

DRIVING SAFE TRADE SOLUTIONS WORLDWIDE

Supporting farmers, processors and traders in developing countries to access global markets





Standards and Trade Development Facility



Today's global trade landscape is changing. Higher levels of competition mean consumers worldwide are demanding safer food. Across continents, climate change is adding to the problem of pests and diseases that are threatening animal and plant health, putting agricultural production and the environment at risk. Governments are also raising the bar on safety for food and agricultural imports. In turn, sanitary and phytosanitary (SPS) gaps in many developing countries block exports. For small-scale farmers, producers and traders, meeting international food safety, animal and plant health standards clears the path to the global marketplace.

The STDF has delivered inclusive, safe trade solutions in key SPS areas through 85 projects since 2004, most of them in the poorest countries. Across Africa, Asia-Pacific and Latin America and the Caribbean it has helped to set up partnerships across the public and private sector, connecting government agencies to small businesses. It has championed the latest technical know-how and built up people's skills across agricultural value chains. And it has mobilized over US\$25 million to scale up projects and take innovative models further afield.

When trade works for more people, alongside giving a boost to the economy, it drives up incomes in poor areas, promotes domestic food security, protects the environment, improves public health and empowers women. The 25 stories in this book highlight good practice models of how STDF projects and project preparation grants work in practice in food safety, animal and plant health, and cross-cutting SPS areas, with significant results. Thanks to STDF support, projects have helped women shrimp farmers in Bangladesh, ginger cooperatives in Nepal, cabbage producers in Senegal and flower sector workers in Uganda to boost revenues and support their families. Other projects have helped farmers to use lower-risk pesticides on tropical crops across Africa, Latin America and Southeast Asia and access new markets. And there are many more results stories. Worldwide, STDF's partnership continues to transform people's trade and livelihood opportunities, sustaining the development impact at the heart of the UN's agenda to 2030.

FOREWORDS

WORLD BANK GROUP



The Standards and

Trade Development

Facility (STDF) is a

global partnership

countries to access

markets by tackling

phytosanitary (SPS)

gaps, and promoting

food safety, animal

and plant health.

Established by

FAO, OIE, WBG, WHO and WTO,

the STDF works

to facilitate safe

to sustainable

trade, contributing

economic growth,

poverty reduction,

food security and

environmental

protection.

international

sanitary and

that helps developing

Food and Agriculture Organization of the United Nations

Ren Wang Assistant Director-General

Countries' capacities to effectively manage and regulate food safety and plant and animal health are critical for optimizing agricultural productivity, achieving food security, facilitating efficient and safe trade, and supporting socioeconomic development. These interlinkages underpin FAO's commitment not only to develop sanitary and phytosanitary (SPS) capacity, but also to strengthen collaboration among donors and technical agencies, and advocate for increased global investment in SPS management. It is this vision that inspired FAO and its partners to establish the STDF in 2004. FAO plays a unique role in global SPS governance, hosting the Secretariats for the Codex Alimentarius Commission and International Plant Protection Convention, and providing extensive capacity-development assistance in technical and legislative aspects of animal and plant health, and food safety. Integral to the safe international trade in food and agricultural products, FAO is committed to continue fostering meaningful collaboration through the STDF.



WORLD ORGANISATION FOR ANIMAL HEALTH Protecting animals, preserving our buture

Matthew Stone Deputy Director General

Trade in animals and animal products, both terrestrial and aquatic, provides a pathway to food security and economic development for many countries. The OIE's standards on animal health and zoonoses help facilitate safe international trade of animals and animal products. while avoiding unnecessary impediments to trade. Experiences from OIE's PVS Pathway highlight the challenges that many developing countries still face in meeting OIE's standards. As a founding partner of the STDF, the OIE recognizes the Facility's value in strengthening collaboration in SPS capacity building to support capacity to control and manage animal diseases and zoonoses in developing countries, which is a global public good. Several OIE Members have benefitted from the STDF's grant support in different ways, from development of the OIE PVS Tool to implementation of improved animal health legislation and a new project on electronic veterinary certification. The OIE looks forward to continuing its collaboration with the STDF partnership, including on its new OIE Observatory to help its Members harmonize with international standards.



Carlos Felipe Jaramillo Senior Director Macroeconomics. Trade and Investment Global Practice

The World Bank Group (WBG) takes great pride in the results achieved by the STDF's global partnership. Since it was established in 2004 with WBG seed funding of US\$1.13 million, the STDF has worked for sustainable solutions to SPS challenges in developing countries. The STDF is relevant to the WBG's wide array of financial instruments and technical solutions to help countries apply innovative knowledge and solutions to meet international sanitary and phytosanitary (SPS) standards for better health and greater benefits from trade. Through its focus on SPS capacity building, the STDF complements work across the WBG on diverse topics including agricultural and private sector development, agribusiness, food safety, trade facilitation and improved border management, and the development of benchmarks and data for strong analytics. The WBG looks forward to continuing its active role and engagement in the STDF in the future.



World Health Organization

WORLD TRADE ORGANIZATION

Svetlana Akselrod Assistant Director-General

Food safety is an important pillar to achieve food security and reach a higher standard of human wellbeing, in support of the Sustainable Development Goals. In our collective effort to advance food safety, international standard-setting and national capacity building are like the two wheels of a chariot. We cannot go further with the food safety agenda if the two wheels do not turn smoothly together, in parallel. Developing countries will agree to adopt higher safety standards only when they are reassured that technical assistance will follow to allow them to implement these standards. For more than ten years, STDF has been serving as a bridge between those who set food safety standards and those who implement them. WHO looks forward to continuing to partner with STDF to promote dialogue between key players, including donors and developing countries, and inspire visions on how best to drive multisectoral collaboration and enforce synergies for better public health.



Alan Wolff Deputy Director-General

Ensuring that trade flows as smoothly, predictably and freely as possible is at the heart of the WTO. The STDF helps to make this happen. As tariffs have fallen non-tariff measures, including on food safety, animal and plant health, have become ever more important for trade. By helping to improve SPS capacity in developing countries to facilitate safe trade, and providing a forum for coordination among all the organizations involved, the Facility plays a unique role in supporting WTO's Aid for Trade agenda. The STDF also provides valuable support for trade facilitation, helping to reduce the trade costs that most affect small and medium enterprises. WTO Members appreciate STDF's role in facilitating safe and inclusive trade from developing countries, as highlighted recently in a joint statement on maximum residue levels for pesticides by 17 trade ministers at the Ministerial Conference in Buenos Aires. The WTO is proud to host the STDF Secretariat.

2

DELIVERING SAFE TRADE SOLUTIONS WORLDWIDE

STDF builds SPS capacity in developing countries Projects/PPGs 2004-2017, US\$ millions



Project Grants help developing countries to tackle key food safety, animal and/or plant health issues to gain and maintain access to markets.

Project Preparation Grants (PPGs) support developing countries to prepare technically sound and sustainable projects in key SPS areas.

STDF's support for LDCs

Projects/PPGs 2004-2017, US\$ millions



STDF's role in mobilizing resources

Projects/PPGs 2004-2017, US\$ millions



Asia-Pacific

Other

11%

Regions

24%



STDF's investment supports farmers, processors, traders and governments Projects/PPGs 2004-2017, US\$ millions



CONTENTS



FOOD SAFETY

Coordinating action on aflatoxin control in Malawi	1
Promoting safety in Nigeria's sesame and shea exports	1
Building food safety skills for shrimp farmers in Bangladesh	1
Sri Lanka's cinnamon exports get a competitive edge in global markets	1
Boosting safe fruit and vegetable exports from Thailand and Viet Nam	1
Driving knowledge on food safety in cocoa across Southeast Asia	2
Building confidence in regional trade through food inspection in Central America	2
Championing feed and food safety across Africa, Asia and Latin America	2
Supporting Africa, Latin America and Southeast Asia to meet pesticide standards for export	2



PLANT HEALTH

Expanding horizons for safe	20
	30
Partnerships in Senegal boost	
regional exports	32
Stronger phytosanitary controls help	
Uganda's flower exports to grow	34
Centre of Phytosanitary Excellence	
is protecting agriculture and	
and Central Africa	36
Fight against fruit fly bears fruit,	
boosting safer trade in West Africa	38
Knowledge solutions on how	
safe wood packaging supports trade in Africa	40



ANIMAL HEALTH

Shaping investment solutions to drive safe livestock trade in Tanzania	4
Tracing the beef value chain to drive safer trade and exports from Costa Rica	4
Improving animal health legislation in Central America to open up markets	4
Shaping knowledge solutions in animal health worldwide: the OIE PVS Tool	

N**I**

CROSS-CUTTING SPS

Coordinating regional SPS strategies to accelerate trade in Africa	54
Partnerships promote ginger exports and rural incomes in Nepal	56
Safer fruit and vegetable exports secure livelihoods in Sri Lanka	58
Supporting SPS investment priorities for better market access in Belize	60
Meeting standards to drive agricultural exports from Nicaragua	62
Building SPS capacity and cooperation across Latin America and the Caribbean	64







Supporting farmers, processors, traders and governments to meet Codex standards, protect consumer safety and access global markets



Beneficiary

Public and private sector in Malawi

Led by

Ministry of Industry and Trade, in collaboration with ICRISAT and Luz Diaz Rios

Time-frame February – August 2013

STDF funding US\$46,265

COORDINATING ACTION ON AFLATOXIN CONTROL IN MALAWI

The safe trade gap

Aflatoxins, naturally occurring toxins produced by fungi, contaminate many dietary staples in Africa, including groundnuts, maize, cassava, sorghum and rice. In Malawi, one of the world's poorest countries, aflatoxin contamination has been a major problem for agriculture, trade and health. Small-holder farmers in Malawi faced difficulties in controlling aflatoxins in production, and since the 1980s with strict regulations in export markets, trade opportunities closed, impacting the economy. Aflatoxins are also a major food safety challenge, affecting children's growth and liver cancer rates. Government agencies, private sector, donors and development partners, voiced a need for action.

Partnership approach

The Malawi Programme for Aflatoxin Control (MAPAC) effectively brought together stakeholders working in agriculture, health and trade, from government agencies to the private sector and farmers' organizations, research, academia, civil society and consumer organizations. It developed a strategic, coordinated programme for aflatoxin control that built on experiences and lessons, and identified outstanding gaps and priorities. This collaborative approach built on work to prioritize SPS investment options using STDF's P-IMA framework, as well as other assessments and studies. The process led to a widely shared vision for aflatoxin control, with agreement on priority actions, key roles and responsibilities, a coordination mechanism, available financing and investment gaps.

Results

- MAPAC led to a coordinated, strategic response to aflatoxin control across agriculture, public health and trade, helping to raise awareness, plug gaps and leverage resources.
- MAPAC helped to set up the institutional framework for coordinated action on aflatoxin control, creating and funding a MAPAC Steering Committee and Aflatoxin Technical Working Group, and a national-level MAPAC coordinator role in the Ministry of Industry and Trade.
- With MAPAC in place, the African Union Commission through the Partnership for Aflatoxin Control in Africa (PACA) selected Malawi as a pilot country for aflatoxin mitigation measures.
- PACA and development partners, including WBG, allocated resources to roll out MAPAC activities. The government is working to secure resources for outstanding needs.
- PACA has highlighted the value of MAPAC's multi-stakeholder and crosssectoral process to respond to the aflatoxin challenge, promoting the approach to other countries in the region.

Sustaining impact

- Since 2014, PACA has supported MAPAC, including with an analysis on the economic impact of aflatoxins in Malawi, and it continues to be a valuable planning and financing framework.
- MAPAC was the catalyst to develop and roll out a new aflatoxin communications strategy in 2016 and use new technology to test for aflatoxins without the need for technical skills. MAPAC has provided inputs into other efforts for an improved food safety policy for Malawi.
- Experiences and lessons from MAPAC have been shared at global events, from conferences to webinars by the Global Donor Platform for Rural Development, and WBG.
- In 2017, PACA worked to secure support for a revised MAPAC resource mobilization strategy.

"MAPAC provided a coherent national plan to drive systemic change in aflatoxin control, going beyond episodic, fragmented and scattered efforts to date. If fully funded, the roll-out of this plan will lead to meaningful and sustained health and economic impacts on the ground".

> Wezi Chunga-Sambo, PACA



Led by NEPC, with ITC

Time-frame October 2010 – September 2013

STDF funding US\$364,240 (total project value US\$545,040)



Results

- Eight sites were set up nationwide with modern processing equipment for cleaning sesame seeds and processing shea butter. A cost-sharing partnership between the private sector, cooperatives and NEPC manages the sites providing job opportunities and higher incomes, particularly for women.
- A training programme for extension officers, traders, exporters and standards enforcement officers was rolled out on Good Manufacturing Practices and HACCP to improve product safety and quality. Over 1,000 women processors have been trained.
- Manuals on safety and quality, codes of good practice and national standards were updated, and a traceability system was set up for both sesame seeds and shea nut products.
- Risks associated with aflatoxin contamination along the sesame and shea supply chains have been minimized, promoting exports to international markets, in line with the country's goal to become the global leader in shea exports.

Sustaining impact

- As a result of the project, Ifedawapo Sheabutter Cooperative in Saki (made up of 120 small-scale buyers and processors) has had product samples certified by the National Agency for Food and Drug Administration and Control and by internationally accredited laboratories.
- Within two years of the project, the Cooperative sold over 200 metric tons to major Nigeria and US cosmetics companies and secured additional orders for a further 500 metric tons.
- The development of shea butter processing sites is being replicated nationwide. More than four new processing facilities have been operationalized, bringing new opportunities for women and young people.

"The Shea centre in Saki impacted the community – from organizing women into co-operatives to training in specialist skills - and increased throughput by 80% in the last three years. Overall improvement in quality has led to shea exports to the US, Canada and Jordan".

Mobola Sagoe, Shea Origin Ltd. Nigeria

Find out more standardsfacility.org/ PG-172

PROMOTING SAFETY IN NIGERIA'S SESAME AND SHEA EXPORTS

In Nigeria, sesame seeds and shea nuts

are agricultural products with a high

potential for export, with the country

ranking among the top producers

worldwide for both products. But faced

with severe gaps in safety and quality

management systems, the presence of

aflatoxins caused by poor storage and

impurities had put a break on meeting

global demand. That led to products

being unable to gain access to high-

value markets in Europe and the US. At

the same time, the livelihoods of rural

communities most dependent on the

sector have been hard-hit, particularly

those of women who play an important

role in shea nut processing as members

Through a public-private partnership, the Nigeria Export Promotion Council

(NEPC) and ITC worked together with 14 collaborating partners from across

government and industry, including

local agencies and trade associations

such as the Sesame Seed Association

and Shea Nut Producers Association.

Together they have been driving good

practices in production and control

along the sesame seed and shea nut

supply chain. Awareness-raising and

information sharing activities included

circulating publicity material nationwide

and setting up public-private dialogues,

supported by the development of a

project website. A series of capacity

building workshops on safety and

quality connected stakeholders along

the production and supply chain and

promoted trade opportunities.

of local cooperatives.

Partnership approach

The safe trade gap



BUILDING FOOD SAFETY SKILLS FOR SHRIMP FARMERS IN BANGLADESH

The safe trade gap

Coastal communities in Bangladesh depend on shrimp and prawn farming as a vital source of employment, income and food security. Over 200,000 small-scale farmers are involved in shrimp aquaculture and shrimps are the second most important export commodity in Bangladesh after textiles. However, in recent years, shrimp and prawn products from Bangladesh have faced rejections at international borders due to the detection of contamination and residues. Grassroots problems linked to food safety and sanitary contamination at the farm level meant that the livelihoods of large numbers of farmers were under threat and that aquaculture exports were at risk.

Partnership approach

The FAO and local partners - the Department of Fisheries, WorldFish, and the Bangladesh Shrimp and Fish Foundation - mobilized 1,000 small-scale shrimp and prawn farmers supporting them to adopt Better Management Practices and Good Aquaculture Practices. The farmers, many of them women, were organized into 40 clusters, each made up of 25 farmers, with an average farm size of 0.54 hectares. This, in turn, created economies of scale. Working together, the farmers increased their bargaining power, purchasing feed directly from manufacturers which cut out their reliance on middlemen. They developed local support networks with the knowledge, skills and support to upgrade the safety and quality of shrimp production, and provide a steady supply to processors.

Find out more standardsfacility.org/ PG-321

"After joining this

project I am getting

profits every year.

I don't have to wait

for long to sell out

because my shrimps

are bigger and look

healthier. Now it

makes me proud

that people come

to me for advice".

Chompa Debnath.

shrimp farmer,

Bangladesh

at the market

Results

- Total income from shrimp and prawn ponds increased by 70% in 2015, compared with the baseline in 2013. Data from future harvests is expected to show even greater gains.
- Increase in harvest yields of 60-70% thanks to knowledge transfer. This included how to stock ponds with tested shrimp seed, reduce the number of times ponds are stocked and harvested, and how to increase pond depths.
- A basic traceability system at the farm level was set up by mapping out the shrimp and prawn value chain.

Sustaining impact

- Based on the project's results, FAO and the Ministry of Fisheries and Livestock plan to scale-up the project's approach to reach 20,000 small-scale farmers. This will make sure there is sufficient volume for processors to segregate the clean shrimp, and help the clusters to establish a direct line of exports.
- Scaling up the project will also help to refine and improve the existing traceability system, so that farmers can guarantee the safety and quality of produce. The target is to secure up to US\$10 million to up-scale the cluster approach so that many more shrimp farmers can benefit.



Beneficiary

Small-scale shrimp and prawn farmers in Bangladesh

Led by

FAO, with the Department of Fisheries, WorldFish, and the Bangladesh Shrimp and Fish Foundation

Time-frame April 2012 – June 2016

STDF funding US\$637,000 (total project

value US\$823,800)

14

Beneficiary Cinnamon industry in Sri Lanka,

including cinnamon peelers and processors Led by UNIDO, with The Spice Council of Sri Lanka

Time-frame July 2012 - October 2016

STDF funding US\$705,600 (total project value US\$2,205,600)



SRI LANKA'S CINNAMON EXPORTS GET A COMPETITIVE EDGE IN GLOBAL MARKETS

The safe trade gap

Ceylon cinnamon is one of Sri Lanka's most sought after exports, with the country producing four-fifths of world output. At the same time, the industry has been supporting the livelihoods of 70,000 small farmers and employing over 350,000 people. However, over the last decade the country's cinnamon exports have been falling in the European and Northern American markets as a result of not being able to meet global buyers' demands on food safety and hygiene standards. In addition, the industry faced a severe labour shortage due to migration and the social stigma associated with cinnamon peeling.

Partnership approach

Since 2012, a strong public-private partnership has brought together the Sri Lankan government, UNIDO, and The Spice Council – the apex body representing the cinnamon industry – which has helped to mobilize additional assistance. The partnership focused on boosting the productive capacities and competitiveness of the cinnamon value chain and on increasing exports to high-end markets. Vocational training on improved food safety and hygiene practices was rolled out along the value chain. Infrastructure at selected production centres was upgraded, which has improved working conditions in the industry. This, in turn, has triggered a transformational change in the sector.

Results

- A nationally accredited vocational training programme was developed, which promotes internationally recognized food safety certification. As a result, the Cinnamon Training Academy now provides National Vocational Qualifications for cinnamon factory and field officers.
- Awareness-raising and National Vocational Qualification training on food safety and hygiene practices have reached over 1,000 people.

- Six cinnamon processing centres have been upgraded, allowing them to obtain Good Manufacturing Practices certification. Among those is the Kahawatte Plantation, where the majority of workers are women.
- More cinnamon peelers and processors (including women) have joined the sector thanks to certified vocational training and decent working conditions. Social marketing has helped to mitigate the social stigma associated with cinnamon peeling and promote career opportunities in the sector.
- Branding and market positioning helped to stem the decline of Ceylon cinnamon's share in international markets, which has improved the living standards of communities across the industry.

Sustaining impact

- The project provided the assessment based on the underlying safety and quality standards to enhance the "Pure Ceylon Cinnamon" mark, supporting Sri Lanka to move forward with its aim to obtain Geographical Indication. The trademark is in the process of being registered in high-end markets, including the EU, the US, Colombia and Peru.
- Through the public-private partnership, the project has supported the development of a roadmap for the Ceylon cinnamon value chain to reach the country's goal to "make cinnamon a one billion dollar industry".
- As a result of greater global competitiveness, businesses such as Cinnamon Legends have been able to expand operations and are currently the number one exporter of "Pure Ceylon Cinnamon" worldwide.

"The project has really improved the conditions of families involved in the cinnamon industry".

Sarada De Silva, Cinnamon Training Academy, Sri Lanka

Find out more

PG-343

standardsfacility.org/



Beneficiary

Fruit and vegetable producers, exporters and retailers in Thailand and Viet Nam Led by

MSU, with Kasetsart University and Can Tho University

Time-frame January 2011 – June 2013

STDF funding US\$581,665 (total project value US\$719,275)

BOOSTING SAFE FRUIT AND VEGETABLE EXPORTS FROM THAILAND AND VIET NAM

The safe trade gap

Getting fruits and vegetables to meet international food safety standards turned out to be the missing link for smallscale producers, processors and traders in Thailand and Viet Nam to access higher-value markets. Small farmers, processors and others in the value chain struggled to meet international standards and good practices that would guarantee the safety and quality of their produce. As a result, farmers suffered post-harvest losses and their produce was rejected by buyers. Exporters were unable to access higher-value domestic and global markets.

Partnership approach

Tailored education and training programmes on fresh and processed fruit and vegetable value chains were developed and run by Michigan State University (MSU), with Kasetsart University (Thailand) and Can Tho University (Viet Nam). Based on international (Codex) standards, the competency-based learning modules used the structured, step-by-step approach of the GFSI Global Markets Programme. To promote an inclusive and scalable approach, e-learning and e-resources in local languages were shared to boost knowledge and skills development. Face-to-face training was provided to ensure benefits for rural stakeholders with limited internet access. Strong and lasting partnerships were built with government authorities and major food businesses, with cost-sharing helping to expand the uptake of training.

STDF project was a game changer for my company. It was the springboard to get HACCP and ISO22000:2005 certification. This enabled us to export fruit and vegetables to the EU, Japan and the US".

"Being part of the

Phan Quoc Manh Hung, Former owner, Hung Phat JSC. Viet Nam

Find out more standardsfacility.org/ PG-326

Results

Better management of food safety risks along supply chains led to reduced rejections, increased sales and better access to domestic and export markets. For instance:

- Fruit and vegetable exporter, Hung Phat Joint Stock Company (JSC), Viet Nam gained ISO 22000: 2005 certification, opening up access to the EU, Japan and US markets.
- Onion cooperative, of mostly women farmers, in Vinh Chau District, Viet Nam had 50% fewer produce rejections and increased incomes thanks to Good Agricultural Practices training. The women farmers now exercise more of the decision-making.
- Retailer, SIAM-MAKRO, Thailand increased its supply from small-scale farmers and processors.
- Vegetable cooperative, Wang Nam Khiao, Thailand obtained the Organic Thailand certification and saw its customer base increase by 10% and sales boosted by 18%.

Sustaining impact

- An independent evaluation in 2015 found the project had "significant and lasting impact on enhancing management of food safety risks within fruit and vegetable chains". All the beneficiaries visited gained "in terms of improved market access, higher incomes and lower levels of product rejections".
- Training produced under the project is now included in government extension services, private sector and local university programmes, reaching more farmers, processors and exporters.
- Options exist to further disseminate the training modules to promote wider uptake in Thailand and Viet Nam, and support the delivery of harmonized food safety training within ASEAN.

Beneficiary

Cocoa farmers, agro-dealers, processors and traders in Indonesia, Malaysia and Papua New Guinea

Led by

CABI, with the Indonesian Coffee and Cocoa Research Institute, the Malaysian Cocoa Board, the Papua New Guinea Cocoa and Coconut Institute Ltd., and the ICCO

Time-frame November 2013 – April 2016

STDF funding US\$652,851 (total project value US\$945,280)



DRIVING KNOWLEDGE ON FOOD SAFETY IN COCOA ACROSS SOUTHEAST ASIA

The safe trade gap

Cocoa is a vital source of income for thousands of small-holder farmers across Southeast Asia but their livelihoods have been threatened by low productivity and a decline in exports. Consumers worldwide have raised concerns about food safety along the cocoa supply chain, from pesticide residue levels to contamination, which has led to growing legislation and regulations. Countries in the region – Indonesia, Malaysia, Papua New Guinea – faced critical challenges to meeting food safety standards and were at risk of losing access to high-value markets in Europe, the US and Japan.

Partnership approach

Across Southeast Asia, dynamic public and private partnerships came together led by CABI, working with national institutions including the Indonesian Coffee and Cocoa Research Institute, the Malaysian Cocoa Board, the Papua New Guinea Cocoa and Coconut Institute Ltd., as well as ICCO and CropLife Asia. The project developed a regional approach to train facilitators including farmer leaders, extension officers, agro-dealers and processors, and to promote good practices at the farm and post-harvest. At the same time, publicity campaigns used online and audio-visual materials to reach groups along the cocoa value chain. Activities were adapted for the local context and impact surveys measured how training was driving knowledge and skills development on food safety.

Results

 Over 650 extension officers, farmer leaders, agro-dealers, traders and processors were trained and showed increased knowledge of Good Agricultural Practices, pest and disease control, post-harvest practices and regulations.

- Master Facilitators in Malaysia and Indonesia built up skills on safe cocoa practices to train trainers, which helped to disseminate improved knowledge more widely.
- Cocoa farmers reported that 90% of the major problems with growing cocoa had decreased and farmer leaders highlighted a fourfold increase in cocoa yields, 18 months after the baseline survey (Ranau, Malaysia).
- Over 90% of cocoa farmers chose to remove and bury diseased/black pods and up to 100% of agro processors were storing beans in sacks in warehouses (Sulawesi, Indonesia).

Sustaining impact

- As a spill-over effect, farmers better understood the importance of using protective clothing and equipment and how to safely use branded chemicals to manage pests and diseases.
- Training modules were included in the Malaysian Cocoa Board's Advance Course of Cocoa Technologies to increase farmers' productivity and cocoa quality.
- Opportunities exist to scale up activities across Indonesia, Malaysia and Papua New Guinea, using the Farmer Field School approach, and build capacity along the cocoa value chain.

"All of the training materials are very useful for cocoa farmers. We will apply them for producing high and quality cocoa beans, and to obtain UTZ certification. Now I understand the importance of wearing hats and masks for protection when the chemicals are applied".

Eko Santoso, cocoa farmer, East Java





Fanny Maradiaga, National Agricultural University, Honduras

Find out more standardsfacility.org/ PG-344

BUILDING CONFIDENCE IN REGIONAL TRADE THROUGH FOOD INSPECTION IN CENTRAL AMERICA

The safe trade gap

Food inspection improves the safety of fresh or processed foods, which in turn promotes regional and international trade and protects consumer health. In Central America and the Dominican Republic the different food inspection agencies needed to find a way to work closely together to plug potential overlaps or gaps in food safety inspection. The solution was to set up a regional food inspection school to train food inspectors in each country and modernize food inspection techniques, which would help to build greater confidence across the region's trading partners.

Partnership approach

An innovative Regional Virtual Food Inspection School (ERVIA) was set up to harmonize and improve food inspection procedures, drawing together strong international partnerships led by IICA. An Academic Council of universities from each of the eight countries developed and rolled out the courses. An International Advisory Group focused on the curriculum and training materials, with representatives from Argentina, Costa Rica, Europe, the US, FAO, OIRSA, PAHO, and other national and international food safety institutions. Food safety control agencies from Ministries of Agriculture and Health formed a Technical Consultative Group to review and approve the curriculum and training methods, working to best meet countries' needs.

Results

 Alongside the Virtual Food Inspection School, a virtual training course on food inspection was developed and made available on IICA's open-source learning platform in Spanish.

- Over 470 inspectors from Central America and the Dominican Republic were successfully trained, creating a cadre of inspectors with the latest skills and knowledge on modern food safety inspection techniques. Small and mediumsized producers also learned about Good Agricultural Practices based on effective inspections during primary production.
- A regional network of academic experts on food inspection was created, and training on food auditing for university partners was made available on IICA's platform in English and Spanish.

Sustaining impact

- Standardized food inspection training is building confidence in each country's application of regional, harmonized regulations among trading partners, helping to facilitate market access for food products.
- According to the final project report, harmonized food inspection procedures across Central America will make it easier to move towards a customs union and positively impact the health of consumers.
- A sustainability proposal developed by the Academic Council and Technical Consultative Group aims to roll out the food inspection training further at both regional and local levels.



Beneficiary

Public and private sector in Belize, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua and Panama

Led by IICA

Time-frame July 2012 – June 2016

STDF funding US\$977,643 (total project value US\$1,534,294) **Beneficiary** Feed industry and regulators in developing countries and emerging economies

Led by IFIF and FAO

Time-frame June 2005 – November 2006

STDF funding US\$150,000 (total project value US\$220,000)



CHAMPIONING FEED AND FOOD SAFETY ACROSS AFRICA, ASIA AND LATIN AMERICA

The safe trade gap

For producers and the feed industry in developing countries and emerging economies, meeting rising safety and quality standards for export and domestic markets is a big challenge. Applying the Codex code of practice on good animal feeding is key to increase food safety and boost trade in feed products and products of animal origin. However, exporting and importing countries need a more level playing field. Everyone along the production and distribution chain, from feed mill managers to inspection officers, needs access to information on Good Manufacturing Practices and feed safety standards. Legislation and regulations need updating, and policy-makers and industry need the tools to make this happen, which in turn will promote regional and international trade.

Partnership approach

The International Feed Industry Federation (IFIF) and FAO joined forces to champion the safe production and supply of animal feed globally, bringing together the feed industry, livestock producers and government agencies, particularly across Africa and Latin America. A new "Feed Manual of Good Practices for the Feed Industry" was developed, setting out practical guidelines for producers and industry to help meet the Codex code of practice and support higher feed and food safety standards in developing economies. IFIF and FAO have also run targeted workshops and hands-on training for feed officers, producers and feed industries in 15 countries worldwide.

Results

 The "Manual of Good Practices for the Feed Industry" (in Arabic, Chinese, English, French and Spanish) supported the development of new feed safety regulation and standards in Argentina, Costa Rica, Ethiopia, Suriname, Uganda and many other countries.

- IFIF and FAO used the Manual in capacity development projects and workshops across Africa, Asia and Latin America, helping regulators and industry to increase the safety of feed and food.
- Set up of the Latin American Feed Industry Association (FeedLatina) and the Southern African Feed Manufacturers' Association. Both help to harmonize legislation and regulations within their regions, boosting trade and creating self-regulating regional industries.
- Catalyzed the creation of the FAO-led Feed Safety Multi-Stakeholder Partnership to support capacity development and the Global Feed Safety Platform to share information and knowledge worldwide.

Sustaining impact

Thanks to the project's support, feed and food safety continue to improve worldwide:

- Feed regulators and industry in developing countries and emerging economies continue to use the Manual as a reference for updating and comparing legislation and regulations. Across Africa, Asia and Latin America, governments and companies have made changes to meet the Codex code of practice on good animal feeding. The Manual was the third most downloaded publication from the FAO website until 2016.
- The Manual is being used to train government officers and industry, and raise awareness among policy-makers and producers. It is also being used as a teaching tool in universities, receiving positive feedback from students.

"The Manual has made very positive impact in the industry by bringing the feed operators and the regulatory agencies closer. Cooperation is now very high between regulators and the industry".

Nigerian National Feed Association



MRL PROJECT IN AFRICA

Led by AU-IBAR, FAO, Rutgers University and USDA Time-frame 2013 - 2017

STDF funding US\$446,150 (total project value US\$1,064,450)

MRL PROJECT IN LATIN AMERICA

Led by IICA, FAO, Rutgers University

and USDA Time-frame 2013 - 2016

STDF funding US\$374.166

(total project value:

US\$1,195,416)

US\$637,000 (total project value: US\$1,242,000)

MRL PROJECT IN

SOUTHEAST ASIA

ASEAN Secretariat.

University and USDA

FAO, Rutgers

Time-frame

2012 - 2016

STDF funding

Led by

SUPPORTING AFRICA, LATIN AMERICA AND SOUTHEAST ASIA TO MEET PESTICIDE STANDARDS FOR EXPORT

The safe trade gap

When producers and traders in developing countries are unable to meet pesticide residue standards, their fruit and vegetable exports are rejected. That happens because few Maximum Residue Limits (MRLs) exist for tropical crops, or because the MRLs differ from Codex standards or for different trading partners. There are often big gaps in residue data in developing countries due to limited knowledge, and the costs of generating data and registering new pesticides. This discourages private sector investment. As a result, farmers are using older, less environmentally-friendly pesticides, which are less effective for managing pests and diseases and more likely to block trade.

Partnership approach

Across Africa, Latin America and Southeast Asia, government authorities partnered with multinational pesticide manufacturers, industry associations, farmers and international partners to carry out coordinated and complementary pesticide residue studies. This collaborative approach generated data to support the registration of new, improved low-risk pesticides for farmers. With these new crop protection tools, farmers can control pests and diseases more effectively, while meeting international food safety standards and facilitating safe trade. Plus there are added benefits when it comes to agricultural productivity, promoting environmental health and consumer safety.

Results

- Thanks to field and lab-based training, over 160 scientists and government officials developed new skills to generate, review and interpret pesticide residue data. This led to more active participation in Codex meetings, making sure developing countries' needs are better reflected.
- Project partners completed 10 new residue studies. Data from the studies is supporting new MRLs for minor-use crops such as dragon fruit, mango and papaya. By the end of the projects, data was generated for at least 10 new Codex MRLs.
- Public-private collaboration plugged data gaps and improved results. Pooling data led to more robust data sets, reflecting geographic and climatic diversity, and generated cost savings of over 90%.
- Government officials gained the know-how to design regulatory frameworks for pesticides that meet public health and environmental objectives. The private sector registered new reduced-risk pesticides in 18 countries, expanding access to environmentally-friendly tools, alongside the new Codex standards coming in 2018-19.

Sustaining impact

- In 2015 project partners set up the Global Minor Use Foundation, supported by the USDA and the private sector. The Foundation builds on the projects' results and has mobilized over US\$550,000 to expand low-risk pesticide options for tropical produce.
- A sustainable model for joint residue projects was launched in over 13 developing countries, with governments funding research, the private sector giving technical support and financing, and the Foundation supporting capacity building.
- The projects' role in catalyzing global public-private sector collaboration was recognized in a high-level statement signed by 17 governments at the 11th WTO Ministerial Conference in 2017.

"Field trials under the project identified new and better options to control pests affecting mango production in Africa. With data from the trials going to help set a new MRL, African mango farmers will see production losses fall and overseas markets open up".

> Paul Osei-Fosu, Ghana Standards Authority

Find out more standardsfacility.org/ PG-337; standardsfacility.org/ PG-359 and standardsfacility.org/ PG-436





Supporting farmers, processors, traders and governments to meet IPPC standards, protect crops from pests and diseases, and access global markets



Beneficiary Horticulture sector in Rwanda

Led by

MSU and partners, the Bureau of Standards, the Horticultural Development Authority, the Ministry of Agriculture and Animal Resources, and WBG

Time-frame May 2007 – May 2009

STDF funding US\$589,845 (total project value US\$642,545)

EXPANDING HORIZONS FOR SAFE HORTICULTURAL EXPORTS FROM RWANDA

The safe trade gap

Rwanda's horticulture sector was growing thanks to a favourable climate and supply of labour in the country. However, producers and traders in the sector faced multiple barriers to accessing regional and international markets. There was a lack of domestic and international confidence that fruits, vegetables and flowers from Rwanda were free from pests and diseases, safe for human health and safe for the environment. Without a national system of inspections and certification in place, meeting international phytosanitary standards to help boost exports was out of reach.

Partnership approach

Driving efforts to set up a strong SPS management system in the country were the Bureau of Standards and the Rwanda Horticultural Development Authority in the Ministry of Agriculture and Animal Resources. The project was rolled out by MSU, and supported by WBG. Joint decision-making and coordination among government authorities, agencies and stakeholders across the sector helped to streamline intergovernmental policies on horticultural exports. A fresh public-private partnership led on national phytosanitary activities, including drafting legislation, developing an SPS action plan for the horticulture sector and taking forward training modules to build know-how.

Results

- Thanks to the project, Rwanda signed up to the IPPC, establishing the country as an important part of the international phytosanitary community.
- A National Plant Protection Organization was set up to manage and operate a phytosanitary certification system to support the safe exports of plants and plant products.
- A plant protection and agrochemicals law was drafted to effectively control pests and set up a sustainable national phytosanitary structure.
- An SPS horticultural action plan developed under the project is being used by the National Agriculture Export Development Board to carry out horticultural activities.
- The project raised awareness and increased the knowledge base in the sector. Training for officials, technicians and private operators focused on horticultural phytosanitary issues, Good Agricultural Practices, integrated pest management and surveillance.

Sustaining impact

- Rwandan horticultural and phytosanitary authorities are continuing to use the institutional structures and national action plans that were developed under the project.
- Following the project, other technical assistance projects, including by the Belgian Development Agency and WBG, have sustained efforts to improve plant health and food safety in the horticultural sector.
- Building on the project's foundation, new legislation on plant health protection was passed by Parliament in 2016 to boost strategies and measures to control plant pests and diseases. This includes issuing phytosanitary certificates and inspections by the competent authority.

capacity building programme strengthened the institutional phytosanitary framework. This resulted in improved export certification. and better use and control of agrochemicals, helping us to develop safe horticulture exports. The outcome was a gradual drop in reports of noncompliance with EU requirements".

"A customized

Vianney Kabera, Rwanda Horticulture Exporters Association

Beneficiary Farmers and other stakeholders along the cabbage value chain in Senegal

Led by AUMN

Time-frame February 2012 – July 2014 STDF funding US\$577,142 (total project value US\$636,175)



PARTNERSHIPS IN SENEGAL BOOST SAFE CABBAGE PRODUCTION AND REGIONAL EXPORTS

The safe trade gap

The cabbage sector is one of the most important sectors of Senegalese agriculture, and Senegal is one of the main suppliers of cabbage for the region. Yet, the sector in the country was not well organized, and suffered from a lack of awareness and expertise on how to meet SPS standards. Information gaps resulted in pest attacks, and the excessive use or misuse of pesticides, which led to rejections at borders due to toxic residues that were not in line with export market requirements. At the same time, tackling poverty and driving rural development in cabbage growing areas was a pressing challenge. To boost productivity in the cabbage sector and promote better access to regional markets, there was a need to find solutions to plug gaps in safety and quality across the value chain.

Partnership approach

Collaboration and dialogue among the public and private actors in the cabbage sector was key to the success of the project, led by the Association des Unions Maraîchères des Niayes (AUMN). Together, small-scale growers, traders and government agencies worked with the industry association to revitalize cabbage production and develop the sector. A draft national strategy was developed and laid the foundation for stakeholder cooperation, helping to promote value chain development and replicate the project's approach longer-term. The project supplied quality inputs (seeds, fertilizers and pesticides) to growers, rolled out technical training and support for producers on Good Agricultural Practices and ran targeted marketing campaigns on safety and quality production.

Results

 Increased farmer productivity – from 15 to 30 tonnes per hectare; improved quality – pesticide residues dropped reassuring customers of non-toxic products, with benefits for public health and the environment; more competitive prices – processing costs fell by 42%.

- Introduction of new cabbage species adapted to the seasons; use of innovative production techniques, and monitoring of major pests. A traceability sheet collected real-time information on the production cost of quality cabbage and is now used by producers.
- Upgraded transport, packing and conservation along the value chain. The use of crates to transport the produce and cold rooms to store the cabbage helped to preserve cabbage quality. Producers were also able to opt for 2, 10 and 15 kg bags valued by end consumers.
- Producers gained new market shares in the region, in particular in Mauritania, Mali, The Gambia and Guinea-Bissau. Exports went from 1,900 tonnes in 2008 to 6,000 tonnes in 2014.

Sustaining impact

- By improving phytosanitary conditions, the project led to improved quality of cabbage and is being used as an example for other cabbage producers in the area and wider region.
- An inter-professional cabbage network was set up during the project, which continues to strengthen dialogue between growers and sellers.
- The project led to more purchasing and order contracts and more predictability for traders, including demand tailored to customer needs, such as requests for different cabbage sizes.
- Thanks to the project, AUMN has become a key partner for the national SPS authorities on topics related to the development of the horticultural sector as a whole.
- Improved infrastructure, including better roads to safely transport cabbage and inputs to growers, which came about during the project, is supporting rural development in the area.

"The project's success was due to genuine collaboration between the private sector and public institutions. We ioined our efforts in support of a common objective - helping smallscale producers to improve the auality and safety of cabbage, which increased their access to regional export markets".

Mamadou Ndiaye, AUMN



Beneficiary Flower producers in Uganda Led by CABI and the Department of Crop Protection in Uganda and UFEA Time-frame October 2012 – March 2015 STDF funding

US\$383,495 (total project value US\$427,017)

STRONGER PHYTOSANITARY CONTROLS HELP UGANDA'S FLOWER EXPORTS TO GROW

The safe trade gap

Flower producers in Uganda faced heavy losses with the growing interception of cut flower exports to the EU. Costs rose with increased inspections, treatment and rejected consignments. In turn, investment in the sector was slowing, which was impacting on trade flows and economic growth. The problem – plant pests. The solution – getting the right tools and knowledge on phytosanitary measures in place to keep the flower supply chain safe. At the same time this would help to safeguard the livelihoods of the country's 6,000 flower workers, 80% of them women, and their families.

Partnership approach

Flower producers and exporters came together with the Department of Crop Protection (DCP) in Uganda to build capacity to meet international phytosanitary standards and EU requirements. A strong public-private partnership between the DCP and the Uganda Flower Exporters Association (UFEA) was created based on joint dialogue and planning. Efforts were made to raise awareness and gain buy-in from national decision-makers. With technical expertise from CABI and other partners, hands-on practical training and study tours were rolled out for the public and private sector. Government teams were deployed to boost efficiency of inspections and certification at exit points and an electronic format for export certification and accessible reference materials were developed.

Results

- Numbers of interceptions on roses due to plant pests fell from 34 in 2013 to 18 in 2014 and to less than five in 2015 and continued to fall in 2016. The livelihoods of the majority women workers dependent on the flower industry stand to benefit as exports to the EU continue.
- Over 100 scouts across the flower sector and 10 inspectors have been trained by the Centre of Phytosanitary Excellence (COPE). Inspectors and industry showed high levels of knowledge on international phytosanitary standards and EU legislation to meet EU market demands.
- A streamlined inspection and export certification system was set up, together with a surveillance, monitoring and traceability system. A manual with 12 Standard Operating Procedures was developed with operations linked to the Plant Protection and Health Act 2015.

Sustaining impact

- An evaluation in 2015 found that thanks to the project there was "improved compliance with international phytosanitary standards for production and export of flowers for the European market". "Awareness on the relevant phytosanitary issues in relation to the export to the EU has increased significantly" and, at the same time, "the response of the cut flower sector on the survey and monitoring program reached a very reactive and responsive level".
- Flower farms have also set up a self-regulating system on monitoring and surveillance, with disincentives for non-compliance, managed by a Task Team of government and industry.
- The DCP and UFEA have since signed a new public-private partnership to sustain their collaboration and increase flower production and exports.

biological agents improves the health and safety of women who work in the greenhouse by reducing exposure to pesticides and its health risks. Of the 8,500 direct workers in the flower sector, 80% are women who have an income for their families".

UFEA

"The use of

Beneficiary

National and regional authorities and the private sector across East and Central Africa Led by CABI, and partners, FAO, IPPC and KEPHIS

Time-frame May 2008 – November 2010 STDF funding US\$763,880 (total project value US\$851,240)



CENTRE OF PHYTOSANITARY EXCELLENCE IS PROTECTING AGRICULTURE AND SUPPORTING TRADE ACROSS EAST AND CENTRAL AFRICA

The safe trade gap

Across East and Central Africa, crop losses during production and post-harvest have challenged the region's food safety and security and the ability of countries to compete in global horticultural trade. Plugging the capacity gap on plant health and preventing the spread of plant pests was vital to protect agriculture and natural resources. At the same time, the IPPC's capacity evaluation tool showed that national and regional authorities were unable to meet international phytosanitary standards – a longer term regional approach was needed.

Partnership approach

The Centre of Phytosanitary Excellence (COPE), set up in 2010, is going strong as a regional centre without borders and operates across East and Central Africa. Set up by CABI and partners, FAO, IPPC and the Kenya Plant Health Inspectorate Services (KEPHIS), the Secretariat is based in Kenya and run by KEPHIS and the University of Nairobi with a wide public-private partnership on the Advisory Board. COPE's mission is to provide phytosanitary capacity building services to clients in the public and private sectors, so that countries are better able to prevent the introduction and spread of plant pests and meet the phytosanitary requirements of international trade. To deliver on its mission, COPE's regional network is expanding to include universities, regional economic bodies, technical agencies and development partners.

Results

- COPE's updated online platform, www.africacope.org, features training modules, the latest plant health resources and publications and information on upcoming events.
- A fully equipped Training Unit offers five short, in-service courses, three university diplomas on phytosanitary measures and customized programmes to plug capacity gaps.

- Nearly 1,000 plant inspectors and phytosanitary managers from National Plant Protection Organizations and farmer groups have been trained across 15 countries. For example, COPE trained over 100 scouts in the Ugandan flower sector and 10 inspectors. This has helped exports to the EU to continue thanks to a fall in interceptions on roses due to plant pests.
- A Pest Risk Analysis Unit is in place with a network of regional pest risk analysts that supports countries and regional bodies, such as COMESA and EAC, to update pest lists for priority commodities.

Sustaining impact

- COPE's public-private partnership is self-sustaining, having set up a not-for-profit business model and developed its trademark COPE logo and marketing strategy.
- A fee-based approach is in place for COPE to deliver consultancy services and capacity building, with yearly training targets that include reaching 350 people in 2016-17.
- COPE hosted the first International Phytosanitary Conference in Africa in 2016 – funded from its training programme. The regional dialogue brought together 100 African and global stakeholders to share knowledge and good practice on current plant health topics from food security to trade facilitation.

"Targeted training by COPE for phytosanitary inspectors and the private sector helped upgrade knowledge and skills in Uganda to better protect against plant pests. The outcome is a tremendous reduction in noncompliance to phytosanitary trade requirements for flower exports to the EU".

Tumuboine Ephrance, Ministry of Agriculture, Animal Industry and Fisheries, Uganda



WEST AFRICAN FRUIT FLY INITIATIVE (WAFFI 2)

Led by: CIRAD, WBG and EU Time-frame: April 2009 – March 2010 STDF funding: US\$313,220 (total project value US\$694,540)

SPS RISK ASSESSMENT IN THE MALI MANGO SECTOR Led by: WBG and ANSSA Time-frame: May 2010 – November 2012 STDF funding: US\$474,208 (total project value US\$528,021)

INFORMATION SHARING ON FRUIT FLY IN AFRICA Led by: COLEACP Time-frame: June 2009 – June 2011 STDF funding: US\$82,800 (total project value US\$136,500)

WEST AFRICAN FRUIT FLY INITIATIVE: FOLLOW-UP (WAFFI 3) Led by: WBG, CIRAD and IITA Time-frame: April 2010 – August 2011 STDF funding: US\$559,482 (total project value US\$848,469)

"The projects led to better cooperation and coordination at sub-regional level and created a sustainable regional platform to share knowledge on fruit fly control. Thanks to training and skills support, smallholder farmers are being empowered to become agricultural entrepreneurs, boosting production and incomes".

G.J. Benoit Gnonlonfin, ECOWAS SPS lead

Find out more standardsfacility.org/ PG-255; standardsfacility.org/ PG-283; standardsfacility.org/ PG-287 and standardsfacility.org/ PG-313

FIGHT AGAINST FRUIT FLY BEARS FRUIT, BOOSTING SAFER TRADE IN WEST AFRICA

The safe trade gap

Fruit and vegetable producers across West Africa faced increasing production losses due to the emergence of fruit fly attacks on their crops. That meant that locally important products for export, from mangos to citrus fruits, were being intercepted and destroyed on reaching the EU market. Small-scale farmers saw their incomes fall, and livelihoods of communities across the region were at risk. To fight back and take on the cross-border challenge of African fruit fly meant finding a regional response that could plug research, knowledge and skills gaps on fruit fly control for the long-term.

Partnership approach

Close regional cooperation and partnerships led to capacity building and awareness-raising activities in the four projects. Alongside EU, WBG and COLEACP initiatives, the projects consolidated efforts in West Africa and brought together regional organizations, including ECOWAS, and national governments to coordinate the fight on fruit fly and tackle the disruption to safe trade. Producers, exporters, value chain associations and research institutes across West Africa and the continent as a whole shared knowledge and identified targeted solutions. The projects led to better fruit fly control, stronger public-private sector dialogue and awareness on the value of a regional approach.

Results

- Studies under the projects plugged the knowledge gap on tackling fruit fly and paved the way for a Regional Action Plan to Control Fruit Fly in West Africa.
- Practical training and workshops on fruit fly control reached a wide range of stakeholders. Producers developed skills to protect their crops; exporters learned how to comply with safety and quality standards, and trainers adopted the latest training methods.
- Better coordination led to greater regional awareness on fruit fly. Up-to-date information and analysis plugged data gaps. In addition, 18 newsletters were shared with over 1,300 public and private sector stakeholders in 59 African, Caribbean and Pacific countries.
- Thanks to wider efforts, alongside the projects, the mango trade regained its momentum: between 2009 and 2014 mango exports to the EU rose by 67% in volume and 101% in value. At the same time safety-related interceptions and rejections fell.

Sustaining impact

- An independent meta evaluation in 2016 found that the projects were "highly relevant, with a good level of effectiveness and efficiency", and had an "overall positive impact on productivity and exports".
- STDF support paved the way for a regional project to control fruit flies in 2016 by ECOWAS, WAEMU, the EU, AFD and CORAF/WECARD.
- CIRAD and IITA built on the projects rolling out the West African Fruit Fly Initiative (WAFFI 4).
- In Mali, linking up private sector actors led to the creation of the Mali Mango Value Chain Association.

Beneficiary Governments and NPPOs in Botswana, Cameroon, Kenya and Mozambique Led by

Erasmus University Rotterdam

Time-frame February 2015 – July 2017 STDF funding US\$298,391 (total project value US\$327,959)



KNOWLEDGE SOLUTIONS ON HOW SAFE WOOD PACKAGING SUPPORTS TRADE IN AFRICA

The safe trade gap

As international trade flows intensify, wood pallets transporting goods are moving more frequently across borders. At the same time pests, especially wood-boring insects, are spreading across countries in wood packaging material, which is having a negative impact on forests and agriculture. The ISPM 15 standard has helped to lower the risk of pests, setting out guidelines for countries – from investing in treatments to a globally recognized ISPM 15 mark. However, exports from Africa and other developing countries face being rejected in international markets if they do not meet the standard, and there is a big data gap on the costs, benefits and challenges involved. Practical solutions are needed to make sure that trade in goods transported on wood packaging material continues to flow and developing countries can access markets, driving economic growth.

Partnership approach

Bringing together the public and private sector on plant health and trade in Botswana, Cameroon, Kenya and Mozambique, Erasmus University worked closely with National Plant Protection Organizations (NPPOs), customs, producers, wood packaging material facilities, exporters, and the IPPC Secretariat to gather the latest data. Field visits helped to identify the costs and challenges faced by NPPOs and business in meeting the standard.

The initiative built on an earlier STDF project, led by the IPPC, with support from Canada, which resulted in a set of targeted training materials for developing countries to help meet ISPM 15, and included a global training workshop with over 170 participants.

Results

The project provided hard evidence to policy-makers on the impact of investing in ISPM 15 support.

 Improved knowledge tools on best practices for investing in ISPM 15 support were shared, including: country case studies, regional report, policy brief and a documentary.

- Analysis showed that investment to support ISPM 15 had no negative impact on the ability of the four countries to trade. Three countries saw exports increase as a result. In Kenya, coffee and tea exports increased by 39% after meeting the standard.
- Costs for a wood packaging material treatment facility to meet the standard are high. However, the costs of not meeting the standard are higher in terms of loss of exports, income, and the risk of pests. Treatment facilities are profitable for countries with enough production and export volume.

Sustaining impact

To sustain impact, African governments are encouraged to take on board policy solutions identified under the project to meet ISPM 15. These include:

- Meeting the minimum requirements for export and investing in import inspections for wood packaging material.
- Avoiding over-prescriptive legislation, given future revisions to the standard and new wood treatment methods.
- Requesting the African Union Inter-African Phytosanitary Council to promote regional cooperation and training on ISPM 15.
- Increasing awareness of how different ISPM 15 treatments are equally effective, and that material only needs to be treated once (unless altered in some way).
- Developing and using a checklist to audit wood packaging material treatment facilities and regulate repair facilities.

"We discovered the standard has guidelines on how companies should carry out activities, how our inspectors have to work. We are going to have access to international markets that we have not been able to go through because we didn't use the standard".

Hendrick Modiakgotla, NPPO, Botswana

Find out more standardsfacility.org/ PG-460 and standardsfacility.org/ PG-037



Supporting farmers, processors, traders and governments to meet OIE standards, protect animals from diseases, and access global markets



Beneficiary National veterinary authorities and beef value chain stakeholders in Tanzania **Led by** Royal Veterinary College

Time-frame September 2016 – September 2017 STDF funding US\$48,500 (total project value US\$63,500)

SHAPING INVESTMENT SOLUTIONS TO DRIVE SAFE LIVESTOCK TRADE IN TANZANIA

The safe trade gap

Cattle are a store of wealth and social capital for many farmers in Tanzania where 70% of the poor rural population depend on livestock for their income and livelihoods. Tanzania has outstanding natural resources for livestock development, yet the sector is performing well below its potential. Transboundary animal diseases like foot-andmouth disease (FMD) have caused serious production losses in the country and blocked the trade of live animals and animal products. Different options exist to control and manage FMD and to allow export of livestock and their products in line with OIE standards. In general, options are costly, and investments need to be balanced against benefits. The government was keen to assess what impact setting up an FMD free zone would have in the country.

Partnership approach

The Ministry of Livestock and Fisheries Development decided to focus on the Rukwa region. A feasibility study and cost-benefit analysis was led by the Royal Veterinary College of the UK, in close collaboration with national veterinary authorities. Stakeholders in the beef value chain were brought on board from different parts of government, the Tanzanian Meat Board, livestock cooperatives, agropastoralists, commercial ranch farmers as well as abattoir owners. A study tour to Zambia opened up discussions on how to improve cross-border collaboration. Topics included veterinary quarantine and joint vaccination programmes to facilitate safe livestock trade and better control animal diseases, and how to manage livestock movements across the countries' long, porous border.

Results

- The study highlighted capacity gaps in national veterinary services, as well as with other actors in livestock value chains. It showed what needed to be addressed to effectively control and manage FMD, and the substantial resources gap. It focused on economic aspects of disease control, as well as practical factors including traceability and trade dynamics.
- The work improved government and private sector knowledge on how to refine the existing FMD control plan. With follow-up, this is expected to build trust across different stakeholders in the beef value chain to connect demand and supply and to expand livestock production and trade.
- The study's findings and conclusions have been informing planning and resource allocation decisions in the veterinary authority. This includes how to exploit synergies across different animal disease control efforts, helping to get more from the limited resources available.

Sustaining impact

- The veterinary authority plans to use the study's recommendations to develop a value chain approach to produce and market FMD safe beef, collaborating with commercial ranches. To take this forward, funding and expertise on vaccines and logistical support is needed from development partners.
- With strong local champions and adequate resources, the work will be able to catalyze new public-private partnerships to improve animal health and livestock production and trade.
- Key findings and recommendations from the study (and another STDF study in Zimbabwe), were presented at an STDF information session, attended by over 100 delegates from the WTO SPS Committee in November 2017. By sharing the key findings more widely, veterinary officials in other developing countries can also benefit from the work.

region was a major breakthrough after past efforts to establish an FMD free zone failed to materialize. It detailed the potential of this area, proposed by the Livestock authorities in the country and identified key areas and corresponding costs for a proposed project".

"The PPG in Rukwa

Dr Joram E Mghwira, Retired veterinary officer, Tanzania

Beneficiary Cattle industry in Costa Rica, including farmers and exporters Led by

Time-frame March 2009 - August 2011 STDF funding US\$455,220 (total project value US\$654,600)



TRACING THE BEEF VALUE CHAIN TO DRIVE SAFER TRADE AND EXPORTS FROM COSTA RICA

The safe trade gap

IICA

From meat to dairy products, livestock is a vital source of nutrition for local consumers in Costa Rica and provides an important income for farmers who run the 50,000 cattle farms nationwide. Infectious diseases can be a major barrier to livestock production, limiting access to lucrative markets and impacting on consumer health. To manage the risk, any incident needs to be traced back to its origins to allow fast sanitary prevention and control. Costa Rican farmers and exporters faced being cut out of the beef trade without a centralized information system and accurate data. A system was needed that would cover registration and identify animals along the value chain, from farm production to final trading, to open up export markets and guarantee consumer food safety.

Partnership approach

The National Animal Health Service (SENASA), hand in hand with IICA, helped to strengthen the National Epidemiological Surveillance Program, and plug the gaps identified by experts from the OIE. Stakeholders across the beef value chain worked closely together with support from the private sector to develop a simple, low-cost traceability system to control the movement of cattle. Public-private sector dialogue came to life through joint meetings and workshops. A Joint Regulatory Commission was set up with members of the Livestock Development Corporation and SENASA, and included ranchers, industry representatives, auctions, and regulators. The Canadian International Development Agency also provided training to stakeholders during the project.

Results

A national electronic cattle traceability system was set up. The system's userfriendly software traces the origin of a group of animals step by step, from farms to auctions, slaughterhouses, transport and markets. Following the project, 100% of animals in the country have a document of origin.

- Breeders, transporters, distributors, auctions and enforcement authorities built up their knowledge on livestock traceability thanks to practical training sessions rolled out across the country and widely distributed guides, manuals, videos and leaflets.
- Costa Rica gained credibility in international trade by meeting SPS obligations and OIE recommendations. There was a shorter response time to sanitary incidents within 24 hours and a decrease in notification time to the OIE of less than 24 hours following the project.
- Access to regional markets, such as Puerto Rico, Peru, Chile and Mexico, was given a boost. New high value opportunities for livestock trade sprang up in markets worldwide including Japan, Russia, Singapore and the EU.

Sustaining impact

- The project had positive spill-over effects including expanding opportunities for public health surveillance and animal welfare, as well as preventing cattle theft. Government officials looking to address gaps in cattle theft law set up an integrated regulatory framework that included monitoring and traceability developed by the project.
- The results have been used as a stepping stone for a voluntary individual traceability programme launched in 2013, which is identifying individual animals across the country.
- The project set up a baseline that is being used to expand traceability in other products such as dairy, swine, fruits and seafood. As a model of good practice in the region, the system has been replicated in other countries including Bolivia, Ecuador, Peru and Honduras.

"Thanks to the project, Costa Rica has a mandatory group traceability system in place that controls the movement of cattle nationwide. It has become an important tool to control animal and public health and is being used as a model for other countries in the region".

Sacha Trelles, IICA



Beneficiary

Animal health authorities in Belize, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua and Panama

Led by

OIRSA Time-frame

May 2013 - October 2015

STDF funding US\$488,330 (total project value US\$574,330)

IMPROVING ANIMAL HEALTH LEGISLATION IN CENTRAL AMERICA TO OPEN UP MARKETS

The safe trade gap

In Central American countries, domestic animal health laws often have not included secondary regulations that target disease control. As a result, the region's trade in animals and animal products was not recognized by health authorities in overseas markets including the US, Mexico and the EU. At the same time, few animal health programmes existed at national level to control or eradicate specific diseases and, where they did, they were often not in line with international OIE standards. Across Central America, recent evaluations carried out by OIE experts using the PVS Tool highlighted a lack of control and eradication programmes, with field activities at country level being limited to monitoring diseases and responding to emergency situations.

Partnership approach

The project led by OIRSA built strong connections across public-private sector stakeholders looking at veterinary and health legal instruments at the local, regional and global level. Hands-on, participatory national workshops and training sessions were held with international and regional bodies (including FAO, OIE and OIRSA), national Ministries of Agriculture and Livestock in the eight Central American countries as well as with local veterinary experts. Missions were carried out in each country to bring on board animal health authorities, legal advisors and producers. As a result, harmonized regulatory criteria were developed for veterinary services, producers and regulators in each country, which helped to improve communication and coordination nationally and regionally.

Results

- Current animal health regulations in each country were compiled, and a comparative analysis with international standards was carried out to identify outstanding gaps. In addition, around 150 national health officials, legal advisors and private sector representatives took part in country missions to input into the project development.
- 46 legal texts were drafted, including proposals for national secondary legislation on bovine brucellosis, bovine tuberculosis and Newcastle disease. This included developing procedural manuals on the diseases, setting out actions to be followed at country level.
- Around 50 officials from national ministries and international bodies (FAO, OIE, OIRSA) took part in a regional seminar to develop secondary legislation for national veterinary services. Over 30 local and international officials (FAO, OIE, OIRSA) were also trained and certified as focal points to support the OIE on veterinary legislation issues going forward.

Sustaining impact

- The legal texts developed under the project will become mandatory Regional Technical Regulations (following their review by the Central American Agricultural Council), helping to promote safe trade in the region.
- OIRSA is providing support and follow-up to the countries for approval and roll-out of the regulations and manuals. Follow-up national workshops have been held in the Dominican Republic, El Salvador, Guatemala and Honduras to develop common regulatory criteria among veterinary services, producers and legal representatives.
- Strategic public-private alliances were formed between national governments and producers supporting the sustainability of OIRSA's Regional Programme for Animal Health.

private sector's active participation. legislation to control animal diseases is being approved. A strategic alliance of the Associations of Milk Producers. **Brahman Cattle** and Jersey Cattle Breeders, is ready to follow regulations, with support of the Ministry of Agriculture, Livestock and Food". Dr Nery Sandoval, **Bovine Health** Programme, Guatemala

"Thanks to the

Beneficiary Veterinary Services in Latin America and the Caribbean (and worldwide) Led by

Time-frame May 2004 - May 2006 STDF funding US\$39,960

OIE



SHAPING KNOWLEDGE SOLUTIONS IN ANIMAL HEALTH WORLDWIDE: THE OIE PVS TOOL

The safe trade gap

The potential spread of infectious animal diseases, including zoonosis, poses a threat to global animal and public health, and could have a devastating impact on the economic livelihoods of producers and exporters in developing countries. A country's ability to detect, control and eradicate animal diseases is often linked to the quality of its Veterinary Services. With consumer demand and opportunities for international trade in animal products increasing, there was a need for a common tool to evaluate the performance of national Veterinary Services against internationally recognized standards.

Partnership approach

The OIE PVS Tool was developed from inter-agency dialogue between the STDF, the OIE, and IICA. STDF's seed funding played a catalytic role in supporting this dialogue. Today, the OIE PVS Tool is a widely recognized diagnostic instrument helping Veterinary Services worldwide to identify gaps in capacity and how to comply with international OIE standards supported by development financing. As such, the OIE PVS Tool is essential, in both assessing veterinary capacity, and as a basis for promoting the quality of Veterinary Services through cooperation between countries, international organisations and donors.

Results

 STDF seed funding supported inter-agency dialogue, which led to the development of the OIE Tool for the Evaluation of Performance of Veterinary Services (OIE PVS Tool).

Sustaining impact

- The development of the OIE PVS Tool demonstrates how a small STDF grant can have large scale impact. By May 2017, 133 OIE PVS Evaluation missions had been carried out worldwide.
- Building on the innovative OIE PVS Tool, other capacity building tools have been developed as part of the OIE PVS Pathway. The OIE PVS Gap Analysis Tool leads to a detailed strategy using the PVS Evaluation baseline of national livestock sector and veterinary priorities. Findings and recommendations then help to mobilize resources from government or donors.
- For more than a decade, the OIE PVS Pathway has proven to help national Veterinary Services to develop a systematic, sustainable approach to meet OIE international standards, including through veterinary legislation, public-private partnerships, veterinary education, and laboratory programmes. Countries can also request PVS Evaluation Follow-up missions to measure their progress in meeting OIE standards.
- The OIE remains committed to deliver on the PVS Pathway. In April 2017, the OIE PVS Pathway Think Tank Forum set out how OIE Members, partners and experts can continue working together on the strategic evolution of the PVS Pathway and keep improving animal health and welfare worldwide.

"PVS results made us aware of the improvements that are needed within our Veterinary Services in order to build our staff capacities".

Dr Pudjiatmoko, Ministry of Agriculture, Indonesia





Supporting public and private sector to strengthen SPS capacity by building collaboration, systems, skills and strategies



Beneficiary African governments and other SPS stakeholders Led by AUC, in collaboration with João Magalhaes Time-frame October 2009 – August 2010 STDF funding US\$30,000

COORDINATING REGIONAL SPS STRATEGIES TO ACCELERATE TRADE IN AFRICA

The safe trade gap

Agriculture is of vital importance to Africa, playing a key role in intra-African trade and growth. For African farmers, processors and traders, meeting international standards by putting in place SPS measures gets food and agricultural products across borders and into markets. From 2007, Africa's Regional Economic Communities (RECs) started to develop regional SPS frameworks and strategies to improve SPS management, accelerate regional integration and boost trade. At the same time concerns were raised about potential duplication and inconsistency with the WTO SPS Agreement. To avoid policy incoherence at a regional and continental level, and help close the continent's safe trade gap, coordinated action was needed.

Partnership approach

The African Union Commission (AUC) asked for support to map the regional SPS frameworks and strategies, to check coherence and how they measured up to the SPS Agreement. The STDF study took stock of existing and planned SPS frameworks and strategies. The AUC and its animal and plant health specialized bodies (Inter-African Phytosanitary Council, AU-IAPSC and Inter-African Bureau for Animal Resources, AU-IBAR), as well as RECs continent-wide, were closely involved. They were joined by the WTO and international standard-setting bodies (Codex, IPPC and OIE), donors and development partners. In moving forward, the analysis built on a 2009 AUC highlevel conference, "Institutionalizing SPS Capacity in Africa", under the EU's Better Training for Safer Food programme.

Results

- The scoping study generated an assessment of the SPS roles and responsibilities of the AUC and RECs. It set out key recommendations to improve SPS institutional capacity at continental and regional level.
- Awareness levels were increased among RECs on the importance of meeting the WTO SPS Agreement, what this meant in terms of WTO Members' rights and responsibilities, including harmonization with international standards.
- Based on the study's recommendations, the AUC and a number of RECs requested and obtained observer status in the SPS Committee.

Sustaining impact

- The AUC has increasingly taken on a leadership role in the SPS area, participating actively in the SPS Committee and building new partnerships with the private sector.
- The study's findings and recommendations are being picked up. The study highlighted the role of AU-IBAR and AU-IAPSC and an outstanding gap in the food safety area. As a result, the AUC is moving to set up an Africawide food safety mechanism, looking at options and funding with donors and development partners.
- The EC-funded PAN-SPSO programme supported Africa's national SPS committees linked to the study's recommendations to make SPS coordination work better at national level. AU-IBAR is continuing this work to drive national coordination on SPS issues, helping countries to share best practice, lessons and experiences, for African governments to voice their concerns in the SPS Committee.

and lessons are informing development of an SPS policy framework for the continent, and have catalyzed plans to set up a new food safety structure". Diana Ogwal Akullo, AUC

"AUC values STDF's

support to close

Africa's safe trade

gap. The study fed

agricultural trade

Recommendations

competitiveness

in Africa.

into work to promote



Beneficiary

Ginger farmers and other value chain stakeholders in Nepal

Led by

FAO with the Ministry of Agricultural Development, Ministry of Commerce and Supply, the Federation of Nepalese Chambers of Commerce and Industry and the NGPTA

Time-frame June 2012 – September 2015

STDF funding US\$462,144 (total project value US\$1,262,144)

PARTNERSHIPS PROMOTE GINGER EXPORTS AND RURAL INCOMES IN NEPAL

The safe trade gap

Ginger is a treasured cash crop for smallscale farmers, many of them women, in remote mountain areas of Nepal with few income-generating opportunities. However, farmers struggled with low yields and pests and diseases, and postharvest losses as high as 90%. At the same time, demonstrating the safety and quality of production was a challenge. Most fresh ginger was sold unwashed to India at low prices, via informal channels. Farmers and traders had no way to add value to their products. As a result, they were unable to access higher-value markets in Bangladesh. Europe, Japan and the Middle East.

Partnership approach

Public and private sector came together to revitalize and add value in the ginger value chain, and address food safety and phytosanitary challenges, with support from the STDF and the EIF. Strong partnerships were built with local authorities, ginger producers and traders. Farmer field schools boosted practical knowledge and skills on Good Agricultural Practices (GAPs) and post-harvest handling. Demonstration plots showed how new methods and techniques could be used to improve productivity and manage pests and diseases. Training of trainers scaled up the knowledge shared. Drama, video and visual aids increased uptake of messages in communities with low literacy levels. Farmers and cooperatives worked with the Nepal Ginger Producers Traders Association (NGPTA) to add value to ginger and increase productivity.



Results

- Post-harvest losses dropped by 30%. The farm gate price for fresh ginger increased, profit margins rose and farmers saw their incomes grow by more than 60%.
- Close to 2,000 farmers most of them women were trained on GAPs, post-harvest handling and improved techniques to control pests and diseases.
- Promotion of GAPs lowered pesticide use and reduced residues. A new system for farm inventory management, certification and traceability has raised confidence about food safety.
- A new ginger washing facility supports up to 8,000 ginger-producing households, with the creation of 200 seasonal jobs.
- Local cooperatives grew stronger and new farmer groups started up. The NGPTA set up new district chapters.
- Government reached out to trading partners to find solutions to SPS challenges affecting ginger exports.
 Washed ginger is now being exported to Bangladesh and India.

Sustaining impact

- Most farmer field schools continue to operate with their own resources. Demonstration plots have become seed resource centres, with higher-quality planting materials available.
- Training materials are being used by government extension services and by programmes run by the NGPTA and NGOs, reaching more farmers.
- Public and private sector are working together to operate the ginger washing facility. Income generated goes into a trust fund that will benefit local communities.
- Options exist to share training materials nationwide and to use the project to leverage investments to promote agribusiness development.

"Our women's group produces a truckload of ginger. Ginger farming has supported us to save for the future of our children. Field schools helped us reduce losses and increase our incomes. Now with the washing plant, we are so happy".

Chandra Kala Rai, Ginger Cooperative Female Group, Nepal



ITC Time-frame March 2013 – June 2016 STDF funding

involved in fruit and vegetable value chains

Farmers and other stakeholders

US\$629,982 (total project value US\$826,096)

SAFER FRUIT AND VEGETABLE EXPORTS SECURE LIVELIHOODS IN SRI LANKA

The safe trade gap

Fruits and vegetables have a high export value in global markets and Sri Lanka has a strong potential to cultivate crops, such as mango, papaya, pineapple, green chilli and tomato. Farmers, processors and traders in remote producing areas of the country, including many women and young people, were being held back from domestic and export markets by not managing to meet SPS measures. That was putting a break on Sri Lanka's employment opportunities, farmers and exporters' income and the potential for better nutrition and domestic health with safe produce for local and international consumers. Tackling gaps in safety and quality across fruit and vegetable value chains was a priority.

Partnership approach

Building and sustaining the capacity of the public and private sector to meet quality and international food safety and plant health standards, across fruit and vegetable value chains, was at the heart of the project led by ITC. Close government and business collaboration brought together the Department of Agriculture with the private sector, including the Ceylon Chamber of Commerce, the Lanka Fruit and Vegetable Producers, Processors, and Exporters Association, the National Agribusiness Council and the Sri Lanka Export Development Board. Targeted SPS training and capacity building programmes were run for the Department of Agriculture and over 200 master trainers, field level trainers, and field level extension officers who, in turn, are training farmers.

Results

 40 training programmes were organized for over 900 stakeholders on Good Agricultural Practices and SPS topics including pest and disease prevention.

Beneficiary

in Sri Lanka Led by

- Strong coordination between public and private sector across value chains helped to tackle export challenges, improve inspections, reduce the number of notifications of interceptions in the EU and develop an up-to-date pest list.
- Benefits reached the private sector. Nidro Supply Ltd. (one of largest fruit and vegetable exporters working with small-holder farmers) now follows protocols set out under the project.
- A national farmer-friendly standard on Good Agricultural Practices was launched by the Department of Agriculture, with project farmers included in the certification process.
- Fruit and vegetable farmers and exporters reported improved market opportunities. The volume of quality fruits and vegetables for export increased from 25 to 50%, and rejections of selected fruits and vegetables due to SPS issues fell by at least 20%.

Sustaining impact

- Two study tours were held for government officials, farmers and exporters to Italy and Thailand to show developments and linkages in the value chain and provide new business opportunities. As a result, a number of European companies are showing interest in building trading relationships with Sri Lankan farmers and exporters.
- The Department of Agriculture included SPS topics in its training modules, reaching over 1,200 officers. Going forward, more officers will be trained in the new curriculum, sharing the latest knowledge on SPS even further.

"Exports could be "pushed up exponentially' if small-holder farmers are trained in proper growing protocols that meet international standards. Success will depend on training farmers working with one-half or one acre. They need to participate in a quality and food safety training programme". Dawn Austin, Nidro Supply Ltd., Sri Lanka

Beneficiary Public and private sector in Belize Led by BAHA

Time-frame January – September 2012 STDF funding

US\$30.000



SUPPORTING SPS INVESTMENT PRIORITIES FOR BETTER MARKET ACCESS IN BELIZE

The safe trade gap

Belize, as is the case for many developing countries, faced multiple demands to make sure the country's food and agricultural products were able to access external markets. Figuring out where to allocate resources for SPS capacity building was far from straightforward. The list of needs was long, while available resources were limited. Hard choices needed to be made between competing investments, which would benefit the country's trade, agricultural productivity and health protection longer-term. The government needed to find a way to improve the economic efficiency of SPS investment decisions, and make funding decisions more transparent, accountable and inclusive.

Partnership approach

The Belize Agricultural Health Authority (BAHA) turned to STDF's framework on Prioritizing SPS Investments for Market Access (P-IMA) to inform and improve the SPS decision-making process. BAHA reached out to public and private sector stakeholders, building on strong relationships with government agencies, producers, processors, exporters, industry groups and academia. Stakeholder workshops helped to identify the range of SPS investment options in the country, as well as the decision criteria and weights to be used to set the priorities. The participatory process was both transparent and inclusive. All the data and information used was documented so the findings could be tracked, scrutinized and verified. At the same time, the initiative built on earlier efforts by STDF partners to evaluate veterinary and phytosanitary capacity building needs.

Results

P-IMA provided hard evidence to policy-makers on the trade-related impacts of investing in SPS capacity building.

 Government allocated new funding for a project to improve animal health controls and facilitate live cattle exports, leveraging co-financing from the private sector, regional organizations and donors.

- Based on data collection and analysis, previous cost estimates on SPS investments were updated so that resources could be used more efficiently.
- Dialogue and trust between the public and private sector was strengthened, leading to greater buy-in for SPS investment decisions and follow-up.
- P-IMA improved understanding around, and support for, BAHA's role as a regulatory agency to gain and maintain market access for the country's agri-food products.

Sustaining impact

- BAHA continues to use P-IMA to inform decisionmaking and mobilize resources, from strengthening a food microbiology laboratory to addressing capacity gaps in the poultry sector.
- BAHA is exploring how to use P-IMA in rolling out its strategic plan and organizational reform. The P-IMA experience has been shared with SPS stakeholders in the region and beyond, further scaling-up the approach.
- Other government institutions have successfully applied P-IMA. This includes the Belize Trade and Investment Development Service in prioritizing support for micro, small and medium-sized enterprises and the Ministry of Natural Resources and Agriculture in prioritizing programmes on nutrition, food security and foreign exchange earnings.

"Using P-IMA demonstrated the expected returns on different SPS investments. providing useful evidence to convince policymakers of the need for additional investments. **P-IMA** affirmed Government's decision and support for new investments to improve animal health controls for live cattle to facilitate exports to Mexico".

Delilah Cabb, BAHA



Beneficiary Small-holder farmers in Nicaragua Led by

IICA, with the Ministry of Agriculture and Forestry, Ministry of Development, Industry and Trade and the National Agrarian University

Time-frame June 2010 - December 2012

STDF funding US\$560,994 (total project value US\$764,644)

MEETING STANDARDS TO DRIVE AGRICULTURAL EXPORTS FROM NICARAGUA

The safe trade gap

Nicaragua's farmers were at risk of losing their opportunities to export to markets in Central America, the US and EU due to a lack of awareness and knowhow on how to meet international SPS measures. Smallscale farmers and the communities most dependent on agriculture for sustaining their livelihoods were among the most vulnerable. They needed to meet standards and get their farms certified, which in turn would help to protect the supply chain and give domestic and international buyers assurances on food safety for the end consumer.

Partnership approach

Strong public-private sector cooperation and coordination was a driving force in raising awareness and running a hands-on SPS training service for local producers. With IICA's support, government ministries, the General Directorate of Plant and Animal Health and the National Accreditation Office joined forces with private sector partners, including Walmart, and NGOs. SPS training units were set up to run training for farmer groups with practical manuals and user-friendly resources such as leaflets and videos. Farmers were engaged through highly participatory sessions, based on a "learning by doing" approach and the use of 35 demonstration plots nationwide.

Results

Improved training on international standards raised farmers' knowledge levels, leading to more certified farms, price increases and better access to export markets. For instance:

- Technical training on Good Agricultural Practices (GAP) and Good Manufacturing Practices (GMP) reached nearly 6,350 farmers and producers (30% of them women) at over 275 events.
- Thanks to the project, the number of GAP-certified farms rose to 125, from less than three. Incomes for small producers increased as a result of complying with SPS standards, helping to tackle poverty in local communities.
- Trade volumes of sesame seeds saw a 48.5% growth in volume and 16.5% increase in price between 2013-2015.
- Manuals were developed and training on standards reached 35 national experts in the field, HACCP training on food safety was held with 25 officials, and 1,000+ students were trained.

Sustaining impact

- An independent evaluation in 2016 found that "incomes for small producers increased as a consequence of complying with SPS requirements". The project was "significantly impacting local and export markets" and "helped to alleviate poverty for farmer beneficiaries and their communities".
- The impact is expanding to other crops, with the number of certified farms of pithaya rising from 20 to 60 in 2015 and farmers being able to export to the US market, thanks to knowledge built up under the project.
- With GAP-related subjects forming a regular part of the curriculum of local universities, over 700 students have since been trained, which in turn is supporting a robust food production system nationwide.

"Through Good Agricultural Practices, small producers positioned themselves in national and international markets, improved family income and the ability to invest in their farms. This created a virtuous circle of sustainability and production growth. Producers are now investing in other crops for export".

Mauricio Carcache, IICA Nicaragua

Beneficiary

28 governments and SPS stakeholders across Latin America and the Caribbean Led by

IICA Time-frame October 2007 – July 2010 STDF funding US\$575,588 (total project value US\$659,588)



BUILDING SPS CAPACITY AND COOPERATION ACROSS LATIN AMERICA AND THE CARIBBEAN

The safe trade gap

The WTO SPS Agreement sets out the basic rules on food safety, animal and plant health requirements and trade. SPS measures have an important impact on agricultural production, trade and market access. For many developing countries across Latin America and the Caribbean, limited institutional capacity and awareness of key SPS concerns meant they were missing out on meetings of relevant international standard setting bodies and the WTO SPS Committee. A lack of financial resources also prevented countries from getting involved. Across the region, countries faced barriers to trade agri-food products if they could not develop and adopt international standards, engage with international counterparts on SPS issues and make their voices heard at the global level.

Partnership approach

Close collaboration among public, private and regional partners throughout the project, led by IICA, helped to develop a common and shared vision among SPS stakeholders in the 28 countries. At the national level, public and private sector stakeholders worked together to collect country-specific SPS information, which fed into the development of national SPS agendas. Building on the common areas found in national SPS agendas, and drawing on work done by regional organizations, four regional SPS agendas were also developed. As a result of the project, IICA was able to support countries across the region to be empowered and actively participate in the WTO SPS Committee.

Results

- 26 countries developed national SPS agendas, with guidelines setting institutional priorities and cooperation with international organizations and donors.
- Four regional SPS agendas (Caribbean, Central, Andean and Southern) were developed based on common areas in countries' national SPS agendas.
- 24 countries effectively applied IICA's "Performance, Vision and Strategy for National SPS Systems (PVS-SPS) Tool" to evaluate the development of SPS systems and the impact on investments.

- Workshops on SPS awareness and standard-setting processes, as well as risk analysis, reached 400+ participants, including high-level decision makers in Ministries of Agriculture and Health, and technical specialists.
- Knowledge tools were developed and shared including Handbooks with tips on participation in international SPS fora, management of national Codex Committees, and how to submit SPS notifications.

Sustaining impact

- Stronger regional coordination: regional SPS agendas guided technical cooperation during the project. Now, improved coordination is helping countries to work jointly on common SPS issues across the region.
- Institutional sustainability: following the project, national institutions are effectively participating, monitoring and responding to issues, demands and opportunities in the WTO SPS Committee. Countries including Belize, Costa Rica, Dominican Republic, Honduras, Paraguay and Peru continue to be active in the Committee thanks to the project support.
- South-South spill-over impact: African participation in the SPS Committee was given a boost thanks to an update of IICA's Handbooks developed under the project. Facilitated by STDF, the Handbooks were tailored to the African context and introduced at African Union-led regional workshops in 2014.

"The project impact was significant. Information generated continues to be used to advance SPS areas at national and regional level. Thanks to awareness-raising. countries received government support to establish SPS **Enquiry Points and,** in Jamaica and Trinidad and Tobago, Pest Risk Analysis Units".

Carol Thomas, former Chief, Plant Quarantine, Jamaica

A GLOBAL PARTNERSHIP TO FACILITATE SAFE TRADE



DEVELOPING COUNTRY EXPERTS

Over 30 experts on food safety, animal and plant health and trade from more than 28 countries in Africa, Asia and the Pacific, Latin America and the Caribbean



FIND OUT MORE ABOUT STDF'S WORK AND GET INVOLVED Access SPS information and tools at www.standardsfacility.org

Share experiences and lessons at **STDF's Working Group** Browse SPS resources in the **online Library**





View good practice films on STDF's YouTube channel

Sign up for updates through **STDF's e-news**

PROJECT PARTNERS FROM THE PUBLIC AND **PRIVATE SECTOR**

STDF'S

WIDER

NETWORK

PRIVATE SECTOR	Includes:
Developing country	ADB
government agencies	AfDB
Regional and international	APEC
organizations	ASEAN
■ NGOs	AU-IAPSC
Universities and	AU-IBAR
research institutes	BTSF
Industry associations	CAADP
Private sector	CARICOM
companies	CBD
DONORS	CITES
Government agencies	COMESA
for agriculture,	COSAVE
development, food, foreign affairs and	EAC
trade in:	ECOWAS
Australia	FIA
Canada	GDPRD
Denmark	ICCO
European Commission	ICTSD
Finland	IDB
France	IFPRI
Germany	IGAD
Ireland	ILRI
Italy	PACA
Japan	PAHO
The Netherlands	PHAMA
Norway	PIFS
Sweden	SAARC
Switzerland	SADC
Chinese Taipei*	SPC
United Kingdom	UN DESA
United States	UNDP
	UNECE
'Chinese Taipei is a WTO Member in	UNESCAP
application of Article XII of the Marrakesh Agreement (1994). WTO membership	WAEMU

67

has no implication regarding the

international law

sovereignty of the Member pursuant to

WCO

GLOSSARY

ADB	Asian Development Bank
AFD	Agence Française de Développement
AfDB	African Development Bank
ANSSA	Agence Nationale de la Sécurité Sanitaire des Aliments
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
AUC	African Union Commission
AU-IAPSC	African Union Inter-African Phytosanitary Council
AU-IBAR	African Union Inter-African Bureau for Animal Resources
AUMN	Association des Unions Maraichères des Niayes
BAHA	Belize Agricultural Health Authority
BTSF	Better Training for Safer Food
CAADP	Comprehensive Africa Agriculture Development Programme
CABI	Centre for Agriculture and Biosciences International
CARICOM	Caribbean Community
CBD	Convention on Biological Diversity
CIRAD	French agricultural research and international cooperation organization
CITES	Convention on International Trade in Endangered Species of Wild
	Fauna and Flora
COLEACP	Europe-Africa-Caribbean-Pacific-Liaison Committee
COMESA	Common Market for Eastern and Southern Africa
COPE	Centre of Phytosanitary Excellence
CORAF/WECARD	West and Central African Council for Agricultural Research and
	Development
COSAVE	Comité Regional de Sanidad Vegetal del Cono Sur
EAC	East African Community
ECOWAS	Economic Community of West African States
EIF	Enhanced Integrated Framework
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FIA	Food Industry Asia
FMD	Foot-and-Mouth Disease
GAP	Good Agricultural Practices
GDPRD	Global Donor Platform for Rural Development
GFSI	Global Food Safety Initiative
GMP	Good Manufacturing Practices
HACCP	Hazard Analysis and Critical Control Point
IADB	Inter-American Development Bank
ICCO	International Cocoa Organization
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
ICTSD	International Centre for Trade and Sustainable Development
IDB	Islamic Development Bank
IFIF	International Feed Industry Federation
IFPRI	International Food Policy Research Institute
IGAD	Intergovernmental Authority on Development
IICA	Inter-American Institute for Cooperation on Agriculture
IIIA	International Institute of Iropical Agriculture
ILKI	International Livestock Research Institute
IPPC	International Plant Protection Convention

ISPM 15	Regulation of wood packaging material in international trade
ITC	International Trade Centre
KEPHIS	Kenya Plant Health Inspectorate Services
LDCs	Least Developed Countries
MAPAC	Malawi Programme for Aflatoxin Control
MRL	Maximum Residue Limits
MSU	Michigan State University
NEPC	Nigeria Export Promotion Council
NGOs	Non-governmental organizations
NGPTA	Nepal Ginger Producers and Traders Association
NPPO	National Plant Protection Organization
OECD	Organisation for Economic Co-operation and Development
OIE	World Organisation for Animal Health
OIRSA	Organismo Internacional Regional de Sanidad Agropecuaria
OLICs	Other Low Income Countries
PACA	Partnership for Aflatoxin Control in Africa
РАНО	Pan American Health Organization
PAN-SPSO	Participation of African Nations in the Sanitary and
	Phytosanitary standard setting
PG	Project Grant
PHAMA	Pacific Horticultural and Agricultural Market Access Program
PIFS	Pacific Islands Forum
P-IMA	Prioritizing SPS Investments for Market Access
PPG	Project Preparation Grant
PVS	Evaluation of Performance of Veterinary Services
RECs	Regional Economic Communities
SAARC	South Asian Association for Regional Cooperation
SADC	Southern Africa Development Community
SPC	Pacific Community
SPS	Sanitary and phytosanitary
SSAFE	Safe Supply of Affordable Food Everywhere
STDF	Standards and Trade Development Facility
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UN DESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNIDO	United Nations Industrial Development Organization
US	United States
USDA	United States Department of Agriculture
WAFMU	West African Economic and Monetary Union
WBG	World Bank Group
WCO	World Customs Organization
WHO	World Health Organization
WTO	World Trade Organization

Photo credits

p.10-11 ©FAO/Giulio Napolitano p.12-13 ©ITC/STDF p.14-15 ©FAO/STDF p.16-17 ©UNIDO/STDF p.20-21 ©CABI/STDF p.22-23 ©IICA p.24-25 ©FAO/Tony Karumba p.32-33 ©EIF/STDF p.34-35 ©CABI/STDF p.38-39 ©FAO/Marco Longari p.40-41 ©Erasmus University/STDF p.44-45 ©FAO/Giuseppe Bizzari p.46-47 ©IICA/STDF p.50-51 ©OIE/P.Bastiaensen p.56-57 ©EIF/STDF p.58-59 ©ITC/STDF p.64-65 ©WTO All other images ©STDF/José Carlos Alexandre

Design by the Graphic Design, Printing and Documents Distribution Section, WTO Infographics by Peggy King Cointepas

Published February 2018. All rights reserved. Licensed for non-commercial use only. All other uses prohibited.

Find out more: www.standardsfacility.org / STDFSecretariat@wto.org

