Reduction in pest prevalence 	 Researches Reports Project Surveys Statistics at Sri Lanka Custom's Department 	 The economic and political conditions in the domestic and global context would be favourable to achieve the goal Absence of extreme weather events Time period required to apply knowledge to cultivation and enable market linkages to reap benefits
Immediate Objectives (outcomes)	 Build and sustain the competence of public and private stakeholders to comply with quality and food safety international requirements 	 Plant Quarantine Office has a permanent operational Pest Risk Analysis team The Extension Office makes SPS component a part of their regular training curriculum N. of extension officers applying the acquired skills and competences to assist farmers to produce better quality and safe fruits and vegetables increased N. of farmers and exporters applying the acquired skills and produce selected fruit and vegetable in compliance with SPS measures is improved Increase in number of requests for phytosanitary certificates (for export purposes) Increase in the volume of quality fruits and vegetable for export (selected 	 Project report Report from the National Plant Quarantine Service Report from Lanka Fruit and Vegetable Producers, Processors and Exporters Association Report from Extension Office 	 Stakeholder's participation and willingness to apply the knowledge gained The choice of the national project manager is critical along with his/her leadership and coordination skills Delays in meeting deadlines and completing activities within the stipulated time period Government's and stakeholders' commitment to strengthen the SPS system

		 items) Reduction in rejections of selected fruits and vegetables due to SPS issues Satisfaction of exporters / traders with respect to export controls is improved 	- Baseline	
	 Improve the international, regional and national market opportunities of selected value chains of fresh fruit and vegetables 	 Increase in the number of contract farming arrangements / contracts with buyers Exporters have access to a larger pool of farmers supplying fruits and vegetables in compliance with SPS measures 	 Project report Contract farming arrangements and contracts signed with buyers Baseline 	 Government commitment to promote agri-food trade The political situation remains stable during the project implementation Market demand Absence of extreme weather events
	 The value chains of selected crops of fruits and vegetables with high income generation and export potential are assessed 	 Study on the quality and safety status of at least six selected FF&V value chains and gaps to meet international standards validated 	 Completed Questionnaires Survey report Studies/Researches 	 Existing research and statistics are available Availability of crops with export potential Willingness to respond to the interview Quality of the responses
Outputs	 Enhanced availability of information on updated regulated pest list 	 Reliable updated pest/weed disease database available 	- Survey - Database	 Quality of the responses Availability of specialised expertise
	3. Enhanced capacity of public and private stakeholders on understanding and complying with SPS standards, pest risk analysis/surveillance and improved entrepreneurial skills	 Knowledge and awareness of the key stakeholders on SPS standards and importance to adhere to the standards aligned 30 Master Trainers (MTs) have acquired skills and knowledge in the SPS area and business topics and are able to address training needs of Extension Officers and Field Level Trainers 50 Field Level Trainers (FTs) have acquired 	 List of Attendance of Participants Assessment of participant's knowledge and skills prior and after the training Summary of the evaluation forms completed by 	 Application of the knowledge gained Continuous participation throughout the entire programme Timing of the training programs (e.g. clash with harvesting seasons etc.)

	skills and knowledge in the SPS area and business topics to address the training needs of farmers 150 Field Level Extension Officers (FEOs) have acquired skills and knowledge to train/advise farmers on production and marketing of safe and high quality produce 20 Plant Quarantine Officers (PQOs) have acquired skills and knowledge to assist importers, producers and exporters Permanent Pest Risk Analysis (PRA) team established 75 Field Level Plant Quarantine Officers (FPQOs) have acquired skills and knowledge to better serve the needs of farmers and monitor and manage pest risks 400 farmers have improved skills and knowledge on how to produce safe and high quality produce, and on marketing and business management At least 75 other relevant stakeholders, exporters and processors have increased awareness and ability to meet SPS standards Farmers and extension officers are encouraged to apply the acquired knowledge and those assessed to do the best are recognised and rewarded AI least three extension officers and farmers assessed to do the best are exposed to best agricultural practices in Thailand	
 Enhanced availability, accessibility and awareness of information on and compliance with SPS standards 	Updated information on SPS standards and how to meet them easily available and accessible in three local languages to stakeholders in print format and online through the project website - Summary of the evaluation forms	 Availability of reliable and up-to-date information Poor internet access and usage at regional level Usage of libraries and poor habit of reading Time required to develop

		-	The project websites contains at least 100 documents on SPS, contact details of stakeholders, networking meetings, list of participants	-	completed by participants Attendance Sheet Minutes of the meetings Information obtained from suppliers and buyers	-	trust Willingness to cooperate between some of the stakeholders Convincing stakeholders of benefits of participation
5.Imp and r	nproved public-private cooperation networking between stakeholders	-	Active participation of SPS stakeholders (public and private) in coordinating SPS management At least 10 contacts established between exporters/farmers and buyers through business match making meetings Proposal for replicating the project for other agricultural crops submitted to Government and Donor Agencies		Participants' list Minutes and meetings' reports List of match making between buyers and exporters/farmers	-	Willingness to cooperate between some of the stakeholders







9.2 FINANCIAL REPORT

ITC validated financial statement

Trade Centre			FOR GOOD
Certified Finan	cial Statements for the period 01 March	2013 to 30 June 2016	
	(Expressed in US dollars)		
Project: M1-32ZS4-000052 - I	mproving the Safety and Qu	ality of Sri-Lankan Fru	its and Vegetables
Income			
Voluntary contributions received			629.982.00
15 March 2013 - Receipt no.81830			314.991.00
03 October 2014 - Receipt no. 93435			314,991.00
Voluntary contributions in kind			0.0
Total Voluntary Contributions			0.0
Miscellaneous income			0.0
Total Income			629,982.0
Expenditures	Expenditures	Commitments	Total Expenditure
Staff and other personnel cost	164.970.72	0.00	164,970.7
Equiment, Vehicles and Furniture	5,103.71	0.00	5,103.7
Contractual Services	2,331.41	0.00	2,331.4
Travel	29,445.03	0.00	29,445.0
Transfers and Grants	322.988.07	0.00	322,988.0
General Operating and Other Direct Costs	31,952.61	0.00	31.952.6
Total direct expenditures	556,791.55	0.00	556,791.5
Indiract Support Costs (United Nations)	66.814.99	0.00	66.814.9
Total indirect suspart costs	66.814.99	0.00	66,814,9
Total expenditures	623,696.54	0.00	623,696.5
Net excess/(shortfall) income over expenditure		0.00	6,375.4
Exchange rate (loss)/gain			0.0
Refunds			0.0
Other Adjustments			0.0
Unspent contribution balance, beginning			0.0
Available Balance			6,375.4
Contined by: 5.T. by Directly, because Directly		Dails. 11	MAY 2018



CCC financial statement – audited by KPMG

The below provides the Statement of Income and Expenditures undertaken by CCC for 37 months ending on 30 June 2016, certified by KPMG, under the grant with ITC. It covers expenditures and in-kind contribution.

1 I INDEFT								42								
LI BUDGET	STDE	PROJECT	STDF/PG	354 FINANCIA	L STATEMEN	T FROM 01	MARCH 2013	TO 30 JUNE 201	6					36		
		235	Budget exp	penditure as per	contract			Actual ex	penditure - WTO	/STDF	Actual expension	liture - Non-ST DOA (In-kind)	DF (CCC)	To	tal 27	
Components	Unit	Unit Cost	No. of units	WTO/STDF Contribution	Revised WTO/ STDF Contribution (A)	Non-STDF (CCC) or DOA (B)	Total (C)=(A+B)	Cumulated costs (01/03/2013 - 30/06/2016)	Cumulated costs (01/03/2013 - 30/06/2016) (D)	Balance	Cumulated costs (01/03/2013 - 30/06/2016)	Cumulated costs (01/03/2013 - 30/06/2016) (E)	Balance	Actual expenditure (F) = (D) + (E)	(Over spent)/ under utilized (G) = (C) - (F	
Conversion method for reporting purposes		USS		USS	USS	USS		LKR	USS	USS	LKR	USS	USS			
Reporting for the period from 10-Jun-2013 to 14-Oct-2015								128.65			128.65					
Reporting for the period from 15-Oct-2015 to 30-June-2016								140.15			140.15					
emponent-Output 1:Understanding of the current status	and the second second	and the second second		Charles States		1.				Q. 38 1			1.		Contra and	
1 WP 1.1 Identifying Crops and Regions	Per day	75	10		-	750	750				96.000	746	4	746		
2 WP 1.2 Identifying stakeholders in the F & V value chain	Per day	75	15	-	-	1,125	1,125			-	144,000	1,119	6	1,119		
WP 1.3 - Identifying current status of the F & V value chain through survey (inclusive of														6.000		
3 food, accommodation and travel)	Lump sum			7,500	5,523		5,523	710,503	5,523	-		-		5,523		
Component-output 1 - Subtotal				7,500	5,523	1,875	7,398	710,503	5,523		240,000	1,865	10	7,388	L	
omponent-Output 2: Pest Risk Analysis			100					-								
WP 2.1 Survey to collect and document information on regulated pests - Three DOA officer 4 (\$50*3*60= \$9,000)	Lump sum			9,000	5,250		5,250	705,000	5,250					5,250		
Component-output 2 - Subtotal				9,000	5,250		5,250	705,000	5,250	-		-	-	5,250	L	
omponent-Output 3: Capacity building										100 C				1		
WP 3.1 - Extention service TOT - Master Trainers Venue (with meals and accommodation) (\$50 per person per day)	Per person/10 days	500	30		-	15,000	15.000	-		-	1,664,880	12,941	2,059	12,941	2,0	
6 WP 3.1 - Field Trip (one day)	Lump sum			2,000	-		-	-	-	-	· · ·	-		· · ·		
WP 3.2 - Extention service TOT - Field Level Trainers Venue (with meals and accommodation) (\$50 per person per day)	Per person/10 days	500	50			25,000	25,000				3,406,660	25,906	(906)	25,906		
WP 3.3 - Capacity Building Field Level Extention Officers (FEOs) Venue (with meals and accommodation) (\$50 per person per day)	Per person/5 days	200	150			30,000	30,000				3.958,650	30,771	(771)	30,771		
WP 3.4 -TOT for plant quarnatine officers (PQOs) Venue (with meals and accommodation) (\$150 per person per day/per person)	Per person/10 days	1,500	20	30,000	30,000		30,000	4,816,176	35,655	(5,655)		-		35,655	(5,	
WP 3.5 - Capacity Building of Field Level quarantine Officers (FPQOs) Venue with meals and accommodation (\$50 per person per day)	Per person/5 days	750	75	56,250	26,000		26,000	3,203,401	24,421	1,579	· ·			24,421	1,	
With D. C., Connection In Million of Fernman Manual (with search) (#1.6 and second of Fernman)	Bar marcan/20 day	75	500	37 500	45.000		45 000	5 832 335	43.275	1.725		· .		43.275	. U	
WP 3.0 - Capacity building D11/Expectere/Depageseare/Other stakeholders	Per day/3 days	2,500	300	7.500	2.600		2.600	322.352	2,506	94	· .	-		2,506		
12 WF 5.7 - Capacity Building PTIP Exporters/Processors Other statemolders WD 2.0. Study tour to Thailand (5 days. 7 participants) industry of cost of participant	r er unyes unys	2,500		1,000	2,000		2,000	022,008	-,500							
WP 3.9 - Study four to Thanand (5 days, 7 participants) inclusive of cost of national consultant in Thailand to organise the program	Lump sum			12,000	25,711		25,711	5,319,490	37,993	(12,282				37,993	(12,	
Component-output 3 - Subtotal				145,250	129,311	70,000	199,311	19,493,754	143,850	(14,539)	9,030,190	69,618	382	213,468	(14,	
omponent-Output 4: Enhanced availability, accessibility of and awareness on information o	n and compliance with	h SPS standa	rds	1			1	and a second second second			I			I	1	
WP 4.1 - Developing training material, manuals, leaflets in three languages (type setting, designing, translating and printing)	Lump sum			15,000	12,942		12,942	1,692,688	12,530	412				12,530		
WP 4.2 - Developing and managing the project Website				1	3,000		2 200	286 200	2001	(201			-	2,991	-	
5 - Designing and developing the website	Lump sum			5,000	2,200	-	2,200	385,700	2,991	(020	1 270 811	0.467	(7.467	16.437	(8	
					4	13 111121										
16 - Content Management	Lump sum			2,000	6,000	2,000	8,000	929,811	6,970	7 889	1,272,011	9,407	(7,407	511	7	



Opponent-Output 5. Improved public-private cooperation and networking between stak	cholders			and a start of the			a marine								
HE WP 5.1 Networing Sessions	Per session	1.500	10	15.000	13,000		13,000	1,721,145	12,578	422		-	-	12,578	422
WP 5.3 National Project Coordinator	Per month	3.000	22	66.000	78,168		78,168	10,221,366	77,800	368		-	~	77,800	368
WP 5.3 Cordinator at provincial level	Per month	500	15	-	-	7,500	7.500		-		1.012.500	7,224	276	7,224	276
021 WP 5.3 Project Assistant	Per month	300	16	-		12,800	12,800	-			1.794.068	13,571	(771)	13,571	(77)
022 WP 5.3 Other CCC support staff (3 persons)	Per month/3 persons	1.250	10		-	12,500	12,500				1,822.805	13.752	(1,250)	13,750	(1,250
023 WP 5.3 Project Accountant	Per month	300	11	8.800	14,800		14,800	1,945,420	14,80)			1.4		14,800	
124 WP 5.3 Office space with facilities for project team in Colombo	Per month	400	22	8,800	14,156		14,156	1,850,000	14.094	62				14,094	6,
025 WP 5.3 Overheads, stationary and related costs	Lump sum	6.)00				6,000	6.000	-	1	-	1.205,480	5,164	(3.164)	9,164	(3,164
026 WP 5.1 National level meeting room facilities	Per hour	50	24	-		1,200	1,200	3		-	142.647	1,0(8)	117	1,083	115
027 WP 5.1 Regional level meeting room facilities	Per hour	30	.30			900	900		•	•	85,000	606-	294	606	294
028 WP 5.4 Workshops (kick off and concluding)	Per workshop	2,300	2	4,000	4.000	*	4,000	542,393	3,935	65				3,935	61
29 Internal Transport and accommodation for project staff and Trainers		20.400	1	20.400	16,000	9,600	25,600	2,346,877	17,738	(1.738)	32.128	231	9,369	17,969	7,63
030 Internal Transport for Agriculture Extension and Quarantine Officers**					+	7,500	7,500		-		505,530	3,790	3,710	3,790	3,710
Component-output 5 - Subtotal				123,000	140,124	58,000	198,124	18,627,200	140,945	(821)	6,600,158	49,420	8,580	190,364	7,764
Consultants***															
031 Local Pytosanitary expert (inclusive of food, accommodation and travel) (WP 2.1,3.1)	Per day	200	80	16.000	16,000	-	16,000	1,625,000	12,113	3,887		-	-	12,113	3,88
132 Local post harvest technology expert (DOA officer) (WP 3.1.3.2.3.4,3.7,4.1)	Per day	200	20	1.000	1,000	3,000	4,000			1.000	-		3,000		4,000
133 Local expert - Business Management and Finance (WP 3.1,3.2,3.4,3.7,4.1)	Per day	200	12	2,400	2,400		2,400	300,000	2,332	68				2,332	6
034 Local expert - Marketing (WP 3.1.3.2,3.4,3.7,4.1)	Per day	200	12	2,400	2,400		2,400	300.000	2,332	68	-		-	2,332	61
035 Master Trainers (WP 1 2.1.3,3.2,3.3,3.8,3.9,4.1)	Per day	100	40	1,000	1,000	3,000	4,000	200,000	1,555	(555)	600,000	4,664	(1,664)	6.218	(2,21)
036 Field Level Trainers (WP 1.2, 1.3, 3, 6, 3, 8, 3, 9, 4, 1)	Per day	80	100	2,500	2,500	5,500	8,000	25,000	194	2,306	75.000	583	4,917	777	7,22.
037 PQ Trainers Traiiners (WP 1.2.1.3.3.3.3.6,3.8.3.9.4.1)	Per day	100	20	500	500	1,500	2,000	60,000	466	34	180,000	1,399	101	1,866	13
Component-Consultant - Subtotal				25,800	25,800	13,000	38,800	2,510,000	18,992	6.808	855,000	6,646	6,354	25,638	13,16
Contingency (2% of the grant)				6,710	6,710	+	6,710	296,000	2,112	4,598	-			2,112	4,59
Total expenditure				342,260	342,260	144,875	487,135	45,421,405	.339,674	2,585	18,005,158	137,016	7,859	476,690	10,44
	and the second														
Income summery															
Receipts				1212											
1st Inflow								26,418,949	205,356						
2nd Inflow		1						16,788,609	119,791						
Total inflow								43,207,558	325,147						
Total expenditure								(45,421,405)	(339,674)						
Expenses to be reimbursed from 3rd tranche			-					(2,213,847)	(14,527)						
		-													
Interest income received for the period of June 2013 - June 2016								2,586,951	17,019						
	-	1													
and a second	1							373.104	7.492						

Note 01 - No charges have been made from 01 March 2013 to 10 June 2013. Note 02 - Interest income received amounting to Rs.2,586,951/- has been converted using the exchange rate of Rs.152/- as at the end period 30 June 2016.

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IDF Standards and Trade Development Facility





9.4 PROJECT DOCUMENTS

A list of documents produced during the project is annexed. Copies of the documents are available with STDF Secretariat.







Annex I












Annex II

Schedule of the Training programme for Farmers

Beneficiari es	Target No of farmers to be trained	Actual number of farmers trained	Female participant s	Duration of the training	Language of the training	District \Region	Starting date	End date
Farmers	25	19	6	5 days	Sinhala	Gampaha	12/03/2015	10/04/2015
Farmers	25	30	11	5 days	Sinhala	Hambantota	12/10/2015	23/10/2015
Farmers	25	42	13	5 days	Sinhala	Ampara	16/11/2015	29/11/2015
Farmers	25	40	19	5 days	Tamil	Vavuniya	08/09/2015	22/09/2015
Farmers	25	29	15	5 days	Sinhala	Anurathapura	09/04/2015	10/09/2015
Farmers	25	28	0	5 days	Sinhala	Puttalam	20/04/2015	04/10/2015
Farmers	25	27	10	5 days	Sinhala	Matale	12/06/2015	26/06/2015
Farmers	25	27	8	5 days	Sinhala	N'Eliya	14/05/2015	18/06/2015
Farmers	25	34	16	5 days	Sinhala	Badulla	09/06/2015	06/07/2015
Farmers	25	25	6	5 days	Sinhala	Gampaha	15/10/2015	12/11/2015
Farmers	25	12	1	5 days	Sinhala	Kurunegala	16/03/2015	31/03/2015

Farmers	25	59	26	5 days	Sinhala	Ratnapura	19/11/2015	05/12/2015
Farmers	25	21	4	5 days	Sinhala	Hambantota	12/10/2015	22/10/2015
Farmers	25	25	14	5 days	Sinhala	Monaragala	14/09/2015	05/10/2015
Farmers	25	37	4	5 days	Sinhala	Ampara	16/11/2015	01/12/2015
Farmers	25	34	20	5 days	Sinhala	Anurathapura	20/11/2015	05/01/2016
Farmers	25	19	0	5 days	Sinhala	Monaragala	14/09/2015	02/10/2015
Farmers	25	33	27	5 days	Tamil	Jaffna	17/09/2015	07/11/2015
Farmers	25	22	5	5 days	Sinhala	Kandy	20/03/2015	24/04/2015
Farmers	25	29	4	5 days	Sinhala	N'Eliya	28/04/2015	29/05/2015