



Improving the safety and quality of fruits and vegetables

The project aimed to increase the safety and quality of selected fresh fruits and vegetables from Sri Lanka, and the supply to local and international markets through building and sustaining the capacity of public and private stakeholders to comply with international food safety and quality requirements.

A result story on the project is also available [here](#). Find out more on the project's [website](#).

STDF/PG/354

Status

Completed

Start Date

01/03/2013

End Date

30/06/2016

Project Value (US\$)

\$826,096

STDF Contribution (US\$)

\$629,982

Beneficiaries

Sri Lanka

Implementing Entities

International Trade Centre (ITC)

Partners

Ceylon Chamber of Commerce

Lanka Fruit & Vegetable Producers, Processors and Exporters Association (LFVPPEA)

Ministry of Agriculture, Sri Lanka

Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka

National Agribusiness Council

Sri Lanka Export Development Board

Background

The potential for cultivating fruits and vegetables in Sri Lanka for domestic and export markets is high. Developing this sector and improving the quality and safety of fruits and vegetables can significantly increase national and rural income, generate new employment opportunities, and enhance public nutrition and health. The main export markets 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) due to the stringent safety and quality import requirements.

The quality and safety of fruits and vegetables produced in Sri Lanka suffer from improper pesticide and fertilizer use. In general, this is related to poor methods and practices present along the value chain; starting from production, until post-harvest stage. There is minimal intervention at the growing stage to ensure quality and safety. Poor post-harvest practices result in a 30-40% loss of fruits and vegetables. There is a lack of awareness of the importance of SPS requirements amongst the producers. Related training is rare and ad hoc. Inadequate local testing facilities to test and certify against relevant SPS standards increase costs and delays. Lack of a proper pest risk analysis system and need for improved coordination among stakeholders also affect the sector adversely.

Results

Value chain analysis and selection of high export potential crops

National consultants undertook a value chain analysis to identify fruits and vegetables with high export potential, as well as determine the quality, safety and other issues that impede the development and exports of these crops. A focus group discussion was organized with senior government officials, the private sector and research institutes. The key stakeholders engaged in the production, processing and export of fruits and vegetables (e.g. exporters, processors, supermarkets, hotels, farmers, input suppliers, government officials and research institutes) were interviewed on the potential products and the impediments for increasing production and export of the selected products. The final results were presented to the stakeholders who selected, by consensus, three fruit and three vegetable crops with untapped export potential (pineapple, mango, papaya, tomato, chillies and protected agriculture products) for the next stage, along with the relevant districts where those crops are grown.

Enhanced availability of information on updated regulated pest list

The project gathered information on pests/weeds/diseases that affected the fruit and vegetable sector in Sri Lanka. The purpose of the activity was to help the country to minimize pest outbreaks, reduce the risk of contamination, and facilitate trade.

Three scientists with extensive experience in their fields were appointed to upgrade the existing regulated pest list. The pest list of Sri Lanka was updated to meet the national obligation under the International Plant Protection Convention (IPPC). The Director General of the Department of Agriculture (DOA) circulated a draft report to universities and other relevant stakeholders in the agricultural research for their views and comments on the draft prior to publishing the updated list. After a revision of the comments, the final pest list was released through the Department of Agriculture website. A set of equipment was purchased and granted to the National Plant Quarantine Service (NPQS) to enable the conduct of pest surveys (e.g. 1 Stereoscopic microscope, Inverted microscope, Gel documentation system, Units of laptops, Units of GPS, Arc GIS software, Units of Optical visors, Units of Insect collection kits, Units of handheld microscopes). In addition, two-year access to the CABI Crop Protection Compendium was purchased to be used by NPQS. During the training for the Plant Quarantine Service, the participants were shown how to use the tool.

Pest Risk Analysis (PRA) was formally conducted for the first time in Sri Lanka. The initial PRA team was strengthened with a new technical division, "Biosecurity and International Relations", established to coordinate PRA and surveillance work. When required, other technical officers are called to perform PRAs. In 2016, the team conducted 32 rapid PRAs and one comprehensive PRA, and in 2017 27 rapid PRAs and three comprehensive PRAs.

Strengthened SPS capacity and improved entrepreneurial skills of public and private stakeholders

The objective of the capacity building programme was to enhance the knowledge and awareness of key public and private sector stakeholders on the importance of adhering SPS standards. The project introduced training programmes at different levels: plant quarantine department of DOA including 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. The training was delivered through a Train the Trainer (TOT) approach to ensure continuous capacity building after the end of the project. Before the project commenced there was a high variance in knowledge between and within institutions, partly stemming from a lack of coordination among institutions and officials. Lack of awareness and structured training was one of the challenges for the current low supply of safe and high quality fruits and vegetables to local and international markets. The mechanism proposed and delivered under the project was to combine training programmes to help officials from different institutions to better understand SPS requirements, each other's needs and role, and improve coordination. The various programmes started by training the master trainers, and cascaded towards farmers. The training programme was developed in consultation with the Department of Agriculture, Extension Division and Plant Quarantine Service.

More than 40 training programmes and workshops were conducted, and nearly 900 people (from both the public and private sector) were trained on SPS and other related topics. Topics varied depending on the target audience, and included e.g.

modules on Good Agricultural Practices (GAP), pest and disease management at field level, post-harvest handling, phytosanitary and food safety standards, business management, finance and marketing, EU requirements, quarantine aspects, pest risk analysis, pest surveillance, and irradiation techniques. A pool of master trainers (28), field level trainers (47), field level extension officers (149), quarantine inspectors (50), and quarantine master trainers officers (20) of the Department of Agriculture enhanced their knowledge and competency to provide successful trainings.

Field training activities delivered training programmes to more than 550 farmers across the country, on GAP, Identification of Pests and Diseases, Post-harvest handling, SPS issues, Finance and Business & Marketing, and Field Visits. A number of refreshment courses for farmers were conducted already during project implementation.

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

In order to bring more practical experience, the project organized study tours to Europe and Asia. After finalizing the trainings, the two best performing farmers and five best performing exporters attended a study tour to Milan, Italy. The study tour aimed to demonstrate best practices applied in the production of fruits and vegetables, packaging, marketing methods, and to allow networking opportunities via business to business (B2B) sessions. In addition, a study tour to Thailand was organized for 12 best performing farmers and government officials to learn from the practices and systems applied there. Visits to farms, processing and packaging venues, as well as markets were held to showcase the Asian industry. Participants also learnt new techniques applied in the farms that were not practiced in Sri Lanka.

Finally, upon request by the stakeholders and going beyond the expected results, the project initiated the development of a simple GAP system as a step-by-step approach to upgrade the country's farming capacity through the development of training modules, standard development, certification scheme, checklist, and manuals. GAP was piloted in one region by DOA, with the aim of leading to a national programme.

Enhanced availability, accessibility and awareness of information on SPS standards

In addition to presentations for each training module developed under the capacity building programme, the project produced different booklets that were also circulated to the DOA and regional offices conducting trainings. In order to assist the farmers trained under the project and those who did not receive training, brochures on four major topics were developed and distributed in local languages. A booklet "How to minimize Pesticides Residues on Fresh Fruits and Vegetables?" (in Sinhala) was developed and distributed after the EU Food and Veterinary Office audit to help farmers to apply new methods on safe pesticide use.

The project raised public awareness on plant protection thanks to 10 information boards placed at the airport. The project launched also a [website](#), which regularly releases national and international SPS-related news on the fruits and vegetables sector. The website also provided information on the project activities and relevant events.

Boosted market access through Improved public-private cooperation and network

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 exports, and to comply with the international and EU requirements. The fruits and vegetables sector improved its capacity to identify and address challenges, access export opportunities and mobilize additional support. The project facilitated the establishment of a National Export Committee on Improving the Safety and Quality of Fruits and Vegetables, and a National Committee on TBT and SPS. It improved Sri Lanka's ability to comply with the EU's plant health regulations and the recommendations of an official audit of the Food and Veterinary Office (conducted in February 2015) through training Plant Quarantine Officers and other staff of the Department of Agriculture. The project also contributed to a reduction in the number of notifications on non-compliance with the EU's rules and regulations and it reduced the risk of an export ban to the EU.

The project organized business matchmaking sessions and established B2B opportunities. Exporters made individual contacts with 11 farmers at the B2B events, and collectively, established contact with 30 farmers trained under the project in the Welimada area. An online database of trained farmers was made available to the exporters who begun sourcing produce from trained farmers through this database, especially after the introduction of the national GAP standard.

Recommendations

Building further the capacity along the value chains

Conducting further trainings across the relevant value chains, including collectors who supply exporters, will improve further the

knowledge and capacity on the requirements of GAP. After the trainings, time and resources need to be allocated to monitor changes in practices and replication of the trainings.

Scaling up the project through various ensuing activities and projects on SPS matters will also ensure the sustainability of project achievements. Sri Lanka made significant improvements in strengthening its plant health and food safety control systems, but it is crucial to continuously improve based on the recommendations, and follow up by setting up protocols for export (to the EU and other markets).

Under the project, a number of farmers were trained on GAP. As a continuation of this activity, the DoA shall certify farmers and pack houses that successfully undergo audits and comply with the required standards (latest update May 2018).

Improving further the national SPS capacity

In order to strengthen the SPS-related institutional networking mechanism for the F&V sector and public/ private partnership (PPP), it is recommended to:

- Establish a National Committee on Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary Measures (SPS).
- Set up a dedicated Working Group for the fruits and vegetables sector (including spices) under the above-mentioned committee, consisting of all stakeholders (MRL Core Group).
- Strengthen the national enquiry point on SPS, and the national focal points for the relevant international standard-setting organisations.

Sustaining and improving the public-private network

Looking forward, it is important to enable market linkages and facilitate integration between farmers, processors, supermarkets, hotels, and exporters. Stakeholders are encouraged to further build on contacts established with the buyers and companies that expressed interest and conducted feasibility missions to Sri Lanka. These companies could be a good opportunity to pilot a public private partnership project for the development of the sector and improving compliance with SPS measures.

Expanding outreach and improving the project website

The website of the project should continue to function as a repository of updated information on SPS in the fruits and vegetables sector, and as an easy to access platform for the public and private sectors seeking valuable information. It is also recommended to create a blog under the project website, to bring more visibility to the project achievements, and to allow the audience to share their views and ideas concerning the fruits and vegetables sector.